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STATE OF CALIFORNIA  
CALIFORNIA ENERGY COMMISSION

In the matter of:

2022 Integrated Energy Policy )  
Report Update ) Docket No. 22-IEPR-05  
(2022 IEPR Update) )  
 ) RE: Hearing on California  
 ) Gasoline Price Spikes,  
 ) Refinery Operations, and  
 ) Transitioning to a Clean  
 ) Transportation Fuels Future  
 )

COMMISSIONER HEARING ON CALIFORNIA GASOLINE PRICE SPIKES,  
REFINERY OPERATIONS, AND TRANSITIONING TO A CLEAN  
TRANSPORTATION FUELS FUTURE

HYBRID VIA ZOOM

WARREN-ALQUIST STATE ENERGY BUILDING

ROSENFELD HEARING ROOM, FIRST FLOOR

1519 9TH STREET

SACRAMENTO, CALIFORNIA

TUESDAY, NOVEMBER 29, 2022

10:00 A.M.

Reported by:  
Martha Nelson

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Siva Gunda, Vice Chair

Andrew McAllister

Kourtney Vaccaro

Patricia Monahan

CALIFORNIA STATE SENATOR

Monique Limón, District 19

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Louis Sanford

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Association

Gary Kirkland, Libertarian Party

Sakereh Carter, Sierra Club California

David Dry, Coastal Energy Alliance

Brady Van Engelen, California Chamber of Commerce

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California

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Commissioner Kourtney Vaccaro		
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P R O C E E D I N G S

10:02 a.m.

TUESDAY, NOVEMBER 29, 2022

MS. RAITT: So good morning, everybody. Good morning. So we'll go ahead and get started.

Welcome to today's Commissioner hearing on California Gasoline Price Spikes, Refinery Operations, and Transitioning to a Clean Transportation Fuels Future. I'm Heather Raitt, the Director for the Integrated Energy Policy Report, so welcome everyone.

This hearing is being held as part of the Energy Commission's proceeding on the 2022 Integrated Energy Policy Report Update, or the IEPR for short. Today we're doing a hybrid hearing using Zoom, while also meeting in person.

For those in the room today, videos of the presenters and those on the dais, the leadership on the dais, are being broadcast over Zoom. Everything displayed over Zoom is also being shown on the screen in the room. And we are using in-room microphones for sound.

So please note that this hearing is being recorded, and a recording will be linked to the CEC's website shortly after the meeting, and a written transcript will be available in about a month.

To follow along today, the schedule and slide

1 decks have been docketed and are posted on the Energy  
2 Commission's website. For those in the room, there are  
3 some signs with QR code at the entrance to the hearing  
4 room, and you can use that to get the link directly to the  
5 presentations and other materials. We also have hard  
6 copies of the meeting schedule at the entrance to the  
7 hearing room. And we have binders of all the materials at  
8 the entrance to the hearing room. And so if you need your  
9 own hard copy, please just let us know, and we can help you  
10 with that.

11           We have a couple of ways for -- we encourage  
12 public comment, and there are two ways to do that today.  
13 Attendees may make public comments during the public  
14 comment period at the end of the day, and so we look  
15 forward to hearing those, but please note we will not be  
16 responding to questions during the public comment period,  
17 and comments will be limited to three minutes per person or  
18 less.

19           For those in the room who would like to make a  
20 comment, if you could fill out one of these blue cards,  
21 it's at the entrance to the hearing room, and then you can  
22 go ahead and give it to me during the day.

23           And for those on Zoom who would like to make a  
24 comment, press the hand -- the raise-hand function to let  
25 us know that you'd like to make a comment, and we'll take



1 them at the end of the day, or you can press star nine if  
2 you're on the phone.

3 And we also welcome written comments, and those  
4 are due December 20th by 5:00 p.m.

5 And with that, I am pleased to turn it over to  
6 Drew Bowen, the Energy Commission's Executive Director, to  
7 say a few words about the hearing.

8 Thanks.

9 EXECUTIVE DIRECTOR BOHAN: Thank you, Heather,  
10 and good morning, everyone, and thank you all for joining  
11 us today.

12 Our objectives today are twofold. First, we  
13 would like to get input from our panelists and the leaders  
14 on the dais as to why gasoline prices recently spiked in  
15 September and what the state can do to avoid a repeat of  
16 this in the future. The invasion of Ukraine and other  
17 factors caused gasoline prices to rise around the world  
18 before they dropped back down in the summer.

19 During the first week of September, the price of  
20 the pump in California was just over \$5.00. However, by  
21 the first week of October, barely a month later, the  
22 average price in California reached \$6.42. This was \$0.02  
23 shy of the all-time record. That first week of October, we  
24 set another dubious record. During that week, the delta  
25 between the California average price per gallon and the

1 national average hit \$2.61. Californians were paying \$2.61  
2 more than the average price in the rest of the country.  
3 This sudden increase in price hit low-income Californians  
4 particularly hard.

5           So what happened? We'll hear in a few moments  
6 from the CEC staff about some of the reasons for higher  
7 prices in California. California requires the burning of  
8 cleaner fuel to reduce the negative impacts on our  
9 residents, and this fuel costs a bit more. State taxes are  
10 higher than average around the country, and we have  
11 environmental fees designed to address the threat to life  
12 on earth that we all know is posed by the burning of fossil  
13 fuels. But these factors only account for about \$1.00, and  
14 they didn't change between September and October, so they  
15 can't be the cause of this unprecedented spike to \$2.61  
16 higher. And during this period, unplanned maintenance was  
17 not unusual, and crude oil prices actually went down  
18 between early September and early October.

19           This afternoon, our panelists will offer their  
20 opinions as to why gasoline in California rose so much  
21 higher than the rest of the United States. We'll hear  
22 about California's reduced refining capacity, import  
23 challenges, and gasoline inventory levels. We'll also hear  
24 about refiner margins. Refiner margins are made up of two  
25 components, costs and profits. During the first week of

1 September, refiner margins were \$0.64. By the first week  
2 of October, refiner margins skyrocketed to \$2.48. That's a  
3 nearly 400 percent increase in just over a month.

4 We don't precisely know how much refiner margins  
5 are divided between costs refiners pay versus profits  
6 there. However, our CEC team of experts did not see  
7 anything significant that occurred between September and  
8 October that would cause refiner costs to increase by 400  
9 percent. This suggests that much of that increase in  
10 refiner margins was profit.

11 So our first objective today is to get a better  
12 understanding from our panelists and our members of the  
13 dais as to what happened in September and whether there's  
14 anything the state ought to do about it.

15 Our second objective is to get input from the  
16 panel and the dais on the CEC's Fuels Transition Study.  
17 This study focuses on the long term. It will examine  
18 California's transition from vehicles propelled by the  
19 combustion of fossil fuels to vehicles propelled by  
20 electricity produced with clean renewable resources like  
21 wind and solar.

22 Last year, nearly one in five -- last quarter,  
23 excuse me, nearly one in five new vehicles sold in  
24 California was a zero-emission vehicle. This transition to  
25 electric vehicles appears to be inevitable. However, we

1 also know that Californians will still rely on gasoline  
2 during this transition.

3           Meanwhile, California's refining capacity has  
4 gone down and will continue to go down in the future.  
5 California's market is isolated from the Gulf and other  
6 markets, so refining reductions in California cannot easily  
7 be replaced.

8           Today, we want to explore all the tools available  
9 to California to assure that the transition away from  
10 fossil fuels to renewable fuels happens smoothly and with  
11 as minimal an impact as possible on gasoline prices. We  
12 have a package ended today.

13           First, we'll hear opening comments from the dais.  
14 After that, the CEC staff will offer three presentations to  
15 set the stage for the afternoon panel discussion. The  
16 first presentation will examine gasoline price trends. The  
17 next two presentations will describe the CEC's Fuels  
18 Transition Study and provide additional context on  
19 California's gasoline price spikes and diesel issues. Then  
20 we'll break for lunch.

21           When we return, we will hear introductions and  
22 opening testimony from our panelists. Notably absent today  
23 are the refining companies themselves. We asked each of  
24 the five major refiners to participate in this hearing.  
25 Each of them refused. Our panel will be followed by a Q&A

1 session with leadership on the dais and then public  
2 comment.

3           With that, let me hand it over to Vice Chair  
4 Gunda.

5           VICE CHAIR GUNDA: Thank you, Drew. Good  
6 morning, everybody.

7           I want to begin by just thanking everyone for  
8 taking the time to be a part of this conversation today,  
9 and for many of you who have been providing information and  
10 being a part of this conversation over the last several  
11 months to help explain what's going on, but also help solve  
12 this particular predicament we find ourselves in.

13           So I just want to set the stage on a couple of  
14 points reiterating what Drew put really wonderfully here.

15           First thing, you know, kind of start with the  
16 objectives of what we're trying to do here today, and that  
17 starts with some factual observations; right? So the  
18 factual observations from this summer and late summer is  
19 that we had prices of gasoline that are not okay for  
20 Californians. It hurts Californians, especially the  
21 vulnerable communities, incredibly. And that's an  
22 observation we had and that needs to be addressed. That's  
23 number one.

24           Two, as Drew mentioned, this problem is not just  
25 this summer. We observed a couple of these over the last

1 few years and we might observe this a lot more moving  
2 forward. And many of us are going to drive gasoline cars  
3 for a very long time, including myself, who drove in a  
4 gasoline car this morning. While I absolutely believe in  
5 the transition of decarbonization, we are on a path and a  
6 number of us are going to continue to drive fossil-powered  
7 vehicles for a while. So that's two. So we need to figure  
8 out how we solve this in the long term.

9           So as we think through this, we need to think  
10 about what CEC's obligation as an agency is and what the  
11 obligation of the Commissioners is.

12           The first obligation in terms of CEC, promote  
13 foundational awareness of what's going on in the energy  
14 sector in California. That's the main-main goal here is to  
15 really explain to the public and the legislature where the  
16 energy system is, what trends we are observing, and what we  
17 expect to happen, and caution on ideas to move forward in a  
18 sustainable manner. So that's what we look at: How do you  
19 manage the transition in an equitable fashion?

20           So when we think about that and then look at  
21 what, as Commissioners, we are supposed to do is to be  
22 advocates to promote awareness and transparency. So in  
23 order to solve any problem, we fundamentally have to have  
24 measurements of the problem. And that is what this  
25 proceeding is about, and the hearing is about today, is to

1 improve the transparency of what's exactly happening and,  
2 once we understand that, collectively develop coordination  
3 and collaboration to help solve it as one big state team.

4           It's hard to address the problem where we don't  
5 have information to really even understand what exactly is  
6 going on or have consensus on what the problem is, so I'm  
7 looking forward to the staff presenting today. Staff have  
8 a number of ideas on exactly what's happening. We know  
9 we'll hear from some top leaders in the industry today, as  
10 well as academia, to really understand what the problem is.  
11 But I'm really hoping that we try to have a conversation  
12 with the center focus on Californians and making sure  
13 Californians are whole.

14           Our job here, too, is to take care of all  
15 Californians and make sure the transition into the  
16 decarbonized future happens in an equitable fashion, in a  
17 predictable fashion, in a way we can manage that nobody  
18 gets hurt. So I'm hoping that we can do that today in good  
19 faith. So looking forward to the discussion.

20           CHAIR HOCHSCHILD: Thank you, Vice Chair Gunda.  
21 Good morning, everyone. I'm David Hochschild, Chair of the  
22 Energy Commission, and welcome to all of you.

23           Just building on those comments, I do want to  
24 point out that for low-income families in California, fuel  
25 cost is a much larger share of their annual income. And so

1 when you see these sudden and unprecedented price spikes,  
2 it does hit low-income Californians the hardest and we're  
3 very mindful of that. And I'm eager to get into remedies  
4 and solutions today on how we can mitigate this from  
5 happening again and better protect all Californians,  
6 especially low-income households.

7           The two things that are unprecedented for me  
8 about today is that first, as Drew mentioned, we have never  
9 in history seen a gap this big between state and national  
10 gasoline prices, over \$2.60 a gallon, and coming on very  
11 suddenly.

12           And then secondly, that we're here today but  
13 without the five refiners. I personally sent a letter of  
14 invitation to Marathon, to Valero, to Phillips 66, Chevron,  
15 and PBF. We have been in touch with them and have had  
16 conversations with them. They elected not to attend in  
17 person today. I do think that's unfortunate, I've told  
18 them so, and it's unprecedented. We've had hearings and  
19 workshops and Commission meetings with every energy  
20 industry in the state, from natural gas to electric  
21 vehicles, energy storage, wind, solar. I've never had an  
22 industry not show up with their individual company  
23 representatives.

24           I am glad Cathy Reheis-Boyd is here to join us  
25 from WSPA and look forward to her comments and



1 contributions to the discussion today. But I do want to  
2 note that the five refiners were invited and are not here  
3 joining us today.

4 And again, thanks to all of you for being here  
5 and looking forward to really a substantive discussion of  
6 the issues as we go forward.

7 I'll pass it to my colleague, Commissioner  
8 Monahan.

9 COMMISSIONER MONAHAN: Well, just building on the  
10 remarks of the Chair and the Vice Chair, you know, the goal  
11 of this hearing is simply to understand why Californians  
12 pay more for gasoline after you account for taxes and  
13 environmental programs. This is, as Vice Chair Gunda  
14 noted, an exciting moment in transportation in that we  
15 actually have an alternative to using gasoline and diesel.  
16 We have a thriving market for electric vehicles and that  
17 market is unstoppable. It's a global market. This is  
18 happening. Investment is flowing from China to the EU to  
19 the U.S. And this is why we will see, in the future, this  
20 and some of the regulatory programs we have for vehicles,  
21 why we will see a reduction in oil use and a true  
22 alternative to oil.

23 But for those Californians that can't afford at  
24 this point or are unable to purchase an electric vehicle  
25 and are driving a gasoline-powered vehicle, the fact that

1 they're paying record prices, and especially low-income  
2 families are paying record prices, is unconscionable. And  
3 that's what we want to more deeply explore in this hearing.

4           We're all, I think, disappointed that the five  
5 major oil refineries that produce 97 percent of  
6 California's gasoline and diesel didn't show up. That's  
7 profoundly disappointing. And it is great that Cathy  
8 Reheis-Boyd from WSPA is here today. But the lack of  
9 their, the refineries', participation in this discussion is  
10 really going to limit our ability to more deeply understand  
11 why Californians paid \$2.61 more than other Americans.

12           So I am looking forward to this being a  
13 substantive and productive conversation. I appreciate all  
14 the work that's gone into by our team on evaluating just  
15 where oil price -- what we know about oil prices, what we  
16 can diagnose, and what we don't know. And also looking  
17 forward to learning more about what we're doing to  
18 evaluate, to do a study on what the implications of this  
19 transition will be in the oil sector and how we can make  
20 sure that we're protecting, especially, lower-income  
21 families from these turbulent price spikes.

22           So thanks again, everyone, for being here. And I  
23 think I'll just pass it to the Senator.

24           SENATOR LIMÓN: Thank you. Senator Monique  
25 Limón, here on behalf of the California State Senate, and

1 representing parts of our state that certainly have over  
2 150 years of thinking about oil production and use as  
3 consumers in the state.

4           And I think that I want to add just to what, you  
5 know, has been said in terms of the importance of having a  
6 conversation. And certainly as folks who care a lot about  
7 not just consumers but the folks who represent, it's been  
8 stated and it is a fact that our low-income and working-  
9 class folks who have to do the most commuting to get to  
10 jobs are feeling the impact of these gas prices in a way  
11 that others are not. And that is not lost on any  
12 legislator.

13           And I think that I wanted -- you know, from my  
14 perspective and I think from the perspective of  
15 legislators, we're not just looking to have a conversation  
16 that doesn't include representing and being understanding  
17 of the fact that California has certain environmental goals  
18 and values that must align with the direction that we go.  
19 And so how we do that is difficult, but certainly it must  
20 be part of the conversation that the direction that we go  
21 is reflective.

22           To say that I'm disappointed that some of our  
23 biggest oil producers in the state are not here is probably  
24 an understatement, and simply because having folks at the  
25 table who care about the issue, and who also want to be

1 part of the solution, is critical to how we move forward.

2           So we look forward to having these conversations  
3 and are thankful for all of those who have been involved  
4 and who will be involved in presenting today and continue  
5 to welcome a conversation where stakeholders are at the  
6 table to find solutions and understand how we move forward  
7 for the good of Californians.

8           VICE CHAIR GUNDA: Thank you, Senator.

9           Before I pass it back to Heather for the rest of  
10 the process here, I just wanted to reiterate a couple of  
11 things that has been said on the dais; one is just the  
12 reality that low-income and vulnerable communities are  
13 going to be the most hurt for these prices; and two, the  
14 importance of transparency. And I really appreciate the  
15 Senator saying the conversation -- we can't let the  
16 conversation break down between people who actually have  
17 the knowledge to help understand the issue so we can  
18 address it.

19           So it's unfortunate that we don't have all the  
20 people who have the knowledge here to help contribute to  
21 this discussion. But, you know, the people that we have  
22 today are experts and I'm hoping that the conversation  
23 moves forward enough that we understand and begin to  
24 understand the problem here.

25           And also to just close off, you know, what Drew

1 mentioned is also predicated. I mean, it's really  
2 important for us to think about the transition and the  
3 importance of studying this transition carefully. Given  
4 that the oil is going to be here for a while for a lot of  
5 us who will be driving and given that we have a very unique  
6 market structure in California, it's extremely important  
7 for us to understand, as the demand for gasoline goes down  
8 and diesel goes down, how is it going to affect our prices  
9 and how do we mitigate those price spikes in the long term  
10 and address that. So thank you, Drew, for setting the  
11 stage on that one as well.

12 So with that, I'll pass it back to Drew.

13 MS. RAITT: Thank you, Commissioner.

14 We'll go ahead. We'll start with the first  
15 presentation this morning.

16 Gordon Schremp, who is the Senior Fuel Specialist  
17 at the Energy Commission.

18 Please go ahead, Gordon.

19 MR. SCHREMP: Thank you, Heather. Can you hear  
20 me okay?

21 MS. RAITT: Yes. Thanks.

22 MR. SCHREMP: Alright. With some early slides,  
23 I'll be going pretty quickly, background information, you  
24 have that, I won't dwell on it. It's really the latter  
25 stage of the presentation that are focusing on the 2022

1 price spikes, plural, and looking at various factors that  
2 we think are contributing to that rapid increase.

3           Next slide, please. Mr. van der Werf will be  
4 covering.

5           Next slide, please. And one more. Thank you.

6           So the crude oil in California -- or, sorry, the  
7 refining is in three main places, two largest, San  
8 Francisco Bay Area and Los Angeles Basin, with another  
9 important refinery in Bakersfield, California. That's  
10 really where most of our fuel comes from.

11           Next slide.

12           And crude oil, as you can see by the green shaded  
13 area on the bottom, that California source has been  
14 steadily declining since the mid-'80s, and that is  
15 anticipated to continue slowly going down. The consequence  
16 is refineries need replacement crude oil, and that  
17 replacement is coming increasingly from foreign sources,  
18 and especially as Alaska sources have gone down.

19           The important point here is those other two  
20 categories, foreign and Alaska, are almost always more  
21 expensive than domestic crude oil prices, and that will  
22 play into one of the factors of why California prices are  
23 higher than U.S. average.

24           Next slide, please.

25           So the production, as I mentioned, most does come

1 from the California refiners. Almost 90 percent of what  
2 they produce -- and this is from 2021 data -- stays here,  
3 we use it, consumers, businesses, and about, you know, a  
4 little over ten percent is exported. Most of that is  
5 exported via pipelines to Nevada and to Arizona, and the  
6 remainder is exported by Marine tankers to destinations  
7 such as Western Mexico and Central America, almost  
8 exclusively.

9           Next slide, please.

10           We do depend on imports, especially when there's,  
11 you know, significant unplanned outages in California. But  
12 there are some routine imports that do come in from the  
13 Pacific Northwest and Northern California, but those  
14 really, on average, are about ten percent, at most, of our  
15 supply. And imports are of two flavors, gasoline blending  
16 components or the ingredients used to make finished  
17 gasoline, as well as gasoline that meets, you know,  
18 California specification, or is close enough once blended  
19 with ethanol.

20           Next slide, please.

21           So gasoline demand has been declining since 2017,  
22 as was mentioned earlier. The primary reason has been a  
23 continued uptake of electric vehicles or zero-emission  
24 vehicles in the light-duty fleet. And this is anticipated  
25 to continue, we'll hear about that later, and we expect

1 gasoline demand will not go back to its peak in 2017 but  
2 will continue to decline.

3           What's interesting here is certainly in 2020,  
4 when there's a large drop-off, but we're all well aware of  
5 a global pandemic, people unfortunately lost their jobs,  
6 and remote working became something that was much more the  
7 norm than an exception.

8           So all of these factors combined really reduced  
9 demand in 2020 significantly. It's come back in 2021. And  
10 in 2022, we're forecasting that gasoline demand by the end  
11 of the year will be a little bit less than it was last  
12 year, and so about 13.5 billion gallons or about, you know,  
13 two-and-a-half percent lower than 2021, but a full 12  
14 percent lower than 2019 pre-pandemic. So once again, this  
15 is electric vehicles, this is also remote working that's  
16 continuing, and that's expected to decline.

17           And as Executive Director Bohan mentioned,  
18 further consolidation of refining capacity in California is  
19 likely as you go further into the future, and that's part  
20 of the transition study.

21           So next slide, please. One more. Thank you.

22           So do we have a rather unique market? Yes. And  
23 that's due to its isolation, and not normally an issue  
24 because, as you saw earlier, we're self-sufficient. We  
25 produce pretty much everything we need and consume it here



1 locally. However, when there's a significant unplanned  
2 outage, additional supply needs to come from somewhere, and  
3 the pipeline's going to Nevada and Arizona are one way, and  
4 neither of those states have refineries. So there's no  
5 pipeline connecting Texas to California, and really there's  
6 limited capacity of the Pacific Northwest refineries to  
7 ship additional volume other than what they're sending down  
8 to California in response to a price spike.

9           So that means next closest source, foreign  
10 refineries, usually places like Japan, South Korea, India,  
11 other Southeast locations, and it's on the other side of  
12 the Pacific Ocean. So there's time, usually three weeks,  
13 sometimes four weeks, before the imports start to arrive.  
14 And it's that time to get the imports here where wholesale  
15 prices continue to rise and then start to fall once the  
16 imports begin to arrive.

17           Next slide, please.

18           So there are three distinct markets, I would say,  
19 in the western states. You have the Pacific Northwest that  
20 primarily is Washington, Oregon. And then you have  
21 Northern California, the Greater San Francisco Bay Area  
22 into Western Nevada, and Southern California, which is a  
23 regional market, actually. Arizona, about half their  
24 gasoline comes from Southern California refineries. And  
25 Southern Nevada, most of the population in the Vegas area,

1 Clark County, and 80 to 85 percent of the gasoline consumed  
2 there does originate in Southern California.

3 Next slide.

4 Now to compare and contrast, let's look at two  
5 other major gasoline markets in the United States other  
6 regions.

7 The Gulf Coast, as was mentioned earlier, most of  
8 the refining capacity in the United States is there.

9 However, about two-thirds of the gasoline produced in the  
10 Gulf Coast is exported. It leaves the region, upper  
11 Midwest, all the way down to Florida, and all the way up to  
12 the Pacific -- or, sorry, the Northeast United States via  
13 pipeline. And Florida is supplied primarily via marine  
14 vessels, a lot of out of the Gulf Coast and out of Europe.  
15 So they are a large net exporting region.

16 The Northeast is a large net importing region.  
17 So they get a lot of gasoline from across the Atlantic and  
18 via the pipeline.

19 So when there are significant unplanned outages  
20 in both of these locations, we don't really see a price  
21 spike of the magnitude in California, nor the duration. On  
22 top of that, price spikes in those two regions are far less  
23 frequent because in the Gulf Coast, a refinery goes down,  
24 plenty of refining capacity available for local supplies.  
25 So the markets are markedly different than California's

1 isolated nature and the Pacific Northwest.

2 Next slide, please. And one more.

3 So are California gasoline prices more expensive  
4 than the U.S. average? Absolutely. We all know that all  
5 too well, and it does have a great impact on consumers,  
6 especially of lower socioeconomic status.

7 So here is a laundry list of reasons that we've  
8 looked at before, we've examined them in previous price  
9 spike studies, but we do track them, but they do contribute  
10 to a higher ongoing cost of California gas at the retail  
11 level.

12 So I'll break this down in a little bit, but it's  
13 tax burden, higher gas and production costs, environmental  
14 programs with a Low Carbon Fuel Standard, the cap and trade  
15 as applied to gasoline, and then price spikes in our  
16 isolated markets that you then average out over the entire  
17 year, more expensive crude oil I mentioned earlier, and  
18 then increasing margins for more expensive gasoline, like  
19 the Chevrons, Union 76s, and Shells of the world in  
20 California.

21 Next slide.

22 So how does that translate when you compare  
23 California's average to the U.S.? As you see in this  
24 jagged red line, which are daily prices, you'll see the  
25 averages are the horizontal black lines and the table in

1 the upper left shows how that has almost steadily been  
2 rising over time to already be over, you know, \$1.50 a  
3 gallon so far this year. But even the previous year was  
4 well over \$1.00 a gallon at that point.

5           So what are some of the reasons? Now I'll point  
6 out that this data was constructed using AAA information.  
7 Everyone really knows about that. They go and they look at  
8 that data every day. It's available every day, so it's  
9 well quoted, well used. However, there's another source of  
10 retail pricing information for California and the U.S. and  
11 that's the Energy Information Administration, or EIA. And  
12 that's what we use when we do our weekly margin  
13 calculations for refiners and retailers.

14           Next slide, please.

15           So two different retail gasoline pricing sources,  
16 so we compare them side by side. Is there a difference?  
17 Well, if you're looking at the U.S. prices, apparently not  
18 really, less than \$0.03 a gallon in any particular year,  
19 and more recently a penny-and-a-half, so really no  
20 difference between if you want to use an EIA source of  
21 information or another.

22           Next slide, please.

23           Now you see the difference between EIA and AAA  
24 when looking at California average retail prices. So  
25 something has happened since 2017 where now the difference

1 between these two information sources is meaningful and  
2 continuing to increase. The AAA prices are showing  
3 consistently higher than the EIA prices.

4 Now we understand that EIA does a survey of  
5 retail participants in California. And they are also doing  
6 volume weighting of that data, meaning a hyper-mart  
7 location that sells 10, 14 times the amount of gallons is a  
8 very busy, you know, traditional gasoline station with a  
9 much lower price, it's a significant weighting. And so  
10 that is showing what we think is a more accurate cost to  
11 customers in total in California than the AAA version of  
12 just taking an arithmetic average of everybody's price.

13 So you go, well, what's the big deal here? Well,  
14 the big deal is if you're looking at AAA pricing and  
15 looking at the difference and then doing analysis to  
16 explain why the difference is so high, you have more  
17 explaining to do, and part of that could be because of the  
18 two different information sources.

19 So next slide, please.

20 So we break down those other factors I mentioned  
21 on an earlier slide and we quantify them. So the bottom is  
22 the cost to make California's reformed gasoline, we use  
23 \$0.10 in this analysis, ranges from \$0.10 to \$0.15. And  
24 then you see examples of, you know, the environmental  
25 programs -- sorry, it says -- we'll go with taxes first.

1           Our tax burden is greater than the US average but  
2 hasn't fluctuated that much over the last couple of years.  
3 However, with the two environmental programs you're seeing  
4 in the green, that actually has gotten bigger, it wasn't  
5 that big in 2014, but now is a more prevalent, you know,  
6 component into the gasoline pricing.

7           The blue is a representation of what's the impact  
8 of significant unplanned outages. And so 2014 is  
9 considered for a normal refinery operation year. And so  
10 we're looking at how refinery wholesale prices are impacted  
11 compared to that year and what that difference is, so  
12 that's why you see blue. And certainly 2019, very high,  
13 and much higher year to date this year. And then we have  
14 more expensive crude oil that does add, you know, upwards  
15 of, you know, \$0.11 a gallon, depending on the year.

16           And then it's the other factors. So what other  
17 reasons for the difference? And one of them not listed  
18 here is more expensive retail brands for the premium  
19 gasoline station, the more marquee ones, and that has  
20 become more meaningful post 2015, upwards of \$0.30 a gallon  
21 differences. So half the gallons, \$0.30, that contributes  
22 another \$0.10 to \$0.15 to California gasoline retail prices  
23 compared to the U.S. average.

24           So when you take that into consideration, most of  
25 these years, the quantification of the various factors do

1 explain most of the difference until right now this year.  
2 And we haven't looked at the retail differences so far, and  
3 we will be looking at that to see if that changed, that  
4 amount.

5 Next slide, please.

6 So the only difference here, as I mentioned,  
7 using a different retail price source that is getting  
8 increasingly higher than EIA's. And so as a consequence,  
9 none of the other factors change, those quantifications are  
10 still the same, but the remaining portion to be explained  
11 is now larger.

12 So next slide, please.

13 So let's talk about what, really, we're all here  
14 for, gas and price spikes. So I've covered these. For  
15 various reasons, crude oil gets pushed up, and then  
16 isolated market reasons.

17 Next slide, please.

18 Alright, we'll spend just a couple minutes on  
19 this. You see three ovals, the far left, the center, and  
20 then in the far right, a purple oval. These are three  
21 distinct price spikes that occurred in California and other  
22 states. So this is not just a California phenomenon. But  
23 what's interesting to note in the first two price spikes,  
24 primarily crude oil driven across the board. You see on  
25 the bottom, those blues, the blue area charts going up

1 rather quickly, and then again in, you know, around June,  
2 late May. Those pushed up everyone's prices. And, oh, by  
3 the way, yes, California gets at a record high price in  
4 June, June 14, as Executive Director Bohan mentioned, \$0.02  
5 higher than the peak in October, and that was crude oil  
6 driven.

7 But guess what? Everyone else's prices went to  
8 record highs, and I mean everyone. All 50 states and the  
9 District of Columbia all registered all-time record high  
10 gasoline prices. And that was in between June 9 and July  
11 1, 50 states and the District of Columbia all had a record  
12 high. And on July 9, eight days later, Hawaii was the last  
13 one to set their record during this period of time.

14 So high crude oil prices affect everybody. And  
15 we all saw a record, you know, price spike as a consequence  
16 of that.

17 But then fast forward, go to the right, crude oil  
18 prices did decline, and they kept declining. And then,  
19 yet, a very significant price spike through September,  
20 early October. It makes you go, well, not crude oil  
21 driven. Alright.

22 Well, did everyone else see a price spike? And  
23 the answer is, well, not really, not to that extent, with  
24 the only exceptions being three states. That would be the  
25 green line, Washington, you see the blue line, Nevada, and



1 then Oregon, the magenta line. They, too, spiked back up  
2 very rapidly into a high level, almost as high as their  
3 record, just like California, whereas a place like Arizona,  
4 somewhat of a meaningful price spike, but not nearly where  
5 it was in the middle of summer, as you go back on that red  
6 line. And certainly U.S. prices, and Texas, nowhere near,  
7 far, far below, because crude oil prices were low.

8           So what is going on in the West Coast states?

9           So let's look at some of those factors that we  
10 normally examine to see if there are anything that  
11 Looks -- that maybe contributed to a tightened market and  
12 higher prices.

13           Next slide, please.

14           So here we have a dated material, because, you  
15 know, we kind of look at this every day. So let's give  
16 some good news, shall we?

17           Retail prices have continued to decline. And,  
18 oh, by the way, dropped below \$5.00 a gallon, this morning  
19 when AAA's information came out, so good news. And they're  
20 actually down, an update to this slide, \$0.21 a gallon over  
21 the last week, and almost \$0.60 a gallon over the last  
22 month. So good news continues. And we expect these retail  
23 price declines to keep going down because wholesale prices  
24 have dropped so significantly.

25           So next slide.

1           So this is showing crude oil on the bottom, but  
2 the dotted line is that difference between California and  
3 the U.S. And we'll see that, yes, that spiked up initially  
4 in the Ukraine invasion by Russia, started to drift down  
5 and spiked up again in September and October when we almost  
6 reset our record gasoline price. So the good news here  
7 also continues is that does continue to decline. When we  
8 created this chart, you know, it was over \$1.50. So now  
9 it's actually \$1.47, not back to \$1.22 pre-Ukrainian  
10 invasion, but it does continue to drop because California  
11 retail prices are declining at a faster rate than that of  
12 the United States.

13           Next slide, please.

14           So the purpose of this slide is to introduce two  
15 different types of wholesale prices. So in California, we  
16 have the dark boxes on the -- sort of the bottom jagged  
17 one. Those are refinery wholesale prices or spot pipeline  
18 prices for Los Angeles basin. The red line is distribution  
19 terminal wholesale prices, where the tanker truck is loaded  
20 before it goes to the gas station.

21           So you can see there is a strong relationship  
22 between refinery wholesale price and distribution terminal  
23 wholesale price. Refiner wholesale prices jump up, pushes  
24 up the distribution wholesale prices, and does what?  
25 Pushes up retail. And unfortunately, those wholesale

1 prices can be -- fortunately, they do decline rapidly from  
2 some significant price spiking, but retail lags, up like a  
3 rocket, down like a feather. We have some panel members  
4 who will talk about that in the afternoon as to why.

5           However, what's important takeaway from this  
6 slide is note how rapidly those two wholesale prices drop.  
7 And why is that? Well, Governor Newsom's direction to move  
8 to our winter recipe gasoline a month early was meaningful  
9 because refineries can produce more gasoline and they use  
10 some additional components that are less expensive.

11           So as a consequence of that move, right at the  
12 end of September, and when business opened on Monday and  
13 Tuesday of the following week, we saw wholesale prices  
14 decline at the refinery level by a record over \$1.30, an  
15 all-time record drop in one day. And the very next day,  
16 what happened? Distribution terminal retail gas and prices  
17 declined almost \$0.99 a gallon. So that was driven by the  
18 early move to winter gasoline. And that is what  
19 precipitated the beginning of a decline in gasoline prices  
20 in California and a narrowing of the gap between the  
21 California price and the U.S. average.

22           Next slide, please.

23           So here is breaking down the cost. This is not  
24 the difference between California-U.S. bids, taking the  
25 cost of a gallon of gasoline and breaking it into the

1 various components. And clearly, crude oil is the biggest  
2 piece. It's the biggest cost component to making gasoline  
3 and any other transportation fuel. But you see the orange  
4 or gold colored middle, that's the refinery cost and  
5 profit. And then at the very top is distribution costs,  
6 marketing costs and profits, that's the retail margin. So  
7 the gold color is the refiner margin and the brown color is  
8 the retail margin.

9           The other pieces in there, taxes, environmental  
10 programs, as was mentioned at the outset of this hearing,  
11 didn't really change during this period, end of August to  
12 present.

13           So what you do see is the profit center will  
14 change. So, yes, \$0.64 a gallon refiner margin at the end  
15 of August became almost \$2.50. Did their gasoline  
16 production costs go up that much? Likely not. And so a  
17 lot of that is incremental profit at the refinery level.

18           But then, again, take a look at the retail  
19 margins. How low they got as the price spike goes up,  
20 well, so prices push up very rapidly and retailers try to  
21 hold down their street price as long as they can, their  
22 margin gets squeezed. But then when wholesale prices drop,  
23 retailers see bigger margins. And so one can also say that  
24 they, too, were experiencing incremental profit at the  
25 retail level. So there are two profit centers, refining

1 level, and then the retail level.

2           So as a note for an update, the most recent  
3 update through, what is it, the 21st of November, you see  
4 that profit is shifting again. So when I did that the  
5 other day, it's now \$1.29 at the retail level, the top  
6 piece, and the bottom piece is down to \$0.46 a gallon,  
7 so -- which is lower than on the end of August.

8           So the point is that this shifts from one week to  
9 the next based on what wholesale and retail prices are  
10 going, but there are two profit centers.

11           Next slide, please.

12           So let's look at some of the other factors that  
13 contribute to the price spikes. So crude oil -- I won't  
14 belabor this -- it's a global commodity. It pushes up  
15 everybody's prices, as you saw when everyone set a record  
16 price in the summer of this year in every single state and  
17 the District of Columbia. But that's driven by other  
18 factors, supply and demand globally, geopolitical, and then  
19 things like the invasion of Ukraine.

20           Next slide, please.

21           Wholesale prices, usually there are local  
22 occurrence in your local market, changes of condition,  
23 unplanned outages, a new regulation goes into effect, loss  
24 of refining capacity, these happen in these various  
25 regional markets and can significantly affect wholesale

1 prices at times.

2 Next slide, please.

3 So we'll look at some of those in greater detail.

4 So this is refining capacity. So refining  
5 capacity has declined in the United States and in  
6 California, and these are business decisions by companies  
7 to consolidate refining as gasoline demand was declining,  
8 certainly in response to the global pandemic when gasoline  
9 demand fell precipitously in 2020. So as you see, that was  
10 really the straw that broke the camel's back with  
11 Marathon's decision, their business decision, to shut down  
12 the Golden Eagle refinery in Martinez, and then one of  
13 their refineries in New Mexico. So that consolidated  
14 refining capacity in California.

15 Maybe another way to look at that is kind of like  
16 electricity production capability. The gasoline production  
17 capability in California was degraded about nine percent in  
18 2020. It didn't matter because gasoline demand was so far  
19 down compared to the previous year. But now that's the  
20 backdrop. That refining capacity to produce gasoline is no  
21 longer available.

22 Next slide.

23 Maintenance occurs usually for -- mostly for  
24 safety reasons. It's periodic, so sometimes it's very  
25 large. But the consequence is when the refinery is working

1 on various process units, that process unit doesn't produce  
2 anything, including the gasoline molecules that come out  
3 versus the diesel, the jet fuel molecules, so that's a  
4 reduction in output that can occur. And so that is  
5 something that, you know, does affect availability of  
6 gasoline and can put upward pressure on prices. We have a  
7 lot of maintenance going on, but very little at any  
8 particular moment in time.

9           Now it's important to note that the refineries  
10 are not required to report this information to us with our  
11 current center of regulatory authority. So we don't  
12 consistently get a heads up when maintenance is going to  
13 occur, nor do we see a good consistent quantification of  
14 the impacts of maintenance, whether it's planned or  
15 unplanned, to be able to do historical analysis of  
16 potential consequence for consumers.

17           Next slide, please. Oh, one more slide. Thank  
18 you.

19           So was there maintenance going on during that  
20 third big price hike in California? Absolutely. It was  
21 about, all together, about a six percent reduction in  
22 gasoline production capability. And as Executive Director  
23 Bohan mentioned, yeah, that's not -- I mean, we've seen  
24 larger instances of that. And so, I mean, that shouldn't  
25 be like your sole smoking gun as to why prices went up by

1 \$0.85 a gallon.

2           And to compare and contrast, in 2019, about the  
3 same time, you know, September and into October, there,  
4 too, there was refinery maintenance and loss of gas and  
5 production capability, but it was greater. It was nine  
6 percent at that time. And the price increase was only  
7 \$0.47 a gallon, or nearly just a little bit more than half.

8           So you go, well, if this was only six percent,  
9 why did it go up like double 2019? Well, two important  
10 change of conditions, if you will. One, in 2019, the  
11 Marathon Refinery in Martinez was operating just fine and  
12 producing gasoline, and not so in 2022, not available and  
13 not part of the supply mix.

14           And then another important factor is when those  
15 outages were occurring in 2019, inventory levels of  
16 gasoline were middle of the road, normal, so meaning plenty  
17 of supply available for those that needed it by the  
18 refiners. In this year, far below normal, which I'll show  
19 you in just a minute.

20           And so those are two very important reasons as to  
21 why the less volume being affected in 2022 begot a greater  
22 increase in wholesale and retail prices.

23           Next slide, please.

24           Just an example of most of the largest single  
25 week increase in retail prices are refinery outage related.



1 There are some exceptions but -- and this is over the last  
2 23 years, so it's usually a refinery. And the outage can  
3 even be in the Pacific Northwest that can affect West Coast  
4 prices, including California.

5 Next slide, please.

6 So let's look at production during the third  
7 price spike period. And so gasoline production was  
8 actually low and below the bottom of the five-year  
9 historical range, all the way leading up to the price  
10 spike. So I would look at that and say, well, production  
11 was lower than - not even lower than normal, it was much  
12 lower than normal and, you know, a bit of a contributing  
13 factor to the rise. And then you note production increased  
14 to the middle of the road, and as production was rising,  
15 prices were falling. So that was a factor that contributed  
16 to a decline in retail prices.

17 MS. RAITT: Gordon?

18 MR. SCHREMP: Yes?

19 MS. RAITT: This is Heather. I'm sorry to  
20 interrupt but we are -- we have a tight schedule and  
21 we're -- if you could conclude your remarks, that would be  
22 great.

23 MR. SCHREMP: Yeah, just a couple, two more  
24 slides, Heather.

25 So next slide.

1 MS. RAITT: Thank you.

2 MR. SCHREMP: Inventory levels, as I mentioned,  
3 much lower than normal and contributing factor.

4 Next slide.

5 So, too, in the United States. In fact,  
6 inventory levels are more than ten years lower, at a decade  
7 low.

8 Next slide. I'm sorry, I think wrong way. We  
9 should be on slide 39. Back one more, sorry, 38.

10 So imports. Imports did drop off and almost  
11 disappeared during the lead up to our price spike. So that  
12 was a contributing factor.

13 Next slide.

14 It's just showing the wholesale prices at  
15 refinery levels are an arbitrage signal for imports to be  
16 sent and there's a lag time of three weeks, so the prices  
17 are shifted to the left. And you see at the end of August,  
18 the middle of August, price signal went up, imports did not  
19 arrive. So that was a contributing factor to a tighter  
20 mark than normal.

21 Next slide.

22 And some of that reason could be shipping  
23 availability, higher cost, we don't know. We don't collect  
24 this data, don't have access to it, but others that are  
25 speaking later can add some insight to this.

1           Next slide.

2           Exports of gasoline did not increase. So we  
3 weren't shorted gasoline in our local market, so that  
4 doesn't seem to be a contributing factor.

5           And I think go two more slides. One more please.

6           My final one. This is just a table listing the  
7 factors. Those on the right were factors that brought  
8 downward pressure in prices earlier. The marine imports  
9 are the first two price spikes, and then the winter  
10 transitions you saw. And then on the far left you see  
11 these are factors that we analyzed that we think were  
12 contributing to the rapid price increase in October.

13           And that concludes my remarks. Thank you.

14           CHAIR HOCHSCHILD: Thank you so much, Gordon. I  
15 did have one question for you.

16           You know, one of the things that has exerted a  
17 downward force on prices is the president's decision to use  
18 the Strategic Petroleum Reserve. And I wonder if you could  
19 just briefly give us an update on the state of play with  
20 that and, also, at what point, given the downward trend  
21 with prices now, that reserve will be replenished and  
22 available for future use? Any insights on that would be  
23 welcome. Thank you.

24           MR. SCHREMP: So the Strategic Petroleum Reserve  
25 holds crude oil, primarily in Texas and Louisiana. And,

1 yes, the president's decision or directive to release oil  
2 from the reserve had what I would conclude to be a calming  
3 impact on global crude oil markets. At the time, gas  
4 wholesale -- sorry, crude oil prices were escalating  
5 rapidly because of the invasion of Ukraine and the cutoff  
6 of Russia crude oil was anticipated, 10 million barrels per  
7 day. So global inventories of crude oil were already low.  
8 And the fear was it was going to get much worse and crude  
9 oil prices could escalate upwards of \$200 a barrel.

10 So the release of crude oil from the reserve  
11 didn't really help that much with gasoline prices in  
12 driving them down at that point, but it kept a lid on  
13 further increase in global crude oil prices that do push up  
14 everyone's gasoline prices, including California.

15 So I think to your question, it stabilized global  
16 crude oil prices, and the continued release has had that  
17 calming influence. It's down to its lowest level since  
18 1984. To your point, it will need to be replenished. So  
19 that's likely to occur, you know, going into next year  
20 sometimes and seeing where crude oil prices are. But OPEC  
21 and Russia, they're kind of controlling the ball if they  
22 decide to ratchet back outputting more.

23 But, so, you're right, to be able to use this  
24 tool again, to help calm global crude oil markets, they  
25 will have to refill it and that has not been scheduled yet.

1 Thank you, Gordon.

2 VICE CHAIR GUNDA: Thank you.

3 Senator Limón?

4 SENATOR LIMÓN: Thank you.

5 Thank you for the presentation information.

6 In 2019, the CEC did a study showing that name  
7 brand gas stations were making up their gas on average  
8 \$0.30 more a gallon. With the spikes in prices over the  
9 summer and in early October, are we seeing the same \$0.30  
10 markup by the name brand gas, you know, gas stations? Have  
11 there been any changes since then?

12 MR. SCHREMP: Unfortunately, I was not able to  
13 look at that, you know, right before my presentation. But  
14 let's get back to you on that and see if they have, in  
15 fact, changed from that \$0.30 a gallon difference.

16 SENATOR LIMÓN: Great. Thank you.

17 And along that line of, you know, study and  
18 needing information, what information would be helpful to  
19 know about planned maintenance at refineries?  
20 Specifically, I'm looking for what information would be  
21 needed so that that can be impactful to the CEC's analysis.

22 MR. SCHREMP: I think there's two areas of  
23 refinery maintenance that would be important that we don't  
24 have the authority to collect. One is, what is the  
25 schedule, upcoming schedule, the maintenance, what process

1 units are involved, and that sort of foundational  
2 information. And then it's subject to change. When  
3 refiners do move plan maintenance, we would like to know  
4 about that in advance.

5 And then the other important element is, when you  
6 are undergoing planned maintenance or unplanned outages,  
7 how much less output did you have from those process units  
8 of gasoline, diesel, and jet fuel? So that would be a  
9 structured way of having them report that after the fact so  
10 that we could properly quantify and analyze that  
11 information as for just impact on gasoline prices.

12 So those are the two broad areas that we  
13 currently don't have the authority to collect that  
14 information.

15 VICE CHAIR GUNDA: Yeah, Commissioner Monahan,  
16 please go ahead.

17 COMMISSIONER MONAHAN: Gordon, thanks very much  
18 for that presentation. Always informative to hear you  
19 speak.

20 I'm wondering if you can walk us through the  
21 planned versus unplanned refinery outages that occurred?

22 MR. SCHREMP: I think for this public proceeding,  
23 the four outages that were underway then were planned. Two  
24 of them, from our understanding, were delayed maintenance,  
25 or I would say deferred maintenance. So the refiners in

1 question were going to do planned maintenance in April.  
2 And the Ukrainian invasion was underway, price spike has  
3 occurred, and so they elected to continue operating safely,  
4 defer that maintenance, and that maintenance was deferred  
5 until, you know, going into August and September, and then  
6 transitioned all the way into October. So that had an  
7 effect of the maintenance had to occur sometime, and that's  
8 when it did, and so we can't control those schedules when  
9 they do that.

10 And further, I understand that one of the  
11 maintenance activities involving a refiner was longer than  
12 anticipated, about nine days. So that was also  
13 contributing to, you know, not enough gasoline getting back  
14 at the market when they initially anticipated.

15 COMMISSIONER MONAHAN: And do you have  
16 information about why gasoline storage has been going down  
17 at the time?

18 MR. SCHREMP: I think in the decline in the  
19 inventories of this year you saw in the United States, I  
20 think part of that has to do with the loss of refining  
21 capacity in the United States and in California. And then  
22 demand was improving, you know, in the spring until the  
23 price spike started to have an impact on consumers' ability  
24 to continue buying the same amount of gasoline.

25 So part of that reason it was declining was

1 refiners weren't just making enough to meet ongoing demand,  
2 they had to draw from their own inventory levels. And  
3 there may be another contributing factor of foreign imports  
4 of gasoline were not as available as, say, the previous  
5 year, but we just don't have really good insight into  
6 shipping rate information and refinery operations overseas  
7 to be able to intelligently comment on that.

8 COMMISSIONER MONAHAN: And then just one last  
9 question.

10 If you could describe the components of refinery  
11 issues and sort of what we know and don't know in terms of  
12 breaking down those?

13 MR. SCHREMP: I'm not sure what you mean by  
14 components of refinery issues.

15 COMMISSIONER MONAHAN: Yeah, you had -- on the  
16 slide that had the different costs of --

17 MR. SCHREMP: Oh. Oh, okay.

18 COMMISSIONER MONAHAN: -- embedded in gasoline,  
19 there was one bar was refinery issues.

20 MR. SCHREMP: Yeah, so how that was calculated  
21 is, as I mentioned back then, 2014 we look at as a normal  
22 refinery operations year, nothing really of any  
23 significance. And so we're looking at the NYMEX. And so  
24 we looked at what the refinery wholesale price differences  
25 or premium to the futures contract on the NYMEX, New York



1 Mercantile Exchange.

2           And then so in future years, we say, was the  
3 difference the same as 2014? Was it less? Was it more?  
4 And so if it was more, that incremental amount average over  
5 the entire year was deemed to be part of refinery  
6 maintenance planned and unplanned. So that is the  
7 methodology we used.

8           If there's another type of methodology to kind of  
9 quantify impacts of planned and unplanned maintenance,  
10 we're interested in hearing about that, especially from the  
11 panel members this afternoon.

12           COMMISSIONER MONAHAN: Gordon, just to  
13 understand, though, isn't profit also embedded in that?

14           MR. SCHREMP: I think profit is -- or I'll put it  
15 this way, incremental profit is a consequence of what's  
16 going on in the marketplace and is there, in fact, a rapid  
17 escalation wholesale prices? So clearly, that's what  
18 happened in 2022. And when crude oil is not involved in  
19 that rise, then most of that rise is incremental profits  
20 because refiners are realizing that when it does occur.

21           And then with regard to, say, significant  
22 unplanned outages, if you're a refiner who have the  
23 significant unplanned outage, you are entering into the  
24 marketplace to purchase replacement barrels to continue to  
25 meet your contractual obligations. However, the other

1 refiners, they didn't have a problem, and then wholesale  
2 prices rose and that's the new market clearing prices. So  
3 they were realizing incremental profits in that kind of  
4 circumstance, yes.

5 VICE CHAIR GUNDA: Thank you, Commissioner  
6 Monahan.

7 I know that we have a short window here for  
8 questions, so I want to see if Commissioner McAllister or  
9 Commissioner Vaccaro has questions.

10 So Commissioner McAllister?

11 COMMISSIONER MCALLISTER: Yeah, I do have a  
12 question.

13 So thank you so much, Gordon. Again, always  
14 wonderful to hear you talk and just the subtleness of your  
15 knowledge is great. And just amazing that, you know, we  
16 had on the refining level, the refining side, we had like  
17 \$1.00, you know, up over \$1.10 over two weeks, that  
18 increase. And then sort of overlapping with that on the  
19 tail end, that week of October 10 to 17, we had retail go  
20 up by about \$1.00. So, you know, that's just -- it seems  
21 pretty unprecedented to have both of those things happening  
22 at once. And I'm glad we're digging into this.

23 So building on some comments that Senator Limón  
24 made, and just now Commissioner Monahan was beginning to  
25 get at, I guess I want to just ask, you know, what do we

1 know about the market structure of the refiners that might  
2 sort of open the open the door for gaming? You know,  
3 whether formally or not, you know, I think, you know, we'll  
4 probably talk about that eventually, but sort of, you know,  
5 unplanned, sort of using this sort of vague definition of  
6 unplanned to, you know, manage refinery capacity in a way  
7 that does open the door for these this sort of managing, as  
8 you just said, sort of the clearing price of the refined  
9 products.

10           You know, and are there data needs about the  
11 market structure and sort of the ownership structures of  
12 the refiners themselves that we might not be collecting  
13 that we ought to be collecting, that would give us  
14 visibility into behavior?

15           MR. SCHREMP: I think there's two areas,  
16 Commissioner McAllister. So one would be -- one of the  
17 slides I showed where refinery wholesale prices spike  
18 significantly, and then all distribution terminal wholesale  
19 prices spike along with that, and then retail is pushed up.

20           So it goes back to, well, why did the refinery  
21 wholesale prices spike that much and push all the other  
22 prices up? And that comes down to what primarily moves  
23 refinery wholesale prices, and that are transactions in the  
24 spot pipeline market. These are very large volumes, 25,000  
25 barrels, not 10,000 gallons like in a tanker truck at

1 distribution terminals, so it's really who is doing the  
2 buying and selling?

3           And so, for example, we know refiners and trading  
4 companies are the two primary buyers and sellers during  
5 spot pipeline transactions. We don't see that data. So  
6 if, in fact, a refinery had an unplanned outage, and then  
7 they were seen to be purchasing from other market  
8 participants additional volumes to continue to meet their  
9 obligations, you would look at that and go, oh, well, that  
10 kind of makes sense. And if the price happened to be high  
11 at the time, and they were reaching out into a marketplace  
12 that had low inventories, they weren't in a good position  
13 to command, you know, a cheaper price, they're going to pay  
14 a higher price. But that kind of makes sense.

15           But we have no context to see who are the parties  
16 and counterparties to these kinds of spot pipeline  
17 transactions. So that would be, I think, very insightful  
18 to mate with refinery, maintenance, and outage information  
19 and inventory information.

20           The other area, I think, I think we already  
21 talked about the maintenance, but inventory levels. So  
22 there are two types of inventory, gasoline inventory  
23 holders, if you will, refiners, and then traders. And so  
24 in some -- in a lot of storage locations operated by third  
25 parties, they don't have contractual obligations, like a

1 Kinder Morgan, they just provide storage opportunities.

2           However, in those storage locations are a mixture  
3 of refiners and traders holding gasoline inventories. Why  
4 we would care between the two? Refiners have a supply  
5 obligation, traders do not. And so we look at volumes of  
6 gasoline held by traders as strategic inventory of gasoline  
7 available when a price spike were to occur, they sell into  
8 that or sell to a refiner.

9           But we have no insight, Commissioner, on what  
10 those relative volumes are, because we don't receive that  
11 information of who is storing what where. We just know  
12 what the total volume is, you know, at the end of a  
13 particular week or end of a particular month at that  
14 location.

15           So once again, that's another example where we  
16 would have deeper insight into, oh, there's lots of  
17 gasoline currently available held by traders or not very  
18 much.

19           VICE CHAIR GUNDA: Thank you, Commissioner  
20 McAllister. I know we have to move on to the next item  
21 here.

22           So just, Gordon, thank you so much for the  
23 presentation, extremely insightful, especially for a public  
24 record, you know, from a process standpoint, and improving  
25 transparency, and also your work over the last several

1 months, serving as a subject matter expert for all of us  
2 helping to understand the issue and moving forward, so  
3 thank you.

4 With that, I will move to the next panel.

5 Heather?

6 MS. RAITT: Great. Thank you, Vice Chair.

7 So we'll move on to the second topic, which is  
8 the Fuels Transition Study. And we have two speakers  
9 today. From the Energy Commission, Quentin Gee, who's the  
10 Acting Branch Manager for Fuels at the Energy Commission,  
11 and Ysbrand van der Werf, who is the Fuels Price  
12 Specialist.

13 So go ahead, Ysbrand.

14 DR. VAN DER WERF: Thank you, Heather.

15 MS. RAITT: Pardon me, Quentin.

16 Ysbrand, go ahead. Thanks.

17 DR. VAN DER WERF: Gordon gave us a good overview  
18 of the situation. And I'm going to be talking a bit more  
19 in depth about some of the factors behind the record high  
20 prices we've seen in 2022.

21 Next slide, please.

22 The graph on the left shows California gasoline  
23 prices and U.S. average gasoline prices. At the right edge  
24 of the graph, we see the high gasoline prices in 2022.  
25 Those are well over \$6.00. Now the area between the two

1 lines, the difference in the prices, that's shaded blue.  
2 That is the California premium for gasoline.

3 Now the graph on the right shows only the  
4 California premium. It is volatile, but it has no trend  
5 until 2015, when it does begin to trend upward. And again,  
6 we see a record high in October 2022. The California  
7 premium is almost \$2.00.

8 Next slide, please.

9 Now this graph shows us the California premium as  
10 the black line. Three episodes of refinery outages are in  
11 the vertical bars, those are in 2015, 2019, and 2022. The  
12 four colored bands across the bottom show the most obvious  
13 factors contributing to high California prices, higher cost  
14 of crude oil, LCFS credits, the carbon tax, and the tax  
15 hike of November 2017. The olive green band labeled CAF  
16 gasoline price, that's just carbon allowance futures. The  
17 carbon price, it has a variety of different names as it's  
18 applied to one gallon of gasoline.

19 Now if we subtract the values of the colored  
20 bands from the California premium --

21 COMMISSIONER MONAHAN: I'm sorry. Can you hold  
22 for one second? Because it looks like we're not getting  
23 the slides to match your presentation.

24 Heather, is there somebody?

25 MS. RAITT: Yeah, we're sorry. It will be back

1 in just a moment, please.

2 VICE CHAIR GUNDA: Heather, can we also make sure  
3 the volume is a little higher?

4 DR. VAN DER WERF: Okay, sure. Okay, there we  
5 go. I'll start again with this slide here.

6 This shows the California premium as the black  
7 line. And three episodes of refinery outages are in the  
8 vertical bars, those are in 2015, 2019, and 2022. The four  
9 colored bands across the bottom show the most obvious  
10 factors contributing to high California prices. The higher  
11 cost of crude oil, LCF credits, the carbon tax, and the tax  
12 hike of November 2017.

13 Now the olive green band there labeled the CAF  
14 gasoline price, that's the carbon allowance futures, or  
15 carbon price. It has a variety of names, and this is the  
16 cost as it's applied to one gallon of gasoline.

17 Now if we subtract the values of the colored  
18 bands from the California premium, we get the graph on  
19 slide four.

20 Next.

21 Now what remains of the California premium, it's  
22 again, it's the black line here, so it's a net of those  
23 four factors we subtracted out from the previous graph, it  
24 tends to be fairly level except during refinery outages.  
25 There is a clear contrast between outages and normal



1 conditions starting in 2015. Prior to that, it does look  
2 like there are some price spikes, and some of those are  
3 also due to refinery outages, for instance, the long  
4 unplanned outage at Chevron's Richmond refinery from August  
5 2012 through the end of May 2013. You can see some spikes,  
6 quite a few spikes, down in 2012. None of those have as  
7 much impact on the market as the later outages in the  
8 colored bars.

9 Now we still see a rising trend in the California  
10 premium, but that trend doesn't really begin until after  
11 2020. And it still reaches -- the California premium still  
12 reaches record highs in October 2022.

13 Next.

14 So let's take a look at what might be behind this  
15 rising trend. And in this graph, we see consumption and  
16 in-state production during an average week since 2010.  
17 Generally, these were fairly close through 2018.  
18 Consumption is in red. Production is in blue. And after  
19 2018, the successive effects of the 2019 outages, COVID,  
20 and the closure of Marathon's Martinez refinery have  
21 combined to keep production below consumption.

22 Now at the bottom of the graph, we see a purple  
23 line, which represents marine or tanker imports. In  
24 general, these are quite small, very close to zero, except  
25 during refinery outages. We see increases in 2015 and

1 again in 2019 for such outages. And in 2021 and 2022,  
2 marine imports are at their highest levels since 2007.

3 So now putting this together with the preceding  
4 graphs, we see that if gasoline consumption gets far above  
5 production, imports arrive to make up the difference and  
6 the price of gasoline rises.

7 Next.

8 Now this graph shows us California gasoline  
9 production over the course of the year. So this is a 12-  
10 month graph here with different lines for different years.  
11 So we have the three post-COVID years of 2020 in green,  
12 2021 in orange, and 2022 in red. The thick black line is  
13 the average of the five pre-COVID years of 2015 to 2019.

14 Now 2022 production is red. It's clearly lower  
15 than 2021, the orange line, except in January, and it stays  
16 low. It doesn't recover until October. So throughout most  
17 of this year, refinery production has been low.

18 Next.

19 Now this graph is similar to its predecessor,  
20 except that it shows gasoline storage, or inventories.  
21 2022 levels are similar to the other years until July when  
22 they declined by 2 million barrels through August. That's  
23 indicated in the purple oval. This leaves inventories at  
24 historic lows. In the previous slide, we saw that  
25 production began a gradual increase in early September, but

1 as we see here, stocks did not follow suit until October  
2 and did not regain the five-year average until the end of  
3 the month.

4 And I, also, I should point out here that 2  
5 million barrels, that's roughly equal to refinery output in  
6 California for two days. California refineries produce  
7 about a million barrels a day, and consumption is about a  
8 million barrels a day, just to give some context to the  
9 sizes we're talking about here. So the storage, the  
10 inventories, are never more than about two weeks of  
11 consumption if all the refineries closed.

12 Next slide.

13 Now my colleague Gordon Schremp, he looked at  
14 import data for the West Coast, but import data for  
15 California in September and October is not yet available.  
16 That's what I want to focus on. Nevertheless, we can learn  
17 something by looking at imports during the Torrance outage,  
18 the outage at the Torrance refinery, which was then owned  
19 by ExxonMobil. It's currently owned by PBF. That was out  
20 for most of 2015 and part of 2016.

21 Now this graph shows the timing of the outage, in  
22 the light blue background, beginning in February 2015, the  
23 impact of the outage on marine imports, that's in green,  
24 and the California premium in orange. Now both of those  
25 rose during the initial months of the outage. But if you

1 look at July, we see, well, something different happens.  
2 And in July, a restart of the refinery was attempted. And  
3 in anticipation of that restart, assuming it would be  
4 successful, imports fell.

5           And as a result of the decline in imports, the  
6 California premium spiked. It made a third spike, we can  
7 see there in the graph, the orange line spikes, in July  
8 again. And it gets close to \$1.00. So that increases the  
9 California premium, just the reduction of imports. Now  
10 after the restart failed, imports more than regained their  
11 July losses and prices began to decline and never regained  
12 the July high.

13           Now this points out that imports can be  
14 unreliable even if there is a clear demand for them. And  
15 part of that is due to voyage duration. If voyage duration  
16 exceeds expected outage duration, imports are less likely,  
17 because if that happens, then the importer will be unable  
18 to recoup the costs of the gasoline they're sending to  
19 California.

20           So this episode tells us that if there is an  
21 outage, maintaining the flow of imports is key to  
22 preventing price spikes. And toward that end, in this sort  
23 of situation, the guarantee of a minimum price to the  
24 importer might be helpful in preventing price spikes.  
25 Perhaps it could be linked to the price of California

1 gasoline when the tanker begins its voyage.

2 Next.

3 Now in this graph, we see marine trade, imports  
4 and exports of gasoline, both before and after COVID. On  
5 the left, we see Northern California with Southern  
6 California on the right. Up north, exports, in orange,  
7 declined after COVID while imports, in blue, rose. And  
8 down south, imports also rose, but here there were and are  
9 no exports to speak of. Now that behavior, that pattern,  
10 is consistent with what we would expect to see following  
11 the closure of a major refinery such as Marathon Martinez.

12 Next.

13 Now here's something a little different. It's a  
14 map of gasoline pipelines in Utah, Nevada, Arizona, and  
15 California. Although not widely known, California does  
16 export over 100,000 barrels of gasoline per day to Nevada  
17 and Arizona by pipeline. That's about 10 percent of  
18 California consumption, and that is a 23 percent increase  
19 over pre-COVID levels. Now the green arrows show pipeline  
20 flows that will or could increase in the future. And the  
21 red arrows show flows from California that could decrease  
22 in response. The blue arrow shows California exports that  
23 are not expected to change.

24 Now there is good reason to expect that these  
25 pipeline exports may start to decline soon.

1           First, gasoline prices on the U.S. Gulf Coast are  
2 much lower than in the Rocky Mountain States, and  
3 Enterprise Partners, a pipeline company, is in the process  
4 of expanding a pipeline system from Houston to Denver.  
5 That would allow inexpensive Gulf Coast gasoline to access  
6 the Denver market. As my colleague Gordon Schremp  
7 mentioned, two-thirds of Gulf Coast gasoline production is  
8 exported out of the area, and this would be part of that.

9           Now increasing gasoline supply to the Denver  
10 market would displace gasoline from Denver, which would  
11 have to find a home in Salt Lake City. That's the first  
12 green arrow. And in turn, Salt Lake City would be  
13 oversupplied with gasoline, and the excess would be  
14 available to flow to Las Vegas. That's the second green  
15 arrow. Finally, this would displace California exports to  
16 Las Vegas, and that's the red arrow.

17           There are at least two other such projects under  
18 consideration, another to Denver and a second from Houston  
19 to El Paso. The latter could enable more Texas gasoline to  
20 flow to Phoenix and displace California exports. Those are  
21 the dashed arrows.

22           Next, please.

23           So from what we've seen in those previous slides,  
24 California today seems like a good market for gasoline  
25 producers. We've got high prices, imports that are

1 increasing in volume, but they are slow to respond to  
2 market conditions, and we also have episodes of low  
3 inventories. Now, in part, that's because one refinery has  
4 already closed.

5 But that does lead one to wonder why, under  
6 these, you know, seemingly good conditions, why is another  
7 refinery already planning to close so soon?

8 The Phillips 66 Rodeo refinery is planning to be  
9 shut down in 2024. Now we have a general notion that this  
10 is because the state is starting to move away from  
11 petroleum-based fuels, but why are these closures now  
12 happening so suddenly?

13 And a large part of the answer has to do with the  
14 fact that gasoline is not the only refined product.  
15 Gasoline is 60 percent of refinery output. This is in  
16 California. These are average values over the years for an  
17 average refinery. So gasoline is 60 percent, diesel is 20  
18 percent, jet fuel and other products combine the remaining  
19 20 percent. Now the California diesel market is more  
20 challenging for refiners, so let's take a brief look at  
21 that.

22 And next slide, please.

23 Okay, so this graph for diesel, it's similar to  
24 slide three, which was for gasoline. The black line is the  
25 California diesel premium as opposed to the California

1 gasoline premium we saw in slide three. Beginning in  
2 November 2017, this premium is rarely high enough to cover  
3 the additional costs shown in the same colored bands. Once  
4 again, the olive green band labeled CAF is the carbon  
5 price.

6 Now the tax increase in 2017, you can see that's  
7 a very abrupt increase, and it was much larger for diesel  
8 than for gasoline. And again, if we subtract the values of  
9 the colored bands from the California diesel premium, we  
10 get the graph on slide 13.

11 Next, please.

12 Well, here we are at slide 13. It's very similar  
13 to slide four. But again, this shows diesel when slide  
14 four showed gasoline. And after subtracting the colored  
15 bands, we get a sort of the net California premium. And  
16 two things are worth noting, two things after November 2017  
17 worth noting are, one, the California premium isn't much of  
18 a premium at all, in fact, it's usually negative, meaning  
19 that California diesel prices do not fully reflect the  
20 higher costs of selling diesel in California. Second, the  
21 refinery outages have little impact on the price of diesel.  
22 So diesel market is behaving very differently.

23 So let's look at the next slide, please.

24 And here we see an important reason for that.  
25 This shows the consumption of renewable diesel, and it has



1 increased greatly since 2011. It remained close to zero  
2 until mid-2013 and began a gradual increase after that.  
3 And the pace seems to have increased beginning in late  
4 2020. Currently, renewable diesel accounts for 37 percent  
5 of all diesel consumption in California. So that 37  
6 percent, that in years past, that would have been  
7 petroleum-based diesel produced in a standard crude oil  
8 refinery. Well, it no longer is. It's renewable diesel.

9           So why is there so much renewable diesel in the  
10 state?

11           But before we get to that, I really need to point  
12 out this, the remarkable fact, that there is no data  
13 available on in-state renewable diesel production. Now  
14 right now, most of it is imports, but that should be  
15 changing shortly. I mean, there already is growing  
16 renewable diesel production but we just don't have data on  
17 it.

18           Next slide.

19           So for 2020 to 2022, this graph shows the three  
20 principal subsidies for renewable diesel. The LCFS credit,  
21 which we've all heard about that. It also includes the D4  
22 RIN from the Federal Renewable Fuel Standards, and the  
23 federal blenders tax credit. These sum to about \$3.00 per  
24 gallon or more.

25           Now this is in the same ballpark as the price

1 received by refiners. The most recent data is from the  
2 first quarter. It had a wide range from \$2.80 per gallon  
3 to \$3.80 per gallon. Well, that's more or less the same as  
4 the -- what renewable diesel refiners receive for  
5 subsidies. But in April 2020, the refiners received only  
6 \$1.03 for petroleum-based diesel, that's for a gallon, much  
7 less than the value of the renewable diesel subsidies. So  
8 this is enough to tell us that revenue from the various  
9 credits is substantial and more consistent compared to the  
10 revenue from the fuel itself.

11           The value of the LCFS credit has been declining  
12 throughout this period on the graph, throughout this three-  
13 year period, that's in blue. The decline is caused by an  
14 increase in the supply of credits, which is due to the  
15 growing supply of renewable diesel, as we saw in the  
16 preceding graph. And along with that is growing biomethane  
17 availability.

18           Although the decline in the credit price has  
19 mitigated the rise in the gasoline price, the credit price  
20 fell because there is so much renewable diesel in the  
21 market. Now if there had been no renewable diesel in the  
22 market, petroleum diesel would not have been displaced from  
23 the market, and it's possible that the Martinez refinery  
24 might not have closed. This would have kept California  
25 gasoline and diesel production higher. And,

1 hypothetically, the gasoline price might not have increased  
2 as much as it has.

3           So I mentioned that because, yeah, it looks like  
4 a plus that the LCFS credit price has declined, that helps  
5 keep the price of, you know, of all, you know, diesel and  
6 gasoline down but, really, there are reasons. If we didn't  
7 have that, we -- well --

8           MS. RAITT: Excuse me.

9           DR. VAN DER WERF: Yeah.

10          MS. RAITT: Sorry to interrupt but --

11          DR. VAN DER WERF: Yeah, just try not to make too  
12 much of that.

13          MS. RAITT: We're running -- we're out of time.  
14 If you could try to wrap up, that would be great. Thank  
15 you.

16          DR. VAN DER WERF: I am.

17          MS. RAITT: Great.

18          DR. VAN DER WERF: Now it's worth noting that the  
19 federal blenders credit is available only for standalone  
20 facilities, which adds an incentive to not only produce  
21 renewable diesel, but also to close petroleum refineries at  
22 those sites. And finally, two of the three programs, LCFS  
23 and the federal blenders credit, have uncertain futures.

24                 Now here we see the LCFS credit price. Although  
25 it increased from 2017 through early 2020, it has been in a

1 prolonged downtrend since early 2021. Now recall that  
2 growth in renewable diesel volumes, along with  
3 corresponding LCFS credit generation, began to increase in  
4 late 2020. The price, the credit price, has fallen from  
5 over \$200 down to \$63.00 for the week of November 14.  
6 Currently, that only adds about \$0.09 to the cost of a  
7 gallon of gasoline or diesel. That's a very small  
8 component of the high prices we saw in October.

9           The reason for this decline is that beginning in  
10 '19 -- pardon, beginning in 2021, credit generation has  
11 exceeded deficit generation by growing volumes. The  
12 credits earned by renewable diesel, biodiesel, and  
13 biomethane more than offset the credit deficit from  
14 petroleum diesel. The credit deficit from gasoline, on the  
15 other hand, is not fully offset by the credits earned by  
16 ethanol and electric vehicles. Nevertheless, the excess  
17 credits from the diesel side are more than enough to cover  
18 the deficit on the gasoline side. As a result, the  
19 accumulated balance of credits is likely to increase  
20 through 2030.

21           Next.

22           MS. RAITT: Quentin, this is Heather. Thank you  
23 so much. I think we need to move on to Quentin Gee's  
24 presentation. Appreciate your presenting this morning.

25           Go ahead, Quentin.

1           MR. GEE: Thank you. Good morning,  
2           Commissioners, Senator, attendees, and panelists. My  
3 name is Quentin Gee. I'm the Acting Branch Manager for the  
4 Advanced Electrification Analysis Branch in the Energy  
5 Assessments Division. I also supervise the Transportation  
6 Energy Forecasting Unit.

7           As we've seen from both Gordon's and Ysbrand's  
8 presentations, the California combustion fuel market has a  
9 fairly unique dynamic. It's led to challenges with price  
10 stability, a good explanation of some of those things that  
11 we've just seen. In my discussion, I want to put a little  
12 bit of a new context here, thinking about the transition  
13 away from conventional fossil fuel combustion fuels or  
14 other combustion fuel vehicles and our transition towards  
15 zero-emission fuels.

16           Next slide.

17           Okay, so here, I sort of trimmed my chart here,  
18 but we can look at the sort of zero-emission vehicle  
19 penetration here. This is a percentage of zero-emission  
20 vehicle sales as a percentage of all vehicles -- of light-  
21 duty vehicles sold in the state. And so looking up through  
22 2020, we can see kind of a nice little smooth trend here.

23           But on the next slide, we can see a pretty  
24 dramatic uptick here. Basically, in 2021 and 2022, the  
25 light duty zero-emission vehicle market, particularly

1 electric vehicles, or EVs, that's really changed.

2 Energy and transportation industry analysts have  
3 highlighted, basically, once EV market penetration  
4 approaches about ten percent, we see a very significant  
5 shift in attitudes, interest, and decisions that consumers  
6 are going to be making around vehicles. They start to  
7 become interested, even excited about the prospect of  
8 buying an EV. They start to see more of them on the road.  
9 They have a friend or family member that bought one and  
10 loves it. Their questions about vehicles are more readily  
11 available. Answers to their questions are more readily  
12 available. And, of course, the companies themselves, the  
13 manufacturers, are beginning to target specific customer  
14 segments a little bit more directly.

15 So I should point out still, though, the majority  
16 of consumers are not buying them. We're still, you know, a  
17 lot or the majority of them, of vehicles, sold are internal  
18 combustion vehicles. But the interest is growing much  
19 faster than anyone would have thought to expect, even a  
20 couple years ago.

21 Some supply chain challenges do remain, but sales  
22 are high despite that. And we're seeing unprecedented  
23 technological improvements. So within the five years, the  
24 next five years or so, we expect many vehicle classes to be  
25 competitive in terms of price with new combustion vehicles.

1           One little thing to note here, I think, that is  
2 quite interesting that kind of highlights where the market  
3 is heading here is, if you take a look at what companies  
4 are investing in in terms of battery capacity for the  
5 country, in terms of like who is now -- so how many battery  
6 facilities are built, how many are in the process of being  
7 built, and how many have been announced? Staff in my unit  
8 have found that about 750 gigawatt hours per year of  
9 production capacity are in that.

10           What does 750 gigawatt hours mean? That means  
11 about 7.5 million vehicles, electric vehicles, could be  
12 produced with that battery capacity, maybe a little more,  
13 maybe a little less, but around that. And, you know, to  
14 put that in perspective, California sells about two. So  
15 we're looking at an industry that is really gearing up.

16           Now, obviously, not all those facilities are in  
17 the ground, but these are facilities that are being planned  
18 up through 2030, and that's just what's been announced as  
19 of, you know, today. So we're really looking at a market  
20 trajectory that I think we'd be in a pretty difficult spot  
21 to say it's just going to flatline, it's going to go kaput  
22 or whatever.

23           Next slide.

24           So putting that together, kind of sort of zooming  
25 out a little bit, we've got the markets that we've seen up

1 to today, up to quarter three of today, we've got that  
2 data. And then we look at kind of where are the vehicle  
3 policies directing us?

4           And the one that's I think the most obvious  
5 policy that we can look at right now is the California Air  
6 Resources Board or CARB's, Advanced Clean Cars 2  
7 Regulation. This policy begins in 2026, so there's a  
8 little bit of a gap between where the market is now and  
9 where this kicks in. But you can see, it's a pretty smooth  
10 and steady ramping up to that point. There's always going  
11 to be some fluctuations and weird things happening in the  
12 market. But roughly stated, we're going to be looking at a  
13 pretty aggressive change to zero-emission vehicles in the  
14 future.           Let's take a look at the next slide here.

15           Okay, so looking at the policies, there's still  
16 some uncertainty exactly how things are going to play out.  
17 But overall, this impressive market growth, this consumer  
18 interest combined with these strong policy goals, we can  
19 get a sense of what gasoline demand is going to look like  
20 in the future because people aren't going to be driving as  
21 many gasoline vehicles.

22           So let's take a look at two scenarios that  
23 consider market conditions as well as policies and goals,  
24 and the first one, number one we'll call it, we've done at  
25 the CEC this last year, it's called the demand scenario.



1 This considers compliance with policies and the early stage  
2 regulatory proposal. So this was looking at an early, sort  
3 of, early Advanced Clean Cars II Regulation, also CARB's  
4 Advanced Clean Fleets Regulation, which at the time was  
5 still being drafted, still things kind of mid-2021 or so.

6 The second scenario that we can look at is the CARB  
7 2022 Scoping Plan modeling data. So CARB recently  
8 published their Scoping Plan and we got the data behind  
9 that. And this includes updated regulatory frameworks.

10 One difference between these two scenarios I  
11 would highlight is that the vehicle miles traveled, that is  
12 the number of miles that a vehicle is going to be driving  
13 over a course of a year, or VMT, that considers a pretty  
14 dramatic reduction in vehicle miles traveled.

15 So we have these two scenarios that are both  
16 looking at increasing zero-emission vehicles, but they have  
17 slightly different impacts.

18 And so on the next slide we can take a look at  
19 what that's going to be.

20 So looking at this next slide we can see, you  
21 know, underneath scenario, no matter which way you slice  
22 it, we're looking at a decrease in gasoline demand. This  
23 also goes for diesel and other combustion fuels but, you  
24 know, for gasoline in particular, we're looking at a pretty  
25 steep decline. What CARB's Scoping Plan says is that it's

1 going to happen a lot sooner. If we look at the demand  
2 scenario, which is a little bit older, it's going to  
3 decrease a little bit later. But, you know, we sort of see  
4 this dramatic decline coming.

5           And we take these two, you know, these two to  
6 sort of represent two plausible pathways for really  
7 significant changes in the fuel in a way that people  
8 haven't really thought about. We thought a lot about,  
9 like, how do we deal with the electricity impacts? And  
10 that's something that we're working on quite a bit.

11           But now we're thinking a lot, we need to be  
12 thinking a lot, we need to be thinking a lot about what's  
13 going to be happening with gasoline demand.

14           As we've seen what Ysbrand and Gordon  
15 highlighted, declining demand or the unique aspects of the  
16 California gasoline market suggest that, you know, we can't  
17 necessarily just say, well, less demand, that's a demand  
18 shift and, you know, and that just means gas will get  
19 cheaper. Maybe. But gasoline, as we've seen, is a tricky  
20 market. Refineries might shut down at a rate that we're  
21 not necessarily, you know, in the loop on at that time, so  
22 we have to be very careful here. And that's kind of what  
23 we're thinking about as far as the study goes.

24           So on the next slide, we kind of want to begin  
25 this study and take a closer look at what can we expect, to

1 get some scenarios on the board, and see what a transition  
2 is going to look like. But the key thing that we're  
3 looking at is, you know, with the study is we want, you  
4 know, reliable, safe, equitable, affordable transition away  
5 from petroleum. And so there's lots of things that we have  
6 to keep in mind about this.

7 But you know, some of the key things, you know,  
8 what is the gasoline demand scenario going to look like?  
9 What's going to happen? The market's headed in a certain  
10 direction. We have strong policy goals for attaining  
11 climate action. And, you know, we have a sense of where  
12 it's going to happen. But we want to work with our agency  
13 partners and with the public to kind of develop some solid  
14 scenarios in terms of demand.

15 We also kind of want to break that down in terms  
16 of different time horizons. What will we see in, say, one  
17 to three years out or so? What might we see from three to  
18 ten years out? And what are we looking at even further  
19 along in the horizon?

20 Another key thing, I've even heard Commissioners  
21 emphasize this, this is something that's really important  
22 to the Energy Commission as a whole, is equity. You know,  
23 this, you know, if someone chooses to sort of just, you  
24 know, I want to drive whatever and I can afford it and I  
25 don't care, that's one thing, and that's not something

1 that, you know, we're particularly concerned about. We  
2 want to make sure that all Californians are not -- you  
3 know, all the Californians, especially those that are the  
4 most need or that are the most difficult financial  
5 situation, aren't impacted negatively here with those kinds  
6 of volatility issues.

7 We want to take a look at specific policies to  
8 adjust volatility in general.

9 We also want to look at policies to increase  
10 access to alternatives. So one of the things that the  
11 Commission works on is refueling infrastructure for zero-  
12 emission vehicles and light-duty charging, medium- and  
13 heavy-duty charging, those sorts of things. We want to  
14 think about creative ways that we can make this a  
15 compelling alternative, not just -- I mean, obviously, we  
16 don't want volatility, but we also want to make it an easy  
17 transition for those that want to switch over.

18 And one of the other key things that we're  
19 finding out, the more we've been trying to put our heads  
20 together on these things, is we're finding that it's been  
21 somewhat difficult to get reasonable access to refining,  
22 import, export, blending information, along with pertinent  
23 planning information. We need to make -- we need to have  
24 this data so that we can say, okay, well, here's how we  
25 know the market dynamics are working, here's how refinery

1 behavior is working, here's the way that they're operating  
2 here, there, and everywhere. And the more we can get a  
3 sense of that, the more we can be in a position to protect  
4 Californians from this kind of negative impact, these  
5 volatility impacts. And again, especially keeping an eye  
6 to those that are the most need to be protected from these  
7 price shocks.

8           At the same time, we want to ensure  
9 confidentiality. We don't want this information just  
10 flowing out all over the place.

11           So wrapping it up, we kind of want to just put  
12 this together and find a way to get good information here.  
13 And I think that the panel later on today is going to be  
14 really helpful getting those insights from folks outside of  
15 the CEC.

16           And on the next slide, you can get a sense of our  
17 general timeline that we're looking at here. We want to  
18 begin to sort of start scoping this thing out into next  
19 year, then working on our inputs and assumptions in a  
20 public process, doing some modeling and analysis as a  
21 result of that. And then again bringing it back to the  
22 public, showing them our results and our thinking  
23 recommendations, et cetera, and getting a draft posted.

24           So with that, I think I can open it up for  
25 questions that either anybody here has for Ysbrand or me.

1 Thanks.

2 VICE CHAIR GUNDA: Yeah. Thank you, Quinton. I  
3 think there's a bunch of questions.

4 And I first want to apologize to Ysbrand. I  
5 think we were working on timing. I know you were not able  
6 to complete your presentation, so we'll figure out how to  
7 put that information out, the rest of your presentation.

8 So, Quentin, I think I want to focus a little bit  
9 on the transition study first, and then kind of think  
10 through the rest of the pieces.

11 I want to emphasize the California Energy  
12 Commission's role as an agency that provides a venue for  
13 analytical transparency, data transparency, and long-term  
14 trends. So I think within the mission of the CEC, the  
15 study architecture, the framing perfectly fits. So that's  
16 one.

17 So two, I want to just raise the importance of  
18 three key pieces of our energy sector.

19 So we have electrification. So we are looking at  
20 the reliability concerns on the electrification and the  
21 opportunity of electrified loads to be a part of the  
22 solution to deal with extreme climate challenges. But you  
23 also have the intersection with the fossil fuels and the  
24 petroleum industry, as well as natural gas, so you have  
25 three different energy sectors. We used to look at them in

1 a very isolated fashion.

2 I'm really glad that the draft results that  
3 you're thinking is sometime in '24, because the next SB 100  
4 report is early 2025, which is a major electricity policy  
5 document. And, you know, it also intersects with a lot of  
6 gas proceedings that the CEC and CEC have been working on  
7 leveraging the Scoping Plan.

8 So I just wanted to commend the overall thinking  
9 of the staff here, the importance of having this kind of  
10 visibility, and CEC serving as that neutral objective venue  
11 for discussion. So just wanted to thank you on that one.

12 So in terms of the broader framing and the  
13 timing, I just wanted to ask you a question on data needs  
14 that you talked about. I think this goes back to, you  
15 know, a number of Commissioners raising this, but also  
16 Senator Limón. Do we have a sense of the totality of the  
17 data streams that we would need to be able to improve  
18 transparency for Californians as a whole?

19 MR. GEE: I think that we have a pretty good  
20 sense of some of the needs that are out there. And I think  
21 we can continue to work on finding the information or  
22 finding where the gaps are, I think, but I don't have --  
23 you know, I think just kind of keeping it a little bit kind  
24 of on the more general side at this point. I mean, but  
25 refining import, export, I think just kind of having that

1 information in a little bit more detail, maybe things  
2 involving, you know, certain sort of plans, you know, with  
3 the outage.

4           And there's certain things that we have to do to  
5 ensure that that information, that there's like competitive  
6 information or information, proprietary information, that  
7 we have to be careful with because we have to be thoughtful  
8 about the market and the different forms of competition  
9 that are occurring there and the types of problems that  
10 could happen if, you know, company's plans are sort of put  
11 out there; right? So that's something that I think we want  
12 to be careful with.

13           But I think, you know, to a certain extent, the  
14 more information, the better in terms of, you know, we can  
15 be in the know. Let us know. We're not going to, you  
16 know, put it out there but it's going to help us understand  
17 a little bit more how the process -- you know, how the  
18 decisions are being made so that we can say, okay, well,  
19 these, you know, these three or whatever are, you know,  
20 doing something and it's kind of happening at the same  
21 time. This is going to create a certain sort of additional  
22 volatility that maybe we wouldn't be able to see if we  
23 didn't have that information.

24           So I think we want to still continue to think  
25 about what exactly we need. But just kind of being



1 completely in the dark, and then we were like, oh, okay,  
2 this refinery is shutting down for some planned  
3 maintenance, I think we just need to be a little bit more  
4 in the know on some of those plans.

5 But, yeah, I think more effort and thought, I  
6 think, in framing this would be helpful first. Yeah. I  
7 hope that was what are you thinking about.

8 VICE CHAIR GUNDA: No, I do.

9 MR. GEE: Okay.

10 VICE CHAIR GUNDA: I know we have a number of  
11 other colleagues here who might have questions, so I don't  
12 want to, you know, hog all the questions.

13 So Senator Limón?

14 SENATOR LIMÓN: So I actually want to piggyback  
15 off what you just said in terms of the information you need  
16 that you don't have access to that is part of what's  
17 impacting.

18 What are the obstacles to being able obstacles to  
19 getting that and how do we go about getting that  
20 information so that we as a state can have better  
21 information to guide our practices and understanding of  
22 this?

23 MR. GEE: Well, I think, basically, more  
24 authority that would -- you know, we do have laws in place  
25 that do allow us to get some information, and we have a

1 responsibility to keep that confidential, as well, but it  
2 allows us to kind of have a better sense of what's  
3 happening in the market.

4           And so I think more authority with -- and, yeah,  
5 just sort of the ability to kind of take in more  
6 information, I guess, legally.

7           SENATOR LIMÓN: You mean a law perhaps?

8           MR. GEE: Perhaps. Yeah, I think that something  
9 along those lines would be helpful. If we don't have --  
10 yeah, we need the ability to compel or, you know, if, you  
11 know, folks are freely willing to give it to us, that'd be  
12 great. But we also might need the ability to say, this is  
13 something that's important for the Californian people and  
14 so, you know, we need this. We're not going to put it out  
15 there but we need it so that we can make some high-level  
16 decisions.

17           EXECUTIVE DIRECTOR BOHAN: Senator, thank you for  
18 the question. Drew Bowen, Executive Director.

19           I would just jump in and add that one thing in  
20 particular that jumps out is unplanned and planned  
21 maintenance. And we learn about it through trade press and  
22 that sort of thing. But getting that information early  
23 would really help inform the decisions we have, to the  
24 extent we have leverage with the state, to take action in  
25 response to those things, knowing that information early

1 would be very helpful. There's other things, but I would  
2 just suggest that is one major one.

3 SENATOR LIMÓN: Great. Thank you. This is  
4 helpful.

5 VICE CHAIR GUNDA: And thank you, Senator.  
6 Commissioner Monahan?

7 COMMISSIONER MONAHAN: Yeah, I have a question  
8 that might fall in between Ysbrand and Quentin, I'm not  
9 sure, but I'm curious about this issue that we don't see a  
10 California adder when it comes to diesel, in part because  
11 renewable diesel being integrated in, and how well we  
12 understand what that translates to in terms of storage for  
13 gasoline vis-a-vis diesel. One would think that we may  
14 have higher diesel inventories as a result. And just do we  
15 need to better understand that interplay to understand how  
16 that plays out in terms of prices of gasoline?

17 MR. GEE: Yeah, I think so. And I think Ysbrand  
18 might be able to speak to that. I think the different  
19 credits for renewable fuels, I think have been particularly  
20 helpful there.

21 But Ysbrand, did you want to say something?

22 DR. VAN DER WERF: (Echo on Zoom.) Okay. Yes,  
23 currently, I mean, a lot of the diesels have dropped into  
24 for petroleum -- I'm sorry, there's an echo. And in a lot  
25 of the data, they are treated the same. So if you go to a

1 gas station, you might be getting renewable diesel instead  
2 of diesel from that pump. I mean, that's true at the gas  
3 station closest to my house. We simply don't know what's  
4 renewable diesel and what's petroleum based diesel, it's  
5 just a complete -- I mean, for consumption, we know that  
6 for from sales tax data and LCFS data because, you know,  
7 they have to pay sales tax and comply with LCFS. But as  
8 far as production and inventories, we simply don't know.

9 COMMISSIONER MONAHAN: Yeah, and my question  
10 actually was broader around, I mean, when a refinery  
11 processes a barrel of oil and the distillation process  
12 yields, you know, diesel, gasoline, just a simple  
13 distillation, and that is my understanding -- and perhaps  
14 this will away for the afternoon with Cathy Reheis-Boyd --  
15 but that it's sort of a fixed quantity. You can't mess  
16 very much with the share that's going to turn into diesel  
17 versus the share it's going to turn into diesel. You can  
18 tweak at the edges, but not wholesale.

19 DR. VAN DER WERF: Yes.

20 COMMISSIONER MONAHAN: And so just understanding  
21 how the refinery market is working, and how a low price of  
22 diesel, what does that mean for the price of gasoline?

23 DR. VAN DER WERF: Well, in California the output mix  
24 from refineries is very heavily gasoline oriented.  
25 California produces -- pardon me, consumes roughly three

1 gallons of diesel for -- pardon me, three gallons of  
2 gasoline for a gallon of diesel. In the rest of the  
3 country, it's more like two gallons of diesel -- pardon me,  
4 two gallons of gasoline to a gallon of diesel. So  
5 California refineries are already going full out, producing  
6 gasoline. And that's why we always we continually see  
7 gasoline imports coming into the state. So they probably  
8 don't have much latitude to increase gasoline at the  
9 expense of diesel production at this point.

10 COMMISSIONER MONAHAN: And do we understand how  
11 the inventory of diesel, vis a vis gasoline, in terms of  
12 storage?

13 Yes. If we don't, if we're not concerned about  
14 splitting it between renewable diesel and petroleum-based  
15 diesel, we have excellent data, California statewide data  
16 on that that we the Energy Commission currently collects.

17 VICE CHAIR GUNDA: Great. Thank you. I  
18 just have one more follow up.

19 But let me see if Commissioner Vaccaro or  
20 Commissioner McAllister have any questions online?

21 COMMISSIONER VACCARO: (Echo on Zoom). Yeah,  
22 thank you, Vice Chair Gunda. Thank you so much.

23 I'm getting an echo. I don't know if it's me  
24 or -- yeah. Okay. Great. So thank you.

25 So I failed to quickly get my hand up during

1 opening remarks, but in a way I'm glad because my comment  
2 that I was going to make had to do with information, and  
3 I'm glad we're touching on it right now.

4           You know, I share everyone's, I think,  
5 disappointment and concern that the refiners did not  
6 participate and are not going to be here today. It's my  
7 understanding that they cited, you know, antitrust concerns  
8 and a challenge with publicly providing us with  
9 information. And I know, you know, we just touched on sort  
10 of the PIRA law as a way that we can get certain  
11 proprietary information. We've used subpoenas in the past  
12 in the IEPR process.

13           And I'm just trying to figure out, you know, how  
14 do we solve this problem of getting information we need?  
15 Even though it may not come publicly and in a transparent  
16 fashion, how can we get it such that we can turn it around  
17 and anonymize it and still provide the public with critical  
18 information?

19           And that's something that I think -- I won't be  
20 here for the second panel -- I'd be interested, though, in  
21 what solutions we've considered and what solutions are out  
22 there so that we can still get information from the  
23 refiners across a number of issue or topic areas that  
24 relate to the study, but that also relate to one of the  
25 core purposes of today's hearing, which is to better

1 understand the cause or the source of these price spikes?

2           And I just don't want us to give up because  
3 they're not coming today. And I'm very glad that WSPA will  
4 be here to speak. But I think we still need to get answers  
5 directly in whatever way we possibly can.

6           So that's it. Thank you.

7           VICE CHAIR GUNDA: Quinton or Drew, if you have a  
8 quick response?

9           If not, we'll go to the closing, okay? Thank  
10 you. Yeah, so with that, I think we'll go to the closing  
11 remarks for this morning.

12           So I just wanted to thank Heather and the  
13 presenters, specifically Gordon, Ysbrand and Quinton, thank  
14 you for the information you've provided.

15           And I just want to reiterate kind of core  
16 elements of what we're trying to do in this work, but also  
17 at the root and the center of the mission of CEC, is as we  
18 move forward as a single state towards the decarbonization  
19 goals we laid out for ourselves, it is factual and pretty  
20 clear that we need to move away from fossil fuels. And  
21 that move away from fossil fuels will destroy the current  
22 demand of gasoline and diesel, and that needs to be  
23 understood, planned for, and managed properly so we do not  
24 affect the communities that are already affected and  
25 burdened even more. That is the central premise of this.

1           And in order to, you know, improve the  
2 transparency, people who know what it is, and who  
3 understand it, being at the table and helping us understand  
4 and figure out solutions to that is critical. And as  
5 Commissioner Vaccaro just raised, we understand the  
6 concerns that the refineries had in terms of the antitrust  
7 laws and such and the confidentiality of information.

8           But I think we need to absolutely figure out a  
9 way to collectively move forward on this. And when we talk  
10 about equity and having everybody at the table, it truly is  
11 everybody should be at the table. And it's a democratic  
12 process. It's a process that we are taking care of  
13 California together.

14           And I just want to invoke that spirit as we move  
15 forward into the afternoon session because, you know, we  
16 all have a lot of different reasons to break down the  
17 conversation at important moments. And we cannot let that  
18 happen, at this moment or ever, especially given this  
19 transition is going to be very difficult. The ambition of  
20 California in terms of our climate goals, the ambition of  
21 California in terms of equity and reliability, are bold and  
22 what is needed for the world. And as we pursue that, we as  
23 Californians have to show a path to the rest of the world  
24 on how we come together on these important elements.

25           So with that, I just want to thank everybody here



1 and see if anybody else from the dais want to have any  
2 closing comments?

3 Senator Limón?

4 SENATOR LIMÓN: Well, Thank you. And I think  
5 that, you know, some of my takeaways from this morning are  
6 also some of the themes that we've heard about, are  
7 understanding that equity has to be a lens that's applied,  
8 because this cost, you know, impacts our Californians in  
9 different ways and to a greater extent.

10 But also there's been a theme about just the need  
11 for more information and understanding that more  
12 information is part of a process that helps us create more  
13 informed policies in this state, and I think that that's  
14 really critical and key.

15 And I look forward to the afternoon conversation.  
16 I think it's important to hear, you know, from all  
17 perspectives in terms of addressing this challenge. So  
18 thank you.

19 VICE CHAIR GUNDA: Thank you, Senator.

20 Commissioner Monahan?

21 COMMISSIONER MONAHAN: I'll just be really brief  
22 and say that I really appreciate this morning's session.  
23 And this idea, as Senator Limón said, around getting better  
24 data, understanding better planned maintenance,  
25 understanding better inventories of gasoline and why there

1 isn't stockpiling when the planned maintenance is  
2 scheduled, I think those are critical pieces of information  
3 going forward. And really looking forward to the afternoon  
4 session to diving more deeply into sort of what are the  
5 information gaps that we should be trying to fill.

6 VICE CHAIR GUNDA: Thank you, Commissioner  
7 Monahan.

8 Commissioner McCallister?

9 COMMISSIONER MCALLISTER: Yeah, just very  
10 briefly. I appreciate the information and discussion this  
11 morning, actually.

12 And just in the spirit of creating transparency  
13 as a driver of accountability, I think that's -- you know,  
14 we all kind of understand the criticality of that. And we  
15 need to find ways to -- you know, I think our existing  
16 authority probably can go a long way, as long as we update  
17 our regulations to reflect the specifics of this  
18 conversation and what we can gather currently and specify  
19 and regulations through that process without a legislative  
20 change, and then work with the Senator and her colleagues  
21 and, you know, our Chief Counsel's Office and Drew to see  
22 whether there are legislative needs or a statute change  
23 would help us sort of bring more heft to this conversation.

24 I guess I was going to say this in opening  
25 comments but I didn't -- I wasn't quick enough to sort of

1 muscle in there to make, but I think, you know, absence is  
2 not a good strategy for the industry, just in terms of  
3 their own self-interest, I would argue.

4           And to Vice Chair Gunda's comments just now, you  
5 know, lack of participation is not going to allow them to  
6 put their views and opinions on the table and to  
7 participate integrally in the discussion. And, therefore,  
8 they're not going to get the outcome that maybe they might  
9 want because other people are going to take up the  
10 conversation and they should be in there participating in  
11 the process because that's what the process is for, it's  
12 for getting everybody's voice on the table and navigating a  
13 path that's based on that factual basis.

14           And so, you know, certainly, yes, there are  
15 headwinds for -- that we're going to evolve towards this  
16 low-carbon future, and that has some headwinds for, you  
17 know, sort of incumbent sectors, but that's just a fact.  
18 And I think managing that is something that's in their best  
19 interest as well. So it is, you know, doubly disappointing  
20 that they're not here today, and hopefully that will change  
21 going forward.

22           I'm really looking forward to the afternoon  
23 session and where we can get into some of these details.  
24 Thanks a lot for the morning.

25           VICE CHAIR GUNDA: Thank you.

1           VICE CHAIR GUNDA: With that, Heather, you can  
2 have the last word.

3           MS. RAITT: Great. I'll just invite everybody to  
4 please join us back at 1:30 for the afternoon panel.

5           (Off the record at 12:04 p.m.)

6           (On the record at 1:30 p.m.)

7           VICE CHAIR GUNDA: Good afternoon, everyone, and  
8 welcome back for the second session of today's hearing.

9           I just want to begin by saying thanks again to  
10 Heather and her team for organizing everything, and for all  
11 of you who have taken the time to be a part of the  
12 conversation, attend, and are looking forward to making  
13 public comments.

14           So, I'm Siva Gunda. I'm the Vice Chair of the  
15 California Energy Commission, the Lead for 2022 IPER, our  
16 Integrated Energy Policy Report, and this particular  
17 hearing will be summarized as a part of the IPER.

18           With that, I just want to say, this morning was a  
19 really good session. We had Staff presenting on data and  
20 understanding from the vantage point of the data available  
21 to them on why we have seen price spikes over the last  
22 year, and historically what has contributed to that. And  
23 they mentioned and noted some of the gaps in information we  
24 have and the importance of being able to have that  
25 information to further understand the causal factors behind

1 the price spikes.

2           We also talked about, given the long-term  
3 trajectory of the fossil usage in California is going to  
4 decline based on our climate priorities and the policies  
5 and where we are going, we need to make sure we have not  
6 just an immediate outlook of what the industry looks like,  
7 but a long-term preview and idea so we can do a managed  
8 planning and really manage it from a way that it's a safe,  
9 reliable, equitable transition towards the zero-carbon  
10 fuels that we are getting to as California as a whole.

11           A number of the dais leadership and commentators  
12 also noted the importance of having everybody at the table  
13 so we can all have a conversation. And the last thing we  
14 want to have in a CEC proceeding or any proceeding that  
15 needs to share the democratic process that we go through is  
16 to have the ability to represent all voices and hear from  
17 all of them, especially given the knowledge base that  
18 refineries have in terms of their understanding of the  
19 industry and really be able to look closely at what's  
20 happening. It's unfortunate they are not able to be here  
21 for the reasons that they noted.

22           Look forward to this discussion and really  
23 understanding further what some of the causes could be and  
24 what some of the solutions could be as we move forward as  
25 one single state.

1           So, as I hand it off, I just want to note this is  
2 extremely important. As we move towards a clean energy  
3 transition, I think there are some facts that we all agree  
4 as Californians.

5           You know, we are in a climate emergency. And we  
6 as a state have built several pathways towards moving into  
7 a clean energy future, not just to mitigate the carbon  
8 emissions in California, but to really be a model for the  
9 rest of the world. We have an opportunity. When we tackle  
10 these difficult conversations, when we don't see eye to eye  
11 on how to do things, it is even more important and  
12 incumbent upon all of us to be at the table to be a part of  
13 the conversation. My sincere hope is that we respect and  
14 have a productive conversation, even when we completely  
15 disagree on policy priorities or pathways to an end goal.

16           So, with that, I will pass it on to Heather to  
17 introduce Drew.

18           EXECUTIVE DIRECTOR BOHAN: Thank you, Vice Chair  
19 Gunda.

20           Again, Drew Bowen, Executive Director of the  
21 Energy Commission. And I'm pleased to announce that we are  
22 joined this afternoon by six distinguished panelists with  
23 diverse backgrounds and diverse viewpoints. The first is  
24 Dr. Elena Krieger, and she is the Director of Research at  
25 PSE Health Energy. Kathleen Foote is an Assistant Attorney

1 General at the California Department of Justice. Catherine  
2 Reheis-Boyd is the President and CEO of the Western States  
3 Petroleum Association. David Hackett is the Chairman of  
4 the Board of Stillwater Associates. Dr. Severin Borenstein  
5 is a professor at the Haas School of Business at UC  
6 Berkeley. And Jamie Court is President of Consumer  
7 Watchdog.

8 To start off with, each panelist will have up to  
9 five minutes of introductory remarks. After this, we're  
10 going to ask our panel five questions, and these are all  
11 related to our two main topics for today, one, the recent  
12 petroleum price spikes that we talked about a lot this  
13 morning, and second, how to best plan for a smooth  
14 transition from vehicles powered by fossil fuels to those  
15 powered by electricity as the state transitions. We heard  
16 about that this morning as well. And then we'll hear from  
17 the members of the dais before we take public comment.

18 A quick bit of housekeeping before we get  
19 started.

20 I'm going to be an active moderator. My job is  
21 to enforce the time limits to try to make this panel as  
22 engaging and informative as possible, and make sure that  
23 all the panelists have an opportunity to participate. I'm  
24 joined by my partner, Heather Raitt, who will be helping  
25 with enforcement. I warn you, she's a ruthless timekeeper.

1           Alright, then let's get started.

2           Dr. Krieger, the floor is yours.

3           DR. KRIEGER: Heather, do you have logistics that  
4 you needed to go over first?

5           MS. RAITT: Sure. I was just going to remind  
6 folks in the room, if you would like to make public  
7 comment, we're going to be taking comments about four  
8 o'clock, at the end of the hearing, and you can fill out a  
9 blue card, which is available at the entrance, and go ahead  
10 and give it to me. And then for folks on the line, you can  
11 press the icon for the raise hand. And for folks on the  
12 phone, press star nine, and that will let us know you want  
13 to make comments.

14           So, thank you so much. Go ahead.

15           DR. KRIEGER: Great. Thank you.

16           Hi, everyone, and thanks for inviting me here  
17 today. I'm the Director of Research at PSE Healthy Energy,  
18 an energy science and policy research institute based out  
19 of Oakland, and a member of the Disadvantaged Communities  
20 Advisory Group to the California Energy Commission and the  
21 Public Utilities Commission, although today I'm speaking  
22 for myself and not for the day guy.

23           To reiterate the comments, we heard from the  
24 Commissioners this morning, the message I want everyone to  
25 keep in mind as they listen to the panel today is that the



1 impacts of our transportation sector do not affect everyone  
2 equally. A super commuter from Tracy to San Francisco  
3 would have spent about \$114 a week on their way to and from  
4 work in October 2021, and more than \$170 in October 2022  
5 just on their commute. That's nearly nine percent of  
6 median household income in Tracy.

7 Gasoline fuel cost burdens are higher for low-  
8 income households, rural households, and households of  
9 color, and these are the same households that have the  
10 least efficient vehicles and highest barriers to purchasing  
11 new ones. It is difficult for many of these households to  
12 afford transportation costs in the best of times, not to  
13 mention when gasoline prices spike.

14 At the same time, pollution from the  
15 transportation sector compounds with industrial emissions  
16 to leave certain neighborhoods heavily overburdened. I'm  
17 thinking right now of the section of West Oakland near the  
18 port, where heavy duty trucks are routed away from the  
19 wealthier neighborhoods by 580 and the hills. Black and  
20 Latino households are exposed to disproportionately more  
21 transportation pollution than they are responsible for  
22 emitting.

23 Today we're discussing the drivers and impacts of  
24 gasoline prices in California and strategies to mitigate  
25 them. However, the very fact that we're having this

1 hearing is a reminder of the need to rapidly transition  
2 away from fossil fuels and envision a transportation sector  
3 that reduces climate impacts and helps damaging air  
4 pollution, provides energy security and resilience, and is  
5 affordable for those currently burdened by our existing  
6 system and accessible for those who face barriers to  
7 adopting cleaner fuels.

8           This is an opportunity. But as we plan the  
9 transition, we have to be mindful of the impacts of our  
10 transportation system and the distribution of those impacts  
11 if we want to meaningfully mitigate them.

12           Thanks again for holding this discussion and I'm  
13 looking forward to the conversations from my fellow  
14 panelists.

15           EXECUTIVE DIRECTOR BOHAN: Thank you so much Dr.  
16 Krieger.

17           Next up is Kathleen Foote.

18           MS. FOOTE: Thank you. Thank you. It's a  
19 pleasure to be here with you all again after quite a  
20 hiatus.

21           The oil industry and gasoline prices have been a  
22 focus of the attorney general's office, and particularly  
23 the Antitrust Section, which I lead, for many years. And  
24 it's the subject of numerous investigations and several  
25 lawsuits over the years. Our principal partner in those

1 has been the Federal Trade Commission which has a dedicated  
2 team, including both lawyers and economists. The Energy  
3 Commission is an important resource for both of us in  
4 understanding market conditions and the trends that have  
5 been taking place.

6 Antitrust enforcement is generally directed at  
7 two things. One is overall market consolidation, mergers,  
8 in other words, mergers and acquisitions that can lead to  
9 monopoly pricing. And the other is anti-competitive  
10 collusion as to either price or supply or both.

11 Since 2000, we've investigated, I think, eight  
12 oil company mergers or acquisitions ranging from BP Amoco,  
13 and then ARCO, and Chevron/Texaco in that year, to  
14 Marathon/7-11 just last year. In most cases, the merging  
15 parties were required to spin off a number of assets to  
16 competitors, bringing newcomers, such as Valero and Tesoro,  
17 into California markets.

18 In 2011, Attorney General -- then Attorney  
19 General Javier Becerra went to court to block Valero's  
20 acquisition of the last major refined product storage and  
21 mixing facility in Northern California. We were successful  
22 in halting that transaction, I'm happy to say. It was kind  
23 of hailed within the antitrust community as a  
24 groundbreaking example of individual state enforcement of  
25 federal merger law, made more notable because it involved a

1 vertical acquisition rather than a merger of head-to-head  
2 refinery competitors.

3           During the last two decades, the section has  
4 conducted several investigations into price fixing by  
5 California refiners, as you can imagine, most notably  
6 following price spikes. The one particularly memorable was  
7 Hurricane Katrina in 2005.

8           The most recent one, has led us to an antitrust  
9 lawsuit filed in 2020, not against refiners but against two  
10 global trading entities. That lawsuit concerns collusive  
11 trading practices occurring between 2014 and 2016, and it's  
12 scheduled to go to trial in September of next year. It's  
13 filed in San Francisco Superior Court. The case is  
14 currently in active and adversarial litigation, so my  
15 remarks about that, in response to any questions, are  
16 necessarily going to be limited, but I certainly do what I  
17 can to respond to your questions.

18           Thanks very much.

19           EXECUTIVE DIRECTOR BOHAN: Thank you very much.

20           Next up is David Hackett.

21           MR. HACKETT: Hi. Good afternoon. I'm glad to  
22 be here.

23           And I'm waiting for the deck to come up. Here we  
24 go. Next slide.

25           Severin Borenstein and I know that gas prices

1 have gotten too high when reporters call looking for an  
2 interview on the issue.

3 Next slide.

4 As the state's primary energy policy and planning  
5 agency, the Energy Commission is committed to reducing  
6 energy costs and environmental impacts of energy while  
7 ensuring a safe, resilient, and reliable supply of energy.

8 (Off mic colloquy)

9 MR. HACKETT: The issues include everyday high  
10 gas prices, price spikes due to refinery issues and  
11 geographic isolation, and historic rapid transition to a  
12 different form of transportation energy.

13 Next slide.

14 There are a lot of moving pieces.

15 Next slide.

16 Important information will be presented today.

17 Next slide.

18 The price spike was a supply issue caused by a  
19 reduction of refinery gasoline production over the summer  
20 by 88,000 barrels per day versus the prior year. This is  
21 the equivalent to a midsize refinery's output. We think  
22 this is generally a COVID hangover, but there are other  
23 factors as well.

24 Gasoline imports were also lower in 2021, caused  
25 by a near tripling of freight rates. This resulted in a

1 strong inventory draw to decade record low inventory  
2 levels. Consequently, spot prices rose as supply dried up,  
3 pushing retail prices up.

4 Next slide.

5 The two basic issues are the Energy Commission  
6 needs to take a serious look at the impact of local and  
7 state regulations on the viability of the oil industry, and  
8 the Commission needs to gain an understanding of how oil is  
9 priced along the supply chain to ensure that any measures  
10 applied to pricing issues are applied at the right place in  
11 the supply chain from the wellhead to the consumer.

12 A component of the mystery gas surcharge is the  
13 gross profit margin that can be defined as a difference  
14 between retail prices and black price. Stillwater's  
15 analysis indicates that this is higher than the rest of the  
16 country because of a lack of competition. One factor in  
17 the lack of competition is that California has twice as  
18 many licensed drivers per station as the rest of the  
19 country.

20 And then, finally, the CEC should review the work  
21 the Commission has done in the past in this area,  
22 especially including the work in 2002 and 2003 on the  
23 strategic fuel reserve and related issues.

24 Next slide.

25 Price spikes occur around unplanned refinery

1 maintenance and are more dramatic than the rest of the  
2 country because of the isolation from alternative supplies.  
3 After prices spike, retail prices are slow to return to  
4 prior levels.

5 Other components of the higher prices include  
6 that California has higher excise sales and local taxes,  
7 plus greenhouse gas fees that other states don't have.

8 Next slide.

9 Realistic assumptions on how fast transportation  
10 alternatives can come online are imperative. For example,  
11 according to Stillwater's analysis of ARB data, the real  
12 success story of the LCFS is renewable diesel, which makes  
13 up about 37 percent of diesel energy, while electric  
14 vehicles only make up about a half-of-one percent of light-  
15 duty vehicle energy. We are concerned that the fuels  
16 refineries will shutter before the transition is complete,  
17 leaving the market import dependent. We don't want the  
18 state's energy policy to export its strategic refining  
19 capacity to Asia, Pacific, or Europe.

20 Next slide.

21 Thank you.

22 EXECUTIVE DIRECTOR BOHAN: Thank you, David.

23 Next up is Catherine Reheis-Boyd.

24 We can't hear you. You're muted.

25 VICE CHAIR GUNDA: Catherine, your mic is muted

1 on your computer.

2 (Pause)

3 VICE CHAIR GUNDA: Yeah, we can hear you now.

4 EXECUTIVE DIRECTOR BOHAN: Okay. Perfect.

5 MS. REHEIS-BOYD: Okay. Thank you. Sorry about  
6 that. I had to have my technical assistant come in. I  
7 apologize. I'm fighting a very bad cold today.

8 Anyway, thank you for inviting me to discuss  
9 California's petroleum fuels market, which obviously is a  
10 very critical issue for the state, especially in relation  
11 to refinery operations and gasoline supply as we go  
12 forward.

13 We've all heard this morning that the cost of  
14 fuel to consumers in this state is a result of several  
15 complex market factors and public policy. The factors  
16 determining gasoline and diesel market costs are  
17 complicated, and they're influenced by several intertwining  
18 components, including consumer choice, global events,  
19 public policy, the supply chain, and market forces that  
20 really dictate supply and demand.

21 As pointed out by the CEC staff this morning,  
22 California's market is certainly uniquely expensive. We  
23 have a greater tax burden. We have higher environmental  
24 program costs. Our market is isolated, which makes us more  
25 vulnerable to higher costs due to lower supply. Our



1 refiners face high crude costs due to the need to import,  
2 as in-state production is artificially limited by  
3 government policy, and local and state policy is causing  
4 production of fuel to fall faster than consumption.

5 Now, despite these challenges, our WSPA members  
6 produce 42 million gallons of gasoline and 10 million  
7 gallons of diesel every day to meet the ongoing demand of  
8 transportation fuels for 35 million registered vehicles in  
9 the state. So, we meet this demand by producing  
10 California's unique clean and burning gasoline blend  
11 specifications. I've been around long enough that I  
12 unrolled three of those, while continuing to lower the  
13 carbon intensity of these fuels in line with the state's  
14 climate policies. And we do this in the most expensive and  
15 the most challenging operating and regulatory environment  
16 in the country.

17 So, we've talked a lot, I know, today about  
18 markets this morning, so I'd like to focus a little bit on  
19 the impacts of public policy. Because, frankly, these  
20 policies will be felt by the public regardless of market  
21 conditions.

22 Through public policy, the governor, the  
23 legislators, the regulatory agencies have the most  
24 opportunity to make changes that can positively impact  
25 Californians. The facts are policy decisions that have

1 been made and continue to be made have a direct impact on  
2 the cost of fuel for California families and businesses.  
3 And year after year, we adopt regulations and policies that  
4 have both prevented needed energy infrastructure from being  
5 built in the state, and we send signals to the market that  
6 has significantly curtailed investment in refining and  
7 production capacity.

8           In fact, ARB just two weeks ago, released their  
9 far-reaching and ambitious Climate Change Scoping Plan that  
10 assumes a phase-out of oil and gas production and refining  
11 capacity. So, while this Commission is just now  
12 considering a fuel study, and I greatly support that, to  
13 develop an understanding of the impact of climate goals on  
14 demand, reliability, and affordability, the ARB will adopt  
15 a plan in December that is based on a 94 percent reduction  
16 of demand of fuels by 2045.

17           As a result of these types of policies,  
18 refineries operating in this state were unable to  
19 manufacture enough gasoline and diesel to supply  
20 California's 35 million internal combustion engines.

21           We also have, we are isolated, as we heard this  
22 morning, from the rest of the country and the world when it  
23 comes to energy. There are no pipelines into California to  
24 import crude oil, and there are limited pipelines for  
25 refining fuels. Storage options are limited, capacity

1 limits at ports create further challenges. This isolation  
2 is a direct result of restrictive land use policy decisions  
3 and permit denials at all levels of government.

4 Our energy isolation, coupled with reduced in-  
5 state refining capacity, has created an environment where  
6 the state simply struggles to meet its demand for fuel,  
7 leading to cost volatility for Californians. These  
8 policies not only restrict the supply of refined fuels, but  
9 they continue to restrict the supply of crude oil by  
10 effectively banning new in-state production.

11 There is a better path than the one we are on  
12 now. The governor, the legislature, the regulators should  
13 focus efforts on removing policy hurdles being imposed on  
14 the energy industry so we can focus on providing  
15 affordable, reliable, and lower-carbon energy to all  
16 Californians. That is what we do. And when we are allowed  
17 to do our job, we lower cost, and we reduce emissions.

18 We also do not believe that banning supply and  
19 restricting capacity is a great plan. It has the  
20 consequences that threaten the state's economy and hurt  
21 consumers, especially those that are most vulnerable. And  
22 that is why we continue to support an all-of-the-above  
23 transportation fuels portfolio to address climate goals and  
24 lower costs to all Californians. It is an energy addition,  
25 and we are here to help make that happen.

1           So, I encourage this Commission to really focus  
2 on the root causes around California's fuel market  
3 volatility and focus its effort on real solutions,  
4 logistical constraints, infrastructure, storage, volume  
5 thresholds at docks, rail, marine terminal capacity, access  
6 to crude oil right here in our backyard. A serious  
7 independent study on how the state's goals and policies  
8 impact supplies and reliability of petroleum fuels should  
9 inform all policymakers before adoption of additional  
10 policies. We need policies that reduce costs, increase  
11 supply to meet demand as the state proceeds on its path of  
12 an energy evolution.

13           So, bringing down costs across the economy,  
14 assuring affordable, reliable energy, meeting our climate  
15 change goals, we believe, can be done simultaneously and  
16 cooperatively. There is a better way, and our industry and  
17 the people in it want to be a part of that and work with  
18 this energy Commission on the plan that was described this  
19 morning.

20           Thank you for the opportunity to speak with you  
21 today. I look forward to the panel.

22           EXECUTIVE DIRECTOR BOHAN: Thank you very much,  
23 Catherine.

24           Next up, Dr. Borenstein.

25           DR. BORENSTEIN: Great. Can you hear me?

1 EXECUTIVE DIRECTOR BOHAN: Yeah.

2 DR. BORENSTEIN: And would you put up my slides?

3 I'm a Professor at UC Berkeley's Haas School of  
4 Business and Faculty Director of the Energy Institute at  
5 Haas. I've been studying gasoline markets for about 35  
6 years, from oil markets down to retail. I served on the  
7 Attorney General's Gasoline Price Task Force in 1999. And  
8 along with Kathleen Foote and Dave Hackett, served on the  
9 CEC's Petroleum Market Advisory Committee from 2014 to  
10 2017, where I was Chair of the Committee for the last two  
11 years.

12 I'm quite concerned that this hearing is focusing  
13 almost exclusively on gasoline price spikes rather than the  
14 continuing high gasoline price levels, which the data show  
15 has been a much more significant problem for California  
16 drivers since 2015, and particularly for disadvantaged  
17 households.

18 Next slide.

19 This is a graph of what I call the mystery  
20 gasoline surcharge. This is California's retail price  
21 difference from the rest of the country after taking out  
22 California's higher taxes, environmental fees, cap and  
23 trade, Low Carbon Fuel Standard, underground storage tank,  
24 and so forth. It's pretty clear that there was a real  
25 break in February of 2015. Prior to that, this

1 differential between California and the rest of the country  
2 had been pretty much incompletely explained by the  
3 difference in taxes, and since then, we have had a  
4 consistent difference. We've never been in line with the  
5 rest of the country, and the difference has averaged about  
6 \$0.30 a gallon.

7           This is, I think, the real problem that  
8 California drivers face. In total since 2015, this amounts  
9 to over \$40 billion in extra costs of California drivers.  
10 That is a huge burden on all drivers, and particularly on  
11 the low-income drivers.

12           My numbers are slightly different, by the way,  
13 than the numbers you saw this morning. And the reason is I  
14 calculate the difference between California and the rest of  
15 the country, not California and the U.S. average. The U.S.  
16 average includes California, and when you do it that way,  
17 you understate the actual difference between California and  
18 the rest of the country.

19           Next slide.

20           I'm also very concerned that this hearing is  
21 focused primarily on the refining sector, because I think  
22 the data made clear, that's not where the problem is. This  
23 is the difference between L.A. spot price, these are the  
24 large shipment prices we heard about this morning, and the  
25 spot prices at New York and the Gulf Coast, the two other

1 major pricing points. There's no increase here over time.  
2 In fact, there's a slight downward trend. Yes, we saw a  
3 big uptick in 2015 and a big uptick again in 2022. But if  
4 you look at the total mystery gasoline surcharge, less than  
5 one-third of it is explained by differences in the spot  
6 price of gasoline in California. It's mostly not the  
7 spikes, and it's mostly not the refinery problem.

8           The difference is mostly downstream, and that  
9 means that this isn't an issue of crude oil costs, it's not  
10 an issue of import restrictions, it's not an issue of  
11 refinery supply constraints, it's not an issue of market  
12 isolation. Those may be playing a role in the third or  
13 less than a third we're seeing upstream at the refining  
14 sector, but in the vast majority of the differential, it's  
15 coming downstream. It's coming in the marketing,  
16 distribution, and retailing sectors.

17           Refiners continue to play a huge role there.  
18 They own some of the downstream stations, and they have  
19 tremendous control over the pricing of most of the other  
20 branded downstream stations. That, I think, is where the  
21 real problem is. That is a big part of what the Petroleum  
22 Market Advisory Committee tried to dig into, though we  
23 never really had the resources or the authority to do that.

24           I think the real answer is to have a serious  
25 Commission that has the resources and has the authority to

1 dig into what are going to be some pretty complex and  
2 subtle business competition issues in the downstream  
3 sector, which, while the refiners don't own most of those  
4 downstream stations, is still dominated by branded  
5 stations, by the major brands.

6 Two factors I will just point out.

7 First of all, California has a disproportionate  
8 share of gasoline, far higher than the rest of the country,  
9 going through branded stations. Those branded stations  
10 have a much higher differential to unbranded stations in  
11 California. With the 2018 GasBuddy data I studied at one  
12 point, the differential in the rest of the country was  
13 \$0.07. The differential in California was \$0.23. So we  
14 just don't have the competition and discipline from those  
15 off-brand stations, disciplining the gasoline market.

16 That is, I think, where we should be focusing  
17 when we think about California's gasoline price problem.  
18 Yes, the spikes attract a lot of media attention, as Dave  
19 and I know, when we get called constantly, but they're  
20 really not what's draining the pockets of most California  
21 drivers. They're not the major part. The major part is  
22 this constant higher gasoline price that appeared in 2015  
23 and has not been explained, and I think that's what we need  
24 to dig into.

25 Thank you very much.



1 EXECUTIVE DIRECTOR BOHAN: Thank you, Dr.  
2 Bornstein.

3 And our sixth panelist is Jamie Court.

4 Jamie, please make your introductory remarks.

5 MR. COURT: Yeah, if I could get my slide deck  
6 up, that'd be great. Thanks. First slide.

7 Thanks for having me. And I want to thank the  
8 governor for taking on this issue.

9 This is the problem, in my view, five oil  
10 refiners make 97 percent of our gasoline, and when they  
11 want to squeeze us, they can.

12 Next slide.

13 And the way they squeeze us is \$2.60 difference  
14 between U.S. prices, and it's consistently \$1.00, \$1.25,  
15 but we went up to \$2.60 difference. And if you look at  
16 taxes and environmental rules, they add \$0.69 per gallon.  
17 So where's that money going?

18 Next slide.

19 It's going to windfall profits. There's no  
20 question that there was huge windfall profits for the five  
21 big oil refiners this year. If you look at their total  
22 profits, they went up by almost four percent -- excuse me,  
23 only almost four times, quadrupled, \$67 billion in raw  
24 profits for the first nine months this year, \$17 billion  
25 last year, first nine months.

1           Next slide.

2           We went more granular. We went to the refining  
3 margins in California or the West. The oil refiners report  
4 their refining margins regionally, so we know the West, and  
5 we know for some of them California. And we looked at the  
6 last 20 years for how much they're making off refining  
7 gasoline, the difference between the crude oil price and  
8 the petroleum that comes out. And the petroleum is not  
9 just gasoline, it's also diesel and jet fuel, but it's a  
10 comparable measure of profitability.

11           And over the last 20 years, it was an average  
12 \$0.32 per gallon. It comes out by barrel, we divide by 42,  
13 we get a per-gallon price. Per-gallon profits were \$0.32  
14 over the last 20 years. And only a couple of times did  
15 they get over \$0.50. Chevron got over \$0.50 per gallon  
16 three times in the last 20 years.

17           Next slide.

18           But as you can see, they all got over \$0.50 per  
19 gallon this year in profits. They broke that windfall  
20 profit barrier. In fact, the four refiners that report  
21 profits -- next slide -- on a quarterly basis never hit  
22 \$0.50 per gallon in the last 20 years. They were an  
23 average of \$0.69 per gallon in profit in 2022. The oil  
24 refiners in California doubled their profits. These are  
25 unprecedented profits. They're unprecedented windfall

1 profits. And it's all because of the market power of the  
2 oil refiners.

3 In quarter two and three, look, \$0.86 per gallon,  
4 average \$0.73 per gallon. And we don't even know Chevron's  
5 profits because it does not report on a quarterly basis.  
6 We'll know at the end of the year.

7 Next slide, please.

8 We looked at those profits compared to all across  
9 America and all across the world, and California oil  
10 refiner profits were 30 percent greater in California and  
11 the West than anywhere else in the world. So, they've  
12 doubled their profits from historical levels and they've  
13 charged us 30 percent more profits per gallon.

14 Next slide.

15 And this is another expression of that, it's each  
16 company of the four companies that report. The solid line  
17 is their U.S. profits in the guidelines are California  
18 profits.

19 Next slide.

20 There is no question we have windfall profits.  
21 And if you look at that \$0.50 windfall profit cap, that  
22 \$0.50 line that's only been crossed three times in the last  
23 20 years, and you take everything above that, and we divide  
24 it up by market share, by how many gallons of gasoline sold  
25 approximately, you come out with the four refiners that

1 report profits for the first three quarters, owing  
2 Californians \$1.8 billion back in windfall profits. And  
3 that doesn't include Chevron, which is 30 percent of the  
4 market.

5 Next slide.

6 So, this is why we need a windfall profits cap.  
7 We need a line, because the oil refiners have gone way over  
8 that line, and they owe us, literally, hundreds of millions  
9 of dollars each.

10 Next slide, please.

11 So how did this happen? If we don't create a  
12 windfall profits cap, a price gouging rebate, we're going  
13 to be an ATM for these oil refiners in perpetuity. We need  
14 that.

15 But we also need something else. We need  
16 transparency in the spot market. I'm just going to go  
17 briefly into the spot market. I can talk more about the  
18 panel. The spot market is the place where the price is set  
19 between the gas station and the oil refiner. The oil  
20 refiners charge their gas stations more for gas and we pay  
21 more for gas, and a lot of that price is determined on the  
22 spot market. The spot market is a really nontransparent  
23 entity.

24 And if you want to look at the abuse in the spot  
25 market, I'd go to Kathleen Foote's case, where she has

1 traders basically jacking up the spot market price through  
2 paper trades that never transpired in order to jack up the  
3 spot market price. And when that spot market price went  
4 up, everybody paid more for gasoline because the price at  
5 the pump is determined by the spot market.

6           If we want to get to the issues of how prices go  
7 up so suddenly, \$1.00, \$1.20, we have to get to  
8 transparency in the spot market. We need a public ledger  
9 of all transactions. You heard Gordon say they don't know  
10 who's selling to whom or for how much. We need a public  
11 ledger of all those transactions in the spot market. And  
12 we need the attorney general, frankly, empowered to  
13 investigate that ledger and make sure that those trades are  
14 on the up and up and they're not just accomplished in order  
15 to jack up the price of gas.

16           Thank you, Jamie.

17           EXECUTIVE DIRECTOR BOHAN: Now it's time for our  
18 question and answer portion of the meeting. And we've  
19 covered some of the ground that's reflected in these  
20 questions, but we want to spend some time drilling down  
21 into each one of them. And each of them, we're going to  
22 ask you. We're going to make about 15 minutes for each  
23 question. And we've selected a couple of the panelists to  
24 focus on these questions.

25           Please keep your videos on, however, panelists,

1 because we want to give everyone an opportunity to weigh  
2 in.

3 But on the first one, I'll ask David to weigh in,  
4 followed by Jamie, and then Severin. Here's the question.  
5 It should be up on the screen, but I'll read it.

6 Why did gasoline prices rise so dramatically and  
7 suddenly over the summer, leading to the highest  
8 differential between California and U.S. prices, despite a  
9 sharp downturn in global crude prices, no significant  
10 planned -- unplanned, excuse me, refinery outages in the  
11 state, and no increases in state taxes or fees?

12 I'll ask David to weigh in first.

13 David?

14 MR. HACKETT: Sure. The refineries ran very  
15 poorly in this timeframe. We're talking about the summer,  
16 probably starting in the May-June timeframe. And so our  
17 numbers, our analysis, indicates that production was off  
18 by, in total, about a whole refinery's worth. So there was  
19 less gasoline production.

20 And imports dropped, dropped to levels that were  
21 lower than 2021. And this is because freight rates  
22 tripled. Freight rates tripled. That is what you had to  
23 pay for a ship. If you wanted to charge your ship, this is  
24 what you had to pay for and it was three times as it was  
25 normally. And this is due to the Ukrainian War and the

1 redistribution of global flows of petroleum. Ships,  
2 instead of going from Russia to Europe, a four-day trip,  
3 now going from Russia to India, which takes three weeks.

4           And then Europe had to be backfilled out of  
5 alternative markets, including the United States, so  
6 product flows changed dramatically. That jacked up tanker  
7 rates.

8           All that resulted in a draw in inventory and high  
9 spot prices.

10           EXECUTIVE DIRECTOR BOHAN: Thank you, David.

11           Jamie, you heard from David. You indicated you  
12 have a different view. Let me give you an opportunity to  
13 respond.

14           MR. COURT: Two issues. One is, initially when  
15 profits went up and prices went up, it was due to the  
16 Ukrainian situation, and the global crude prices did go up.  
17 But the thing is, the profits went up for the oil  
18 refineries because they were operating on long-term  
19 contracts. And those long-term contracts were much less  
20 than the actual world price of crude. So that's one of the  
21 reasons they made so much profit initially when these  
22 prices spiked.

23           But the other issue is the spot market. And when  
24 refineries went down, and I don't even believe there were  
25 that many refineries that went down, the price of gas went

1 up, not because it cost the oil refineries more to make  
2 that gasoline, which is why they had such great profits, it  
3 went up because of the spot market price.

4           So, what happens is the spot market is a place  
5 where it's supposedly a barometer for the commodity. When  
6 refineries need it, they buy it. It drives up the price.  
7 When they have more, they dump it, it should drive down the  
8 price. If it worked perfectly like that, we'd be great.  
9 But the spot market doesn't work like that.

10           The spot market is a market that operates really  
11 dysfunctionally. Not every trade has to be recorded. It's  
12 based on the price that is listed in OPUS, which is the Oil  
13 Price Information Service, an industry newsletter. There's  
14 no public ledger for the spot market. We don't know who  
15 sold for how much. And that's why it's open to the type of  
16 abuse the attorney general is prosecuting right now.

17           And if the refiners want to, they can jack up the  
18 price on the spot market because no one's watching, because  
19 one trade or two trades or one sale recorded appropriately  
20 on the spot market will send the price going up. So if  
21 there's word that refinery goes down and that translates  
22 into a trade on the spot market, that spot market price is  
23 then tied to what the gas station owner pays the refiner.  
24 And everybody in the state pays more because of that one  
25 trade on the spot market.



1           Which is why I think the key to this is getting  
2 more transparency in the spot market and getting it all out  
3 in the open so that we can actually track the trades and  
4 see if they're meant or designed to drive up the price of  
5 gas.

6           EXECUTIVE DIRECTOR BOHAN: Thank you, Jamie.

7           Severin, you've indicated a broader suite of  
8 issues you're concerned about. But if you could, just  
9 focusing on September, what in your judgment happened?

10          DR. BORENSTEIN: Yeah, so I'm going to take a  
11 middle ground here. I think that there's no question,  
12 there was a shortage of supply. And what Jamie described  
13 as a dysfunctional market, I think most people would call a  
14 commodity market. When the marginal supply is very  
15 expensive, it drives up the price. That's true in the  
16 crude oil market. It's true in the natural gas market.

17          The question is: Was that supply so tight because  
18 of real shortages or were those fabricated shortages?

19          And the problem we face in the spot market right  
20 now in California is that the market is so concentrated  
21 that when the market gets very tight, it can be in the  
22 interest of a refiner to reduce their output in order to  
23 drive the price even higher. And we saw exactly this in  
24 the California electricity crisis in 2000. When you're in  
25 a very tight market, you have inelastic demand, it can be

1 worth it to put a little less product out on the market in  
2 order to drive up the price.

3           But I want to add one other thing. If you look  
4 at what happened to the California spot price, that event  
5 was over in two weeks. It went way up and it came way  
6 down. California is still in a retail price spike two  
7 months later. And this has nothing to do with the spot  
8 price. The spot price has been in line with the rest of  
9 the country for the last seven weeks and we are still in a  
10 retail price spike.

11           And the reason is downstream, that decrease.  
12 Yes, there's a rockets and feathers phenomenon. I wrote  
13 one of the first papers on it, but it is a much longer  
14 gradual decline in California than you would expect to see  
15 normally. And I think that is a really important question  
16 to investigate. Because if retail prices had gone up and  
17 come down as fast as the spot price did, we would not have  
18 seen much of a problem for consumers. It would have been a  
19 couple of weeks of pain and over. But that's not what  
20 we've seen. And even right now, the mystery gasoline  
21 surcharge as of today, is about \$0.80 a gallon. Sorry, I  
22 work on too many energy subjects.

23           MR. COURT: Can I ask a question to Severin?

24           Severin, would you support a public ledger of all  
25 trades on the gasoline spot market the way the electricity

1 spot market and FERC has a public ledger?

2 DR. BORENSTEIN: I would have to think about  
3 that. I very well might. I think that I would have to  
4 think through what that would do to the actual operation of  
5 the spot market.

6 But I think greater transparency -- but, you  
7 know, even if, Jamie, even if you're right and there is  
8 manipulation of the spot price upward, but through these  
9 sorts of trades that you're talking about, when you look at  
10 the data, that's not where most of the price premium is.  
11 Most of the price premium is on top of even that reported  
12 spot price. So, we really need to focus downstream.  
13 That's where the biggest problem is.

14 EXECUTIVE DIRECTOR BOHAN: Great. Well, let me  
15 ask, Elena, Kathleen, Catherine, would any of you like to  
16 weigh in on this question of what happened in September  
17 specifically?

18 MS. REHEIS-BOYD: Well, I do think the one  
19 comment I make is I find it interesting, Jamie, that you  
20 did not mention 2019 and 2020 where these refiners lost  
21 billions of dollars.

22 EXECUTIVE DIRECTOR BOHAN: Jamie, how do you  
23 respond to that?

24 MR. COURT: Well, I mean --

25 EXECUTIVE DIRECTOR BOHAN: We got a letter.

1 MR. COURT: I thought it was a rhetorical  
2 question.

3 EXECUTIVE DIRECTOR BOHAN: We received a letter  
4 from the --

5 MR. COURT: I mean, when the profits double and,  
6 you know, and when we say windfall profits, I mean, these  
7 are historic profits, people are -- when you have the  
8 difference between \$6.00 gas in California and \$4.00 gas in  
9 America, something is really wrong. And it's clear, it's  
10 coming out in the profit taking. And it's clear that  
11 people are paying the price for that.

12 So, I'm not going to cry for the refiners.  
13 They've had a really good business over the long haul and  
14 an amazing business this year. I'm going to cry for the  
15 people who can't afford to get to work because they got to  
16 pay \$6.00 a gallon gas.

17 EXECUTIVE DIRECTOR BOHAN: This might be a good  
18 time to move to the second question, which drills into this  
19 question of profits. Let me ask our assistant to put the  
20 next question up, I will read it, and that is: How do you  
21 respond to recent reports that gasoline price spikes also  
22 yielded record profits for oil companies?

23 And I would note Catherine's suggestion -- or  
24 question suggested, as did a letter we received from one of  
25 the refiners, that the difficulty some of the members of

1 the industry experienced in the past years might have been  
2 made up in this period when they had an opportunity to  
3 gather more profit. I guess that's a part of the focus of  
4 this question as well.

5           What do you think about the profits generally?  
6 And should five, or a very small number of players, simply  
7 be able to dictate whatever profits at whatever time they  
8 see fit?

9           And let me ask David to first respond.

10           MR. HACKETT: Well, I think that overall the year  
11 has been very strong for anybody who's an energy producer.  
12 So, margins have been up for refiners around the world.  
13 It's not just the five here, or Exxon, but also BP, Total  
14 (phonetic), and others. And so because the war created all  
15 these dislocations, that coupled with changes in  
16 consumption, have led to higher prices and greater  
17 profitability for the energy suppliers. So that's true  
18 across the board and it doesn't have anything, necessarily,  
19 to do with the price spike in September.

20           From my perspective, I think the whole issue here  
21 is how to ensure supply of transportation fuels. And I  
22 think the government did us all a great service by  
23 declaring winter a month early and allowing for the  
24 blending of winter grade gasoline in October instead of  
25 November. So that moved increased supply and drove the

1 prices down.

2 I happen to agree with Severin that these  
3 persistent high prices have to do with the issues in the  
4 marketplace, the structure of the market, and the way  
5 everything's put together, and you heard my views on that.  
6 And the price spike here is a transitory thing caused by a  
7 combination of maintenance and other war-related issues.

8 EXECUTIVE DIRECTOR BOHAN: Jamie, your turn.

9 MR. COURT: Well, look, I'm all for refiners  
10 making a reasonable profit and, you know, \$0.32 per gallon,  
11 \$0.40 per gallon, even \$0.50 per gallon. But when they  
12 cross a threshold that they haven't crossed in 20 years,  
13 and we're paying them \$6.00 a gallon and they're  
14 quadrupling their profits, something's wrong.

15 All we're talking about with a windfall profit  
16 cap is setting a reasonable level of profit. Having an  
17 incentive to serve this market is not hard. This is a very  
18 profitable market for them. And this year it was windfall  
19 profitable. So, setting a reasonable level of profit is  
20 all we're talking about.

21 The problem, though, goes back to the  
22 consolidation. It goes back to the five oil refiners that  
23 make 97 percent of the gas. And that's what the heart is  
24 at the heart of Severin's problem. It's what's at the  
25 heart of my problem. It's the reason we have a \$1.20

1 difference with California gas prices and U.S. gas prices,  
2 when it should be \$0.70, if you believe me, \$0.80, if you  
3 believe Severin, it's that market power and the way the oil  
4 refiners have consolidated the market and exercised that  
5 power. We're putting Band-Aids on that. But because of  
6 that power, we need to set a reasonable limit or we're  
7 going to get gouged again. We need that price gouging  
8 penalty, otherwise it's going to go on again.

9 EXECUTIVE DIRECTOR BOHAN: Catherine, how do you  
10 respond to that?

11 MS. REHEIS-BOYD: Well --

12 EXECUTIVE DIRECTOR BOHAN: Jamie's point is --

13 MR. COURT: -- yeah.

14 EXECUTIVE DIRECTOR BOHAN: You heard it.

15 MS. REHEIS-BOYD: I mean, yeah, I get his point,  
16 I don't agree with it, which isn't a surprise to Jamie. We  
17 don't agree on much.

18 But, you know, the example that was given on the  
19 winter grade gasoline is exactly what happens when you  
20 remove a costly policy. It had the exact result. It  
21 lowered cost.

22 So, we need to continue to look at policies that  
23 have a negative impact on affordability while we're going  
24 down this path. Because if we don't, my view is if we  
25 don't, the plan for California's climate policy will

1 struggle, if not fail. We have got to make sure on this  
2 path that we continue to supply affordable, reliable fuel  
3 to meet demand, even as demand is declining. And I hope  
4 that this Energy Commission study takes that very  
5 seriously.

6 And the reason we only have the amount of  
7 refineries we have now, Jamie, if you would look back in  
8 the past, we had a bunch more of them that went out of  
9 business.

10 MR. COURT: I know I fought to keep one open in  
11 Bakersfield, if you remember.

12 MS. REHEIS-BOYD: I do. I do. And so --

13 MR. COURT: We've been fighting to keep these  
14 refineries open. And why are we going -- why are we  
15 closing two more down to convert them to biofuels?

16 MS. REHEIS-BOYD: You know, I find it --

17 MR. COURT: That's going to drive up the price.

18 MS. COOK: -- I find it absolutely amazing that  
19 the state wants us to produce renewable diesel, a diesel  
20 that has no fossil in it, and then you want to crucify us  
21 for doing it. It is a bit hypocritical.

22 MR. COURT: I'm not the state but I do know this,  
23 that the less gasoline you make, the more money you make,  
24 so you make less gasoline. And it plays into your goals as  
25 well.



1 MS. REHEIS-BOYD: I don't agree with that, as you  
2 know.

3 EXECUTIVE DIRECTOR BOHAN: Catherine, as the  
4 representative of industry, just focusing on this question  
5 and profits, do you think there's any point at which it  
6 makes sense for government to intervene and say, whether  
7 it's \$0.50 or a \$1.00 or whatever it is, that there should  
8 be some sort of tax imposed above a certain amount?

9 MS. REHEIS-BOYD: You cannot tax your way out of  
10 this problem. The only result of a windfall profits tax  
11 will make the problem worse. You are sending the absolute  
12 opposite investment decision or investment indication to  
13 anyone who wants to continue business here.

14 So, no, I don't agree with that premise at all.  
15 It hasn't worked in the past and it won't work in the  
16 future. And it will make the problem worse.

17 EXECUTIVE DIRECTOR BOHAN: Dr. Borenstein --

18 MR. COURT: The it will make the price spikes go  
19 away --

20 EXECUTIVE DIRECTOR BOHAN: -- you have the right  
21 to jump in.

22 MR. COURT: -- because the price spikes will be  
23 illegal.

24 DR. BORENSTEIN: So, can I say a few things?

25 First of all, the windfall profit tax would not

1 lower gas prices, it would simply claw back some of the  
2 profits from those high prices.

3 MR. COURT: Wait a second, Severin. Actually, if  
4 we put a cap on it that said you can't make over \$0.50 --

5 DR. BORENSTEIN: Right.

6 MR. COURT: -- it would be discretionary. It  
7 would pay off the cap.

8 DR. BORENSTEIN: If we put a cap on prices, we're  
9 very likely to --

10 MR. COURT: Cap on profits, not prices.

11 DR. BORENSTEIN: -- (indiscernible).

12 MR. COURT: Every price spike is followed with a  
13 profit spike.

14 DR. BORENSTEIN: Are you done, Jamie? Can I talk  
15 now? Okay.

16 I don't have as much experience with antitrust as  
17 Kathleen does, but I have quite a bit. And I will tell you  
18 that if you come into an antitrust case and say this  
19 company made a lot of money, nobody is going to take you  
20 seriously with any allegations that they've done anything  
21 nefarious. That is a piece of information, but that is in  
22 no way an indication of bad behavior.

23 There are plenty of companies who make high  
24 profits, like Saudi Aramco, simply by -- well, Saudi Aramco  
25 is a bad example, they do exercise market power, but a low-

1 cost oil producer simply by being in a market. Any of us  
2 who have sold a house in California have made huge profits  
3 on it in the last 20 years. We weren't exercising market  
4 power. It is concerning, but it is not the fundamental  
5 problem.

6           The other thing I will note is that Catherine  
7 referred -- Cathy referred to the governor's policy shift.  
8 That was almost two months ago. We still have a huge  
9 mystery gasoline surcharge hangover from that price spike.  
10 And that's not in the spot market. That is downstream.  
11 And that's where most of the money has drained out from  
12 this last price spike.

13           EXECUTIVE DIRECTOR BOHAN: Catherine, what do you  
14 make of --

15           MR. COURT: I find it interesting --

16           EXECUTIVE DIRECTOR BOHAN: -- Severin's so-called  
17 mystery surcharge?

18           MS. REHEIS-BOYD: Well, Severin and I have not  
19 agreed on the mystery surcharge, I think, since day one. I  
20 think I agree with him that I'm beginning to feel like I  
21 have a hangover, but that's not it.

22           DR. BORENSTEIN: Well, unfortunately, that is  
23 generally the oil industry's response, which is no response  
24 at all. The typical response is, well, California has  
25 higher taxes and fees. The mystery gasoline surcharge

1 removes the higher taxes and fees. So that's not an  
2 explanation.

3           What I'm showing in that graph is just data. No  
4 one in the oil industry or anywhere has come forward and  
5 said your data are wrong or you're misinterpreting them or  
6 there's a mistake of any sort. That's just data. Prior to  
7 2015, there was no mystery gasoline surcharge. The  
8 differential was pretty much exactly the difference in  
9 taxes and fees. Since February 2015, the average mystery  
10 gasoline surcharge has been about \$0.30, probably closer to  
11 \$0.35 a gallon now. That totals over \$40 billion. I  
12 haven't heard anything out of the California oil and  
13 refining industry that explains that.

14           EXECUTIVE DIRECTOR BOHAN: Well, let's give them  
15 a chance to respond.

16           MR. COURT: I think we can explain that --

17           EXECUTIVE DIRECTOR BOHAN: Jamie?

18           MR. COURT: -- with the cost --

19           EXECUTIVE DIRECTOR BOHAN: Jamie, why don't we  
20 let the industry respond if they wish to? Not hearing.

21           David, you're an expert in this area. Do you  
22 want to jump in?

23           Jamie, we'll get to you after David.

24           MR. HACKETT: Sure. I think Severin's math is  
25 correct. I don't disagree with his math. Actually, I feel

1 like it took him a while to get to this point. We've been  
2 saying this for some time, that the profitability has grown  
3 downstream. I agree with that.

4 And so, then you've got to wonder, well, how  
5 come? What's going on with competition that doesn't  
6 destroy these economic rates, this excess profit?

7 And the best explanation I've got is that there  
8 aren't enough gas stations, twice as many licensed drivers  
9 in California per station as in the rest of the country.  
10 And that's the rest of the country, not U.S. average, so  
11 I've learned that one from Severin, which is, you know, I'm  
12 afraid I'm going to get thrown out of the room when I say  
13 there aren't enough gas stations, but them's the facts.

14 EXECUTIVE DIRECTOR BOHAN: So, if you could,  
15 fewer gas stations, how does that lead to this durable --

16 MR. HACKETT: There's less competition. Drivers  
17 have fewer choices in their buying experience in California  
18 than they do in other parts of the country. And so, this  
19 is very similar to Severin's argument that there aren't  
20 enough unbranded stations. Arguably, I'd say there aren't  
21 enough stations in total. And this is one of the reasons  
22 you see the skewed numbers on the big box retailers versus  
23 the major brands; right? The big boxes do a lot more  
24 volume here.

25 And, indeed, I think one of the things that came

1 out of PMAC (phonetic) was, and this is really indirect,  
2 was when we were talking about these issues, I said, what  
3 about the volume-weighted stuff? I wound up talking to the  
4 Energy Information Administration and they said, "Yeah,  
5 we're looking at it. We realize it's an issue in  
6 California." And so, a couple years later, and you saw  
7 this in the statistics, they rolled out a volume-weighted  
8 survey that shows the spread between -- a difference  
9 between their numbers and GasBuddy. I use GasBuddy all the  
10 time because I really like their numbers, but it's not  
11 volume weighted. So, this is a different market than the  
12 rest of the country, but there aren't enough stations.

13 So, then you say, well, why not?

14 You know, when I go to industry conferences and I  
15 talk to retailers, big retailers who are building stations  
16 all over the place, Wawa and Sheetz and BJ's and big brands  
17 like that, right, "Why don't you come to California?"

18 "We're not coming to California. You know, you  
19 guys got all these goofy regulations. You don't like  
20 business. You know, we're quite happy with what we're  
21 doing in Oklahoma or Kansas or Texas or Pennsylvania, and  
22 we don't need to come to California."

23 So, in many respects, the regulatory scenario  
24 that we have here in California creates barriers to entry  
25 to new market participants.

1 EXECUTIVE DIRECTOR BOHAN: Great.

2 Jamie, I know you wanted to jump in. Please do.

3 MR. COURT: Well, I just, I don't find it a  
4 mystery. I mean, after the Exxon refinery went down in  
5 Torrance and we had PMAC, we were the guys who came to PMAC  
6 and said, look, there's a difference between branded and  
7 unbranded prices for the first time in California. It used  
8 to be branded, unbranded, prices were maybe \$0.03. Then  
9 they suddenly went up to \$0.30. And this was a way that  
10 the refiners had of sustaining their profits when the  
11 refinery came back online.

12 And that, to me, all goes back to the oil  
13 refiners having too much market power over the situation.  
14 There are five refiners, they make 97 percent of the gas,  
15 and they have branded contracts with over 66 percent of the  
16 branded stations. And those branded stations, they sell  
17 their gas at \$0.30 to \$0.40 more, which is why you can buy  
18 gas \$0.30 to \$0.40 less in unbranded stations, or  
19 hypermarkets like Costco.

20 And that's how they get more profits because --  
21 and I don't know, I think it would be very useful to have  
22 disclosure of the contracts between the retail stations and  
23 the refiners so we know how it works, so we know how the  
24 money flows. But clearly the refiners drove that situation  
25 because when they make \$0.40 more at their gas stations,

1 that comes back to them.

2 EXECUTIVE DIRECTOR BOHAN: All right, great.  
3 Let's move to the third question. We're at time. And this  
4 is looking at immediate measures.

5 So, I'll ask that we put the next question up,  
6 which is what are your recommendations on immediate  
7 measures California should consider to address the  
8 differential between California and U.S. prices and to  
9 avoid sudden spikes?

10 Second, what are the key questions policymakers  
11 should consider when evaluating remedies and strategies?

12 Let's start with Catherine, and then we'll go through  
13 the group.

14 MS. REHEIS-BOYD: Well, you probably won't like  
15 any of my answers, but I think short term and long term, I  
16 mean, we've banned -- we're looking to ban our domestic  
17 California crude production, which is only going to require  
18 more imports at a higher cost and increase greenhouse gas  
19 emissions. That's our first plan. This is the California  
20 plan. We're doing everything we can to limit refineries  
21 from increasing their capacity. We in the state are making  
22 decisions to eliminate gasoline stations at the local  
23 level. This is happening around the state. We've got  
24 capacity problems at the ports, even though when we want to  
25 have and need more imports because we won't produce crude



1 oil here.

2           So, we have a tight market and a reduced  
3 resiliency when something happens. And I'm just amazed  
4 that we're all surprised this has an impact on cost. These  
5 are all of the things that we should be looking at. I  
6 don't agree that it should be done with bans and mandates.  
7 So, what would I do short-term? I'd get rid of bans and  
8 mandates, but that's not going to be something that's too  
9 popular at this hearing.

10           I would also look at an all-of-the-above energy  
11 strategy and an energy addition versus a single technology.  
12 I don't think putting all our eggs in one basket is a great  
13 idea to limit cost impact and increase affordability as we  
14 go down the energy evolution. Probably also not a popular  
15 suggestion at this hearing.

16           So, I mean, I just, I guess I'll leave it at that  
17 for the moment. My frustration will begin to surface.

18           EXECUTIVE DIRECTOR BOHAN: I just want to  
19 reiterate what our Vice Chair said earlier, and that's we  
20 really do genuinely want to hear all suggestions, so your  
21 suggestions are not unwanted. We're going to listen to  
22 them all and try to develop policies based on that.

23           Let's move next to David.

24           MR. HACKETT: I think it's important that the  
25 state policy doesn't restrict transportation fuel supply,

1 and a lot of that comes back to -- you'll see this when you  
2 look at my slides that are on the record in the docket --  
3 the funding capacity in this state has shrunk over the last  
4 20 years, and the rest of the country has grown by 19  
5 percent, something like that. And so, the policy of the  
6 state to run these people out of business, that's the  
7 stated objective, you know, we're going to get rid of  
8 petroleum.

9           So, the challenge gets to be, okay, fine, I don't  
10 think anybody disagrees with that, how do you do it without  
11 causing these kinds of pricing problems? And so, this  
12 becomes a supply issue.

13           I cannot see why gasoline price controls, like  
14 windfall profits, are a price control measure; right?  
15 Price controls cause poorer service and higher prices, they  
16 always have, and so I don't think that has anything to do  
17 with gasoline supply. You know, it has everything to do  
18 with getting back at evil oil, but it won't put another  
19 gallon on the market.

20           EXECUTIVE DIRECTOR BOHAN: Thank you, David.

21           Jamie?

22           MR. COURT: Well, I think a windfall profits cap  
23 will keep price spikes from happening, because if you have  
24 a cap -- and we know with price spikes there are always  
25 profit spikes, we've seen this this year -- you will

1 prevent the gouging that comes with those price spikes.  
2 There's no question about it. There's no question. Now,  
3 is that a long-term solution on the gap between U.S. and  
4 California prices? It's part of the solution. It's part  
5 of the solution.

6 I think transparency is another part of the  
7 solution. I think we need transparency in the spot market.  
8 I think we need transparency to understand what's going on  
9 between the gas -- the retail gas station and the refiner,  
10 because we haven't seen those contracts between them  
11 exactly where the money's flowing. We need that  
12 transparency. And I think that those are good steps to try  
13 to get the market under control while we transition out of  
14 it.

15 There is, you know, there is enough money in  
16 California for oil refiners to invest in their refineries  
17 and keep the gasoline flowing until we make that transition  
18 in 2035, and there's still going to be money for all the  
19 vehicles that haven't transitioned yet. You know, I find  
20 this argument that they can't keep their refineries up  
21 because they're going to be going out of business in 10 and  
22 12 years to be just -- I mean, you know what? This market  
23 is so powerful and so rich for them. So, I think that's  
24 really a rhetorical argument.

25 The question is: How do we get that transition to

1 the nonpetroleum market? And that is going to be a  
2 difficult, difficult thing, and I don't have that answer.  
3 But I think if we all work together, we can figure it out.

4 EXECUTIVE DIRECTOR BOHAN: We haven't heard from  
5 you in a little bit, Kathleen. what do you think might be  
6 some immediate measures we ought to consider?

7 MS. FOOTE: Well, it's at this point, I suppose,  
8 that I should issue my usual disclaimer that I'm speaking  
9 for myself and not necessarily for my attorney general or  
10 any past or future attorney general.

11 But I think it's fair to say that gas prices are  
12 going to continue to be a priority area for antitrust  
13 enforcement. Market power is an issue in all these markets  
14 at all the different levels that Jamie and Severin and Dave  
15 have been discussing. So, some kind of antitrust scrutiny  
16 is very likely from our office, from the Federal Trade  
17 Commission, from other states, all of whom have been  
18 looking at these things for years.

19 That said, litigation, whether, from my personal  
20 experience, whether it be to block a merger, as in the  
21 Valero case several years ago, or to remedy price  
22 manipulations of the spot market, as in the case we're  
23 currently pursuing, requires a major investment of manpower  
24 and money by the enforcing agencies, an active lawsuit. An  
25 active lawsuit for us requires one-third of our staff, if

1 not more, and millions of dollars in external costs. So  
2 basically relying exclusively on litigation as a solution  
3 is not a good idea.

4 There are, obviously, a lot of other options out  
5 there that are being kicked around. Some of them are ones  
6 that we've certainly talked about internally, but they're  
7 largely outside the jurisdiction of the AG's office.

8 So, with that said, I think deferring to the  
9 others on some of the bigger and better ideas.

10 EXECUTIVE DIRECTOR BOHAN: Dr. Krieger, is this  
11 one you care to weigh in on?

12 DR. KRIEGER: Sure, I think, just briefly.

13 I think about this sort of in a longer-term  
14 transition viewpoint, but as one of the solutions is trying  
15 to ensure that some of our lowest-income households have  
16 access to more efficient cars and newer cars. Currently,  
17 they have some of the lowest-efficiency cars and oldest  
18 cars out there.

19 And so, providing financing for purchasing new  
20 cars, for purchasing electric vehicles, financing for home  
21 charging systems, and once you switch to electric vehicles,  
22 ensuring that there's some kind of discounted electricity  
23 rate or percentage of income payment plan in place in order  
24 to continue to keep those costs low, I think are part of  
25 the long-term strategy.

1 EXECUTIVE DIRECTOR BOHAN: I think that's a  
2 perfect opportunity to go to our next question.

3 Question four is -- we'll ask that it go up on  
4 the screen -- what's your perspective of the impact of  
5 California's higher gasoline prices and price spikes on  
6 consumers, households, and communities?

7 You were just talking about that, Dr. Krieger, if  
8 you could just expand a little bit?

9 DR. KRIEGER: Yeah. So, California is an  
10 expensive place to live. Housing is expensive. Food is  
11 expensive. Gasoline is expensive. And these costs have  
12 disparate impacts on populations across the state. As I  
13 just said, lower-income households have older cars and  
14 lower-efficiency cars on average. Rural households tend to  
15 own older cars, cars with lower fuel efficiency, and drive  
16 almost 20 percent more miles than urban households. Richer  
17 households drive more overall, which may be due in part to  
18 their ability to afford it.

19 Calculating the average percentage of household  
20 income spent on gasoline is hard, but Argonne National Lab  
21 recently estimated that, nationally, households spend about  
22 3.3 percent of their income on fuel. In California, during  
23 October's price spike, the median California household  
24 driving the average distance would have spent 7.2 percent  
25 of their income, dropping back to about 5.8 percent for

1 today's prices. Again, these spikes affect households  
2 differently. Thirty percent of Californian households make  
3 less than \$50,000 a year.

4           Low income? No. I took a look at what these  
5 price spikes would mean for households making \$25,000 to  
6 \$50,000 a year, low income, but not the lowest. While  
7 these households tend to drive less than average, the  
8 average household in the middle of this range making, say,  
9 \$38,000, would have spent about 14 percent of their income  
10 on fuel during those October price spikes. Even today,  
11 they would spend 11 percent of their income on fuel. For  
12 rural households, that number jumps to 19 percent of their  
13 income in October. And remember, for certain households,  
14 it's much higher across the spectrum.

15           So, let's put this in the context of some of the  
16 presentations we heard earlier. Severin estimated an  
17 inexplicable surcharge of what looked like about \$1.40 per  
18 gallon in October. That mystery surcharge alone would be  
19 three percent of income for our \$38,000 per year household,  
20 nearly the same as average total fuel cost burden estimated  
21 by Argonne National Lab for the entire United States.

22           Severin, please correct my numbers, but assuming  
23 from your graph that the chronic surcharge in 2022 is about  
24 half that, then that would come to 1.5 percent of income  
25 for this low-income household.

1           As we saw this morning, refinery cost and profit  
2 reached \$2.48 per gallon in early October. For a \$38,000  
3 per-year household, that refinery cost and profit alone  
4 would translate to about five percent of their income.

5           Those numbers are a reminder that with those with  
6 low incomes, those who cannot afford efficient cars, those  
7 working in the gig economy to deliver food or transport  
8 people, those with long commutes are disproportionately  
9 impacted by high gas prices and by the volatility of gas  
10 prices. Many households do not have room in their budget  
11 for unexpected increases in their monthly fuel costs, and  
12 those who can least afford high average gas prices also  
13 have the least resilience for the changes in those prices  
14 and the least recourse to buy a more efficient electric  
15 car.

16           EXECUTIVE DIRECTOR BOHAN: Thank you. Clearly,  
17 nobody likes to pay more than they have to for fuel, but it  
18 hurts some Californians a lot worse than it hurts others.  
19 Thank you for that.

20           Let's go to Catherine to respond to this question  
21 about the impacts on consumers and households.

22           MS. REHEIS-BOYD: Yeah, I obviously agree that no  
23 one wants to see high costs at the pump. That's not good  
24 for anybody.

25           So, I think what is really important is that as



1 we go into the study that the Energy Commission is going to  
2 undertake, that we really think about, how do we reduce  
3 cost, bring in more resiliency, so we can deal with the  
4 issues while we're on this energy evolution pathway? And  
5 that's the tall order. I'm not going to tell you of all  
6 the answers to that today, but I do think this idea of  
7 really sitting down and figuring out what we can do is  
8 essential.

9           So, as I said, I mean, affordability will always  
10 trump the environment when it comes down to it. And so we  
11 make our best progress when we have a strong economy, make  
12 our best environmental progress when we have a strong  
13 economy, so we've got to deal with the cost issue. I know  
14 we don't agree on the solutions, but I appreciate you  
15 inviting all those different views to the table, as we've  
16 said through this conference.

17           So, I think we've really got to dive in to study  
18 and look at it seriously and figure out how we can reduce  
19 cost and increase resiliency in a tight market, or we will  
20 continue to struggle with this cost issue.

21           EXECUTIVE DIRECTOR BOHAN: David?

22           MR. HACKETT: Yeah, I don't have much to add,  
23 other than the California consumers are subject to ongoing  
24 high prices beyond the spikes. And then when spikes occur,  
25 they cause more of a disruption here than they do in the

1 rest of the country because of the isolation. So, you  
2 know, anything we can do to ensure supply and increase  
3 competition are things that we should be looking at.

4 EXECUTIVE DIRECTOR BOHAN: Anyone else wish to comment  
5 on this question? Alright, we're doing well on time, so  
6 let's go to the fifth question before we invite our dais to  
7 jump in. Trevor

8 Severin, did you want to jump in? My apologies.

9 DR. BORENSTEIN: Yeah. Dave sort of hinted at  
10 this, but I just want to make clear that when we talk about  
11 affordability, if all we had was the refinery price spikes,  
12 the spot price volatility, we would have some very short  
13 hardship, but it actually wouldn't be a major deal. The  
14 major deal is that when we get those spot price spikes,  
15 they last at the retail level for months, and that is a  
16 downstream problem, that is not a refinery problem.

17 And I think I just need to keep saying this,  
18 focusing on just creating more gasoline supply is not going  
19 to solve the downstream problem. The spot market is  
20 telling you most of the time there is enough gasoline. The  
21 problem is downstream.

22 EXECUTIVE DIRECTOR BOHAN: Great. Thank you.

23 Let's go to the last question before we get the  
24 dais formally involved. And we're going to ask all the  
25 panelists to weigh in on this one as it's one of the major

1 planks of today's meeting.

2           And the question is: The CEC is undertaking a  
3 fuels transition study to examine how California can  
4 successfully economically transition to a clean  
5 transportation fuels energy future. What are your thoughts  
6 on what the scope of the study should be? What are the  
7 barriers to consider for shifting the industry to cleaner  
8 fuels? And how can the CEC ensure it provides a full and  
9 accurate assessment of the coming changes for policymakers?

10           Let's start with Catherine.

11           MS. REHEIS-BOYD: Well, I mean, I hate to repeat  
12 myself, but I really do think, even in the Scoping Plan  
13 with the ARB, which we commented heavily on, there were  
14 several scenarios that got to the goals in a more cost-  
15 effective way, there were, there are. Did we choose any of  
16 them? No. Are we going to increase domestic supply of  
17 crude oil? No. Are we going to continue to put  
18 restrictions on refiners? Yes. So, I struggle with trying  
19 to figure out.

20           But I guess for the study, I would say I would  
21 relook at some of those scenarios that we put out there in  
22 the CARB Scoping Plan that gets you where you need to go,  
23 doesn't question California's goals, doesn't question  
24 whether they're meritorious or not. It accepts them and  
25 says there's just a better way to do it in a way that

1 reduces costs to the consumers. We're not picking any of  
2 those guys, but it's not picking any of them.

3 And I just, I think we should revisit that. I  
4 think we should take another look at how to get to  
5 California's climate goals in a more cost-effective way  
6 that actually can bring more emission reductions to  
7 consumers along the way, in my humble opinion.

8 EXECUTIVE DIRECTOR BOHAN: Thank you.

9 David?

10 MR. HACKETT: Well, I haven't seen WSPA's  
11 scenarios, but Stillwater, on its own, has been developing  
12 scenarios along these lines and comparing them with ARB  
13 scenarios. And I must say that we're nowhere near as  
14 aggressive as ARB is in their assumptions.

15 And so, what I suspect is we're in a room full of  
16 advocates for the transition. We all want this to happen.  
17 I get that. But I also wonder if you shouldn't be looking  
18 for alternative suggestions about scenario development  
19 because you're too optimistic about the future.

20 EXECUTIVE DIRECTOR BOHAN: Right.

21 Elena?

22 DR. KRIEGER: I'm a scientist, so I'm both  
23 excited about this study and have probably more opinions  
24 about what should be in it. I think there's obviously a  
25 huge potential study, so I wanted to highlight three

1 possible areas that I think are important to address.

2           The first is to assess lifecycle emissions of  
3 greenhouse gases and health damaging air pollutants and who  
4 is affected by these emissions. The second relates to  
5 affordability and access to clean fuels. And the third is  
6 a bigger question regarding the interplay of systemic  
7 changes in the transportation sector and the adoption of  
8 cleaner fuels.

9           So, the first, to make truly meaningful decisions  
10 about fuel choices, we have to really go into the weeds on  
11 lifecycle emissions of all fuel types, including both  
12 greenhouse gas emissions and health damaging air  
13 pollutants, and for the latter, where those emissions  
14 occur, and which populations are exposed.

15           For electrification, what are the greenhouse gas  
16 impacts of natural gas still used in the power sector,  
17 inclusive of the methane leakage throughout the gas supply  
18 chain? If biomethane is used either directly or to produce  
19 hydrogen, it will likely leak in much the same way that  
20 natural gas does, currently throughout the entire gas  
21 system.

22           What are the associated climate impacts? If  
23 carbon capture and sequestration is associated with any  
24 fuel production or refineries, what are the impacts on  
25 local emissions of air toxics, like benzene, or on the

1 energy demand used to power CCS?

2           And what does that do to upstream production in  
3 associated emissions of all organic compounds and other  
4 health damaging air pollutants? If hydrogen is combusted  
5 rather than using a fuel cell, what happens to nitrogen  
6 oxide emissions? What are the greenhouse gas and air  
7 pollutant emissions of any biofuel, both on road and at the  
8 point of processing?

9           I think there are going to be a lot of difficult  
10 tradeoffs here, and we can't make effective decisions  
11 without a clear understanding of the data. Do you maximize  
12 total reductions of greenhouse gases, total reduction of  
13 health damaging air pollutants, or reduce pollution in the  
14 most environmentally overburdened communities? These are  
15 values laid in decisions and should be made in conjunction  
16 with those affected communities.

17           The second large category is related to  
18 affordability and access to clean fuels. The first  
19 component here is related to operating costs, dollars per  
20 VMT, per household, or whatever this means in terms of fuel  
21 costs in terms of percentage of household income.

22           The second, of course, is volatility. This  
23 entire hearing addresses volatility in gas prices, and this  
24 can be particularly hard to afford for households with  
25 limited savings. What does volatility look like for

1 electricity, hydrogen, or biofuels? Are there energy  
2 security concerns related to their supply, like we see for  
3 the heavy dependence in California on a limited set of  
4 refineries? How will the transition affect gasoline prices  
5 and volatility?

6           And what are the upfront costs associated with  
7 adopting vehicles using clean fuels, both for the vehicle  
8 itself and charging and fueling infrastructure? Are there  
9 mechanisms to finance individual households or small-owner  
10 operators with heavy-duty truck fleets? Are there  
11 economies of scale from coordinating with household-level  
12 electrification, such as requiring a single-panel upgrade?

13           And then the last category is thinking about  
14 alternative transportation sector decarbonization pathways.  
15 I think too often, when we model clean energy transitions,  
16 we fall back on a stock-rollover model that looks at  
17 replacing one vehicle at a time. However, there are strong  
18 arguments to be made that an expansion of public transit,  
19 affordable housing near public transit, and employment  
20 centers, walking and biking, and other planning measures,  
21 can reduce fuel needs.

22           I think it's really important to explore  
23 scenarios that look at systemic changes in transportation  
24 and housing infrastructure, rather than leaving it  
25 structurally in place and assuming we maintain the same

1 overarching architecture with different fuels. If we can  
2 reduce demand through systemic changes, it will have ripple  
3 effects on fuel supply needs, on emissions, and on  
4 affordability.

5           And finally, this is going to be challenging.  
6 There are barriers ranging from financing for low-income  
7 households to difficult decisions regarding who pays for  
8 infrastructure investments.

9           What is important, I think, is to ensure that a  
10 broad range of stakeholders are engaged up front to  
11 identify their priorities, particularly for those typically  
12 left out of these conversations, and that data and findings  
13 are shared in a way that is broadly accessible.

14           What's also important is that while the findings  
15 from this study are going to be incredibly helpful for  
16 transportation sector planning, we shouldn't wait to set  
17 aggressive goals until the study is complete. It's a huge  
18 transition, and we have to build momentum now and keep it  
19 going for decades.

20           EXECUTIVE DIRECTOR BOHAN: Thank you for those  
21 thoughtful comments.

22           Dr. Borenstein, you've been looking at these  
23 issues for a long time, and you saw the graph earlier from  
24 Quentin Gee that showed the sharp uptick in the adoption of  
25 electric vehicles. If that continues apace while the



1 refining capacity reduces, theoretically things could work  
2 out smoothly, but we're planning for something not working  
3 out as smoothly as that. Can you help us think through  
4 what are some of the things we should be thinking about to  
5 facilitate this successfully?

6 DR. BORENSTEIN: Yeah, so a couple of things.

7 One is it won't work out smoothly. I can tell  
8 you that right now. We've seen both rapid expansion and  
9 rapid declines of industries, and they almost always result  
10 in a lot of bumpiness in the pricing of the product. And I  
11 think that will happen here, as well, and we really need to  
12 be planning for that.

13 We are going to see a decline in the number of  
14 refineries. They have lots of reasons they exit, and I  
15 think that that is going to make the market more prone to  
16 disruption from any one refinery, and it's going to also  
17 create more market power, not just at the refining sector,  
18 which there really isn't much evidence at this point of,  
19 but downstream because those brands have a lot of power  
20 downstream.

21 So, I want to keep a focus on, as we get  
22 departure of these stations, remembering that two-thirds of  
23 that mystery gasoline surcharge, more than two-thirds, is  
24 downstream. And we are going to face a more brand heavy  
25 and more concentrated market likely when we start getting

1 departures. Those departures are going to be very lumpy  
2 relative to the market. And just like we see with  
3 semiconductors and a lot of other capital-intensive  
4 industries, you can get a lot of price volatility when that  
5 happens. And the demand for semiconductors is far more  
6 elastic, so it gets much more smoothed out. Gasoline is  
7 going to be even more bumpy.

8           And then the last thing, and I always need to  
9 throw this in when we talk about California's energy  
10 transition, California has less than one percent of  
11 greenhouse gas emissions in the world. What matters for  
12 California is the pathways and creating the pathways that  
13 the rest of the world will look at and say, that's a good  
14 idea, and follow. And if we screw this up, whether it's  
15 gasoline prices or electrical load exceeding the supply or  
16 whatever, it's going to put a black eye on all of the  
17 energy transition.

18           I am a veteran of this from the California  
19 electricity crisis and watched up close what it did to  
20 restructuring electricity markets. It froze it, basically,  
21 worldwide. People saw what California did and said, whoa,  
22 we don't want to go there. And that is the absolute worst  
23 thing California could do for fighting climate change.

24           So, we really need to make sure that we are  
25 staying on top of these equity issues and affordability

1 issues, while also doing a rapid transition.

2 EXECUTIVE DIRECTOR BOHAN: Thank you.

3 MR. COURT: Jamie, would you like to opine on  
4 this one?

5 MR. COURT: You know, I tend to, you know, I tend  
6 to defer this Elena and her concerns about subsidies to  
7 low-income people and getting -- giving people more access  
8 to affordable vehicles and affordable cars and efficient  
9 cars.

10 But I do have to say this about the planning, you  
11 know, it was a shock, honestly, because I'm not always  
12 watching the oil industry, I'm watching other things, to  
13 learn that these two refineries were going offline to  
14 become alternative fuel refineries. And there's no  
15 question that that had an impact allowing those refineries  
16 on these latest price spikes. I mean, I'm not saying it's  
17 a supply issue. It could be a spot market issue. But when  
18 you take a Martinez refinery offline and it sounds really  
19 terrific, you know, we're going to convert to biofuel,  
20 then, you know, you get hit with these price spikes, you  
21 know, it just suggests a lack of planning.

22 I mean, I think as we transition, we have to be  
23 really thoughtful to make sure that the gas supply is ample  
24 and there. And I assume these refineries how to get  
25 permission to transition the refineries. You know, it's we

1 need to plan for the fact that it isn't going to be smooth,  
2 that people are going to be in vehicles that require  
3 gasoline for a while, and we need to make sure that there's  
4 an ample supply in the market as we make that transition.

5           So, the other thing I would say is I think you  
6 need to do a little bit more outreach on this alternative  
7 fuel study. I'm part of a group called the Last Chance  
8 Alliance, which is like, you know, a hundred groups that  
9 that are really interested in ending oil drilling and oil  
10 and petroleum. And like none of them really heard about  
11 it. So, I think getting some outreach and some ideas from  
12 other communities, I think, like you're doing today, would  
13 be really important. It was the first time it was on my  
14 radar that. So, we want to bring more groups in. Because,  
15 honestly, this group of people isn't a big enough brain  
16 trust to get this thing done.

17           You know, I've been -- I was on the 2000 Gas  
18 Pricing Task Force with Severin. I mean, having the same  
19 six people in the room talking about this stuff isn't going  
20 to get it done. You need a lot of new ideas. And I'm  
21 happy to help you spread the word, but I think outreach to  
22 get new players involved in this would be really important.

23           EXECUTIVE DIRECTOR BOHAN: Well said, Jamie, and  
24 that's precisely what we plan to do going forward.

25           But I do want to thank each of the six of you for

1 earnestly and thoughtfully responding to all of our  
2 questions. Please don't go anywhere.

3 I'd like to hand the mic back to Vice Chair  
4 Gunda. And I know we're going to get questions and  
5 comments from nice.

6 EXECUTIVE DIRECTOR BOHAN: Thank you, Drew.  
7 Thanks. We observed that Heather did not have to jump in  
8 anywhere for a time check, which is great. And thank you  
9 for facilitating that conversation in a respectful and  
10 thoughtful way to promote collaboration.

11 So, I have a million questions. And I know that  
12 I do not have, personally, the time to ask all my all my  
13 questions. And I know we have a lot of ideas here. Just  
14 check in on time. So, we have half an hour or what's the -  
15 -

16 MS. RAITT: We could take a full hour, actually,  
17 if you have -- if you chose to. We have scheduled public  
18 comment at 4:00.

19 VICE CHAIR GUNDA: Thank you. So, we'll see how  
20 exhausted we want to go here. So let me kind of just start  
21 with a couple of questions and I want to just go one  
22 question at a time, and we'll come back. So, everybody has  
23 a chance to ask questions on our side, as well.

24 So, a couple of high-level points I think I took  
25 away from the conversation is, you know, kind of going to,

1 David, your kind of comments broadly on just making sure  
2 that we do not do anything to reduce supply, do everything  
3 we can to increase competition and keep it going. And I  
4 also heard from Dr. Borenstein specifically the importance  
5 of not only thinking about the price hikes or the spikes,  
6 you know, the needle peaks that we're seeing, which is  
7 troubling, but also the overall increase in the gas prices  
8 and what that's doing.

9           And, you know, we know that the attorney  
10 general's office -- and I want to comment on some of the  
11 things but look forward to hearing in a broader kind of  
12 importance to thinking about antitrust issues given this  
13 transition. And a big fan of Dr. Krieger and her work on  
14 DACAG, just bringing the equity into the conversation.

15           So we had a lot of good ideas, but I want to  
16 start with Catherine, because Catherine -- first of all I  
17 want to just reiterate what Drew mentioned, which is if we  
18 do the planning right and if we move the conversation of  
19 transition well in California and really be a model  
20 globally for energy transition and clean economies and  
21 helping, you know, the planet survive for a large amount of  
22 time for our future generations, it's important that  
23 representation from the oil industry is at the table. So,  
24 thank you for, you know, joining our conversation today and  
25 being bold and brave to lay out your points of view,

1 regardless of who agrees or not agree, because it's an  
2 important part of the discussion as the diversity is  
3 captured.

4           So I want to begin with you on just the question  
5 on, given that if we all can talk together, right, even  
6 though our policy differences -- you laid out your policy  
7 differences very clearly from where the state is broadly  
8 moving towards -- the first point is how do we have the  
9 representation from refining oil and gas feel welcome here  
10 to be here today so they can be a part of the conversation?

11           So, for example, I just want to draw a comparison  
12 with the AG's office, with Catherine Foote here. You know,  
13 she can't speak about everything that she's working on, but  
14 she's willing to be here and let us know that she cannot,  
15 for legal reasons, comment on certain things; right? What  
16 it does is improves transparency for the broader public.  
17 It allows the public to trust a process and for us to not  
18 have large swaths of the refining industry being asked to  
19 be here and welcome to be here and decide not to. It just  
20 doesn't allow for trust building and have a broader  
21 collaborative conversation.

22           So, I just wanted to ask you what could we have  
23 done to have the refineries to be here today?

24           MS. FOOTE: Thank you, Vice Chair, Commissioner  
25 Gunda. I appreciate that comment or question.

1           But first of all, it isn't unusual at all that I  
2 am here representing the oil and gas industry. It's my  
3 job. It happens all the time. I mean, when we have carb  
4 Scoping Plans, you don't see five refiners or five  
5 producers at the podium: right? I'm representing them in  
6 my capacity of this trade association. That's not unusual.

7           I do think it would have been better to have a  
8 conversation about that prior to sending five letters out,  
9 which, frankly, surprised everybody. So I think there  
10 could have been a little more conversation about what we  
11 were trying to do. That would be helpful.

12           I do think all the refineries responded. And I  
13 think you saw and heard, as you have from the attorney  
14 general's office, that many of these issues are difficult  
15 to have, given the antitrust concerns. And we try to do  
16 our work through the PRA (phonetic) protections of the  
17 Energy Commission on transmitting that information so that  
18 those conversations can be had.

19           I think the fact that your staff receives that  
20 kind of information, and I think as Gordon described, you  
21 know, certainly the views of impacts on market volatility,  
22 I think that was all very helpful. So, I think this fuels,  
23 I call it, a fuel evolution study, you call it a transition  
24 study, I think is an opportunity for that.

25           And so, I would say let's make sure we go into



1 that with making sure our goals are aligned, which is  
2 basically to increase affordability and resiliency in a  
3 tight market that we have invented ourselves. So let's not  
4 act surprised at the situation. We have instituted many  
5 policies that brought us where we are. And so, we now know  
6 that the state wants to go in a certain direction, so let's  
7 prepare for it.

8 I would say I didn't agree with many statements,  
9 but at the end I actually agreed with many. I think  
10 Elena's statements on lifecycle emissions was absolutely  
11 critical. We commented big time on that in the Scoping  
12 Plan. It is going to be challenging, but I think we're all  
13 up for that challenge.

14 And I think usually at the end I always tend to  
15 agree with Severin that, you know, it's not going to be a  
16 smooth road, it's just not. It's going to be struggled,  
17 it's going to be a challenge, and we've got a plan for  
18 that. And, you know, we're finding ourselves in a place  
19 we've never been before. We have stated goals to reduce  
20 petroleum dependency in a very short time, in my opinion,  
21 and we don't have a great plan to do it that will take out  
22 market volatility.

23 So, I think the study that you've engaged on is  
24 going to be very, very important. And I think I like the  
25 idea of having everybody have a seat at the table. But

1 it's going to be critical that we scope it out right, that  
2 we get some input on how we should scope it, so that we can  
3 really work to resolve some of the real issues that face  
4 us.

5 VICE CHAIR GUNDA: Yeah. Thank you.

6 Catherine, just a quick follow-up, and I'll pass  
7 it on to the Chair here.

8 So just a follow-up on that, so, again, the  
9 premise of my question is to make sure, you know, all of us  
10 feel like, you know, the public process is for all of us;  
11 right? We all need to be. But I think I wanted to  
12 reiterate that, yes, you know, you as a representative of  
13 WSPA who generally represents the industry in most of these  
14 proceedings, and not everybody can be there.

15 But given, you know, how important this is to  
16 Californians, this particular incident, you know, this  
17 particular year, I think it would have been a good show of  
18 confidence, trust-building, faith to be in the room, to  
19 have the conversation, and be able to just be a part of  
20 that. I just want to say that. That's my truth, and I  
21 want to make sure that I share that.

22 So, the next thing is you exclusively talked  
23 about the profits, and so the overall premium in California  
24 being, you know, driven by state policy, right, so the  
25 public policy, you know? And there's a lot of conversation

1 here in both downstream and upstream profits and how that  
2 plays into it. Regardless of what we do about it, right, I  
3 mean, regardless of where we are going, to just set the  
4 stage, could you comment a little bit on your take on the  
5 profits?

6 I mean, the profit numbers have come out; right?  
7 So, there is a broad interest in the public. And the whole  
8 purpose of CEC here is to be a neutral venue to ensure that  
9 the data is out there, so people feel like they are  
10 understanding what's going on. So, I'm giving -- I mean,  
11 I'm asking you to take the opportunity to just articulate  
12 from your vantage point, what does this profit mean; right?  
13 I mean, like where are the profits coming from? How do you  
14 see the interaction of the refinery profits, the broad  
15 profits in the oil and gas industry, related to the gas  
16 prices?

17 So, if you could just comment on that to label  
18 that from your perspective, it would be helpful. Thank  
19 you.

20 MS. REHEIS-BOYD: Yeah. And again, I think, you  
21 know, as we've looked at the data -- I did submit a slide  
22 deck, I'm not asking you to necessarily pull it up -- but  
23 certainly earnings are similar to every other S&P 500  
24 company. There are many that are above us and many that  
25 are below us.

1           So, I really don't -- I think the more important  
2 thing is to focus on how we can increase supply and bring  
3 more resiliency to a very tight market in California based  
4 on policies that have got us here. And I know that might  
5 not be a satisfying answer to you, Vice Chair, but that's  
6 how I feel about it.

7           VICE CHAIR GUNDA: Thank you. Hopefully we'll  
8 continue to come back to this question, so I'll pass it on  
9 to the Chair.

10          CHAIR HOCHSCHILD: Well, thank you, Vice Chair,  
11 and thank you all for being here. I really appreciate all  
12 your testimony and contributions.

13          And, Cathy, as well, I do appreciate you sharing  
14 your perspective. And, you know, I don't think anybody  
15 expects we're all going to agree on everything, but I do  
16 think, to just reiterate the Vice Chair's comments, that,  
17 you know, a big part of the goal here is to always have a  
18 table where everyone can sit, and we can exchange views.

19          And just want to -- you know, one point I do want  
20 to reiterate, because I really hope this does not repeat  
21 again, not having folks show up. I personally sent the  
22 letter to all five refiners. We have had calls, which I  
23 actually thought in many cases were productive calls prior  
24 to this, and this is unprecedented. And there's a  
25 difference to me between electing to attend but not respond

1 to questions that may raise antitrust issues versus not  
2 attending at all.

3           And I really think, you know, in my nearly ten-  
4 year career at the Energy Commission, this has never  
5 happened before. We've had, you know, workshops,  
6 Commission meetings, hearings on natural gas, all kinds of  
7 transportation, every energy industry in the state, and we  
8 have always had attendance. So, I just really want to  
9 reiterate my hope going forward that this kind of thing  
10 doesn't happen again in terms of participation.

11           But I did want to ask one follow-up question.

12           MS. REHEIS-BOYD: I would like to comment that,  
13 Chair --

14           CHAIR HOCHSCHILD: Okay. You're welcome to.  
15 Yeah.

16           MS. REHEIS-BOYD: -- in response, also, to Vice  
17 Chair Gunda's question, is those are the kind of  
18 conversations that can be very effective because you can  
19 have them individually. It's very hard to have those in a  
20 collective form. And so, I'm glad that you reached out,  
21 and I'm glad that those conversations have been productive  
22 because they are conversations that you cannot have in a  
23 public forum, so I'm glad that that's at least yielded some  
24 benefit.

25           CHAIR HOCHSCHILD: Yeah, that was fruitful.

1    However, I do think there are a number of things that can  
2    be shared publicly, just in terms of even ideas for future  
3    remedies, and that would be my hope is, you know, that  
4    that, at least, that dialogue can occur.

5                    But I did want to drill in on one thing that  
6    Jamie Court asked, which was around greater transparency in  
7    the spot market. And really, Cathy, I guess this is for  
8    you to get your response to that question, the feasibility  
9    and the prospect of what is your response to the direction  
10   he was trying to go on urging greater transparency in the  
11   spot market itself?

12                   MS. REHEIS-BOYD: Yeah, I don't know specifically  
13   about the spot market, but I do know that any other -- in  
14   the past when there have been requests under PRA  
15   protection, we've been very willing to look and consider  
16   those. So, if there are things -- I think Gordon had a  
17   couple that he mentioned would be helpful -- I think we're  
18   happy to look at those and see if that would provide the  
19   necessary information to the Commission that, you know,  
20   you're looking for. So, I think we're open to considering  
21   what those might be.

22                   CHAIR HOCHSCHILD: Okay. Thank you.

23                   That was it for me, Vice Chair.

24                   DR. BORENSTEIN: If I could just weigh in on  
25   that? And I'm sure Kathleen would say, information is a

1 double-edged sword here. It can be used to make markets  
2 more competitive and transparent, and it can also be used  
3 to coordinate and collude. And so, you have to -- the  
4 antitrust law on information sharing and information  
5 transparency is not cut and dry that that's necessarily a  
6 good thing.

7 I do appreciate that we've had some real problems  
8 with indexes, the LIBOR (phonetic) scandal being the most  
9 obvious one, where we trust a company like OPIS (phonetic)  
10 or LIBOR to put together indexes and they're manipulated.  
11 So, from that perspective, that's why when Jamie asked me  
12 would I support this, I think you would have to really  
13 think it through carefully to make sure it's a net plus and  
14 actually help companies coordinate.

15 VICE CHAIR GUNDA: Thank you. Go to Senator  
16 Limón.

17 SENATOR LIMÓN: Thank you.

18 I will say that I found this discussion quite  
19 engaging, and I appreciate the authenticity of, you know,  
20 the remarks, and also the passion that I think kind of goes  
21 into trying to solve a complicated issue for our  
22 constituents here in California.

23 My first question is for Catherine. And so,  
24 we've heard quite a bit today on the theme of information  
25 and data. And I think one of the pieces that I have

1 questions about has to do with the obstacles that you see  
2 in sharing information specifically related to maintenance  
3 and closures of the refineries. Can you speak to what you  
4 perceive are those barriers, certainly considering that we  
5 are a state that knows very well how to keep  
6 confidentiality in terms of some of the data, it's not  
7 inconsistent with existing policy, so outside of  
8 confidentiality, what are those barriers to getting this  
9 information that we've pretty much heard across the board  
10 is needed in order to better understand this issue?

11 MS. REHEIS-BOYD: Yeah. As I said, thank you,  
12 Senator. And as -- oh, getting an echo there.

13 As I stated earlier with -- sorry about that --  
14 Devin Borenstein's comment, as well, it is for competition  
15 reasons; right? It is for making sure that you're keeping  
16 things confidential so that there isn't any impact in the  
17 market. It is extremely important with a competitive  
18 industry, as ours, that that information is protected under  
19 PRA. It is why the Energy Commission put PRA in place.

20 And so, I think, again, as long as there is PRA  
21 protection, we would be interested in understanding what it  
22 is that the Energy Commission needs that it doesn't already  
23 get.

24 SENATOR LIMÓN: Thank you. And I think that  
25 that's important. I feel like if we can keep that PRA



1 protection, then it sounds like there's an openness to  
2 providing additional information, and I very much  
3 appreciate that.

4 This is, actually, a question. I asked a  
5 question earlier this morning related to name brand  
6 gasoline stations. It came up yet again in this  
7 conversation. And I just wonder if Director Bohan can  
8 speak a little bit to the answer we got? I would love that  
9 answer to be on record in terms of what the Commission  
10 study originally found when the study was conducted a few  
11 years ago and what it found most recently in terms of that  
12 price differentiation.

13 EXECUTIVE DIRECTOR BOHAN: Certainly. We got the  
14 information back from Gordon Schremp, who spoke this  
15 morning. He looked it up. He didn't supply -- I'll ask  
16 him to do so, I'm sure he's still listening, and if he  
17 could text me that -- what he did respond to was your  
18 specific question, which is what happened after the period  
19 described in the paper you referred to that the Energy  
20 Commission published in 2019. Here's what he said.

21 "During 2021, that difference averaged \$0.31 per  
22 gallon. Leading up to the last price spike in 2022,  
23 this being January through August of 2022, the average  
24 difference was \$0.32, about the same. However, the  
25 average for September jumped to \$0.44 per gallon, so

1           the premium did move higher," he points out.

2           SENATOR LIMÓN: Thank you. And I think that  
3 differentiation in a matter of August to September is quite  
4 significant. To go from \$0.32 to \$0.44 for brand gasoline  
5 is a piece that I have found fascinating. And I'm not  
6 actually quite sure that I understand the reasons for that.

7           So, I don't know if this question is directed  
8 specifically to Mr. Hackett or to Catherine, but if someone  
9 could just speak to, why are we seeing such significant  
10 difference in a matter of 30 days?

11          MR. HACKETT: Why it changed so much in 30 days,  
12 I don't know, I haven't looked at the numbers.

13          My personal experience is I go to the gym on  
14 Monday mornings, and every two weeks I go to Costco in  
15 Tustin and fill up. And then I drive by the Chevron that's  
16 nearby, \$0.70 more; right? So why in the heck would  
17 anybody pay \$0.70 more for gasoline?

18          Well, the answer to that is they like Chevron  
19 better than they like Costco. They could go to Costco or  
20 they could go to the AM/PM. If not members at Costco, they  
21 go to the AM/PM that's a mile down the other direction.  
22 So, it's something about the power of the brand that draws  
23 in customers.

24          I'll confess that we've looked at market share  
25 for the high-priced brands, and their share has eroded only

1 sort of marginally. You would think for \$0.70, people  
2 would drive around the world almost. I'm exaggerating, of  
3 course. But you get things at that brand that you don't  
4 get at Costco. You get a car wash, you can go to the  
5 store, you can go in and get a cup of coffee or a pack of  
6 cigarettes. You can buy mid-grade, you can wash your  
7 windows, and you can fill up your tires. And so there are  
8 features in those stores that some low-priced brands don't  
9 have.

10 I suppose I could go to AM/COMMISSIONER MONAHAN:,  
11 as well, which is only a mile away, and AMPM offers most of  
12 those amenities at well but at a low price.

13 And so, you know, when people say, well, why are  
14 the prices so high? I say, they don't have to be. You can  
15 go to AM/PM, go to Costco. Consumers are making choices to  
16 do these things.

17 SENATOR LIMÓN: Alright, so what I'm hearing from  
18 you is that your speculation on an answer to that is really  
19 just a consumer decision? It's not that the gasoline  
20 actually is better quality. It's not necessarily that --  
21 you know, I'm just trying to better -- and I'm trying to  
22 better understand it. And I feel like --

23 MR. HACKETT: Yeah.

24 SENATOR LIMÓN: -- if there is not that  
25 information, I feel like there would be value in actually

1 understanding why there's a \$0.44 difference over a 30-day  
2 period, or generally, you know, even \$0.32 or \$0.22 is a  
3 bit of a difference. And I respect whatever the consumers  
4 decide. And certainly, if they want to pay \$0.70 more --

5 MR. HACKETT: And so -- and I haven't looked at  
6 the data, but one of the reasons that that spread got wider  
7 over time is that after the peak the high-price brands held  
8 their prices up longer, and the lower end of the market  
9 fell away faster, creating a greater gap. But again, I  
10 haven't looked at the data.

11 SENATOR LIMÓN: Thank you. And hopefully we can  
12 find more information, and perhaps that's the next step,  
13 whether it's for the Commission or whether it's for the  
14 legislature to kind of also think about, there are some  
15 significant price difference, you know, within a 30-day  
16 period that can compound this issue for our consumers. And  
17 I think --

18 DR. BORENSTEIN: Can I just weigh in before we  
19 move on from that question?

20 I want to second what Dave said on that generally  
21 unbranded stations move up and down faster with the spot  
22 price than branded stations do. Branded stations tend to  
23 move in a more gradual way. I'm not sure that's consistent  
24 with the data reported for September.

25 But on the consumer choice issue, yes, I respect

1 consumer choices. But if there aren't many unbranded  
2 stations, then consumers aren't going to choose them  
3 because they're further away. And so, I think a question -  
4 - and I don't know what the answer is, that's why I keep  
5 encouraging a real investigation, not a law right now.

6 But I think a real question we have to ask is why  
7 are there so few unbranded stations in California? And why  
8 don't consumers have more easy choice towards them?

9 SENATOR LIMÓN: Thank you. And perhaps that also  
10 gets added to this broader understanding of why there is  
11 that price differentiation.

12 And, finally, I think, you know, this is a  
13 broader question and I'm not sure who to direct you to but,  
14 you know, we've talked a lot about the cost that we know,  
15 the cost that we see, the cost that consumers can  
16 understand. But I think, you know, having worked a little  
17 bit in kind of trying to understand all this, we know that  
18 there are also hidden costs to taxpayers, and those were  
19 mentioned in terms of the health impact. And certainly,  
20 when we see, you know, profit, we can debate whether it's  
21 more excessive or not but there's no, I think, dispute that  
22 there's significant profit.

23 We also think about the impact of some of these  
24 hidden costs that weren't part of the conversation today  
25 but that certainly are part of how folks making some of

1 these policies, decision things, you know, the cost there  
2 is for the health, and also the safety.

3           You know, one of the questions that I ask myself,  
4 you know, when we think about the profits, are those  
5 profits that also safeguard the communities where, you  
6 know, this oil is being transported or being extracted? I  
7 think a lot about, no surprise, for those that have  
8 followed some of the work that I've done, you know, idle  
9 wells, abandoning wells, the maintenance that goes in  
10 there.

11           And so I hope that in future conversations we  
12 will maybe also include some of those hidden costs, some of  
13 those costs, because, you know, there are elements where if  
14 taxpayers are already bearing the cost of high gasoline in  
15 addition to the cost of the health impacts of pollutants in  
16 the air, of safety impacts in our communities, it's a much  
17 greater cost that I'm not sure we were able to tackle in  
18 this conversation, but I don't want it to be missed, that  
19 it is also part of these greater conversations.

20           And I think it's perhaps some of the impetus in  
21 also thinking about why the policies are where they're at.  
22 I don't think some of these policies were just created  
23 because some day someone got up and said these are good  
24 policies to move forward in the state of California. They  
25 came as a result of the tradeoffs that all of us have

1 agreed that there are, but the understanding that some of  
2 the tradeoffs are extremely significant to our taxpayers in  
3 this state.

4           So, I just wanted to make sure to be very clear  
5 about that, that when the suggestion was made, I think, you  
6 know, within the last hour about having more people at the  
7 table, it's also to include some of that type of  
8 information that impacts our taxpayers in our communities.

9           VICE CHAIR GUNDA: Thank you.

10           MS. REHEIS-BOYD: Senator, the only thing I would  
11 offer in addition to that would be, and I appreciate your  
12 comment, but my only thing I would offer and employ the  
13 Commission to look at is the issue that Elena brought up on  
14 life cycle emissions, because there is no energy source  
15 that is free of problems. There is no energy source that  
16 is free of health issues. There is no energy source that  
17 doesn't have an impact. And so, if we're going to look at  
18 it, we have to look at it wholistically with all energy  
19 sources, not just the oil and gas industry.

20           SENATOR LIMÓN: Thank you.

21           VICE CHAIR GUNDA: Thank you.

22           Go ahead, Dr. Krieger.

23           DR. KRIEGER: I just wanted to expand that  
24 briefly, too, to, you know, life cycle costs. So, what  
25 are -- who is going to pay for sealing and monitoring all

1 of those abandoned and idle wells? Who is going to pay to  
2 remediate refineries if they close? Who is going to pay  
3 for battery and fuel cell recycling in the end of life?  
4 And so, making sure that those are fully brought into those  
5 comparisons.

6 VICE CHAIR GUNDA: Thank you, Dr. Krieger.

7 Just before I pass it on to Commissioner Monahan  
8 next, just want to follow up on a question that Senator  
9 Limón mentioned here, specifically to David. You kind of  
10 mentioned about increasing competition. You talked about  
11 how, you know, we have just one station for a X number of  
12 consumers in California.

13 Do you have, within California, data of any  
14 specific regions that showcase that there is better ratio  
15 of gas stations, and thereby witness some of your  
16 hypothesis to be true within California?

17 MR. HACKETT: No, I don't have that data, but it  
18 wouldn't surprise me that the Commission does. They get  
19 pricing data, I think, daily at the gas station level. So,  
20 they might very well be able to tease something out of  
21 that.

22 VICE CHAIR GUNDA: Great. Thank you.

23 Commissioner Monahan?

24 COMMISSIONER MONAHAN: Well, I want to  
25 congratulate Drew Bowen, first of all, for facilitating



1 this conversation. You did it really adeptly and well, and  
2 I feel like everybody participating in this panel had a  
3 chance to be heard and to be recognized. I think, as  
4 Senator Limón said, people came with authenticity and  
5 really trying to get to the heart of matters that we may  
6 disagree profoundly on, but still we need to be respectful  
7 to each other, and we want this to be a forum where  
8 everybody's voice is heard.

9 I want to say that, from my perspective, this has  
10 been an extremely sobering conversation. I actually  
11 thought I came in here pretty well steeped in the issues,  
12 and I learned that I wasn't as well steeped as I thought.

13 You know, some of the issues that are sobering to  
14 me are, first, the periodic price spikes are intensifying.  
15 They have real impacts on families, as Dr. Krieger  
16 highlighted, and, you know, with the lowest income families  
17 in particular being the most hard hit.

18 We have this inexplicable mystery surcharge, as  
19 Professor Borenstein has named it, which was born somewhat  
20 inexplicably around 2015, which we don't understand.

21 Market consolidation could be increasing. So, we  
22 have five refineries producing 97 percent of our refined  
23 products. We could have fewer in the future. This could  
24 be a worse problem in the future, and that is really  
25 frightening.

1           I think this highlights the importance of the  
2 Fuels Transition Study that Vice Chair Gunda is helping to  
3 shepherd with the team and just the complicated issues that  
4 we're going to have to navigate with a lack of information,  
5 I would say, to have a full accounting.

6           My question to the panel is really, I mean, we've  
7 kind of touched around the edges of some of this, but what  
8 explicitly do we need to be able to understand, why there  
9 is a mystery surcharge, why California pays more beyond  
10 just the programs?

11           I think we've done a good diagnostics into what  
12 are the costs of the Low Carbon Fuel Standard or the  
13 Climate Cap and Trade Program, which does reinvest in  
14 California. This is not just like taking from the pockets  
15 of people and not giving back. It actually gives back.  
16 It's not a profit. It doesn't go into the pockets of  
17 investors. It goes back to Californians. But still there  
18 is a certain amount of either profit, or just a mystery of  
19 where it's coming from, that we don't understand.

20           So, I'm wondering if anybody can kind of walk  
21 through what they would recommend, data that we currently  
22 don't have, that we should get? And I think just to cover  
23 some of the categories we've discussed, so we have SB 1322,  
24 which is going to provide growth and net margins from  
25 refiners. That will provide some information. I think

1 that will be helpful.

2 We don't know the average price of crude oil that  
3 refineries are paying in their long-term contracts. We  
4 don't know -- we don't have spot market transparency,  
5 including downstream. We don't know the maintenance  
6 schedule. We don't know necessarily how the maintenance  
7 schedule aligns with gasoline inventories to protect and  
8 insulate against price spikes.

9 So those are some of the categories of  
10 information. I'm just curious if anybody on the panel can  
11 talk about where you see the most value in terms of getting  
12 new information?

13 DR. BORENSTEIN: I'm happy to weigh in on this.  
14 I do have to, once again, remind you that more than two-  
15 thirds of this premium is downstream from refiners. So  
16 simply finding out how refineries work is not addressing  
17 most of the problem.

18 I think there are complex contracts between  
19 refiners and their retail outlets that we know almost  
20 nothing about that can easily be used by refiners to keep  
21 prices up or could, potentially, easily be used. I'm not  
22 sure if they're doing it.

23 But I have encouraged many different political  
24 entities, including the Assembly Select Committee, the  
25 offices of a few members of the House of Representatives,

1 the offices of a few state legislatures to find out more  
2 about the contracts that refiners have, the prices they  
3 charge, the price schedules that they use with these retail  
4 outlets, the differences between dealer tank wagon pricing  
5 and branded rack pricing, how zone pricing works because  
6 the refiners price differently to different of their  
7 branded stations, which is why the Chevron at Shattuck and  
8 Ashby in Berkeley was charging \$0.70 a gallon less than the  
9 Chevron about a mile away in Berkeley last week. That is  
10 not coming from the retailer. That is coming from  
11 upstream.

12           Those are the questions we have to dig into. But  
13 to do that, you need an entity that has real power to  
14 compel that information disclosure and to keep it private,  
15 and I'm not sure how to do that. But I think that if we  
16 don't go down that road, we don't solve the more than two  
17 thirds of the mystery gasoline surcharge that is not about  
18 supply of California gasoline.

19           VICE CHAIR GUNDA: Thank you, Dr. Bornstein.

20           Jamie, do you have a response?

21           MR. COURT: Yeah, just one thing. We do know  
22 under SB 1322; we will know the cost of crude oil from the  
23 refineries. That's going to come out under SB 1322. We  
24 will know that.

25           And I do think the Chevron is right, we need to

1 get into those contracts. The only way to do it, though,  
2 is history will prove is a subpoena, someone with subpoena  
3 power. And if the Energy Commission made a recommendation  
4 to the senate to create a select committee, kind of like  
5 the committee that looked into the energy crisis and the  
6 Enron crisis, which did deploy subpoenas, that would be a  
7 very, very valuable, very, very valuable exercise. And I  
8 think coming from the Energy Commission, the senate  
9 leadership might actually listen to them.

10 DR. BORENSTEIN: There is an Assembly Select  
11 Committee on gasoline pricing.

12 MR. COURT: Yeah, but they don't have subpoena  
13 power. I mean, the --

14 DR. BORENSTEIN: No.

15 MR. COURT: No. The senate has subpoena power.  
16 I'm not sure the assembly has subpoena power.

17 DR. BORENSTEIN: Okay.

18 VICE CHAIR GUNDA: Thank you, Jamie.

19 Commissioner McAllister?

20 COMMISSIONER MCALLISTER: Yeah. Thanks.

21 So, Commissioner Monahan hit -- made the points I  
22 was going to make leading up to my question.

23 And Severin, you know, totally hear you on the  
24 downstream, importance of the downstream piece. And I  
25 guess, you know, earlier, like in the morning, I asked

1 about sort of what data we would need to get a sense or a  
2 better analytical basis for understanding market power at  
3 the refineries. And I guess you're suggesting that that  
4 kind of an analysis could be done, maybe, at the retailer  
5 level, but even sort of backing up into the upstream  
6 dynamics with the refiners via those contracts. And so, I  
7 think that's potentially a very fruitful way to go.

8 I guess I'm a little confused about why there's a  
9 focus on, you know, say subpoena power when, I mean, it  
10 seems like a statutory kind of approach could just imbue  
11 the Energy Commission with any additional authority we  
12 might need to sort of complement our existing, you know,  
13 admittedly, pretty deep authority to gather data from --

14 MR. COURT: Can I just --

15 COMMISSIONER MCALLISTER: -- energy suppliers.

16 Hold on just one sec.

17 So like subpoena power is a kind of a kludge when  
18 it seems like we ought to be able to find a structural  
19 solution that actually does give us the authority to just  
20 routinely collect this kind of data and keep any sort of  
21 proprietary information out of the public view as a basis  
22 for us, you know, sort of making sound policy  
23 recommendations.

24 And so, I guess I'm wondering why that's not kind  
25 of the focus of the suggestions here?

1 MR. COURT: I hate to be the guy who like, you  
2 know, basically says something negative to the host, but  
3 the California Energy Commission has been looking at this  
4 stuff for 20 years --

5 COMMISSIONER MCALLISTER: Yeah.

6 MR. COURT: -- and has not made a damn bit of  
7 headway on it. And a lot of it is about PRA. It's about  
8 partially because all this information is really private.  
9 And, you know, we rely on Gordon Schremp. I've heard  
10 Gordon Schremp do this for 20 years, he's very good at it,  
11 but he doesn't get to the bottom of these issues. And  
12 that's not necessarily the job, your job, to get to the  
13 bottom of these issues.

14 And that's why I feel like a legislative solution  
15 is necessary because otherwise we're going to be here, it's  
16 going to be an endless cycle. You know, the Energy  
17 Commission has a certain way about doing things. And the  
18 information it provides is really great. But I would say  
19 it's sort of a it's not a prosecutorial approach. And a  
20 prosecutorial approach is needed in this circumstance.

21 COMMISSIONER MCALLISTER: okay, so I understand  
22 that perspective. I guess I still am not quite -- I mean,  
23 that would be a statutory fix, to routinize the collection  
24 of this kind of data. And whether that gets passed on to  
25 DOJ, you know, I think, you know, the others on the panel

1 can opine about that, you know, particularly Kathleen. So,  
2 you know, I'm not sure we need to have that conversation  
3 right now at this moment.

4 MR. COURT: No.

5 COMMISSIONER MCALLISTER: But I think that's, in  
6 my view, at least, that's the strength of the Energy  
7 Commission, is that we do collect this kind of data.

8 And so, my second question, and then I'll wrap,  
9 is along the lines of sort of, yeah, how do we make  
10 progress and not spin our wheels around, say, the mystery  
11 surcharge? And it seems like we've kind of been circling  
12 around that issue and kind of agreeing to disagree, at  
13 least implicitly, about what is driving -- you know,  
14 whether how much and what's driving this surcharge.

15 It seems like no one has really -- I mean, it  
16 seems like we're controlling for everything we can think of  
17 to control for, and we're still left with this gap. And  
18 sort of there's this sense from the industry that, oh,  
19 it's, you know, sort of this policy is a risk or, you know,  
20 difficulty doing business in California. But that's just  
21 kind of too vague to be actionable.

22 And I guess I'm kind of wondering, maybe,  
23 Catherine, you know, maybe just right out, you know, and  
24 this is this is in a completely good faith kind of posture  
25 for myself and all of us on the dais and in this



1 conversation, because, you know, I totally agree with Vice  
2 Chair Gunda, that we need to feel safe to come forward and  
3 debate these issues with full respect.

4 But I guess I just am wondering, you know, does  
5 what's your view of like, okay, this \$0.40, or whatever it  
6 is, mystery surcharge, you know, it sounds like you sort of  
7 are chalking it up to some sort of risk premium? But I  
8 guess I'm wanting a little bit more flavor there, more  
9 color.

10 MS. REHEIS-BOYD: Yeah. Thank you, Commissioner.  
11 I think I think Mr. Hackett's probably better to address  
12 that particular mystery surcharge issue.

13 But I would say to your question of it being  
14 vague, I think in our conversations under the CEC's study  
15 that's being planned, I think it's a very good place to  
16 dive into what I think is not vague. I mean, we've spent,  
17 I don't know, four years now dealing with the different  
18 scenarios in the Scoping Plan with the ARB. And we've gone  
19 through extensive analysis on what the impacts are going to  
20 be on affordability from these various scenarios.

21 And so, I think, you know, looking through that  
22 again under this study to make sure the path we've chosen  
23 is actually going to be one that people around the world  
24 can look at and say, yeah, that's going to work, versus in  
25 my opinion, the one we are is the one we're going to

1 struggle with. It's going to be very rough, very bumpy,  
2 very challenging. And I do think there are better options.  
3 I think this is a great opportunity to dive a little deeper  
4 in that.

5           And I'm not, again, I am not questioning or  
6 putting on the table that California's goals should be  
7 changed. We didn't do that in the Scoping Plan. We  
8 accepted them and all of our scenarios are based on them.  
9 Whether I agree with them or not, we accepted them and did  
10 not debate them.

11           So, I think, you know, it won't be something  
12 we'll be able to do --

13           COMMISSIONER MCALLISTER: Yeah.

14           MS. REHEIS-BOYD: -- probably, n the next ten  
15 minutes.

16           COMMISSIONER MCALLISTER: Not right now.

17           MS. REHEIS-BOYD: But I do think we can dive in  
18 deeper as to options and pathways that would not have this  
19 kind of market volatility associated with them as we go  
20 forward.

21           COMMISSIONER MCALLISTER: Okay.

22           Well, I wanted to just ask if Kathleen had any --  
23 you know, if the attorney general's office had any sort of  
24 response to that sort of dynamic, just really briefly? I  
25 know we can't delve into it too deeply.

1           And then I wanted to get Severin, maybe, to  
2 comment on the long tail of price declines versus the sharp  
3 increase of -- and sort of, you know, what data we would  
4 need to kind of understand that area under the curve that  
5 really is hitting consumers over the medium term, so then  
6 I'll be glad, but --

7           MS. FOOTE: Well, we're talking about -- now  
8 we're talking about the points that Severin is making about  
9 downstream; right? And who would you subpoena if you  
10 could?

11           And just, you know, sort of walking out on a limb  
12 here, if you're -- if the Commission or if my office were  
13 to subpoena all of the contracts about -- the supply  
14 contracts for all of the stations branded and unbranded in  
15 California, that would be a big job.

16           And the question is -- there are two questions.  
17 One is: What would we find? Suppose we even found  
18 confirmation of the notion that the brands are dictating  
19 higher -- essentially, are exercising their market power at  
20 the station level. And there's still a question for my  
21 office as to whether that's a violation of law. And it's a  
22 complicated one.

23           In a market where there are so few players, there  
24 may not be the kind of collusion that a court is going to  
25 accept as constituting a violation that calls for trouble

1 damages, possible criminal prosecution, all kinds of  
2 different things. Courts are pretty reluctant to do that,  
3 especially if there may be some kind of, ostensibly, pro-  
4 competitive rationale behind it. I mean, courts -- you can  
5 imagine what a corner you would be in if you were a judge  
6 trying to decide those kinds of issues with huge stakes  
7 riding on the outcome. I mean, that's really, you know,  
8 that's really all I can say.

9           The ultimate answer, of course, is just keep  
10 making sure that there are plenty of competitors out there.  
11 Hopefully the fuels transition will bring new competitors  
12 into the market and not just the same old competitors  
13 wearing different clothing. That's a significant issue.

14           Exactly what information should be gathered  
15 really depends on what you want to do with it. And I guess  
16 that's the first question. And my office is obviously  
17 limited in ways that yours is not as to what to do with it.

18           DR. BORENSTEIN: Yeah, if I can first weigh in on  
19 Kathleen's response and sort of say, the attorney general's  
20 office is in the business of prosecuting. That's what they  
21 do. They don't formulate new regulatory policy. And I  
22 think the idea that we're going to find something that is  
23 prosecutable is such an extreme longshot that it's really  
24 not a good place to focus.

25           What we need is a real expert study that looks at

1 what's going wrong and looks at what are the potential  
2 regulatory relief. And we have examples in other states.  
3 I would not endorse all of them. Divorcement, which is a  
4 requirement that states that refiners not own gas stations.  
5 Open distribution, which is a requirement that any station  
6 under ownership or leasing is allowed to buy at the rack,  
7 doesn't have to buy a DTW. These sorts of interventions in  
8 the vertical structure can be a way to change the dynamic.

9           Now, I'm not sure if they're a good idea. And  
10 people keep asking, well, what's the solution? We don't  
11 know what the problem is yet. So first, we have to figure  
12 out where things are going wrong.

13           On rockets and feathers, this is a well-  
14 documented phenomenon. I wrote a paper back 25 years ago  
15 on this. It's still true that gas prices go down more  
16 slowly. It is primarily a retailing phenomenon, but that  
17 doesn't mean the refiners, as I said before, aren't part of  
18 that decision. They have tremendous power over retail  
19 prices.

20           The numbers I have seen in California in the last  
21 five years suggest that the feathers are dropping even more  
22 slowly than they usually do. And is that a sign of market  
23 power? It's probably a sign of some sort of market power,  
24 but it may not be a sign of anything other than people  
25 don't really pay attention, which is why every time I talk

1 to the media, I end by saying, tell your listeners to go  
2 shop around, because shopping around is what will drive the  
3 price down quickly.

4 But I do think that one thing we need is a study  
5 that says, is this really different in California right now  
6 over the last five years? Anecdotally, it sure looks like  
7 it, and the last two months sure look like it, but I don't  
8 have a hard study for you.

9 COMMISSIONER MCALLISTER: Well, I would just end  
10 thanking everybody and just say, you know, the fact that  
11 there have been all five Commissioners here for most of the  
12 day, I think, is an emblematic of how important we think  
13 this topic is. And I really just want to thank the Chair  
14 and Vice Chair and everybody for -- all the panelists for  
15 the amazing insights. So really looking forward to  
16 building on this going forward.

17 VICE CHAIR GUNDA: Thank you, Commissioner  
18 McAllister.

19 I know we have until 4:00 before we open for  
20 public comment.

21 I do want to take one more shot at another  
22 question for David and Professor Borenstein here. Just on  
23 the broad strokes of the discussion, I guess we've  
24 identified a number of reasons why there might be higher  
25 prices in California. And both, as Commissioner McAllister

1 and Commissioner Monahan noted, a few of them are pretty  
2 well understood. We get it, you know, that there's  
3 contribution, and whether we're doing that because it's for  
4 the greater public good and how we're redistributing all of  
5 them is a completely different issue.

6 Just on the downstream effects, you know, we just  
7 talked about, specifically refineries and downwards, and  
8 the importance of understanding that question, I just  
9 wanted to ask David, you, and Professor Borenstein if you  
10 can comment on what is your hypothesis on why that  
11 downstream higher margins between, you know, whether its  
12 name brand or not, why are we seeing that?

13 And two, you know, is there other things that are  
14 playing into the downstream contributors to the prices?

15 So just wanted to kind of get a little bit of  
16 sense of your hypothesis on that.

17 MR. HACKETT: Sure. So, it comes back to retail  
18 competition.

19 Some things that aren't in evidence here is that  
20 there are a lot of branded gas stations out there that are  
21 not owned by the refiners. They're owned by independent  
22 companies, many of them publicly listed, who own and  
23 operate these branded stations. They may have Shells and  
24 Mobils and Exxons and whatever; right? And so, they've  
25 negotiated a contract with refiners for gasoline supply.

1 There's a fair amount of that and you just can't tell who.  
2 If you go into a Mobil station to fill up, guess what,  
3 there's no Mobil. There's no Exxon Mobil. That's somebody  
4 else's gas station.

5 And so, the ownership of those stations is not  
6 well known. If you want, you know, if you want to go look  
7 at retail segmentation, that might be useful. You might  
8 really learn something here.

9 Another thing is that -- and I should have  
10 mentioned this earlier, and I apologize for not saying  
11 this, you can't tell what somebody is paying for gasoline  
12 when you look at the price on the street because of the  
13 loyalty programs; right? And so that's \$0.10 or \$0.20 or  
14 ten percent or whatever, it varies from company coming from  
15 time to time, so you really don't know, you know, that the  
16 folks walking in at my hypothetical Chevron might be very  
17 well getting \$0.20 a gallon and feel like they're getting a  
18 good deal.

19 But why are there higher margins? Because there  
20 can be. The market figured out that because there isn't  
21 that much competition, they figured out in 2015 --  
22 basically what happened, the price spikes drove prices up,  
23 that Exxon problem drove the prices up, and then the spot  
24 market fell away. It was still pretty volatile the rest of  
25 the year, but it fell away. Retail prices stayed up.



1 Okay. They've learned that consumers would pay more.

2 VICE CHAIR GUNDA: Thank you.

3 Dr. Borenstein, do you want to add anything?

4 DR. BORENSTEIN: Yeah, so I agree with what Dave  
5 has said. I think that it would be really interesting to  
6 learn the contractual relationships of different stations  
7 and see if that's part of the whole dynamic. If those  
8 independent branded stations, if the ones buying at the  
9 rack, actually move their prices more quickly and keep less  
10 of a premium. I think it's quite possible.

11 And I will just say, this is all hypotheses.  
12 That's why we need a Commission. But I think it's quite  
13 possible that the very high level of concentration we have  
14 at the refinery level, combined with these vertical  
15 contracts that give them a lot of control over downstream  
16 prices, means that they are able to actually, instead of  
17 having five different Chevrons competing with one another  
18 in a town, it's all Chevron setting the price. So, we have  
19 the appearance of a lot of gas stations, but we actually  
20 have fairly few real competitors. And that I think is a  
21 real possibility. I do not have the evidence to say I'm  
22 sure that's what's going on.

23 But I think that the concentration in refining,  
24 which has some checks on it at the refining level due to  
25 threats of imports and so forth, does seem to also affect

1 the downstream competition. And that's a place I would  
2 really want to look into it.

3 VICE CHAIR GUNDA: Thank you, Dr. Borenstein.  
4 Just a follow-up question, given that you've been working  
5 both on the electricity markets and the petroleum markets,  
6 and what we've just seen earlier this year on the  
7 electricity markets because of the reliability crisis we've  
8 experienced the last couple of years, the state ended up  
9 taking some extraordinary measures. I mean, to say  
10 extraordinary is an understatement. And kind of really,  
11 you know, we had to take -- you know, put measures on the  
12 table that we would have never thought through.

13 And David kind of mentioned thinking about a  
14 strategic reserve and bringing back that conversation back  
15 in his opening comments. Given this potential for a cliff  
16 drop in the supply side, you know, as you mentioned, you  
17 know, we could have lumped retirements, you know, quote  
18 unquote, of, you know, of refineries. And then we could  
19 potentially see a supply shortage and compounded by the  
20 other market dynamics.

21 Do you see -- anybody, I mean, anybody can  
22 comment to this -- as a long-term strategy that's something  
23 that we have to rethink or put back on the table?

24 DR. BORENSTEIN: Yeah, I think we should be  
25 thinking it. I think, though, we also have to keep in mind

1 that that is a fuel supply solution. And I'm not sure most  
2 of what we have is not a fuel supply problem right now.  
3 Now going forward, we might. And an either government-held  
4 reserve or, alternatively, a requirement of reserves held  
5 by the refiners, but that has its own set of problems if  
6 they're if they have a lot of market power to begin with,  
7 or some sort of safety valve of allowing noncompliant  
8 gasoline or -- I mean, there are a lot of possibilities  
9 that we could consider and are in not just the 2015 or 2017  
10 PMAC Report, but the 1999 Attorney General's Gasoline Task  
11 Force.

12 But I think that we have to, before we go down  
13 that road, we have to recognize that's not where most of  
14 the problem is right now. It might be a wise idea to  
15 consider it for the future but most of the problem is  
16 downstream from the refinery, from the supply issue.

17 VICE CHAIR GUNDA: Thank you.

18 David, do you have anything that you want to add?

19 MR. HACKETT: I agree with Severin. Future fuel  
20 reserve was a vehicle to help ensure additional supply and  
21 it was the result of price spikes, I mean, that's how we  
22 got to it.

23 Stillwater and our team developed that. We took  
24 the job thinking that, frankly, that we didn't think  
25 government interference in markets was a good idea. But

1 because we were on the payroll, we decided we'd figure it  
2 out, come up with something that would work. And so, we  
3 thought it would work. There were criticisms of it.  
4 Certainly, it could have used more work. But, you know, I  
5 think it's something we could put on the table to solve  
6 this price volatility at the spot level issue.

7 VICE CHAIR GUNDA: Thank you, David.

8 MR. COURT: So --

9 VICE CHAIR GUNDA: So just to close out -- go  
10 ahead, Jamie.

11 MR. COURT: As I recall, the reason that no one  
12 went for that was because they thought there was not enough  
13 capacity for storage, and also because, you know, you  
14 constantly had to change out the refined product. It's not  
15 like crude oil couldn't sit around for a long time. And  
16 that's why no one went for it.

17 VICE CHAIR GUNDA: Yeah. Thank you.

18 MR. HACKETT: The Commission is on the record  
19 with their objectives -- objections, and those are in the  
20 document that I cited in my testimony.

21 VICE CHAIR GUNDA: Thank you.

22 So, I just want to close my, you know,  
23 questioning with Catherine.

24 Catherine, just kind of, if you were to comment  
25 on that kind of general theme, right, of kind of a

1 strategic reserve, again, as kind of options for the  
2 future? But also, the reason I'm kind of like putting  
3 those two things together is one, you know, it was raised  
4 early in the comments, but also one of the correlations,  
5 you know, factors that could have contributed to the price  
6 volatility this summer is low refinery levels: right?

7           You know, just wanted to ask you if you could  
8 close the discussion on why were the refinery levels lower  
9 than usual? Again, this is a good fit to understand and  
10 learn what was going on. Why do you think that might have  
11 happened this year? I mean, there was a couple of points  
12 of view that were offered earlier that it could be a  
13 hangover from COVID, you know, what we've observed  
14 previously. But, you know, we did recover significantly  
15 this year economically. Could you just comment on how you  
16 see, as we move forward, given the public discourse and  
17 where we as California wants to go in a decarbonized  
18 future, how those ideas serve?

19           MS. REHEIS-BOYD: Yes, thank you, Commissioner.  
20 I think it's definitely, in my opinion, as a result of the  
21 pandemic and coming out of the pandemic. And, you know,  
22 that's something, obviously, we can look at in more detail,  
23 but inventories were low. And then we came out of a  
24 pandemic and, you know, things have begun to change ever  
25 since. And so, I think, you know, it's an important

1 conversation.

2 I think it's, you know, as we've said, it's not a  
3 refining issue as much as some of the other things that  
4 have been pointing out here. I do think the Strategic  
5 Petroleum Reserve is a short-term. You know, we talked  
6 about short-term and long-term solutions. I don't think  
7 it's a long-term solution. I think there are other things  
8 that can generate more resiliency in a tight market than a  
9 Strategic Petroleum Reserve. I think it's a very -- I  
10 think as Gordon described it; I think he used the word  
11 calming. It can have a calming effect, but I don't think  
12 it ultimately solves the issue.

13 VICE CHAIR GUNDA: Thank you. I don't have any  
14 further questions. And I know we are close to a public  
15 comment period.

16 I just want to check on the dais if anybody else  
17 has a burning question? No on this side for now.

18 Okay, so with that, I'll pass it to Heather.  
19 Thank you all for taking the time to help contribute to  
20 this conversation, and, Drew, for doing a fabulous job  
21 facilitating the conversation.

22 MS. RAITT: Thank you, Vice Chair. And thank you  
23 again to our panelists and to Drew.

24 So, we'll move on. So, this is Heather Raitt.  
25 We'll move on to public comment. We'll start with folks in

1 the room and then go to those on Zoom. And if you're on  
2 Zoom, I see some hands up, but go ahead and press that  
3 raise-hand function to let us know you'd like to make  
4 comments. And if you're on the phone, you can press star  
5 nine and that will effectively raise your hand.

6 So, I have a couple blue cards. If others in the  
7 room wanted to make comments, please go ahead and fill out  
8 a blue card and give to me.

9 So, we'll start with Ms. Megan Shumway  
10 (phonetic). Sorry if I mispronounced your name. Please  
11 come to this microphone. If you could say your name and  
12 your affiliation and spell it for the record? And we'll  
13 have three minutes for each person to do public comments.  
14 Thank you. Go ahead.

15 MS. SHUMWAY: I'm Megan Shumway and I work with  
16 many climate organizations that are members of the Last  
17 Chance Alliance.

18 This has been a very stimulating discussion  
19 today. I really appreciate it. I was disturbed that maybe  
20 five refineries could have such an effect on the market.  
21 I'm sure that it is not lost on them that if three of them  
22 closed down for routine maintenance, that it would cause a  
23 spike in prices. I don't know how we control for that.  
24 That I leave to wiser people in the room.

25 But I wanted to make the point that Californians

1 really understand that there have been record profits this  
2 year, obscenely record profits, and they need to have  
3 something done to protect them from price gouging and  
4 exploitation by an industry that, whether it intentionally  
5 does this or not, has been fleecing us for years. And we  
6 need to have some kind of a limitation. And I think it  
7 could be a law that covers all corporations price gouging  
8 people. You know, it's like people come in after a  
9 disaster and price gouge for things that are necessities.

10           And I think that there needs to be some kind of  
11 limitation on how much profit you can make before you are a  
12 price gouger. And I'm not talking about just 100 percent  
13 increase in profits, which would be lovely for any  
14 business, but I'm talking about profits that have increased  
15 from last year to this of 1,700 percent by PBF Energy,  
16 1,243 percent by Phillips 66, Marathon Petroleum, 545  
17 percent increase in profits, Valero, 500 percent increase  
18 in profits. This is just outrageous. Even Exxon has made  
19 the highest profits that they have ever made in 135 years  
20 of business. And Californians understand that people are  
21 walking away with their money, and they can't get to work  
22 unless they fork it over.

23           So, it's a real problem. And we at the Last  
24 Chance Alliance recommend that you find a way to cap and  
25 fall profits. And that's what I have to say about it.



1           Thanks.

2           MS. RAITT: Thank you.

3           Next is Alfredo Arredondo, excuse me. Go ahead.  
4 So please spell and state your name and affiliation for the  
5 record.

6           MR. ARREDONDO: Good afternoon. I'm Alfredo  
7 Arredondo, spelled A-L-F-R-E-D-O, last name  
8 A-R-R-E-D-O-N-D-O and providing comments on behalf of the  
9 Low Carbon Fuels Coalition today. I appreciate all the  
10 time that the Commission has taken today, and Senator  
11 Limón.

12           So, the Low Carbon Fuels Coalition is comprised  
13 of a wide range of industry stakeholders from companies and  
14 trade associations that are all dedicated to decarbonizing  
15 the transportation fuel sector by supporting and  
16 implementing technology-neutral clean fuel standards, like  
17 California's Low Carbon Fuel Standard. And as the ARB  
18 stated in their final draft report -- or the draft version  
19 of the Scoping Plan for 2022, the LCFS is the primary  
20 mechanism for transitioning California's transportation  
21 fuel pool with low carbon alternatives and has fostered a  
22 growing alternative fuel market.

23           I think that point deserves maybe lingering on a  
24 little bit longer, that really what we're talking about is  
25 replacement competition, not direct competition. So,

1 there's this distinguishment between deciding that you're  
2 going to have to rely on fossil gasoline and the  
3 competition being who's across the corner from that one  
4 station versus actually having a complete replacement  
5 competitor in the marketplace that oftentimes is a lot  
6 cheaper.

7           So functionally, through a performance-based  
8 standard that is focused on the carbon intensity of fuels,  
9 the LCFS is leading to the production of renewable  
10 electricity, renewable liquid gases and gaseous fuels that  
11 are directly displacing petroleum-based fuels used in light  
12 duty and heavy-duty applications. And as a result of the  
13 LCFS, most of the renewable fuels that are coming online  
14 are cheaper for the consumer on a miles traveled basis when  
15 compared to fossil gasoline and diesel. That's to say that  
16 you can go a lot further on renewable electricity or other  
17 renewable biogenic fuels per dollar spent in comparison to  
18 petroleum. In some cases, you can even go three times  
19 further on \$50.00 using renewable fuels versus the fossil  
20 fuel equivalent.

21           California, therefore, should continue to support  
22 climate-smart and consumer-friendly policies, like the  
23 LCFS, and increase the ambition of this technical mechanism  
24 to achieve even better outcomes for consumers and the  
25 environment.

1 Thank you for the time.

2 MS. RAITT: Thank you.

3 Is there anyone else in the room who wanted to  
4 make comments?

5 Okay, not seeing any, we'll move on to Zoom.

6 So, Louise Sanford, if you would like to comment,  
7 I will, let's see, open up your line. You may need to  
8 unmute on your end. Go ahead.

9 MR. SANFORD: Thank you very much, and what a  
10 wonderful and thoughtful opening this afternoon.

11 As a native Californian, I've seen this roller  
12 coaster ride firsthand ever since the embargoes back in the  
13 1970s. It seems all too frequently, though, that we always  
14 hear of multiple gasoline refineries being offline  
15 performing maintenance at the same time. And each time  
16 this happens, we all know gasoline prices soar.

17 So can the Commission or, say, a related agency  
18 serves as a scheduler, a very strict scheduler for these  
19 refineries, ensuring only one refinery at any given time  
20 was offline? Would this not help minimize this tremendous  
21 impact on gasoline prices?

22 I welcome your response. I hope this proposal  
23 might be one of many tools available at the short term to  
24 help ease this pain at the pump that we're all experiencing  
25 until these wonderful long-term solutions are finally

1 achieved.

2 Thank you.

3 MS. RAITT: Thank you.

4 Next is Christina Scaringe. Excuse my  
5 mispronunciation. Please state your name and your  
6 affiliation for record. You may need to unmute on your  
7 end.

8 MS. SCARINGE: Good afternoon. Christina  
9 Scaringe for the Center for Biological Diversity.

10 Thanks to the CEC and to the governor for holding  
11 this hearing to press the oil industry as they rake in  
12 record profits, holding Californians hostage to  
13 artificially high prices even as they continue to pollute  
14 our state. We feel it acutely with these high gas prices,  
15 but there is a chronic cost, as well, to our air, water,  
16 land, communities, animals, and people. Seventy percent of  
17 Californians breathe unhealthy air. We have some of the  
18 worst air and the worst fuel prices in the country, yet  
19 somehow, we keep getting stuck with more of the same.

20 For decades, the industry has used its exorbitant  
21 profits to block the critical transition to a clean energy  
22 future that their own internal studies confirmed was both  
23 inevitable and imminently necessary. All these years,  
24 they've financed disinformation to confuse a consensus that  
25 they themselves have confirmed, perpetuating known harms

1 with their dirty products to squeeze out another day of  
2 profit at our expense. As their messaging becomes  
3 increasingly untenable, they morph to greenwashing false  
4 solutions, such as the CCS campaigns they now heavily  
5 finance, while boasting internally of its ability and  
6 purpose to perpetuate their fossil fuel future.

7           The climate crisis is upon us. For more than 50  
8 years, they have blocked progress with their disinformation  
9 drumbeat, decades that we could have, would have, and  
10 should have been transitioning to a brighter energy future,  
11 and still they beat the drum for more delay.

12           Enough already. Californians must break away  
13 from the instability and insecurity of an energy future  
14 beholden to big oil. We must accelerate the clean energy  
15 transition away from fossil fuels to boost clean renewable  
16 energy. We can decouple energy production from these  
17 longstanding harms to our communities, our state, and our  
18 planet. Fossil fuels are simply incompatible with a safe,  
19 healthy, and sustainable future. Choosing inaction or more  
20 delay is to side with the polluters, surrendering  
21 Californians and all the species and lands of this state to  
22 their whims yet again.

23           The state must choose instead to protect its  
24 people, its communities, and its lands over these  
25 polluters. The only way to protect Californians from the

1 harms we know big oil imposes upon us is to get off oil  
2 once and for all. Holding big oil accountable with  
3 measures like the windfall profits cap, while accelerating  
4 the transition to a resilient and just energy future, is  
5 the way forward.

6 Thank you.

7 MS. RAITT: Alright. Thank you.

8 Next is Rob Spiegel. Please spell your name and  
9 give your affiliation if any.

10 MR. SPIEGEL: Thank you and good afternoon or  
11 good evening, members. Rob Spiegel, Senior Policy Director  
12 for the California Manufacturers and Technology  
13 Association, or CMTA. We always appreciate the comment --  
14 or the opportunity to provide comment to the Commission.

15 So, from the testimony and presentations provided  
16 today, it does seem clear, at least to us, that there are  
17 many factors that influence petroleum prices, and some of  
18 which may actually be driven by California's own policies.

19 For more than a decade, California industry and  
20 CMTA have consistently asked for policies and regulations  
21 to be predictable, to be technologically agnostic, and  
22 reflect the portfolio of options that allows for the  
23 greatest of diversity for fuels and to meet the growing  
24 energy demands for California. As California embarks on  
25 its pathway to carbon neutrality, the organization has

1 consistently asked regulators for greater flexibility, and  
2 we've also expressed our concerns regarding the reliability  
3 of energy and the economic impacts these policies will have  
4 not only on our operations, but also on California  
5 consumers.

6           The CEC's statements in its notice of hearing is  
7 accurate: California's carbon neutrality goals are expected  
8 to drive down demand for petroleum fuels, but our broader  
9 supply of fuel is becoming more constrained due to  
10 California's unique lens, isolated market, and the impact  
11 of refinery outages and retirements of our refineries.  
12 This is fact. And each of these elements create additional  
13 volatility on a globally traded commodity that is prone to  
14 international pressures and disruptions.

15           As for the actionable items today, CMTA is  
16 hopeful that the CEC will move forward with the proposed  
17 study to develop a more in-depth understanding of the  
18 impact California's climate goals will have on supply and  
19 demand, in-state production, and the affordability of fuel.  
20 Let's have an honest, fact-based, and data-driven analysis  
21 so we can objectively determine the causes and collaborate  
22 on solutions without increasing costs to California  
23 consumers.

24           As always, CMTA appreciates the opportunities to  
25 address the Commission, and we do look forward to working

1 together on finding a solution.

2 Thank you.

3 MS. RAITT: Thank you.

4 So next is Gary Kirkland. Please go ahead and  
5 state your -- yeah, go ahead.

6 MR. KIRKLAND: Hi. Thank you very much for  
7 allowing me to speak. I represent the -- Gary Kirkland is  
8 my name. I represent myself and the Libertarian Party.

9 What I'm calling about, as we talk about high gas  
10 prices, what I tell all the people I can, that if you're  
11 upset with high gas prices, what you should do is buy stock  
12 in an oil company. I heard several of the speakers whine  
13 and complain about the profit, record profits, from oil  
14 companies. Well, if you own stock in an oil company, that  
15 profit goes to you as much as you own the stock. So  
16 complaining about high gas prices is foolish. Buying stock  
17 is smart.

18 Also, if the state decides they want to put an  
19 excess tax, which I'm adamantly opposed to, on oil  
20 companies, they're going to just pass that along to the  
21 consumer, and prices will go up even higher. And this is a  
22 foolish idea.

23 Also, on this climate thing, trying to stop  
24 climate change is like trying to stop the Earth from  
25 turning around or orbiting around the Sun. The climate on



1 Earth has been changing for over 4 billion years. It's  
2 changing now. It will be changing in the future, in my  
3 opinion.

4 Better than trying to stop climate change is to  
5 learn to adapt. Successful species adopt a change, they  
6 don't try to stop change. And those species that do adopt  
7 a change survive mass extinctions, which we've had five of  
8 over the millennia -- or millennia, how many billions of  
9 years? And so we should adapt to the change in the Earth,  
10 not try to stop it.

11 Also, global warming, in my opinion, is a good  
12 thing, and we should encourage it by burning more fossil  
13 fuels and putting more carbon in the air. Because if one  
14 looks at the globe, one can see that most of the landmass  
15 on Earth is in the northern half of the Northern  
16 Hemisphere. And we have Alaska, Greenland, Canada, and  
17 Russia, which are the two largest countries on Earth. If  
18 we have more global warming -- oh, by the way, there's  
19 plenty of arable land up there and fresh water -- if we  
20 have global warming, those lands will be productive and can  
21 support even more people than we have right now.

22 So instead of being pessimistic and looking for  
23 bad things about global warming, let's be optimistic and  
24 try to encourage global warming so more people can live on  
25 this lovely planet, which we have no way of destroying.

1 Saving the planet is just a stupid hyperbolic activity that  
2 people engage in by talking.

3 Thank you very much.

4 MS. RAITT: Okay, thank you.

5 So next is the phone line ending in 096.

6 MS. CARTER: Hello?

7 MS. RAITT: There you go. Thank you. Go ahead.

8 MS. CARTER: Hi, thank you. This is Sakereh  
9 Carter. That's S-A-K-E-R-E-H, Carter.

10 Thank you for the opportunity to comment. My  
11 name is Sakereh Carter and I'm a senior policy advocate  
12 with Sierra Club California. Although we appreciate the  
13 thorough analysis provided here for the basis of California  
14 gasoline price hikes, much of the information presented  
15 raises several concerns.

16 California must accelerate California's  
17 transition to clean energy technology while providing clean  
18 energy jobs and improving accessibility to clean energy  
19 vehicles across the state. Specifically, legislators  
20 should institute price gouging penalties that reinvest  
21 funds in environmental programs that amplify the deployment  
22 of clean energy infrastructure and rectify legacy  
23 pollution, such as public transit, e-bike incentives,  
24 orphan well remediation, and retraining assistance for  
25 industry workers. This call to action is backed by the

1 rapid decline in California petroleum production, lack of  
2 transparency, and high consumer costs experienced by gas-  
3 powered vehicle owners today.

4 Further, the notion that environmental fees and  
5 regulations disincentivize petroleum production is  
6 particularly concerning as refineries should willingly  
7 utilize the most stringent pollution emission controls to  
8 protect neighboring communities from exposure to harmful  
9 pollutants such as nitric oxide and particulate matter.

10 Again, it's time to double down on electrifying  
11 California's fleet and disinvest from the oil and gas  
12 industry.

13 Thank you.

14 MS. RAITT: Thank you.

15 So next is David Dry. Please go ahead and state  
16 your name and affiliation, if any.

17 MR. DRY: Hi there. My name is David Dry, and  
18 I'm calling on behalf of the Coastal Energy Alliance, and I  
19 thank you very much for the opportunity to give public  
20 comment today.

21 I'm calling to remind the Commission that taxes  
22 on energy and gas will burden Californians and families and  
23 increase the cost of living in our state. We already can't  
24 afford the high fuel costs because of our state's policies,  
25 and we already pay the highest taxes on gas in the United

1 States.

2 We recommend that the Commission focus on real  
3 solutions to lower energy costs, including increasing  
4 supply, and stop trying to punish legitimate businesses by  
5 playing politics. We encourage the Commission to explore  
6 and prioritize solutions that work for all Californians.

7 Thank you very much for letting us speak on this  
8 important issue today.

9 MS. RAITT: Thank you.

10 Next is Brady Van Engelen. Please go ahead and  
11 state your name and any affiliation, if any.

12 MR. VAN ENGELEN: Good afternoon. This is Brady  
13 Van Engelen, calling on behalf of the California Chamber of  
14 Commerce and its 14,000 members. Thank you to the Energy  
15 Commission for hosting this very important conversation and  
16 to all the panelists for all of their thoughtful  
17 contributions, as well, too.

18 We at the Chamber would strongly encourage the  
19 Commission to continue this important dialogue and ensure  
20 that we fully understand the economic impacts when we  
21 transition to cleaner energy solutions and make sure that  
22 we understand what solutions would actually benefit --  
23 serve to benefit all Californians.

24 Thank you very much.

25 MS. RAITT: Thank you.

1           So, one last. I don't see any more hands up, but  
2 if someone is on -- oh, we have another hand.

3           So just a reminder, if you want to make comments,  
4 press that raise-hand function on Zoom. And if you're on  
5 the phone, press star nine if you'd like to make comments.

6           So next is Tracy -- I can't read very well --  
7 Threlfall. Please go ahead and give us your affiliation  
8 and spell your name.

9           MS. THRELFALL: Hi there. My name is Tracy  
10 Threlfall. I am with the Plumbing, Heating, Cooling  
11 Contractors of California, representing Merrick Shop  
12 Plumbing, Heating, Cooling Contractors in California.

13           And while I want to thank the Commission also for  
14 a very thoughtful discussion on this topic today, I would  
15 like to say that our contractors have been heavily burdened  
16 by fuel costs across the state, and this is why we're  
17 seeing this exodus out of California. The average  
18 businessperson is burdened by taxes, regulation, fees, fuel  
19 costs. Many of our contractors have been forced to attach  
20 fuel service charges to their invoices to customers in  
21 California.

22           And one of the concerns that we have, I share  
23 with a previous speaker, that while we recognize that these  
24 oil companies have these incredible -- I mean, it boggles  
25 the mind, these profit margins, would that our contractors

1 could build this in the open market right now. The concern  
2 is that the governor may decide to tax these oil companies  
3 even further. And what we have seen historically is that  
4 there is no such thing as an unabsorbed tax. Any future  
5 taxes would, no doubt, be passed along to the consumer,  
6 including the general public, but to our business owners  
7 and employees as well.

8           So, I would just like to bring that to the  
9 Commission's attention and to the governor's attention and  
10 our legislators, that before we look at taxing these  
11 organizations, that we look at alternate solutions. We  
12 appreciate the opportunity to be heard today and thank you  
13 again for your public service.

14           MS. RAITT: Thanks. Thank you.

15           So next is Mary Ann Welch. Go ahead.

16           MS. WELCH: My concern is that the government  
17 wants all electric cars. However, this past summer, we  
18 were told, oh, don't plug it in right now because PG&E  
19 basically couldn't handle the grid. That's one thing.

20           The other problem I have with this whole thing is  
21 that there's no help from the state for gas taxes. It's  
22 outrageous. We, the people, voted a fraudulent vote. We  
23 wanted to repeal the gasoline tax. The yes vote meant no.  
24 The no meant yes. It was a fraudulent vote.

25           Then again, on July 1st of 2022, for some reason,

1 the legislators, and I'm not understanding this, raised it  
2 another \$0.03. Again, that's \$0.15 right there.

3 Also, the gas cars are paying for the road  
4 repairs and all the upkeep. Electric cars hurt the road  
5 more from their torque when they put their foot on the  
6 pedal to go. Electric cars pay no gas tax. Fair? Really?  
7 I don't think so.

8 Then also, why are we buying oil from Venezuela  
9 right now? Is not oil prices set, internationally set,  
10 prices? I don't know, but that's my understanding that  
11 it's an international price for oil.

12 Also, why is it that Costco's gas is so cheap?  
13 Is it that they just buy more gas? Gas is gas. I don't  
14 understand that.

15 Also, our oil supply reserves for our country, we  
16 tapped into that. Are we replacing that? That's also a  
17 cost to the overall taxpayers.

18 We in California have done much to clean up the  
19 air. We have small control. We have catalytic converters.  
20 Right now, our air is cleaner than it's been in years.  
21 I've lived here, by the way, my whole life, okay? A  
22 complete audit of this statement, is how I see it right  
23 now, is how we spend all of our tax dollars in this state.  
24 To attack the oil company is so obvious. Okay, they're  
25 making too much money. They should do this and that. But

1 if we don't have an overall plan, how will having electric  
2 cars -- we're not -- what I'm trying to say, we're not  
3 ready to go solar or wind. We need a comprehensive plan.

4 Just to attack the oil companies, they're making  
5 too much money, is not going to solve the overall problem,  
6 and that is that we need to upgrade our grid. We need to  
7 be able to get electricity to everything and all the  
8 sources that we need.

9 But I'm concerned for any kind of special  
10 session. That always bothers me. They did the same thing  
11 with Proposition 19. They had a special session. Then it  
12 went on to the ballot, you know, to vote on it. So anytime  
13 they do a special session, I'm always worried because they  
14 sort of say one thing and they do something else.

15 So, I really think we need a comprehensive  
16 program about our oil and how we're doing things. And I  
17 have a lot to say about it because I'm upset, but that's  
18 it.

19 MS. RAITT: Thank you. Appreciate that.

20 If anybody else wants to comment, please raise  
21 your hand on Zoom, or press star 9.

22 Okay, phone line ending 688, please go ahead.  
23 You may need to unmute your line.

24 MS. CONNER: Yes. My name is Vicki Connor. I'm  
25 representing EconAlliance in Northern Santa Barbara County.



1 And I just wanted to mention a few of the risks that we  
2 think might be inherent in new taxes on energy, traditional  
3 energy.

4           It's been mentioned before, obviously, the burden  
5 being greater on families. The more taxation that occurs  
6 in the energy arena, the more burden families feel. Also,  
7 the impacts of the manufacturing and other industries, like  
8 ag and other industries, that also depend on energy, as  
9 well as public services and government services.

10           The grid reliability, I think, is another area  
11 that is of concern to most of us in terms of transitioning  
12 too quickly without being ready. And taxation to foster  
13 more leaving, more transportation, I mean, more energy,  
14 people leaving the state to do business elsewhere, is  
15 obviously a concern as well.

16           So, I think the risks, those risks that are  
17 fairly easily identifiable are worth considering, and it's  
18 probably a good idea to explore alternative solutions  
19 besides taxation. Keep the conversation going, do the  
20 studies, and don't rely on the one sort of easy fix of  
21 taxation, which really won't fix what you're trying to fix.

22           Thank you so much.

23           MS. RAITT: Thank you.

24           Let me give a moment to see if anybody else would  
25 like to raise their hand using raise-hand on Zoom or the

1 star nine on the phone. Okay, I'm not seeing any more  
2 raised hands. I think we're done with public comment.  
3 Thank you, everybody who commented.

4 And back to you, Vice Chair Gunda.

5 VICE CHAIR GUNDA: Thank you, Heather. I just  
6 wanted to just close with a sense of gratitude for the day.  
7 Thank you to all the panelists and everybody who  
8 participated, contributed your knowledge towards the  
9 discussion today.

10 And also, Heather, to you and your team for  
11 putting on another, you know, well-run workshop.

12 And Drew, thank you for your contributions on,  
13 you know, thinking through how to work this workshop today,  
14 which is not easy to think through a topic like this. So,  
15 thank you to you and Alicia for her contributions.

16 And specifically, the Fuels Team. I know Ryan  
17 Eggers is here in the room, Gordon, Ysbrand, as well as  
18 Quintin and Amanda, thank you all for wonderful work that  
19 you've been doing behind the scenes to help develop the  
20 necessary analysis to even begin this conversation.

21 And thanks to all the people in the dais, all the  
22 Commissioners were here most of the day, and to Senator  
23 Limón for attending and listening to this important  
24 conversation.

25 Much more to go here. It's a good starting. I

1 think the objectives that Drew laid out at the start, which  
2 is to just begin to dig into the problem and develop  
3 solutions, have been started in good faith, I believe.  
4 There's a lot more discussion, a lot more data to sift  
5 through, but thanks again.

6           And with that I will close the workshop or  
7 hearing for today. Thank you. Adjourned.

8                           (Off the record at 4:25 p.m.)

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## 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 13th day of January, 2023.



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MARTHA L. NELSON, CERT\*\*367

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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.



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MARTHA L. NELSON, CERT\*\*367

January 13, 2023