MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

JOE SERNA, JR. BUILDING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

BYRON SHER AUDITORIUM, SECOND FLOOR

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APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John Balmes

Ms. Doreene D'Adamo

Mr. Hector De La Torre

Mr. Ronald Loveridge

Mrs. Barbara Riordan

Dr. Alex Sherriffs

Dr. Daniel Sperling

STAFF

Mr. James Goldstene, Executive Officer

Mr. Tom Cackette, Chief Deputy Executive Officer

Mr. Bob Fletcher, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Ms. Mary Alice Morency, Board Clerk

Mr. Michael Carter, Chief, Emission Research and Regulatory Development Branch, MSCD

Mr. Richard Corey, Division Chief, SSD

Mr. Jack Kitowski, Chief, Freight Transport Branch, SSD

Mr. Ajay Mangat, Air Resources Engineer, Goods Movement Strategies Section, SSD

Ms. Cynthia Marvin, Assistant Division Chief, SSD

APPEARANCES CONTINUED

STAFF

Mr. Lex Mitchell, Substance Evaluation Section, SSD

Ms. Yun-Hui Park, Air Resources Engineer, Off-Road Controls Section, Mobile Source Control Division

Ms. Aubrey Sideco, Substance Evaluation Section, Stationary Source Division

ALSO PRESENT

Mr. Andrew Barrera

Ms. Stephanie Batchelor, BIO

Mr. Will Barrett, American Lung Association

Mr. Jack Broadbent, BAAQMD

Mr. Todd Campbell, Clean Energy

Ms. Julian Canete, California Hispanic Chamber of Commerce

Ms. Yadira Carrasquillo, Operation Free

Mr. Terry Davis, Sierra Club

Mr. Chris Dettore, DuPont

Mr. Harrison Dillon, Solazyme

Mr. Carl Dolk, Devine Intermodal

Mr. Steve Douglas

Mr. Todd Ellis, Imperium Renewables

Mr. Bob Epstein, E2

Ms. Susan Frank, California Business Alliance for a Green Economy

Mr. Chris Hessler, AJW, Inc.

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Henry Hogo, South Coast AQMD

Mr. Jim Iacoponi, Propel Fuels

Mr. Paul Kamp, Inbicon

Ms. Jamie Knapp, Environmental NGOs

Mr. Neil Koehler, Pacific Ethanol, Inc.

Mr. John Larrea, California League of Food Processors

Mr. Jim Levine, R Power Biofuels

Mr. Michael Lewis, CIAQC

Mr. Edwin Lombard, CA Black Chamber of Commerce

Mr. Mark Loutzenhiser, Sacramento Metro AQMD

Mr. Jim Lyons, Sierra Research

Mr. Duncan Macleod, Iogen

Mr. Tim Martinez, San Joaquin County Hispanic Chamber of Commerce

Mr. Steven Maxwell

Mr. Jay McKeeman, CIOMA

Mr. John McKnight, National Marine Manufacturers Association

Mr. Paul Monroe

Mr. Ralph Moran, BP

Mr. Simon Mui, NRDC

Ms. Michelle Passero, TNC

Mr. Ken Percival

APPEARANCES CONTINUED

ALSO PRESENT

Ms. Elizabeth Perez, Operation Free

Mr. Mark Riechers, Mercury Marine

Ms. Betsy Reifsnider, CA Interfaith Power and Light

Ms. Cathy Reheis-Boyd, WSPA

Mr. Dan Romasko, Tesoro Corp.

Ms. Dorothy Rothrock, CA Manufacturers & Technology Association

Mr. Seyed Madredin, San Joaquin Valley APCD

Mr. Michael Saragosa, Latin Business Association

Mr. John Shears, CEERT

Mr. Chris Shimoda, CA Trucking

Mr. Lawson C. Stuart, Truman National Security Project

Ms. Eileen Tutt

Mr. Mike Watt, San Diego County APCD

Mr. Mike Williams, IWLA

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PROCEEDINGS

CHAIRPERSON NICHOLS: Before we actually begin, we will start as we usually do by saying the Pledge of Allegiance. If you'll all stand and join me, please.

(Thereupon the Pledge of Allegiance was Recited in unison.)

CHAIRPERSON NICHOLS: And now before the Clerk calls the roll, it's my great pleasure to swear in our newest Board member. We are delighted to have a complete Board. We are grateful to the Governor for having found us a doctor from the San Joaquin Valley who was able and willing to come and serve with us.

And so I'm going to ask him to stand and join me here in the center, and then I will officially swear him in and then he can sign the oath.

(Whereupon Mr. Sherriffs was duly sworn.)

CHAIRPERSON NICHOLS: That's it. That's the same oath that everybody takes in the State of California takes, from the Governor on. Welcome.

(Applause)

BOARD MEMBER SHERRIFFS: Thank you.

CHAIRPERSON NICHOLS: A few general announcements. I think these are pretty much known to everybody who's ever been to one of our meetings, but just to repeat them anyway.

Anyone who wishes to testify and hasn't signed up online should fill out a request to speak card. Those are available in the lobby outside the auditorium. And please turn it into the Clerk of the Board.

If you've already signed up online, you don't need to sign up again. But you do need to check in with the Clerk anyway, or your name will be removed from the speaker's list.

We will be imposing a three-minute time limit, and we'll stick so that, unless things get to be so repetitive that we end up feeling like we have to limit the time even further, but I don't think that's going to be the case.

We do appreciate it if when you come up to the podium if you give your first and last name and if you can put your testimony into your own words, especially if you submitted written testimony in advance. It's just much easier for the Board to follow you if you go straight to your main points. And it will use your time more effectively as well.

Your written testimony will be entered into the record. And I can assure you that the Board members do read the testimony they receive.

For safety reasons, we need to point out the exits at the rear of the room and to the sides of the podium. In the event of a fire alarm, we are required to evacuate this room immediately, go downstairs and out of the building until we hear the all-clear signal that allows us to come back into the room.

And finally -- and this is not part of the usual monthly remarks -- I want to take a couple of minutes here to recognize tremendous contributions to public health and to the ARB's clean air mission: Bob Fletcher and Bob Jenne, two of our long-time staff members who are going to be retiring at the end of this year. Over the past 34 years, Bob Fletcher has shepherded countless items to the Board, with each item reflecting his personal commitment to quality science and a truly interactive engagement with stakeholders.

Bob was a staff engineer at ARB during my first term as Chairman of this Board, and he's gotten a lot older. I haven't. I don't know how that happened. But I have gotten to know him much better during this time around, as he has guided our very significant programs on fuels, diesel risk reduction, energy, and most recently, climate change.

I have personally appreciated his counsel on many of the most complex issues facing the Board as well as his unflagging good humor. He's an amazing cheerful person.

Bob has always acted with integrity and

maintained his focus on what's important in working through the controversial subjects. He's well known for his pragmatism for pushing for public health protection, balanced by a willingness to address real world challenges of implementation.

I'm also willing to share this opportunity with others who may wish to add a comment or two about Bob before we wish him well when he retires at the end of this month. And I will start with my colleague to my immediate right, because I know she's known Bob longer than anyone.

EXECUTIVE OFFICER GOLDSTENE: Chairman Nichols, we have to take the roll. We haven't taken the roll yet.

CHAIRPERSON NICHOLS: Oh, for Pete's sake. Do we really have to take the roll?

EXECUTIVE OFFICER GOLDSTENE: For the record, we do.

CHAIRPERSON NICHOLS: All right. Go ahead. Take the roll.

BOARD CLERK MORENCY: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK MORENCY: Ms. Berg?

BOARD MEMBER BERG: Here.

BOARD CLERK MORENCY: Ms. D'Adamo?

BOARD MEMBER D'ADAMO: Here.

BOARD CLERK MORENCY: Mr. De La Torre?

Mayor Loveridge?

BOARD MEMBER LOVERIDGE: Here.

BOARD CLERK MORENCY: Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK MORENCY: Supervisor Roberts?

Dr. Sherriffs?

BOARD MEMBER SHERRIFFS: Here.

BOARD CLERK MORENCY: Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK MORENCY: Supervisor Yeager?

Chairman Nichols.

CHAIRPERSON NICHOLS: Here.

BOARD CLERK MORENCY: Madam Chairman, we have a quorum.

CHAIRPERSON NICHOLS: Thank you. Have to do it right.

So I'm going to turn the mike over to Mrs. Riordan.

BOARD MEMBER RIORDAN: Thank you.

Let me just say that working with Bob Fletcher has been a real pleasure for me for over 20 years, and I want to thank you for the outreach that you've done over the years. Many people will know you for the technical things that you've led, but I know you as one who was not afraid to go into some community meetings and groups and really be wonderfully calm and collected and thoughtful and taking the message of the ARB and what we are doing for cleaning up the air in California. So I thank you for those many public contacts that you've made on our behalf all these years. Thank you, Bob.

CHAIRPERSON NICHOLS: Yes, Ms. D'Adamo and then Ms. Berg.

BOARD MEMBER D'ADAMO: Well, I have to just reiterate what Madam Chair and Mrs. Riordan have said: Calm, collectible. And the result is I feel in my own personal case is that you give me the confidence, the confidence we need to make the tough decisions. So thank you very much. I've been in a lot of those tough meetings with you as well and really do appreciate all that you've done.

CHAIRPERSON NICHOLS: Great.

BOARD MEMBER BERG: Thank you.

I will also ditto, because I've also been in some of those very tough meetings and have been extremely impressed, not only by your leadership, but by the way you also mentored and brought up other people. And I really appreciated that. And I appreciate your accessibility to me personally, to explain where maybe I wasn't getting it right, but also on the times where you listened. And I really appreciated that. So it was a pressure to work with you.

And I'm sure I speak on behalf, we all wish you the very best. And I hope we get you back on a few projects, I'm sure.

CHAIRPERSON NICHOLS: Yes, Dr. Sperling.

BOARD MEMBER SPERLING: I'll just add to all that by saying, given today's event, this is one of Bob's shining moments I think because he's the one that took this whole low-carbon fuel standard which was a amorphous concept and put together a large team of people, managed it, made good sense out of it. And working with all the stakeholders and turned it over to Richard Corey now. In great shape. So I think today is especially momentous and good time to acknowledge that.

Thanks, Bob.

CHAIRPERSON NICHOLS: When Bob stepped into the roll, he had some big shoes to fill, because his predecessor had been there for such a long time. But he's managed to slip in and out a little quicker than the last incumbent in this job. I hope we're not setting a trend here. I would hate to see that happen.

Bob, on behalf of all the Board, we want to thank you for the significant role that you've played in making ARB a world leader in air pollution control. And we all wish you a very long and fulfilling retirement.

Before I let you saying anything, though, I have to acknowledge another retirement that's occurring this month, because the person who I'm referring to I think is not with us. But our outgoing Assistant Chief Counsel bob Jenne, who served for a period of time as the Acting Chief Counsel, is also going to be leaving us at the end of the year. Bob was with the Office of Legal Affairs since December of 1988 and made very significant contributions to this agency throughout his 23 years service with ARB.

I'm particularly mindful as a lawyer myself of the difficult roll that lawyers often have to play in an agency like ours in advising and giving staff guidance without giving them bad news in a way that makes them not want to come and get advice at all. It's a delicate balance that you've got to be constantly marketing your services to your clients who may or may not always appreciate them, but know that they need them at the time. And Bob was terrifically effective, particularly in shepherding through some of the consumer products regulations, some of our greenhouse gas measures, as well as dealing with some of the trickier issues with the Office of Administrative Law. He's really an ultimate professional with a terrific sense of humor and a balance between his personal and professional lives.

So I'm very glad to announce he is going to be continuing to give us his counsel as a retired annuitant. We want to thank him as well, because he's about to take off apparently for some sort of a trek around the country in a clean diesel van. So we want to make sure he comes back safe and sound.

Now, Bob, I understand you've asked for time to address the Board. So you have the microphone, but please limit your remarks to three minutes.

(Laughter)

DEPUTY EXECUTIVE OFFICER FLETCHER: I actually wrote that part, the three-minute part.

But this is actually a little harder than I thought it was going to be. But the really kind words are very much appreciated, and it's just been really, really a pleasure. I'll do my best to keep it to three minutes.

But for the better part of my life, since 1975, the Air Resources Board really has been my second home. Throughout this time, I've had the pleasure of working on many, many different projects, from quality assurance for air monitoring to fuels and most recently climate change.

But more importantly, I've had the pleasure of working with an enormously talented group of individuals both within the Air Resources Board and our sister agencies, as well as our stakeholders, many of them who are in the audience today.

But I cannot describe how much I enjoy working with the Executive staff members here. It's just really truly an awesome team.

And I have really been honored to have the opportunity to represent staff in front of this Board. Under the outstanding vision and leadership of our Chairman, the members of this Board are truly outstanding. You're insightful. You ask incredibly difficult questions, and you make us better staff by holding us accountable for our findings and recommendations. It is incredibly satisfying to know you will engage in thoughtful discussion with us and listen to what we have to say.

You don't always accept our recommendations, but we always believe that you have acted in an informed, responsible, and independent manner as you should.

I regret that I will not get to know our two new Board members, as I'm quite certain they will continue the Board's tradition of excellence.

I'm also very, very proud of the Board's accomplishment throughout the years, from air quality to air toxic, and now climate change, California has consistently led the nation and often the world in adopting innovative and effective programs that have either been adopted directly or pave the way for similar actions. The examples are many, and I won't even attempt to list them here. But as staff, it is enormously satisfying to know what you do on a daily basis actually matters.

I do look forward to continuing to contribute to the Board's mission, although in a substantially like Mike capacity. I'm sure this will ease my transition to full retirement. However, I'll certainly miss the day-to-day activity at the Board.

I do want to acknowledge my wife Susan who's sitting over here and will wave. After all these years, I thought it was about time she actually came to a Board meeting in person, although I don't expect her to last here very long.

She's been incredibly supporting and understanding of my passion for this effort. I think we both agree it's just time for me to say, "Yes, I can play golf." Instead of, "No, sorry, honey. Must work."

I'd also like to acknowledge Mr. Corey, who will be my successor as a Deputy here. I'm quite confident he's going to do an outstanding job in his training over the last couple years in understanding the program is going to serve him well.

In closing, thanks for the opportunity. It's been a real pleasure. Now on with the agenda and let the fun begin. Thank you.

(Applause)

CHAIRPERSON NICHOLS: Well, let the fun begin.

Today's agenda has two separate items related to the low-carbon fuel standard. The first of the two items today is an update of the implementation of the low-carbon fuel standard, including the results of the first formal review of the standard. It's a non-regulatory item, and no specific action is required or will be taken by the Board.

The second low-carbon fuel standard agenda item is regulatory, and this item staff will be presenting various amendments to the regulation based on their ongoing review.

And I again want to remind folks we're going to be taking separate testimony on each of these two agenda items.

I think everybody knows that the low-carbon fuel standard is one of the essential elements of our overall strategy to reduce greenhouse gas emissions and to meet the targets that were established by AB 32. The regulation requires two formal reviews of the LCFS program, the first of which is being presented today.

The regulation also requires the Executive Officer to convene an Advisory Panel to assist with the staff's review. I understand that the Advisory Panel had its last meeting a few weeks ago, and the final draft of the review report was recently released. I'm looking forward to hearing about the activities of the panel and the staff's assessment of the LCFS Program in its first true year of operation when reducing carbon reductions.

I'm also interested in hearing about the staff's efforts to consider provisions to address sustainability provisions for this standard, which is an issue that has been raised from the beginning.

I also note that we have Mr. Rob Ogelsby and Mr. Pat Perez here today representing the California Energy Commission. Clearly, our partnership on this issue and many others, for that matter, is critical to the implementation of a sound transportation fuels policy and a sound energy policy for the State.

So I want to welcome them in particular and thank them for participating in today's meeting.

Now, Mr. Goldstene, will you please begin the staff's presentation.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

The Board approved the low-carbon fuel standard in April 2009. This year was the first year of full implementation and last year was a reporting only year.

Based on this first full year of implementation, the regulation appears to be working as intended. Fuel providers are in compliance to date and credits are being generated.

We are also seeing the types of innovations that we anticipated. However, there are still some uncertainties with program compliance in the latter years of the program. While there are scenarios that we can construct that demonstrate there are plausible pathways for compliance, there are other scenarios that can be developed that show compliance will be more difficult and potentially costly.

Part of the uncertainty rests on whether very low-carbon intensity alternative fuels in vehicles will be available in sufficient quantities.

You'll hear today from stakeholders who will express concerns about the future as well as stakeholders who are optimistic about the future and the investments and innovation that's occurring.

It's very important that the Board stay the course on the LCFS to ensure that regulatory certainty exists to provide the proper market signal to alternative fuel and vehicle providers and investors.

The design of the LCFS is such that ongoing monitoring will provide adequate opportunity to adjust the program, if needed.

Staff is continuing to work with stakeholders and our sister agencies to look at various flexible compliance mechanisms and will continue to update the Board annually on progress.

Today's presentation provides the results of the first of two program reviews required by the regulation as well as a general overview of the program status. We have several members of the Advisory Panel here today that plan to testify, and we appreciate their efforts because it's been a significant commitment of time and energy.

Following the staff presentation, Mr. Ogelsby, who's the Executive Director of the California Energy Commission, will provide some comments on the program from the CEC perspective.

As Chairman Nichols indicated, our partnership with the CEC staff and management is a very important aspect of the LCFS programming implementation.

Now I'll have Lex Mitchell of our Stationary Source Division begin the staff presentation.

(Thereupon an overhead presentation was presented as follows.)

MR. MITCHELL: Thank you, Mr. Goldstene.

Good morning, Chairman Nichols and members of the Board.

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MR. MITCHELL: I will start the presentation with a little background on the LCFS. And then I will transition to an update on the formal LCFS program review. I will complete the presentation with an update on ARB's sustainability activities.

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MR. MITCHELL: As a reminder, the transportation sector is a large and increasing contributor to greenhouse gas emissions. Transportation emissions are expected to account for about 40 percent of total GHG emissions in California by 2020. Therefore, large reductions in GHG emissions must be made in order to offset expected growth.

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MR. MITCHELL: To address these emissions, the Board has adopted a range of programs, including the LCFS, that work collectively to reduce to GHG emissions from the transportation sector. Some of the different GHG programs that ARB has adopted or plans to adopt in the near future are presented in this slide.

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MR. MITCHELL: The LCFS alone accounts for 15 million metric tons of GHG emission reduction, equivalent to 13 percent of the reductions mandated by AB 32. It is the third largest measure identified in terms of GHG reductions.

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MR. MITCHELL: In addition to reducing GHG emissions, the LCFS objectives include spurring innovation and investment to transform the California fuel market into a low-carbon fuel market.

The LCFS was developed as a durable framework for reducing GHG emissions from fuels that could serve as a model for other jurisdictions. If more jurisdictions adopt LCFS-like policies, it strengthens the GHG reductions of the LCFS.

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MR. MITCHELL: The primary requirement of the LCFS is to reduce the carbon intensity of transportation fuels. Carbon intensity is the metric by which life cycle GHG emissions of the fuel are measured and is sometimes called the currency of the LCFS.

It is important to note that the LCFS is performance-based and remains fuel neutral. This lets the market choose how to reduce the carbon intensity of California's transportation fuels by 20 percent by 2020.

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MR. MITCHELL: The LCFS is structured such that most of the required carbon intensity reductions occur in the latter part of the program.

The first five percent reduction in carbon intensity occurs over the first seven years. Whereas, the final five percent reduction in carbon intensity occurs over the latter three years.

This slide shows the compliance curve for gasoline and fuels that replace gasoline. The compliance curve for diesel and fuels that replace diesel is largely similar.

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MR. MITCHELL: Carbon intensity accounts for all of the GHGs emitted during the life cycle of the fuel, including direct and indirect emissions. Each fuel pathway has a unique carbon intensity which can vary widely based on feedstocks and other key factors.

Credits are generated by producing or importing fuels that are lower carbon intensity than the yearly targets. Deficits are generated by producing or importing fuels that are higher carbon intensity of yearly targets. As a result, it is important to properly account for the carbon intensity to ensure the right mark signal is sent.

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MR. MITCHELL: This slide shows the factors that are considered while performing life cycle assessment of the fuel, in this case, corn-based ethanol. Each step in this slide represents a fuel production step, including land use charge and coproducts. Please note that this slide contains numerical values for illustrative purposes only.

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MR. MITCHELL: An important aspect of the LCFS is the question: Who is regulated? The LCFS includes the concept of regulated parties. This clearly defines who is and is not subject to the regulation.

The LCFS affects primarily providers of petroleum fuels and biofuels. The fuel producer is usually the regulated party. The importer of the fuel is the regulated party if the fuel is produced out of state.

Producers of certain fuels are exempt and may voluntarily opt into the regulation in order to receive credits. Credit trading in the LCFS occurs between regulated parties.

Now I will move on to the LCFS program review update.

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MR. MITCHELL: Although the program is in its early years, the LCFS is working as designed. This is evidenced by the fact that excess credits are being generated and the amount of excess credit generation has increased steadily each quarter this year.

Fuel providers are beginning to make alternative fuels an increasing part of their product slate and have worked to more than double the number of fuel pathways in the regulation.

It should be noted that this year is the first year that reduction in carbon intensity has been required, as last year was a reporting only year.

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MR. MITCHELL: The LCFS regulation requires staff to complete two formal program reviews in consultation with an Advisory Panel. The two program reviews are to be presented to the Board by 2012 and 2015. The program reviews are required to cover a number of topics in order to monitor the ongoing implementation of the LCFS. At the discretion of staff and the Advisory Panel, additional topics can be added in order to enhance the review.

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MR. MITCHELL: As required by the regulation, the Executive Officer established an Advisory Panel to participate in the program review. A solicitation for applications for the Advisory Panel was sent out by list serve and advertised on the ARB website.

The Advisory Panel consisted of 39 panelists who were selected out of a pool of applicants based on qualifications and area of representation. The panel represented a broad range of interests, as shown on this slide.

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MR. MITCHELL: The Advisory Panel was formed to assist staff in completing the LCFS program review by offering perspective from their areas of expertise, as well as commenting on and contributing to the review report.

Panelists were also frequently consulted on an individual basis. Some panelists conducted independent analyses geared specifically at contributing to the review.

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MR. MITCHELL: The review was conducted in a public process. As you can see by the schedule presented here, there were eight meetings conducted prior to this Board meeting, all of which were open to the public and announced by list serve. At these meetings, specific time was lent to public comments.

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MR. MITCHELL: Panel discussions covered all the topics specified in the LCFS regulation, as well as two topics suggested by panelists: The treatment of high carbon intensity crude oil under the LCFS and credit trading. Staff made a concerted effort to ensure that the report captured the range of opinions expressed during the panel discussions.

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MR. MITCHELL: Several major themes emerged from the panel discussions. One of these themes recognize's that the LCFS is in its early years. At this early stage, the market is responding to the signal of the LCFS. However, it is likely that the next generation of low-carbon fuels will be needed in order to meet the targets in the latter years of the program. Many panelists requested that ARB continue to monitor the developing fuels market, which we plan to do.

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MR. MITCHELL: Investments in biofuels have increased over the last several years. This graph shows North American investments in advanced biofuels since 2007.

The market signal sent by the LCFS and other alternative fuel incentives has been heard by investors and they have responded. In order to continue this investment response, it is essential that the market signal of this program remains strong.

The program review that we conducted outlined several concepts that could maintain the strong market signal through enhanced regulatory certainty and additional support for a transparent credit market. The regulatory amendments to be presented later also contain provisions that will enhance regulatory certainty.

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MR. MITCHELL: This slide is a summary of some of the major biofuel investments that have been made in California. As you can see, there is a lot of capital flowing to the California biofuel industry. And much of this is to help meet the demands of the LCFS.

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MR. MITCHELL: Another theme that came out of the panel discussions was the need to maintain and enhance regulatory certainty. Panelists expressed that in order to maintain and increase the amount of investment in low-carbon fuels, there must be certainty in the investors' minds that the regulation will be strong enough to lead to returns on investment.

Suggestions by panelists for how to send a regulatory signal included: Strengthening and expanding the credit market, as well as introducing a flexible compliance mechanism. Although the program review found that no change in course is needed at this point, a well designed flexible compliance mechanism may provide a path toward regulatory compliance if regulated parties experience temporary fuel supply disruptions.

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MR. MITCHELL: The work of staff and the panel ultimately led to a final draft program review report issued in early December. While staff considered public and panel input, the final draft report represents ARB's staff analysis of the implementation of the LCFS so far.

The report does attempt to capture the range of input, opinions, and discussions that occurred during the Advisory Panel meetings. Some of the important areas of analysis in the report are shown in this slide. I will go into further detail on some of these in the next few slides.

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MR. MITCHELL: The report includes an analysis of the supply and availability of the fuels needed to comply with the LCFS, including the challenges to bringing these fuels to market. This analysis concludes that although some fuels, such as cellulosic ethanol are not coming to market as quickly as expected, other fuels are coming to market more quickly than expected. Combined with the continued marginal carbon intensity improvements made by conventional ethanol, there are a range of options available to regulated parties to meet the requirements. There appear to be sufficient supplies of low-carbon fuels in the near term. Continued transformative innovations are required to meet the long-term goals of the LCFS.

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MR. MITCHELL: The report includes an assessment of 16 illustrative scenarios, 11 gasoline scenarios, and five diesel scenarios. These scenarios were built around the concept of finding multiple paths that lead to compliance with the LCFS and were not intended to meet projections. These scenarios show what compliance with the LCFS would look like for different what-if situations.

For example, what if cellulosic ethanol is lower than projected?

Or what if FFVs are readily available?

Some of these scenarios rely on the use of banked credits to meet the standards in the latter years. The conclusions of these illustrative scenarios is that they showed multiple potential paths to compliance with the LCFS.

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MR. MITCHELL: The report also includes an economic assessment. Staff updated the 2009 economic analysis. Updates included: Loss of tax credits and tariffs, higher crude prices, and change in feedstock costs.

The assessment did not take into account carbon intensity based market effects.

The assessment was based on the 16 illustrative scenarios. This work shows there are negligible impacts in the gasoline scenarios and no near-term impacts in the diesel scenarios. The economic work on the LCFS is ongoing and expected to continue in 2012, including discussions with stakeholders. We will work especially close with the CEC on this analysis.

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MR. MITCHELL: The report also includes an environmental assessment. Based on continuous monitoring, staff found that there have been no changes since the environmental assessment completed in the initial LCFS staff report.

Since 2009, staff has completed guidance on biorefinery siting to help air districts deal with the effects of the LCFS and other alternative fuel incentives.

Going forward, ARB plans to continue conducting multi-media evaluations of emerging fuels and working on developing sustainability provisions.

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MR. MITCHELL: Other topics included in the report are listed on this slide. Amendments to the high carbon intensity crude oil provisions and credit trading provisions are being proposed in the next item.

Life cycle analysis updates will be brought to the Board next year. Staff will continue to monitor developing LCFS activities in other jurisdictions.

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MR. MITCHELL: Although the LCFS is still in its early stages, the review indicates that the program is working as designed. This is evidenced in part by the generation of excess credits. However, further refinements to the regulation can help regulated parties and ensure success.

Additionally, communicating regulatory certainty to investors may be essential to the long-term success of the program as this will help spur investments in the next generation of low carbon fuels.

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MR. MITCHELL: Following the Board meeting, staff expects to finalize the formal program review report. Specific items that we expect to continue working on include: Discussions on flexible compliance mechanisms, credit market expansion, and our economic assessment.

Going forward with the LCFS, we expect to perform informal periodic reviews of the program and provide annual updates to the Board. These reviews will include discussions with stakeholders and panelists and will include close work with the CEC.

The next few slides present an update on our efforts to address sustainability.

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MR. MITCHELL: In addition to the LCFS program review, I'm an presenting an update on our ongoing sustainability activities.

As you may recall, when the Board approved the LCFS in 2009, it directed staff to develop sustainability provisions, recognizing that alternative fuels should be made in a sustainable and responsible manner. The common definition of sustainability is shown here and there are typically three major components of sustainability: Environmental, social, and economic sustainability.

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MR. MITCHELL: Pursuant to the Board's direction, staff developed a sustainability work plan and transmitted the plan to the Board in May of 2010. Further, we established a work group consisting of a broad spectrum of stakeholders to help develop sustainability provisions. The work group has drafted core principles and is developing criteria and indicators by which sustainability can be measured.

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MR. MITCHELL: The sustainability provisions will likely be voluntary to avoid trade and commerce issues. However, staff is evaluating some degree of reporting by regulated parties on the sources of their alternative fuels.

Because alternative fuels can come to California from around the globe, third-party certification can play a key role in determining sustainability. Examples of third-party certifiers are: The Round Table for Sustainable Biofuels and the Forest Stewardship Counsel.

One of the key topics that the work group has discussed is the role of incentives. There is a cost associated with getting certified, and sustainable practices should be rewarded. The work group continues to discuss these topics.

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MR. MITCHELL: The work group has also made a first pass through the environmental sustainability principles and is currently working on social principles. The topics addressed in each of these areas are shown on this slide.

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MR. MITCHELL: The next steps in our sustainability efforts are to complete the first pass through the social sustainability component and then begin addressing economic sustainability, as well as other items identified in this slide.

We plan to return to the Board with recommendations in about a year. The provisions could take the form of policies, regulatory language, or both.

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MR. MITCHELL: In summary, the LCFS is working as designed, and ongoing monitoring will take place to ensure its successful implementation.

No Board action is necessary on either the program review or the sustainability update.

This concludes my presentation. I will now turn the mike over to Rob Ogelsby of the CEC.

CHAIRPERSON NICHOLS: Welcome.

CEC EXECUTIVE DIRECTOR OGELSBY: Good morning, Chairman Nichols and Board members. It's a pleasure to be here today. My name is Rob Ogelsby, Executive Director the California Energy Commission.

And before I proceed with the testimony, I, too, would like to offer my congratulations and best wishes to Bob Fletcher and Tom Jennings. I had the pleasure of working with them for many years here at the Air Resources Board and well deserved and a tremendous record of service for the Air Resources Board, air quality, and global warming over the years. So congratulations and best wishes for that.

First, I'd like to echo ARB staff's discussion of the importance of California's low carbon fuel standard as a pathway for reducing greenhouse gas emissions while diversifying our fuel supplies. When fully implemented, the carbon intensity of California's transportation fuels will provide multiple benefits, ranging from lower carbon emissions and improved air quality, to creation and expansion of California's clean energy infrastructure and advanced vehicle industry.

Over the years, the Energy Commission has developed a solid reputation as one of the world's leaders in energy forecasts and analysis. These are used by a wide variety of public and private stakeholders and underlie California's efforts to develop effective energy policy, conserve natural resources, protect the environment, and promote public health and safety, while ensuring adequate energy supplies and economic growth.

Energy Commission staff worked closely with our partners at the ARB and other State agencies, alternative energy, and petroleum industries, and numerous other valued stakeholders to assess a wide range of possible future outlooks. One of the Energy Commission's strengths has been our ability to provide a large range of projections based on a range of assumptions and variables.

With regard to the low carbon fuel standard, Energy Commission staff is still working with the ARB and others to analyze the impacts and potential costs of the program. Unfortunately, some components of the low carbon fuel standard are selectively quoting Energy Commission staff work on one of several cases and studies without context or qualification. It is impossible to predict with 100 percent certainty what various fuels will cost in the future. That is why the CEC analysis analyzes a number of different possible scenarios. Investment and innovation have huge impacts on the future. Who could have predicted that people could afford and would have available more computing power in a handheld phone than one could find in a main frame computer that occupied an entire room.

The Energy Commission is also working hard to help support alternative transportation technologies. Through our alternative and renewable fuel and vehicle technology program, the Energy Commission has awarded more than $350 million to support activities that will develop and deploy clean, efficient, and lower carbon alternative fuels and technologies.

The Energy Commission will invest another 400 million over the next four years. This funding has been critical in attracting private venture capital to California. A recent NEXT 10 study showed California took in $840 million in venture capital investment in the EV-related sectors, representing 80 percent of the U.S. and 60 percent of global venture capital investment in these sectors.

These investments will support the increasing demand for alternative transportation fuels and vehicles. The Energy Commission has funded approximately 4,300 charging stations for electric drive vehicles.

Firm long-term public policy, such as a low carbon fuel standard, provide the market certainty needed to continue to encourage these kinds of investments in California. These policies are essential for building financial confidence of lenders to support cleaner home-grown technologies and in-state fuel production to achieve our energy, environmental, and energy security objectives. The low carbon fuel standard provides the right market signals for investors.

In closing, we support the flexibility ARB has built into the low carbon fuel standard program. We applaud ARB's establishment of the Low Carbon Fuel Standard Advisory Panel and are committed to continue working with our long-standing partners at ARB, along with a host of other stakeholders, to ensure successful implementation of the low carbon fuel standard.

I'd also like to point out that I have Pat Perez, our Deputy Director for fuels and transportation will be here for the duration of the two items to respond to any questions.

CHAIRPERSON NICHOLS: Thank you very much. Thanks for coming to join us here this morning and for your support and ongoing partnership. I think we'll be talking further about all of what needs to be done as we move forward in terms of improving the level of analysis that we're able to do on this rule. But your presence here today is a very strong signal of our collaboration, and we really appreciate it. Thank you.

I think we turn now to public testimony; is that correct?

Are we going to be projecting a list of the witnesses up on the screen there? I'm not quite sure. We sometimes do that.

Well, in any event, we have 36 people who signed up to speak here. And we're going to give you all three minutes. So let's get started.

The first is Duncan Macleod, followed by Bob Epstein.

MR. MACLEOD: Madam Chairman and members of the Board, thank you for the opportunity to speak today. I'd like to comment on the alternative or the flexible compliance mechanism.

And my name is Duncan Macleod, and I'm the President and CEO of Iogen Energy in Canada, which is a world leading biotechnology firm specializing in cellulose ethanol.

I'm here on behalf of the Iogen Corporation, which owns 50 percent of the Iogen Energy. And the other 50 percent is owned by Shell.

Iogen Energy has had a large demonstration plant in Ottawa, Canada producing cellulose ethanol from waste straw since 2004. And we're working on a much larger plant with Shell in central Canada.

I worked for over years in Shell across the global, of which ten were in renewables. And apart from biofuels, that included the hydrogen fuel cells, and I was privileged to meet some of you here a few years ago. But I retired from Shell two years ago.

I wanted to commend the ARB for putting in place the forward-thinking low carbon fuel standard. And Iogen is here today to support the LCFS and I believe a technology neutral standard that drives the future of innovation in transport energy is of critical importance to California and U.S. and the world. But because I want the LCFS to be successful, I'm concerned that the private sector remains committed and takes action. And investors don't worry about regulatory uncertainty, real or perceived. Other risks, such as technology, market construction, et cetera, they can handle.

When it comes to the LCFS, investors who have been asked sometimes to commit hundreds of millions of dollar are asking questions like, "What will the market pay for LCFS credits? Who will buy LCFS credits? What will happen if the market supply of low carbon fuels is insufficient to meet the LCFS schedule? And what will happen if a regulated party finds themselves falling short at the end of the year and there is no additional low carbon fuel and no additional credits available in the market?"

Unfortunately, this type of regulatory uncertainty triggers a reinforcing negative cycle whereby uncertainty about market opportunity leads to under-investment, which leads to under-supply, which leads to under-performance and speculation around reducing stringency of standard, which leads back to uncertainty about the market opportunity.

Now, I noted earlier here that a subgroup of the LCFS Advisory Panel are recommending to you that the LCFS be enhanced by adding a mechanism to address how the ARB will respond in the event that market supplies of low carbon fuel and LCFS credits are insufficient to enable full compliance. This subgroup has also suggested some specific designs for this mechanism, which are clear and predictable. My belief --

CHAIRPERSON NICHOLS: Sorry. That's your three minutes.

MR. MACLEOD: So I'd just like to finish therefore and say that I think this is the kind of mechanism that will ensure stability for the long term and I recommend you go forward and study it. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Bob Epstein followed by Jim Iacoponi.

MR. EPSTEIN: Thank you, Madam Chair.

My name is Bob Epstein. I'm a cofounder of E2 and also one of the Advisory Committee members that has participated over this last year.

I'm here representing a letter that we submitted that was signed by a variety of investors, including Kleiner Perkins, Coastal Ventures, and other 19 major alternative fuel providers, as well as a variety of other representatives. And we had three messages in the letter, which you received.

The first one is the market certainty, which you've heard about, is what's inspiring the $2.4 billion invested so far since the LCFS was established in companies, that that's the fundamental requirement to keep it strong.

We've suggested two enhancements that other speakers will talk about: Flexible compliance mechanism, as well as an advanced trading system.

For our part, E2 produced a report which we sent to you. We wanted to know between now and 2015 if fuel is going to come into California, those companies must already exist. We identified 240 companies capable of meeting supply through providing extremely low carbon fuel. Eighty of those are 100 -- 80 of those are in things other than biodiesel. A lot of them are in biodiesel. That gave me the confidence that 440 million gallons were produced this year in the United States and that these companies' forecasts add up to well more -- a lot more fuel than California needs.

So the question really comes down to not a technology risk, but who is going to pay for the construction of these new facilities? And will they have the confidence to build it?

We think it's unlikely that money is going to come from the established players. And, therefore, a lot of this is going to be new money coming into the market. We call these willing participants.

I'd like to quote a message that was delivered to you by Vinode Khoshla, the single largest investor in this marketplace. "The long stable horizon set by the LCFS gives the industry and other potential investors time to explore the cheapest and the most effective ways to adhere to this standard. However, interest in this will dry up the second the standard becomes vague through undefined triggers or annual reviews or other such mechanisms that you'll hear about later in this meeting."

So in summary, just like seat belts and all the other ideas that have originated in here, the perceived higher costs usually end up being much cheaper and the people in this industry believe the unsubsidized cost of future fuels will be significantly below the $100 per barrel of oil that we currently see over time.

So given the opportunity, California can have a more secure fuel supply. It can be low carbon. It can be cost competitive. Working together, we can meet this. We thank you for your time and attention. And I yield my retaining time to the next speaker.

CHAIRPERSON NICHOLS: Well done. We don't allow for that kind of trading. Nice try. Thank you.

Jim Iacoponi followed by Harrison Dillon.

MR. IACOPONI: Good morning, Chairman Nichols, members of the Board.

My name is Jim Iacoponi. I'm Vice President of Operations for Propel Fuels. Propel owns and operates the largest network of renewable fuel retail locations in the state, spanning from Sacramento to San Diego.

Today, I represent the customers, the individuals, businesses, and public fleets that chose lower carbon biofuels for their vehicles. Every day, these customers speak with their purchases. And these tell us two things.

First, customers with access to our locations vote in support of the LCFS by choosing ethanol and biofuels blends that we offer. Low carbon fuel pumps in the state sell volumes at twice the rate of the national average, outperforming those in Minnesota, Illinois, and even Nebraska. California's drivers have already begun this shift toward a lower carbon future.

Second, customers tell us that price does matter. Widespread change, for it to occur, low carbon fuels must not only be widely accessible, but also affordable. Californians will continue to chose low carbon fuels when they see reasonable value at the price of the pump and the cost per mile.

What's the take-away from this? First, consumers need locations to buy renewable fuels from. These locations require investment. Propel's investors need to know that the LCFS will continue to stimulate the demand for our products into the future. Keeping the compliance targets intact will underpin investor confidence and allow Propel to expand consumer access to these fuels.

Second, consumers need value to switch from something they know to something new. Access to low carbon fuels will grow, but these fuels will likely carry a higher cost. And ethanol blends require a price discount at the pump. No one brags about having paid more for fuel, and adoption of these fuels depends on price we put out on the street. The value Propel realizes from selling its credit bank is critical to offset these costs and provide the right price point for consumers to buy our products.

Propel needs a credit trading market that is liquid, and giving us confidence that we can cash in our credit bank when we choose to and having the transparency about the price of CI credit at any time. We are relying on the value of our CI bank and the availability to readily monitize that value to be able to offer our products to the consumers at a reasonable price and provide our investors an attractive return.

A market with too few participants and too few trades will be neither liquid, nor transparent. Without this value from our CI bank, customers won't buy and our investors won't continue to back us.

Today, we ask the ARB to hold firm in its commitment to the LCFS targets without annual re-evaluation. This will give greater assurance to our investors that they be rewarded and for their risk taking.

And, finally, we ask the State take bold steps to support the active trading of CI credits, make it a broad, liquid, and transparent and expand the credit market as per the letter that we have endorsed. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Mr. Dillon followed by Todd Campbell and Chris Hessler.

MR. DILLON: Thank you. I'm Harrison Dillon, the cofounder and President of Solazyme. Solazyme is a publicly-traded biotechnology company based in south San Francisco, California, with about 180 employees. We raised about $370 million in equity financing from our IPO as well as equity investors, including Chevron. By 2015, we expect to have capacity in place to produce over 140 million gallons a year of oil and we are on track for that.

Our process works by converting plant sugars directly into crude oil. It's feedstock flexible, so sugars such as sugarcane and waste biomass are converted into crude oil, which then goes directly through existing oil refineries to make hydrocarbon fuels that are chemically indistinguishable from petroleum-based fuels.

We have manufactured in commercial-scale facilities in Pennsylvania and California since 2007. And in the last two years, we've manufactured about 450 metric tons of oil using this process.

We have a partnership with the United States military that wants direct drop-in hydrocarbon fuels, not ethanol, to use in ships and boats and planes. And they have used our fuel in ships, boats, and planes and helicopters. They recently sailed a destroyer up the California coast on our fuel. This is not experimental. This is not laboratory scale. The Navy is sailing destroyers on our fuel. And next summer, in collaboration with Dynamic Fuels, the Navy will sail an entire aircraft carrier group in Hawaii on our fuel. This is coming from a 30 million gallon a year facility that Dynamic owns in Louisiana that makes drop-in hydrocarbon fuels.

Our cost of production, we announced over a year ago at full commercial scale on biomass feedstocks dropped below $3.44 a gallon and we have made progress since then.

So, again, we're not talking about experimental scale. We're not talking about high cost. We're talking about drop-in hydrocarbon fuels, not ethanol, not cellulosic ethanol -- hydrocarbon fuels available today. And we are confident that they'll be available in the volumes required by 2015. So the combination of the very low carbon intensity of this oil and the LCFS means that we will not just consider California as a market, we will prioritize California as a market. And the fact that these fuels are already in use today in large volumes means that the contention that you're very likely to hear today that we should scale back or get rid of the LCFS because the fuels will not be available does not have a basis in fact. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Todd Campbell.

MR. CAMPBELL: Good morning, Madam Chair and members of the Board.

My name is Todd Campbell. I represent Clean Energy. And I think this is a very proud day for the Air Resources Board.

Clean Energy is very proud to have made up 9 percent of the low carbon fuel standard market for the first quarter, and we hope to continue on that kind of progress. We just celebrated last night our Christmas party, and we announced -- we're a Seal Beach, California, company. We announced we have 1,019 employees at Clean Energy.

Of course, we're a national company. But we're going from about five -- station every five days and we're hoping to get to station every two days, adding to our 257 stations nationwide.

And, of course, our target markets are heavy-duty fuel use. So all the heavy-duty trucks that consume about 20 gasoline gallons per year. It's a lot of low carbon fuel. Clean Energy is very proud that natural gas can reduce greenhouses gas by about 23 percent.

We also have a renewable division that we also launched. We're producing from one of our plants 40,000 gasoline gallons per day. That's an ultra low carbon fuel, 90 percent reduction. We're going to be able to blend that fuel with our customers. Our customers are saving up to $2 a gallon in fuel savings. So the low carbon fuel standard is driving this kind of progress.

I want to commend staff, Mr. Fletcher, you've done a great job. Mr. Corey and Mr. Vegara are wonderful people to work with. You've done a great job, and you're leaving the organization in great hands. I'm sure a lot of that had to do with you.

I just want to say staff has been extremely responsive. We've had several issues that we were able to work out, sit down with staff. And I'm on the Advisory Panel. I think that staff was very deliberative, did very careful consideration of the targets. They looked at the analysis. We're going to meet those goals in 2020. We might do better than 10 percent.

So with that, I want to cut it short. I want to extend my comments to the next item to spare you some time.

But we strongly support low carbon fuel standard, and we hope that it serves as a model not just for California, but for the nation. Thank you.

CHAIRPERSON NICHOLS: Thank you very much.

Chris Hessler, followed by Will Barrett and Jim Lyons.

MR. HESSLER: Madam Chair, members of the Board, to succeed, the LCFS must create the most favorable investment climate possible in California.

A flexible compliance mechanism or FCM would significantly enhance investor interest in low carbon fuel investments here in California by clarifying the rules of operation for the program during tight markets. And that clarity will accelerate investments and increase options for compliance with the standard. Crafting an FCM should be an urgent priority for this Board.

I had the privilege of serving on the Advisory Panel. And it was an excellent forum for bringing forward ideas to explore that would increase market certainty. It was led by your fantastic staff, and this was a topic -- the flexible compliance mechanism was a topic that came out. And it was -- in the words, it has been endorsed by a number of groups sense it's been discussed as something worthy of further explanation. A number of the speakers immediately prior addressed it. The content of a letter that you've already received that raises this issue, a number of other letters have already been sent to you from groups as diverse as Shell and the Advanced Ethanol Council.

I think the central issue is this: As regards to the flexible compliance mechanism, there are questions around what would happen in a tight market. If a regulated party comes to the end of the year, finds themselves in a situation where they cannot buy the fuel or the credits they need to comply at any price, because the market happens to be tight for whatever reason at that moment, there's an uncertainty what would happen. How would that regulated party be treated? Would they be fined for not buying what the market has -- will not offer at any price? Or would they be allowed to comply with some lesser standard? If that's the case, what signal would that send to those parties that actually invested and complied?

Addressing that uncertainty with clear, predictable rules is necessary. And the sooner it happens, the more quickly investment will flow. And the more quickly the investment flows, the greater the chance of succeeding the goals of the LCFS.

So I would urge you to direct staff to pursue this with deliberate haste.

And I would also say that there are -- developing mechanisms like this has -- it will be difficult. There are some issues that have to be guarded against. This can't turn into something that is a tax on regulated parties or a tax on California motorists. And it has to address the uncertainties. It can't introduce new uncertainties. But everybody who's talking about this seems to think that can be done and balances can be met. We encourage the staff to develop a proposal for your consideration.

CHAIRPERSON NICHOLS: Thank you.

Will Barrett.

MR. BARRETT: Good morning. My name is Will Barrett with the American Lung Association of California.

I was happy to represent the American Lung Association on the Advisory Panel as the public health representative. We believe successful implementation of the LCFS and AB 32 are vital to improving air quality and public health in California. So we're very happy to be part of the progress as it got off the ground.

We think staff should be commended for proposing, adjusting, and carrying out a clear schedule for a productive review of the LCFS in the first year. The process offered a fair discussion among stakeholders, sister agencies, and the public to probe the basic structures and data needs that also will make the LCFS an even more successful.

A reoccurring theme that you heard this morning through the report is that the LCFS is successfully off the ground. It's generating credits. And while there are areas to monitor, no major changes are warranted at this time. We agree with that assessment and think that the review provided stakeholders the ability to delve into important issues and set up your staff well to continue to monitor and update you on progress to meeting the 10 percent reduction goal by 2020.

You have received written comments from the oil industry today that the review is somehow inadequate and that there should be an annual review process. This review that we just went through was conducted on the schedule required by the regulation which the industry lobbied for. We'll have another chance to review the program fully in two years. Adding the reviews into the program is really nothing more than a way to slow down progress and disrupt the market signal, especially when considering that their letter is asking for an offramp to be built into each annual review.

We think that nothing could be more damaging to the success of the LCFS than an annual review process designed essentially to disrupt that signal and kill the program.

We believe that the compliance pathways laid out by staff in the report are credible and show pathways to success. We've heard that the advanced alternative fuels industry is ready to scale up production to meet the long-term goals of the program. And we also appreciate the CEC taking the time this morning to correct the record on their analysis and how it's been represented.

The first review shows that the program is off to a good start, there is ongoing work to be done, but we can meet the goal.

Later today, you'll consider amendments to improve the program, and we urge you to improve the program by strengthening the signal to commercialize the cleanest fuels possible and not muddy that signal by constructing these offramps as we go forward.

So thank you again for the opportunity to serve on the panel. Congratulations to Bob and to Richard for your new role. And happy holidays. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Jim Lyons, and then Ralph Moran and Andrew Barrera.

MR. LYONS: I have a couple of slides I'd like to use. Good morning.

My name is Jim Lyons. I'm a senior partner at Sierra Research. I'm here today to talk briefly about some work we've done for WSPA regarding LCFS compliance forecasts and compliance costs forecast. The current draft version of our report is available on the WSPA website. I understand it's been provided to the Board members.

Next slide, please.

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MR. LYONS: Starting with compliance, this slide shows the cumulative credit forecast based on data from the Federal Energy Information Administration, otherwise known as EIA, that assumes as does the Energy Commission in the most recent work I've seen on the website, that California will get a share of total U.S. biofuel production in response to the Federal Renewable Fuel Standard Program that is proportional to its consumption of total U.S. gasoline and diesel fuel.

As shown, this forecast indicates that credits will be generated until 2013 under the LCFS, at which time the forecast supply of low carbon intensity fuels can no longer keep up with the increasingly aggressive LCFS requirements. It also highlights how big that problem is forecasts become over time relative to where the LCFS is now. As you can see, the line really dives off there to the right, compared to where we're at today in 2011.

I'd also like to point out that the one point where we can compare this forecast to reality, 2011, the forecast level of credits based on EIA data it was 951,000 metric tons. That's about 60 percent higher than the approximately 600,000 metric tons reported by CARB staff, but it's still in the same ballpark.

Next slide, please.

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MR. LYONS: Facing the credits shortage shown on the last slide, ARB staff prepared in a review report the illustrative scenarios you've heard talked about today. These include a number of optimistic assumptions, including biofuel supply, that were required to show LCFS compliance. What this slide shows is the cumulative incremental cost for that assumption relative to the RFS regarding using CARB staff's optimistic supply assumptions and the most recent fuel cost forecast data released by the Energy Commission.

I did again check their website today and then data from November 14th, which is what we used in our analysis is the most recent information available.

As shown, there is relatively little cost impact until 2014 when compliance becomes much more challenging. Beyond 2014, cumulative LCFS compliance cost is forecast to start increasing in an almost exponential fashion, reaching a total of about $54 billion by 2020.

Thank you for the opportunity to testify and for your time. I'd be happy to answer any questions you may have about our work.

CHAIRPERSON NICHOLS: Thanks.

Ralph Moran.

MR. MORAN: Good morning. Ralph Moran with BP America.

We also wanted to add our congratulations to you, Bob. Working with you, it's been impossible not to like you and enjoy working with you, even though you're often telling us "no," but in a nice way. So enjoy yourself. I'm jealous.

We participated also on the Advisory Panel, and we very much appreciated the opportunity. We look forward to future participation on the panel.

We knew from the outset this first go-around was going to be challenging because very early stages of the program. And we want to thank staff for all the effort they expended focusing our conversations. I know it was difficult.

We do have one item we'd like to highlight. And that is this: We believe that there was a huge and potential critical missed opportunity in this first go-around. There were really robust discussions in the panel around the feasibility of the regulation. And there were concerns raised by many, including BP, that the regulation may become infeasible as early as 2015. We understand there is uncertainty as to when these fuels will come around and how much they may cost. We understand that at this early stage, reasonable people could disagree. But we believe there is no doubt that the assumptions upon which the low carbon fuel standard were originally based two years ago do not match the reality of the advancement of these technologies today.

It's clear that the necessary volumes of the fuels are further off than assumed by staff, and it's not at all clear that these fuels will cost less than conventional fuels, as has been assumed by staff.

These are clear warning signals that should not be ignored. Given the lack of progress in these fuels being brought to the market, we have asked staff to put in place provisions in the regulation that would make clear to all how the regulation would be adapted, should these fuels not be available. We don't believe staff should wait until compliance challenges begin to occur before these provisions are adopted.

So we're not asking staff to reduce the targets now. We're simply asking them to provide transparency to regulated parties, investors, and others, and to put in place these provisions that would be triggered only in the event of clear infeasibility. Doing this now will avoid the type of abrupt and arbitrary changes to the program, the prospect of which truly create uncertainty with investors and regulated parties.

The time to consider and adopt these provisions is now, before problems begin to occur, not after, so that all stakeholders will be operating with the same information.

So we request the Board direct staff to work with the Advisory Panel in 2012, this upcoming year, to devise amendments to the regulation to address how it would be adopted in the event or adapted in the event of clear infeasibility.

CHAIRPERSON NICHOLS: Thanks, Ralph.

Okay. I'm now making an announcement for everybody who's in this room that we're going to cut off sign-ups for this particular item in exactly two minutes, because as this conversation gets interesting, more of you seem to decide you'd like to come and share your thoughts with us. I have a Board meeting to get through here today with a couple of actual regulatory items. So since this is not, in fact, a decision-making item, we're going to cut it off. But we'll continue to leave everybody their three minutes, at least for now. All though people that use less get extra credit, we just won't tell you what it is.

Andrew Barrera.

MR. BARRERA: Madam Chair and honorable members of the CARB Board, my name is Andrew Barrera. I'm here today representing the South Bay Latino Chambers of Commerce. We are concerned on several levels about the direction that the low carbon fuel standard implementation is taking.

First, our members in our communities are already suffering from the higher energy costs as a result of other regulations, such as the renewable electrical standard. Billions of dollars in higher fuel costs from the lower carbon fuel standard will hit us hard at a time when we can least afford it.

Secondly, oil refineries are a very important and essential economic engine in the South Bay area and down in Southern California. They provide jobs, tax revenues, and support for local community programs that are suffering right now during the economy. While some may assume that the oil companies can afford billions of dollars in lower carbon fuel standard costs, those costs will most certainly be offset at the expense of the local communities, at the expense of jobs, economic activity, and direct support for our community. We simply cannot afford it.

It is also doubtful that new biofuel facilities will spring up over night in our neighborhoods to make up for the economic losses in the region. We have no problem with the goals of the lower carbon fuel standard. Our problem is with its implementation.

The reality is how the rule is currently structured. It is likely to achieve carbon reductions by putting local businesses out of business by limiting consumer mobility through higher fuel costs.

We urge the Board here to take serious the California Energy Commission's projections about the costs and feasibility of this rule and take the appropriate action to minimize the negative impact on jobs and impact on our local communities.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Chris Shimoda and then Betsy Reifsnider.

MR. SHIMODA: Thank you, Chairman Nichols and members of the Board.

My name is Chris Shimoda. I'm Manager of Environmental Affairs for the California Trucking Association.

I'd like to start by stating that our association is not opposed to the development and introduction of alternative fuels or the concept behind the low carbon fuel standard. However, we have some major concerns with the practical implementation of this program.

First, the issues associated with exceeding five percent blends of biodiesel have been completely glossed over. Staff's illustrative scenarios show B5 introduced as early as 2013, despite the fact there will be hundreds of thousands of trucks on the road that are not designed or warranted to work with blends over five percent.

For instance, Cummins recent guidance for B20 contain the explicit statement that blends above B5 should not be used in engines older than 2002. Detroit Diesel is as of now still under testing phase, meaning it's not just only model year trucks. There are trucks being sold today that are not warranted above B5. Almost all warranties require B100 blend stock to meet ASTM specifications and for the provider to be biodiesel Board accredited. Yet, a 2005 national renewable energy laboratory survey found that 50 percent of blend stock they sampled did not meet the specifications, and currently only 80 percent of the producers out there are national biodiesel Board accredited.

These basic issues of fuel quality and compatibility are part of the reason Portland backed off the ten percent biodiesel requirement last year. And yet, this program review does not address how California plans to deal with these same fundamental obstacles by 2013. We also have major concerns surrounding the wildly optimistic assumptions staff has made about advanced biofuel availability and the overall cost of the program.

CTA has prepared additional detailed written comments that we have submitted to the Clerk of the Board and we ask that the Board please do their due diligence in assessing the cost and viability of this hugely important program for the ultimate end users of low carbon fuels, the people, and businesses of California.

This is a matter of sound policy design, not politics. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Betsy.

MS. REIFSNIDER: Good morning. My name is Betsy Reifsnider. I'm representing both California Interfaith Power and Light and Catholic Charities in the Stockton Diocese.

We strongly support the low carbon fuel standard, and we urge you to reject any attempts to weaken here. Here's why.

A strong standard could help reduce asthma attacks, heart, lung, and other diseases, reduce the thousands of premature deaths and premature births annually, and can cut billions of dollars in health care costs that are associated with air pollution.

At a recent symposium sponsored by Catholic Health Care West, one of the speakers, a public health nurse, had this to say. "Climate change is both a moral and a health issue. This discriminatory impact that climate change will have on vulnerable populations makes climate change one of the most significant environmental justice issues of our time."

And at the climate talks in Durban, South Africa, the Catholic Cardinal of Honduras actually compared the lack of progress on climate and environmental policies to Apartheid. And he asked, "How long will countless people have to go on dying before adequate decisions are made?" And fortunately for us in California, our Air Resources Board does have the courage and does make these decisions. And for that, we're very grateful to you.

And then in conclusion, I'd just like to highlight a recent report by the U.C. Davis Center for Regional Change called, "Land of Risk, Land of Opportunity," in which they documented how more than one million people in the San Joaquin Valley are at higher risk for illness and shortened life span because of polluted air and water, low incomes, and lack of access to health care.

So these are the costs in human lives and health that we ask the Air Resources Board to consider paramount as you make your decision on the low carbon fuel standard today. And I thank you. And happy holidays to each and every one of you. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Paul Kamp and then Steve Douglas.

MR. KAMP: Good morning, Chairman and Board.

My name is Paul Kamp. I'm with Inbicon. We're a Danish company, a division of DONG Energy. Inbicon has designed and built and owns and operates the world's largest cellulosic ethanol plant. That fuel is for sale in Denmark to consumers right now at a five percent blend. It enhances the acting and improves the overall emissions profile of that conventional fuel blend.

DONG Energy is in power and heat, oil and gas, cellulosic ethanol, and other renewable energies. They have a very ambitious target of 85 percent reduction voluntarily of the carbon emissions from their operations in Denmark and northern Europe.

In Denmark and Kahlenberg where our plant is, we purchased wheat straw from Danish farmers. We convert that into ultra low carbon cellulosic ethanol and clean burning lignin, which is sold in commercial terms for power generation.

And we also work in industry symbiosis there. We run on shared steam from the power plant. And there is also an oil refine across the street that runs on the shared -- the same shared steam pipe. So there is good symbiosis and integration there. We are here because of LCFS and because of our partnership with Pacific Ethanol and other west coast ethanol companies that we are in discussions with.

Denmark and California have similarities, mostly people live on the coasts. And inland, you've got rich and diverse and productive agriculture. But you do have to make the most of your land and farm resources there. So what we've done now is put together a way that we can build a replicable platform where we are using regional feed stocks with an existing grain ethanol plant on the west coast. We can do this in all of the grain ethanol plants on the west coast and the ones in Nebraska and in the corn belt that provide California with their fuel. We see purpose-grown crops as one of the key things in developing that in California where there is a higher value for the land.

What we do is take the excess stream and power that we generate from the cellulosic ethanol process, through lignin CHP, we share that steam and power with the grain ethanol plant. We reduce their energy costs. Reduce substantially the carbon intensity of the grain ethanol production. We can do that right here in California first. In fact, we think this is probably the best place to do it.

So we're talking about creating jobs, creating supply chain activities, making ultra low and low carbon fuel at lower costs than conventional gasoline.

CHAIRPERSON NICHOLS: Thank you. It was very interesting. Your time is up.

Mr. Douglas.

MR. DOUGLAS: Thank you, Chairman Nichols and members of the Board.

I'm Steve Douglas with the Alliance of Automobile Manufacturers. The Alliance is a trade association of twelve car and light truck manufacturers representing about three-fourths of the new vehicle market.

I'm here today because the Alliance and our member companies support the low carbon fuel standard. Achieving an 80 percent reduction in greenhouse gas emissions by 2050 will require not only the reduction -- not only the efforts of automobile manufacturers, but also a reduction in the carbon intensity of fuel.

As always, our primary focus is to make this program as effective as possible. And we appreciate the efforts of the staff to expand opt-in provisions, add fuel pathways, and update the life cycle assessments to reflect the real world markets. We applaud California's efforts and the leadership that you're providing for low carbon fuels. However, the most efficient and cost effective approach is a single integrated national program. And we would urge the Board to work with your federal counterpart in that light.

Finally, we strongly support the findings of the Low Carbon Fuel Standard Advisory Committee, and specifically that at this time it's premature to adjust the compliance schedule and that such adjustments would be harmful to the development of markets for low carbon fuels. Thank you.

CHAIRPERSON NICHOLS: Thank you.

MR. ROMASKO: Madam Chair, members of the Board, my name is Dan Romasko, Executive Vice President of Operations for Tesoro Corporation, with responsibility for our refining, marketing, logistics, and marine facilities.

Within the state of California, Tesoro owns and operates two refineries, representing approximately 40 percent of our refining capacity in the U.S. So I'm grateful for the opportunity to speak on this important regulation.

As a member of the Western States Petroleum Association, we were both part of and support the comments that are made by WSPA. Tesoro has serious concerns about the LCFS Program, which I'll comment on within two general areas.

The first is what we believe to be the near term program and feasibility. While low carbon intensity materials such as cellulosic ethanol, are expected to become commercially available as early as 2012 and 2013, we think that the production levels will be insufficient to meet demand as early as 2014 to 2015. This pace of production problem is not restricted to California, but also extends to the federal level and is restricting our industry's ability to meet federal RFS2 blending. Fortunately at the federal level, an annual process exists to evaluate both national and global conditions and make an adjustment to allow blend target adjustments, which brings me really to the second area I'd like to comment on, which is unintended consequences of California's low carbon fuel standard.

Significant quantities of Brazilian ethanol will be required to comply with LCFS by the year 2013. This Brazilian ethanol is of lower carbon intensity and will be shipped to the U.S. from Brazil. At the same time, U.S. based produced corn ethanol will be shipped to Brazil. The result will be an increase in CO_2 emissions generated from the energy consumption of the transportation.

Further, there is an inadequate infrastructure to accommodate the required input of the Brazilian ethanol into the state of California. That's going to require our industry to construct new facilities, which will subsequently be idled once the sufficient levels of cellulosic ethanol do become commercially available.

On a global level, we learned there is a pitfall in driving rapid conversion to renewable fuels before we fully understand the unintended consequences. These lessons include Europe's experience with biodiesels derived from palm oil, deforestation, and shifting of land from food-based crops to energy-based crops.

We do urge CARB to conduct annual reviews of the low carbon fuel standard program and the targets as we believe adjustments are and will continue to be necessary.

CHAIRPERSON NICHOLS: Okay. Thank you.

Stephanie.

MS. BATCHELOR: Good morning, Chairwoman Nichols and members of the Board.

On behalf of the Biotechnology Industry Organization, I'm pleased to participate with CARB staff as a member of the LCFS Advisory Panel.

BIO is the world's largest biotechnology organization, providing advocacy, business development, and communication services to more than 1100 member companies worldwide.

BIO's industrial and environmental section includes more than 85 member companies. California is home to nearly one-third of these members, including many of the world's leading advanced biofuels developers and their partner technology providers.

Nationally, at least 15 commercial advanced biofuels projects representing nearly 200 million gallons of production a year are now under construction and scheduled to come online by 2014. In other words, the advanced biofuels market stands poised and ready to deliver fuel to the California market and elsewhere in the near term.

The industry is also growing in ways we never considered, such as the recent strong interest in advanced biofuels from U.S. military. Algal and sugar-based biofuels are being researched and developed in California by companies such as Solazyme, Sapphire Energy, and Amyris with assistance from federal programs. And since California is home to many military installations, this national effort will benefit the State.

CARB should, thus, take care to ensure pathway availability for new and innovative technologies, such as military biofuels.

BIO's involvement in the Advisory Panel sought to help the LCFS program better incentivize investment in advanced biofuels as part of the solution to a low carbon economy. BIO and its members believe there are several things that CARB can do to assist in making the market signal clearer and to enable the program construction to drive investment in advanced biofuels. For example, conduct a more comprehensive economic analysis in 2012, ensure that the anticipated pricing mechanism is defined in a way that educates market players as to how carbon intensity values will create a differential value, include cellulosic numbers that have numbers that are greater than EIA values.

The nascent compliance market is not yet sending a meaningful signal to investors. Create a price transparent credit trading system that presents market information in a way that protects specific transactions, but is transparent about market level trends in real time. Quarterly information is not sufficient. Create an alternative compliance mechanism that directly incentivizes investments into low carbon fuel technologies that once constructed will create compliance credits. And do not lower the ten percent reduction targets.

We look forward to working with CARB to continue to evolve the LCFS into a leading driver of advanced biofuel investment in California and throughout the United States.

We hope the ideas we shared here today in combination with BIO's formal comments over the past several months have been helpful towards that goal.

BOARD MEMBER RIORDAN: Thank you very much for your testimony.

The next speaker is Lawson Stuart.

MR. STUART: Thank you for the opportunity to talk about the importance of low carbon fuel standards.

My name is Lawson Stuart. I want to relate to you an experience I lived through during my service in the U.S. Air Force as an enlisted firefighter.

When I first became a member of the fire department at Beale Air Force Base, an engine company would respond to every medical emergency that was dispatched. This is consistent with civilian municipalities when they respond to 911 medical emergencies in their jurisdictions.

After serving with the department for about a year, the Air Force begin making significant budget cuts. I was shocked by some of the changes that were made and the cut that really made me concerned was when we stopped automatically sending engines to the medical emergencies and instead could only respond when ambulance personnel requested us.

Why was this change made? The high cost of fuel.

Up to that point, mainly due to the response-ready state we maintained at the department, our engine company consistently beat the ambulance to medical scenes. Statistics support that the first ten minutes of someone experiencing a trauma or medical emergency are the most critical when treating potentially fatal injuries and illnesses. The National Academies of Dispatch have established a maximum of twelve minutes for general and six to eight minutes for more serious response is the acceptable standard. Due to those cuts, we were no longer responding to calls within that acceptable time frame.

I tell you this because it was a perfect example of the men and women who had already sacrificed so much in the wars, receiving less care within the gates of their military base than they would outside of those gates, all because the price of the fuels used to power the emergency vehicles had gone too high for them to respond to all dispatches. Part of keeping troops' minds at ease during the fulfillment of their duty is to afford them and their families the best care we can. Those families become the nation's responsibility. This particular budget cut put the lives of our men and women in uniform and their families at risk.

Investing in clean and renewable sources of energy is vital to our national security. When the acceptable standard of care for emergency responses on our military basis is compromised, we do have a national security problem. This program goes even deeper. Our addiction to oil is costing lives. According to a report by the U.S. Army, one in 24 casualties in Afghanistan happened while escorting fuel convoys. That's one reason why solar panels on generators, biofuels, and other renewable technologies are currently being used by our military in Afghanistan to save lives and make us stronger.

The cost of doing nothing is too high. In light of the families of those who serve and their many, many sacrifices, I charge that we cannot afford to overlook the threat that our addiction to oil poses. I strongly urge you to continue to invest in a robust, low carbon fuel standard. Thank you.

BOARD MEMBER RIORDAN: Thank you, Mr. Stuart.

Elizabeth Perez.

MS. PEREZ: Good morning. My name is Elizabeth Perez. I'm the owner and founder of GC Green.

It's an honor and privilege to be here this morning and be able to share my story.

My military service began here in Sacramento when I enlisted in the United States Navy 15 years ago. And on my journey, I met Seaman Palmer, San Diego native. I connected with her instantly. We're both from California with similar backgrounds. We both had the drive to succeed and find better opportunities.

Shortly after training, we learned we were going to be deployed in several different regions. I was deployed to the 5th and 6th fleet, and Seaman Palmer was assigned to the USS Harry Truman and then later assigned to USS Cole.

While I was on deployment, I got news the USS Cole was attacked by terrorists. This news changed my life forever. I had lost my father during the first Gulf War. And now my friend, my shipmate, Seaman Palmer.

You can imagine the frustration that I had and so many others had felt when we learned our addition to oil was helping fund the very same terrorist organization that attacked the USS Cole.

Last month, I was invited to speak at the statewide Texas Growing Green Communities event. I believe it was November 15th. It was a month from now. And I also had the privilege to hear Senator Ogden speak in regards to our addiction to oil. And he did state in 2003 when we invaded Iraq, it was for oil. And I also learned he's also a Navy veteran and his son is currently serving in the Middle East.

We need a solution to this serious threat. And a low carbon fuel standard is part of this solution. That is why I and other veterans across the country have joined the energy security campaign called Operation Free to help our country create a solution for our dependence on oil. And this is also why I started GC Green, which trains and employs veterans throughout the state of California in clean energy jobs: To create a solution. By helping reduce our oil dependence, energy policies like California's low carbon fuel standard will help keep America safe.

And I want to add one more thing. While I was in Texas, it was mentioned many numerous times that California is a leader in sustainability and adopting policies that protect our environment and also protecting America. So I urge you today to take that stance moving forward. Thank you very much.

BOARD MEMBER RIORDAN: Thank you very much for your testimony. Jim Levine.

MR. LEVINE: Thank you, Madam Chairman and members of the Board.

First, I want to acknowledge your leadership in tackling a huge challenge. And I know how hard that is. One of our companies, R Power Biofuels, is a new producer in California. Over the last three years, we invented a biodiesel production technology that I think deals with a lot of the quality issues and reliability issues that the industry has faced. And we are about to expand our production technology -- our production plant to a thousand barrels a day. By midyear, probably 2,000 barrels a day by the end of the year.

So I think in the short term, there's likely to be particularly with what you hear from some of the other speakers here, there might be excess capacity in the short term. And one of the things I would like to encourage is that you really firm up and expand the credit market. And I know your regulations say that credits from the LCFS will be applicable to other AB 32 programs, but I'm not really so sure your staff -- well, your staff told me you could not use it in other programs. I think that's an where I think if it was usable in other programs, we encourage you to make this happen.

I think that unleashing creativity and the capital that's partly represented here today, I think there's opportunity to really satisfy some of the other carbon reduction targets, buy more low carbon fuels, particularly biodiesel.

In that regard, I'll also say that with the super high quality of biodiesel that could be made now that wasn't available six months ago, we think -- and we've seen now people have been able to successfully use biodiesel in very high blends, upwards would be 30. But it's going to take CARB's help in working with the manufacturers to deal with the warrantee problems that the manufacturers are currently living with. They're based on old data, old technology. But it's going to take your help. A company like ours can't do that ourselves.

Last, I want to say that we got a new pathway approved through your process with your staff. When I first looked at that procedure, I thought it was going to be extremely difficult. It actually was very straight forward, and your staff did a really great job of getting this done with us. So we now have a trail to biodiesel pathway in California with a very low carbon intensity.

Last thing I want to say, I know you guys are looking at sustainability certifications and all that. I just want to caution you not to impose too many extra requirements on companies that make biofuels, as long as we're living within the law and complying with environmental laws and so forth. In the quest from going to extremely good to perfect, you can really cut down the availability of supply. So I would just encourage you not to load up too many other things on top of us as it is now. Thank you very much.

CHAIRPERSON NICHOLS: Thanks.

Yadira Carrasquillo.

MS. CARRASQUILLO: Good morning ladies and gentlemen of the Board and guests.

My name is Yadira Carrasquillo. I proudly served the U.S. Army for 11 years as a public affairs officer. I'm a lucky individual since I have two countries that I love and I will defend to the death is United States and Puerto Rico. I call home and deploying support of Operation Iraqi freedom. And after I came back, I moved to California. I loved it and started working in energy sustainability industry. I always knew the military consumed a lot of fossil fuels, but it wasn't until I deployed that it was good reality check.

It was scary, but the part that was really scary, it was how dangerous it was. Working in the media operation center, we get notifications of every situation and incident that happens. And most of this IEDs and loss of lives of military and contractors that people don't talk about that we have over there, most of the units that were hit were supporting units. Meaning like, supporting units, like fueling, like fuel units.

As a veteran and grassroot American, I'm concerned. Concerned that our country has so much dependence in other countries, countries that can manipulate, taunt us, and control us every time they want, by just adjusting the price of fossil fuels. Every time we purchase oil, we are strengthening countries that wants to hurt us. And we are weakening our national security. I have a problem with this and so does my comrades and other grassroots Americans. We cannot defend our country and democracy so that other countries could control us. We defend this country so we could see our future generations happy, healthy, but most of all, free.

Ladies and gentlemen, you have the power to defend this country, too. It's in your policies, in your actions from today on. It's in your -- today, we can adopt all sorts of clean and safe energies without exposing the lives of those who defend this country.

The cost of fossil fuels have been paid unfortunately in blood. And no country should expose their citizens and future generations to this. We have the power to change this. You have the power. I believe that in order for our country to be completely independent from international bullying is to have control of our energy. And our future depends on you. Thank you.

CHAIRPERSON NICHOLS: Thank you for coming.

Neil Koehler.

MR. KOEHLER: Madam Chair, Board members, my name is Neil Koehler. I'm the CEO of Pacific Ethanol. I'm here today representing California's ethanol production industry. We are very strong supporters of LCFS. Have been from actually before the program was finally adopted and continue to be so.

The program is working. As was presented in the prepared remarks from your staff, it is sending the right signals to companies like ours. We are investing in lower carbon technology across the country to meet these requirements. Many thought that the kind of commercial and economic investment required would not be made. It is being made. We are seeing it in California. We are seeing it all over the country, which is why we are seeing excess credits generated in the early years. It is working.

In California, it did provide the incentive to restart ethanol production facilities that were idle. It's critical not only for meeting the environmental goals of the state, but a wonderful example of how it is providing a signal to bring jobs and economic development back to the state of California.

Today's ethanol companies, California ethanol companies are producing on an annual basis 160 million gallons a year of the lowest carbon ethanol commercially available in the United States, right here in the state of California. With the incentives that are provided by the low carbon fuel standard, we are driving those numbers down further. You heard from Imbicon on how we are working with them to integrate the advanced biofuels into our current production technologies. And that is critical.

It's often not appreciated that not only is the current generation -- the first generation of ethanol companies and processes is the bridge to advanced biofuels, particularly cellulose ethanol, which have so much promise and why all of the companies in California are working diligently to integrate that technology into their plants and further lower their carbon score.

Going forward, it is regulatory certainty which you've heard a lot about. Can't over emphasize that. It is absolutely critical to drive the continued investment that we need to leverage the very substantial capital and strategic commitments necessary to realize these ambitious goals.

On the science, it's important to get the science right. I know there is a tremendous amount of effort going into this and applaud staff's efforts to do that. When it relates to CI scores, indirect land use, there obviously is more work to be done. And in terms of credibility and certainty, that's important.

We also need market access so that this can be good for consumer choice and flexibility. E15, E20 trying to get more ethanol, flex fuel engines. Those are rule-makings that need to begin now to make sure there is the market opportunity to recognize these goals. And to make sure that we continue to recognize the opportunities, both economic and environmental.

Thank you very much. Keep up the good work. I guess I didn't get any extra credit.

CHAIRPERSON NICHOLS: Thanks. Okay.

Cathy.

MS. REHEIS-BOYD: Good morning, Madam Chair and members of the Board.

My name is Cathy Reheis-Boyd. And I'm President of the Western States Petroleum Association. Our members collectively produce the majority of transportation fuels used in California, which makes me really popular today.

I appreciate being a member of the Low Carbon Fuel Standard Advisory Panel.

We have not opposed the goals of the low carbon fuel standard, and we are not asking CARB to abandon it. We are asking CARB to take a few reasonable steps to ensure a well-intentioned program does not unduly disrupt the transportation fuels market and negatively impact fuels providers or injure the California economy.

The success of this program is dependant on many fuels and energy sources that have not been invented and are not yet available at commercial scale.

I get the importance of innovation, I do. What I don't get is why we continue to put compliance scenarios in play that aren't realistic. And rather than putting what I think should be realistic cases together and spending our time finding ways to enhance their chance of success, we really need realistic assumptions about the fuels, about the vehicles, about the infrastructure and the timing so that the program doesn't fail. We're all about trying to make the program succeed, but it has to succeed in a way that makes sense.

Rule design coupled with the realities of the alternative fuels market have led us to conclude that this policy will likely become infeasible and unworkable well before the 2020 compliance date. I do appreciate the uncertainty and the recognition of that by James Goldstene in the opening comments.

California's jobless rate is second highest in the nation. Higher fuel costs translate as we know to loss of jobs, which of concern given 11.7 percent unemployment in California. I know this Board is sensitive to that fact. I know you care about that fact. Sierra Research discussed why the program is likely to become infeasible in 2015 time frame and discuss the potential cost between now and 2020, which are significant. And we have submitted that important detail to you.

So it is important that you send a message that recognizes the uncertainty, that avoids the setbacks, and it creates a regulatory framework in which the LCFS can have the best chance of success.

These are modest and prudent requests in my opinion. I noted them to the Advisory Panel during the process. And they are:

Conduct annual reviews with the CEC on program feasibility and costs. If the program is going well, an annual review will strengthen the signal, not weaken it.

Develop appropriate triggers to identify market disruption so we can make adjustments. These are not offramps. These are reasonable governance.

We should look at alternatives to this approach, because we don't have the corner on wisdom on any given day.

And we need a thorough of analysis of the impacts to the refining industry in the state of California with all the regs coming at them at one. The key to success in any endeavor is how we're going to adjust and look at this as with go forward. And I thank you for taking the time and I thank you for having the LCFS Advisory Panel.

CHAIRPERSON NICHOLS: Thank you. Thanks for all your work on the Advisory Committee.

Just say concerning the representation from the Committee here today, we have gotten an incredible amount of work out of you people. I don't think we pay you anything either. It was really a good deal for the State of California. Thank you.

Dorothy Rothrock. And Dorothy is followed by Chris Dettore and Simon Mui.

MS. ROTHROCK: Sorry I wasn't right standing there.

My name is Dorothy Rothrock. I'm with the California Manufacturers and Technology Association. I also Chair the AB 32 Implementation Group, which is a broader coalition of business association and taxpayer groups.

The IG has committed written comments. I'm here for the manufacturers this morning.

As you know, manufacturing investment creates high jobs and is the biggest wealth creator of all economic sectors. We believe the cumulative impact of this LCFS regulation and other climate policies will, in fact, impose significant new costs on manufacturers, which will add to the weakness we already suffer in the sector. We have data tracking the rate of manufacturing investment in California since 1977. Between '77 and the year 2000, we attracted 5.6 percent of U.S. manufacturing investment.

Since 2001, California has been receiving only 1.9 percent of U.S. manufacturing investment. The decline means that aging and deprecating facilities and equipment are not being renewed at a sustainable rate.

In environmental terms, California manufacturing is an endangered species. And if this low rate of investment continues is heading to extinction. It's important to note that this data is a comparison of California with other states. It does not take into account the shift of manufacturing from the U.S. to other nations.

We believe California's energy costs are a big factor. A manufacturer deciding to deploy millions of new capital looks at least ten years down the road to estimate costs. In California, they see high costs from low carbon fuel standard, as well as 33 percent renewable portfolio standard and cap and trade. This can be avoided in other states, and they are not likely to choose California as the data is already showing.

So regulators should be paying attention to the cumulative impacts of all of our energy policies. If we value manufacturing, we need to be flexible and adaptable enough to shift time lines and take new directions to avoid serious harm to the economy. I urge you to adopt the recommendations that Cathy Reheis-Body has described from WSPA and the AB 32 IG to lower the costs of the LCFS. Thank you.

CHAIRPERSON NICHOLS: Okay. Thanks?

Chris Dettore and Simon Mui.

MR. DETTORE: Good morning. And thank you.

Just a brief comment. I'm Chris Dettore from DuPont Environmental Sciences. We'll make up some time here.

DuPont supports maintaining the existing greenhouse gas reduction targets within the low carbon fuel standard regulation to support near-term investment in advanced biofuel facilities. Change or uncertainty in government policies would be counterproductive at a critical time at the development of this industry. DuPont cellulosic ethanol is planning to start construction on its first commercial facility in 2012.

Thank you very much.

CHAIRPERSON NICHOLS: Good work, thank you.

Simon.

MR. MUI: Hi. Simon Mui. I'm a scientist with the Natural Resources Defense Council.

First want to thank Bob Fletcher for his years of work. I've spent about three years working with him on the LCFS. It's been a pleasure every time. And I know this isn't a goodbye, because based on your predecessors.

But in the mean time, we'll see you on the golf course.

As a member of the Advisory Panel, you know, my impression is that ARB's conducted a very thorough open review process: Nine full days of 39 people meeting together going through 13 different issues.

I want to highlight just three main take-home messages that I got from the Advisory Panel. The first one you've heard a lot today, let's make the pro increase the certainty of the program, and not weaken it by creating uncertainty. Investors need a signal -- a stable signal that the LCFS program will continue. If investors don't have that signal, it becomes a self-fulfilling prophecy they don't invest and there can't be compliance with the LCFS.

Second, I just want to recommend that there are actually based on our analysis that the LCFS's targets can actually be achieved with sufficient investments in regulatory certainty. Heard this from many of the biofuel producers on the Advisory Panel. This is what utilities, natural gas, other fuel providers are saying we can actually bring these fuels to the market, given the right investment climate, the right regulatory certainty.

And finally, I'd just like to say that in the next slide, there's been a lot of discussion, a lot of criticism about ARB's economic analysis. And we've looked at some of the work that the oil companies have presented back in the Sierra Research report. And it's frankly let me trying -- scratching my head to figure out where these cost estimates compare and fall and were developed.

In terms of the peer review literature, in terms of cost numbers that we see, I'm just going to show one example for cellulosic ethanol. The straight line going up is the estimates from Sierra Research showing actual increase in cellulosic cost going seven times higher than the peer reviewed literature from agencies such as U.S. DOE, U.S. EPA, International Energy Agency, the National Academies of Sciences.

So I want to make sure that as we go forward the economic analysis is done in a manner that is peer reviewed, is done in a manner that takes into account input from peer reviewed sources. Let's ensure that we can go forward in a manner that is reasonable and peer reviewed and based on sound science. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Chris Malins and then John Shears.

MR. MALINS: Good morning. I'm Chris Malins. I lead the International Fuel Council on Clean Transportation. And I had the privilege of serving on the Advisory Panel for the low carbon fuel standard.

In an earlier role, I wrote much of the staff review of the first year of the British renewable transport fuel obligation. Coming from that background, I can honestly say I've been impressed at every stage with the quality of the staff review project for the LCFS in California and with the commitment of the staff. And I believe that the report which has come out of this is an excellent report and an example to all other programs in this field.

The LCFS, as I understand it, aims to be a transformative program. I think the staff report says that the staff believe this is possible.

We have also heard Sierra Research report opinions against this. I find the Sierra Research analysis unconvincing and in some ways uninteresting. I think it tells us that if no transformation occurs, then the program will not succeed. And I don't think that that is news to anyone. We believe that a transformation is possible.

Success will require investment in innovative alternative fuels. I think the LCFS has the potential to be an important driver of that investment. At the same time, one hears again and again that one of the barriers to the LCFS becoming a more effective driver is the perception of uncertainty. In that context, I agree that unduly increasing the regularity of review would send the wrong signal. I also support and was involved in work on flexible compliance mechanisms.

Over the next decade, the LCFS in California is going to be an exemplar to programs also in the United States, as it already has been, to programs such as the British Columbian low carbon fuel regulation, and to programs across Europe, as 27 European member states look to implement the fuel quality directive in Europe over the next five years or so.

I believe that standing by this program will make it a transformative program, not just for California but for the rest of the world. And again, I thank the staff for their commitment and for the excellent work which has gone into the first review. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

John Shears.

MR. SHEARS: Good morning, Chairman Nichols and members of the Board. And welcome to Dr. Sherriffs on his first Board hearing. Not an easy topic for your review today.

I'm just here to speak in support of the standard. And as one of the several Advisory Panel members, to offer kudos to the staff for an excellent and balanced report.

If I had known the RPS was going to be brought up today, I would have brought along some research that our organization, the Center for Energy Efficiency and Renewable Technology has done to show how, in fact, the RPS is leading to more green jobs in California. So we do have research on that. I'm not sure what data the lady earlier was referring to, but we have data showing that the RPS is beginning to lead to green jobs in California.

I'd like to highlight Chris Malins, a colleague from the Advisory Panel, who mentioned these other sibling regulations that are being developed throughout the US, Canada, and Europe. Fuel quality directive is still up for consideration at the European Commission and will be discussed at a meeting on January 19th. My understanding is there won't be a decision necessarily made at that meeting, but going forward they're also looking to see what California does together. These regulations can produce considerable market for low carbon fuels through the world.

With respect to high intensity crudes, I'd just like to make note of the fact that Canada -- I'm from Canada, so my home country pulled out of the Kyoto Protocol and the Kyoto Compact earlier this week. I understand Canada has been making assurances to the California Air Resource Board that they'll be doing all sorts of things doing their best to improve the performance of Tarsand's syncrude, but it may call into question Canada's commitment going forward on climate policy, given Tarsand's are expected to account 15 percent in coming years of Canada's overall all greenhouse gas emissions.

At the same time, Quebec just adopted its cap and trade program, so I'd like to just put it into the broader context that this regulation is part of an overall global climate strategy that we need to remain focused on. And I think it's also important for moving forward new economic and -- new economic opportunities and new job development within California. Thanks a lot.

CHAIRPERSON NICHOLS: Thanks.

Mike Williams and Edwin Lombard.

MR. WILLIAMS: Good morning, Madam Chairman and members of the Board.

I want to thank you for the opportunity to testify today.

My name is Mike Williams. I'm here today on behalf of the IWLA, the International Warehouse Logistics Association. We are an association of over 500 member companies throughout the United States and Canada who represent the third party logistic carriers, many of whom employ over 1,000 workers.

We move products efficiently and safely

throughout North America with ships, trains, planes, and trucks and provide additional third-party logistics services and thousands of warehouses.

I'm here today to ask that you suspend the diesel requirement of the LCFS, the low carbon fuel standard, of course. In 2009, the IWLA submitted comments to the Board asking that you complete the rulemaking process, adhere to the Administrative Procedures Act and remove diesel fuel from the LCFS until such time that a fuel recipe could be tested and an economic analysis completed.

Today, there is not an adequate economic analysis of how fuel providers will comply. We have many concerns that we feel need to be addressed before CARB continues on the path of the California-only diesel LCFS. These concerns are:

Biodiesel fuels are more expensive than diesel fuel. How can you add something more expensive to current fuel and come up with a less expensive product?

IWLA believes CARB has failed to accurately assess the actual cost impacts of the LCFS. According to forecasted fuel cost data currently being analyzed by a group of end users of diesel fuel, diesel fuel market prices will significantly be higher than diesel fuel purchase in and around competing ports in Washington, Canada, and the Panama Cannal gateways.

Adequacy, reliability, and affordability of transportation fuels are essential to the success of this complex program. In 2010, as part of the larger coalition called the Western States Goods Movement Alliance, IWLA asked the Board to eliminate diesel fuel from the low carbon fuel standard as it applies to diesel fuel.

We are quickly approaching 2012 and the compliance path is not evident. California continues to suffer from the highest unemployment rate in recent history. Its recovery depends on creating new and permanent jobs. Simple economics dictate that any increase in the cost of transportation fuels will only worsen California's already anemic economy. Jobs are painfully scarce and consumers have suffered enough. Thank you.

CHAIRPERSON NICHOLS: Thanks.

Edwin Lombard and then Jay McKeeman and Jamie Knapp.

MR. LOMBARD: Good morning, Madam Chair, members of the Board. My name is Edwin Lombard. I'm here today on behalf of the California Black Chambers of Commerce.

We are generally supportive of the goals of the low carbon fuel standard. But we are concerned that you are moving ahead with implementation based on faulty and insufficient analysis.

This is very likely to result in higher fuel costs and possible fuel supply issues which will have serious consequences on businesses and consumers and could also put the program itself at risk for failure.

We have been here before raising concerns about the cost of LCFS and other CARB policies. And our experience has been that CARB staff consistently downplays these costs, insisting that even the most ambitious policies including all of AB 32 would be virtually cost free.

On the other hand, the Chair of this Board has publicly stated on numerous occasions that in order to achieve the goals of AB 32, it will be necessary to put a price on carbon. With all due respect, we can't have it both ways. Both the reduction in carbon intensity of conventional fuels and the development, manufacturer, and distribution of biofuels will require intensive investments that fuel providers will, of necessity, pass along to consumers. This would appear to constitute a price on carbon and a steep price at that.

Before moving forward, further with the planned implementation of LCFS, we would appreciate hearing from CARB a realistic assessment of what this price on CARB will be -- of carbon will be, a realistic cost benefit analysis of the program. At the very least, we believe the process of the LCFS should be carefully monitored with annual reviews employing independent analysis by the CEC and a means of modifying or suspending the policy, should the cost provide prohibitive or the hoped-for biofuels market not develop at the rate projected.

Thank you very much.

CHAIRPERSON NICHOLS: Thanks.

Jay McKeeman and Jamie Knapp.

MR. MCKEEMAN: Good morning, Madam Chair and Board members.

You have a difficult job. So what's new?

The problem as I listen to various witnesses testify this morning is whether you provide a security for the investment community or whether you provide security for California motorists.

To this point in time, there's been no accurate estimate of what the California motorist is going to have to pay for the low carbon fuel standard. Until such time that CARB can give that accurate assessment done in a collaborative manner, peer reviewed, we believe this regulation needs to be taken off the shelf or put on the shelf, however you want to state it.

We have provided testimony in our written comments about a variety of technical issues with the low carbon fuel standard. There are issues about how fuel distributors can distribute these new fuels and how they are vetted for the marketplace and whether marketers and distributors incur a lot of extra liability for fuels that haven't been certified for a variety of transportation aspects. This is not covered under the fuels LCFS. This is, we hope somebody will take these steps and make them come to pass. There is no certainty.

And until the low carbon fuel standard addresses these issues, it creates more confusion and uncertainty, not only for marketers but for California motorists. Your obligation, in our opinion, is to consider the impact of the California motorist. Until you can adequately and accurately assess the impact of the motorist, you need to pull this off the regulatory agenda. Thank you.

CHAIRPERSON SAWYER: Jamie Knapp and then Michelle Passero.

MS. KNAPP: Good morning, Madam Chair, members of the Board.

I'm Jamie Knapp, J. Knapp Communications.

First, I'd like to congratulate Mr. Fletcher on many, many years of service and Richard Corey for taking over big shoes. We appreciate all the staff's work over the last few years.

I'm here presenting a letter today signed by more than 40 State, national, and international organizations, environmental health groups, environmental groups, and public interest organizations. This is an updated version of the version this was submitted earlier online.

These trusted organizations are groups that you know well and have heard from already today and will hear from later this afternoon as well. They're groups like the American Lung Association of California, Coalition for Clean Air, Natural Resources Defense Council, and Environmental Defense Fund.

Some of these organizations you may not know, but they're watching and they're watching from afar. They're groups like Friends of the Earth Europe, the Focus Association for Sustainable Development in Slovenia. So groups from the around the world are watching what you're doing today. They know the low carbon fuel standard will protect public health, cut our dangerous addiction to oil, and job producing next generation clean fuels, fuels that help meet our long-term climate goals. It's a win-win for the environment and for the economy.

So I'm going to stick to a couple of key high points from this letter and let most of the colleagues from the other organization who are here identify some of the more details they will talk to you about.

A few could points. Please reject oil industry attempts to weaken the standard; strengthen the proposed dirty fuels provision; and stay the course on implementation.

Direct staff to continue implementing the rule on the schedule that you established. You established this rule back in 2009. Continue that process, that forward momentum staff is keeping you moving forward on, and we hope you will continue to do that.

Today, your action is sending important signals to industry about investment. We're hearing a lot about that this morning to other states, nations that are all considering very similar policies.

The letter urges you to continue in your leadership role of adopting and implementing strong policies that advance next generation fuels. The world is watching. Thank you.

CHAIRPERSON NICHOLS: Thanks.

Michelle and then Julian Canete and Tim Martinez.

MS. PASSERO: Good morning.

I'm Michelle Passero with the Nature Conservancy. The Nature Conservancy strongly supports the low carbon fuel standard and its timely and ongoing implementation to help California meet its greenhouse gas reduction goals.

We've appreciated being part of the LCFS Advisory Panel and continue to participate in ARB's sustainability working group for the LCFS program. We commend staff for all its hard work on both these fronts.

We do urge the Board to continue supporting the timely development and incorporation of sustainability standards into the LCFS and recommend a clear time frame be set to actually complete these standards.

I spent the past two weeks in Durban at the climate negotiations and it really emphasized the importance of local, state, and regional actions through greenhouse gas emissions and also really highlighted all the great work that California is doing and how important it is as a precedent and a model.

It also reminded me firsthand about how important sustainability criteria are and how they will be for the LCFS program. They do represent a wise up-front investment that will pay ongoing dividends in the future in the form of minimizing risk and ensuring the long-term supply of renewable fuels by protecting our natural infrastructure and the communities that enable their supply and production in the first place.

It is especially important also as other states and regions, as we've heard a few times now, are clearly looking to California as a model as they develop their own LCFS programs. So we do ask that ARB stay the course on LCFS implementation and continue to pursue a meaningful way to include sustainability standards into the program.

And as always, we're happy to remain a resource in this effort. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Julian and then Tim Martinez.

MR. CANETE: Thank you, Chairman Nichols, Board members. Good morning. And thank you for this opportunity to address you.

My name is Julian Canete, and I'm president and CEO of the California Hispanic Chambers of Commerce. I'm here today to share with you our concerns about the likely impacts the implementation of the low carbon fuel standard will have on our members, their families, and the communities. It appears that the cost of feasibility of the LCFS have been significantly under-estimated. The California Energy Commission has expressed concern over the plausibility of CARB staff's assumptions and has projected the rule will cost fuel providers billions of dollars over the next few years. Those costs will undoubtedly be passed along to the consumers and small business owners. When you consider the sharp increases in energy costs, we are already facing as a result of other regulations, such as cap and trade and the renewable portfolio standard, this is an added burden to our members and the economy at large cannot afford.

Madam Chairman, you have often stated that

California needs to put a price on carbon. Our question is just how high do we believe our energy costs need to go in order for the policies to succeed? We feel strongly that the public deserves an honest answer to that question as well as objective, thoroughly researched and realistic cost of specific programs, such as LCFS, before we are presented with these bills. With that goal in mind, we urge you to avail yourselves to the expertise of the Energy Commission to obtain independent analysis of the costs and feasibility of the LCFS.

We also request that you establish a requirement for annual review of the program that will allow for immediate adjustments should it be determined that the costs are excessive or that carbon reduction requirements are not attainable based on current conditions. I thank you for the opportunity. Thank you.

MR. MARTINEZ: My name is Tim Martinez, and I'm here representing the San Joaquin County Hispanic Chamber of Commerce.

Coming from a county where the unemployment rate is 15.7 percent, that's a third higher than the state average. We're extremely sensitive to the things that could negatively impact our businesses and jobs in San Joaquin County.

One of those things is the low carbon fuel standard. CEC has estimated that the LCFS will cost fuel providers billions of dollars. Those cost increases will be passed along to businesses and consumers, not only at the pump, but in the form of higher prices for fuel dependent goods and services.

Our businesses can't afford those higher fuel costs and maintain payroll at their current levels. That means more layoffs, less tax revenue for our county and our communities, and even greater strain on public services.

The CEC has also questioned the availability of sufficient quantities of biofuels to meet the LCFS's carbon reduction requirements. That could cause supply shortages, which would tend to drive fuel prices even higher.

We understand your agency has been charged with reducing greenhouse gas emissions, and we support that goal. But we cannot support putting small businesses and jobs at risk in order to achieve this. We urge you to consider adjustments to the rule that take into account the cost and feasibility issues raised by the Energy Commission and to consider possible alternatives to the LCFS that might be a more cost effective way to go. Thank you for your consideration.

CHAIRPERSON NICHOLS: Eileen Tutt.

MS. TUTT: Good morning, Madam Chair and members of the Board.

My name is Eileen Tutt. I'm the Executive Director of the California Electric Transportation Coalition. Our members include both publicly and investor owned utilities, as well as auto makers.

I want to first congratulate my friend, Bob Fletcher and Bob Jenne, wherever he is out in the ether, if you are retiring in a matter of Mike Scheible, I will look forward to seeing you around quite a bit.

I really do appreciate the opportunity to testify today, because CalETC and every one of our members fully supports the low carbon fuel standard regulation. We believe that it is absolutely essential that this state move away from a total dependence on a single fuel in the transportation sector. And we see the low carbon fuel standard regulation as a key policy driver. We are hopeful that this policy will be replicated at the national level and even the international level.

I want to point out that on Wednesday of this week, there was an advertisement that ran in the Capitol Weekly, I believe. It was signed by auto makers, by utilities, by natural gas providers, by associations like ours, the Natural Gas Vehicle Association, the California Municipal Utility Association, in support of the low carbon fuel standard regulation and our need to diversify the transportation fuel sector.

There was also an op-ed signed by Sacramento Municipal Utility District and the San Diego Gas and Electric Company as well as SoCal Gas supporting the low carbon fuel standard, and that ran in the Sacramento Bee and it supported the amendments you'll hear later today.

I'm going to conclude and cede my time to the Board by saying that your leadership on the low carbon fuel standard is critical. At both the national and the international level, the European Commission is considering making amendments -- a decision on high carbon fuels, and they're watching what this Board does today. You can take us one giant step forward to a more sustainable and diverse transportation fuels market. And I ask that you please not scale back on this regulation and that your current review schedule is sufficient and it helps provide some market stability.

Thank you for your time and consideration.

CHAIRPERSON NICHOLS: Thank you.

Susan Frank and Paul Monroe.

MS. FRANK: Thank you, Chair Nichols, Board members and staff.

My name is Susan Frank. I am here today as the Director of the California Business Alliance for a Green

Economy. We are a network of 1200 mostly small and mainstream businesses across the state who support California clean energy policies.

Our members strongly support the low carbon fuel standard as it is a policy that will enhance our energy independence and also strengthen our economy.

It's important to note that California residents and businesses are spending $65 billion at the pump annually and the majority of that money is leaving the state. That does not benefit the business community.

And I respectfully disagree with my colleagues in the Chamber of Commerce business. I spent ten years in the Chamber of Commerce business. While I respect their opinions, this is one place where we do disagree.

Eileen mentioned the advertisement that was placed in the Sacramento Bee. Our Alliance helps sponsor that ad. We're really pleased with the businesses and utilities and auto makers that signed on. We have big business associations like Small Business California, Silicon Valley Leadership Group, Clean Tech San Diego, Sierra Business Council; and regular businesses, big ones like Levi Strauss; and a small one like Ross Moore pastries down in Signal Hill that actually cosigned. They cosigned an op-ed that was printed in today's paper in the L.A. Daily News. Ross Moore has transitioned its fleet to natural gas. And this is a small company that gets this is a good thing for California.

So you're going to hear from more folks today, from the Latin Business Association. You have comments in your packet from Small Business Majority. All of these companies who employ tens of thousands of Californians, support the work to strengthen the low carbon fuel standard believe it is a positive step for the business community and good for California. Thank you.

CHAIRPERSON NICHOLS: Thank you, Susan.

Paul Monroe and then Michael Saragosa.

MR. MONROE: Thank you, Madam Chair and Board members.

My name is Major General Paul Monroe, retired. I was a former Major General of the National Guard.

I wish to express my appreciation for being able to address you on this important topic.

I've listened to many presentations. You have a lot of good recommendations. Not all agree with each other. And I don't envy your job in sorting them all out.

I served over 46 years in the United States Army and the California National Guard. During that period, I've dealt with national impact of our addiction to fossil fuels. For some time, like most, I felt that fuel was just something you put in your vehicles, aircraft, and generator to make them run, without regard to anything out.

However, about 25 years ago, I discovered that even though the National Guard is mostly funded by the Feds and we have to follow federal regulations, when using State roads and highways, we also have to follow State regulations and State emissions standards, which are much more -- I was going to say severe. But they're not severe.

It was a shock to me as Battalion Commander at that time and in my organization I had 250 Humvees that is they run on not very good gas mileage and neither fuel-consuming equipment.

Initially, our dependence on fossil fuels only impacted the level of our training. Do we have enough fuel to train or not. But since the Gulf Wars one and two, the National Guard in particular reserve components overall have become an operational force. And what goes on with fuel now impacts lives.

I'm sure many of you have seen the news where Pakistan is upset with us again. They hold up our fuel convoys and then they allow them to be ambushed. And this costs lives of Americans that are trying to help in Afghanistan.

All American national security leaders, the

Pentagon, Department of Defense, Department of State, they all agree that we need this low carbon fuel standard.

And I need to cut to the chase because this clock runs faster than when you sit over there.

But California has led the nation when it comes to clean energy. We strongly encourage you to continue the tradition of leadership and re-authorize a robust public interest energy investment program. These programs have and will continue to play a vital role in reducing California's consumption of oil and contribute to clean energy development.

In the words of Retired Marine Corps General Anthony Zenini and Commander in Chief of U.S. Central Command, "We will pay for this one way or another. We'll pay to reduce greenhouse gas emissions today or we'll pay for them later in military terms and that will cost human lives."

Thank you.

CHAIRPERSON NICHOLS: Thank you. You know, I probably should have told you this before, I never cut off anybody who has access to tanks or weapons, just a matter of principle. Thank you. Appreciate it.

All right. Mr. Saragosa followed by Stephen Maxwell. And our final witness of the day is Terry Davis.

MR. SARAGOSA: Good morning, Madam Chair, members.

First off, I'd like to thank you for all the hard work on the LCFS. I know lots of hours and time has been put in on behalf of both the Board, as well as all of the stakeholders involved.

Again, my name is Michael Saragosa on behalf of the Latin Business Association and its 3,000 members statewide. We're here today to support the LCFS. We believe the economic analysis shows there will be a net savings on gasoline prices.

We've all seen the wild fluctuations that happens in gas prices throughout the state. And while we're on the downside of that right now, thankfully, we know that ultimately those base line prices always increase. And so we believe the LCFS will lead not only to lower prices, but more sustainable prices with really next generation -- with next generation investment in California grown technologies. And that money will stay here in California. It will help grow small businesses as well as large business. That's why Latin Business Association strongly supports the LCFS.

And lastly, you know, we do represent many ethnic businesses. And we work with lots of different groups throughout the state. We see this as also a social justice issue in that we represent some of the most economically depressed and environmentally challenged areas and communities. We believe LCFS will lead to a better economic standard, better environmental standard, and a better quality of life for many people. So thank you for your time.

CHAIRPERSON NICHOLS: Thank you.

Steve Maxwell.

MR. MAXWELL: Thank you, Chairman Nichols.

My name is Steven Maxwell. I'm a thoracic surgeon and member of the American Lung Association and California's Leadership Board here in Sacramento.

As a lung surgeon, I know the damage caused by the polluting nature of petroleum fuels. Every day, I see in our hospitals and emergency rooms the old, the young, and everyone in between struggling to breathe, innocent victims of California's air pollution problems.

Across the state health and medical organizations, community activists, and others are keenly aware of the damages caused by petroleum extraction, transportation, refining, and consumption. Petroleum use is a contributor to our severe air quality problems and related public health emergencies, including asthma attacks, chronic lung illnesses, and premature deaths.

When the LCFS was adopted in 2009, you received letters and petitions from leading State and local health organizations, as well as over 100 doctors, nurses, respiratory therapists and other medical professionals who wanted to support your efforts to adopt a true clean fuel standard for California.

We know that the LCFS can play a big role in promoting improved air quality and public health and is essential to meeting our AB 32 greenhouse gas reduction goals.

We support strong ongoing implementation of the program as a key strategy for bringing about clean fuels, clean cars, and clean air in California and beyond.

As we saw with the defeat of Proposition 23, Californians consistently support clean air programs and want policy makers to reject oil industry efforts to get away with causing more harmful pollution.

In your packets for today's meeting, you will see letters from over 600 clean air supporters urging you to stand firm and maintain a strong program.

I'm also here to deliver a letter from California's public health and medical community, including groups from all over the state. To name a few, the American Lung Association of California, the American Heart Association, the American Academy of Family Physicians, California Thoracic Society, and Catholic Health Care West, and others.

Our organizations recognize the importance of moving beyond today's petroleum fuels in California and maintaining a strong performance-based clean fuels standard. We don't want to see the standard weakened in any way to allow dirty fuels in California.

We strongly support proper accounting for dirtier fuels and think that the proposal from staff is a good start. This is one of the largest rules adopted under AB 32 and we can't afford to let it drift backwards.

We urge you to reject the industry's claims that we need more time, that we need to weaken the standard and allow dirty fuels here in California. Please do not give oil companies a pass in California to continue business a usual. Instead, we ask you to continue to implement the LCFS on schedule to ensure its successful program. Thank you for supporting clean air and a strong clean fuel program.

CHAIRPERSON NICHOLS: Thank you very much.

The last witness, who apparently had needed to transform over from the other item, Terry Davis.

MR. DAVIS: Thank you, Madam Chair, for adding me in.

Terry Davis on behalf of the Sierra Club. We just wanted to recognize and register our strong support for California's low carbon fuel standard. With the passage of AB 32 and SB 375 and the fuel standard California's, clearly recognized nationally and internationally as the leader in fighting climate change.

This standard is driving the next generation of non-petroleum fuels, fuels that are needed for the planet's long-term climate stability.

We're all familiar with the controversy around the Tarsand's oil and the Keystone pipeline. We can't be certain how the pipeline is going to play out, but we can be certain that the Tarsands are the source of an oil that is among the dirtiest on the planet.

It is important that California sends a message that we will not be expanding our reliance on the most carbon intensive fuels. California's low carbon fuel standard will help keep this dirty oil out of our state and disincentivize the additional infrastructure to deliver it here.

California has a unique role as a leader in the fight against climate change. Many will be watching what you do here today. Please keep the low carbon fuel standard strong. Thank you.

CHAIRPERSON NICHOLS: Thank you, Terry.

That concludes the list of witnesses, and so I'm just going to make a couple of closing comments, if nobody minds, and then bring this item to a close.

I do want do say a word about the schedule, which is that it's now 20 of 12:00. And I think, if others agree, that probably the best thing to do would be to have the staff do their presentation for the next item, which is the regulatory item and then break for lunch before we begin the list of witnesses and move to a close on that. So just for people's planning sake, I think we will finish up this report. We will hear the staff report on the next low carbon fuel standard item, which is the proposed staff changes to the rule itself and then break for lunch.

(Whereupon Dr. Sherriff's exited the proceedings.)

CHAIRPERSON NICHOLS: So when we first began this hearing, I thought we were going to hear complete unanimity of everybody supporting the low carbon fuel standard but wanting to perhaps make a few tweaks. But I was disappointed. It didn't work out that way. But as it turns out, we do have some disagreements about whether this is something that is worth doing at all.

But I want to make it clear that there is no question on this Board's mind and no issue on our agenda in terms of turning back on the low carbon fuel standard. We are moving forward. We're committed to its successful and timely implementation.

Obviously, there are challenges and

uncertainties. But we are committed to the basic concept of the low carbon fuel standard, which is intended to be transformational of the fuels that we use here in the state of California.

We recognize that we don't have presently at the moment in the marketplace all of the kinds of low carbon fuels that we need to see. That's the purpose of this rule and moving forward is to help make that happen. But it's not here yet. And we recognize that there needs to be more in the marketplace to make this work the way that we hope it will as we begin to require greater quantities. However, it's an issue of timing and of sending the right signals to the market.

It's important for the Board to keep monitoring the implementation of the standard and not just to assume that our work is done. I think that the staff's commitment to brief us annually will take care of that issue.

And I also am very encouraged by the commitment to continue working closely with the California Energy Commission, which has an independent role here in monitoring transportation fuel supplies.

And, of course, we share common stakeholders who will also be helping us to design a more comprehensive economic analysis and further evaluation of a flexible compliance mechanism.

These kind of analyses are critical before we make any changes to the rule and are needed to inform our ongoing implementation efforts.

I want to say one other thing, because it's come up several times in different people's testimony. I got back only two days ago from South Africa. I was privileged to represent California at the UN climate talks. And I couldn't have been prouder to be from California. It was an exhausting experience because there was so much interest and demand for California's experiences.

But it was very encouraging to meet with many people from around the globe who were there to talk about what they're doing on these issues. So I think sometimes it's easy to exaggerate the extent to which we are alone. We may be the only state in the United States that has a comprehensive climate program, but we are far from being the only place in the world that has such a program. And what makes us special is that people do look to us for our technical leadership and for our competence when it comes to designing regulatory tools that can survive all the challenges, both economic and political, whenever we try to make change happen. But also can be adjusted as needed to take account of reality out there.

And so I had more than enough opportunities to address various different forums of international bodies that were there. But I really felt at the end of the day that it's a two-way street, that our staff has not only created regulations, which are looked to as models, but they've also listened and taken some of the best ideas that have been generated here and elsewhere in the world in order to put these regulations together.

And I just share that because I think it should add some further degree of comfort to the Board that this is not something that we are just doing here alone in Sacramento. We are very much part of an international movement that's going on here. But we are also playing an important role in helping to guide and shape that movement, a great position to be in.

Yes, Dr. Sperling. As one of the authors of this proposal, you get a few words here.

BOARD MEMBER SPERLING: Thank you.

I just want to refine something -- the beginning comments that you made where you said you had been hoping for a unanimous support.

I did -- as a professor, I did a statistical analysis of all of the comments that were presented here. And there were only 2.5 people representing six percent of the total that question the targets and the goals of the

LCFS.

Now, in any world I've been in, that's as close to unanimous as I've ever come across. So perhaps you might want to qualify that.

CHAIRPERSON NICHOLS: I'll amend my remarks. Thank you. That's very helpful.

I think on that note, we will thank everyone for their testimony and look forward to continuing to work with you as we continue to implement this program. Thank you all very much.

And we will now turn -- I don't think we have to do much shifting of staff, same people, and roll into the next item on our agenda.

Mr. Goldstene, do you have any opening comments here?

EXECUTIVE OFFICER GOLDSTENE: I do. Thank you, Chairman Nichols.

The low carbon fuel standard is based on extensive technical evaluation that advanced the science of life cycle analysis to account for various fuels' greenhouse gases from all stages of production and use. The result is a regulation that provides the policy framework and technical elements needed to implement the world's first low carbon fuel standard.

As discussed in the previous agenda item, the regulation is designed to harness market forces and encourage innovation to cut greenhouse gases and set California on the track to use an increasingly large and diverse set of lower carbon transportation fuels.

You heard from the earlier presentation that, at this early stage, staff believes the program is working as designed. However, with over a year of implementation experience and with the Board's directive to refine certain elements of the regulation, staff has identified several enhancements to the program. We expect that these improvements will increase participation, clarify the regulation, and provide additional flexibility.

I'll now ask Aubrey Sideco of our Stationary Source Division to present the staff presentation. Aubrey.

(Thereupon an overhead presentation was presented as follows.)

MS. SIDECO: Thank you, Mr. Goldstene. And good morning, Chairman Nichols and members of the Board.

From the previous agenda item, you heard an update on the low carbon fuel standard, which not only emphasized the importance of the program towards AB 32 goals, but also concluded that the program is working as designed at this early stage.

In today's presentation, I will present to you an overview of the proposed amendments, which are intended to clarify and strengthen and improve the LCFS.

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MS. SIDECO: This slide provides the topic I will be covering today. Of the amendments we are proposing, the first two items are complex and warrant more discussion.

Following these two items, I will describe the remaining amendments.

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MS. SIDECO: Staff certainly benefited from an open public process during this rulemaking effort. The proposed amendments reflect both the direction from the Board and lessons learned from the first implementation year of the program. Also, and just as important, the proposal reflects the extensive amount of input gained from stakeholders.

Moreover, this public process was supported by input from the Advisory Panel in parallel with the LCFS review.

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MS. SIDECO: The first set of amendments are changes to the crude oil provisions and how high carbon intensity crude oils should be addressed in the regulation.

To begin this discussion, I'd first like to point out that some crude oils take substantially more energy to produce than others. These crudes are referred to as high carbon intensity cruel oil or HICO. A few examples are crudes produced through steam injection and oil sand mining.

As we will see in the next slide, the production and transport of more energy intensive crude oil can represent 20 percent of total life cycle emissions.

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MS. SIDECO: As shown in this slide for gasoline, carbon intensity values are based on a full accounting of all life cycle GHG emissions, from production to use. The circled area shows that the total life cycle emissions include the carbon intensity associated with crude oil production and transport.

Depending on the production methods used, production carbon intensities, or CIs, can vary significantly. In this illustration, oil production CI varies from four to over 20 grams per megajoule.

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MS. SIDECO: To address high intensity crudes, the existing regulation grandfathers the 2006 crude slate, including most high-CI crudes.

Under the regulation, fuel providers must account for high CI crudes, which are not grandfathered in the program.

Moreover, when non-grandfathered high CI crudes are used, regulated parties generate additional deficits that must be mitigated.

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MS. SIDECO: There are a number of issues with the current crude oil provisions. One of these issues relates to the unanticipated change in the crude slate between 2006 and 2009.

In 2006, we assumed that the CI would not change substantially, but found that the use of non-grandfathered high-CI crudes had increased.

Under the current regulation, even if the total volume of high-CI crude remains unchanged, refiners may incur large deficits.

Refiners must then offset the deficits generated.

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MS. SIDECO: Given the broad array of potential options in dealing with high intensity crudes, staff relied on key principles to help guide our evaluations.

These include the aim to: Preserve program benefits, ensure more equitable treatment of high-CI crudes, improve the accounting of life cycle emissions from the production and transport of crude oil, promote innovation for emission reduction activities, and avoid or limit incentives for crude shuffling.

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MS. SIDECO: Staff considered these six options for addressing crude oil, each with its own unique approach. The current approach with modifications basically keeps the status quo. The California average approach treats industry as a whole and compares the California average crude CI with the baseline average CI.

The company-specific approach sets up company-specific compliance schedules.

The hybrid approach is a combination of the California average and company-specific approach, in that it keeps a single compliance schedule, but makes each refinery responsible for its own crude slate.

The world-wide average approach bases the compliance obligation on the world-wide average crude in the base line year.

And finally, the no differentiation approach assigns the same CI to all crudes, regardless of the source.

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MS. SIDECO: After careful consideration of the options, staff's proposal is to use the California average approach, which incents innovative methods that reduce crude CI and calls for implementation to begin in 2013.

The California average approach recalculates the industry-wide average CI each year for crudes refined in California. If the average is no greater than the baseline, no additional deficits would be added.

However, if the average is greater than the baseline, additional deficits would be accrued, and would require mitigation on an industry-wide basis.

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MS. SIDECO: The California average approach achieves many benefits. Along with properly accounting for carbon emissions associated with high-CI crudes, this approach maintains the full life cycle foundation of the LCFS in a simple-to-use format. Also, it provides a level playing field by applying the same accounting method to all crudes.

The greatest benefit to fuel producers under this option is additional flexibility in crude choice and the manner in which they manage their crude slates.

We will now move on to discuss some of the approaches supported by others.

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MS. SIDECO: As you will hear from fuel providers and oil companies today, some believe that there should be no differentiation between crude oil CI. Oil companies support the no differentiation approach, because they assert that it eliminates crude shuffling attributed to the program, simplifies an already complex regulation, and re-focuses on the true intent of the LCFS program, which is to encourage use of low carbon and innovative alternative fuels.

We believe that this approach does not align with the guiding principles to account for life cycle emissions and promote innovation.

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MS. SIDECO: Other stakeholders, including some environmental groups, support the hybrid approach, which compares each individual company's crude slate with their own crude slate in the base line year, but uses the California average compliance schedule. Proponents believe that refiners should be responsible for their own emissions and the deficits from the use of high-CI crudes. In other words, the pay to pollute principle.

Proponents also note that this approach aligns reduction responsibility with performance and would further improve the overall equity of the program.

Staff believes this may be a viable option, but this approach is more complicated and would require a more comprehensive evaluation.

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MS. SIDECO: In summary, the crude oil provisions and the way the regulation addresses high-CI crudes need to be improved. We established guiding principles and carefully weighed the merits of each individual approach. Staff concluded that the California average approach meets program objectives in the simplest manner.

Now I will move onto the second set of a amendments regarding the electricity regulated party provisions.

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MS. SIDECO: Because electricity already meets 2020 standards, it is considered an opt-in fuel. Therefore, those eligible may opt into the program as a regulated party and generate credits.

The current regulation has language that designates regulated parties for electricity but improvements are needed.

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MS. SIDECO: We reviewed the current electricity provisions and determined that changes are needed to establish clear criteria and requirements for a regulated party to earn credits, identify who is eligible to receive credits in specific cases, and include fleet owners and employers as potential regulated parties.

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MS. SIDECO: Staff established overarching principles to help their analysis of the amendment options. An essential principle was to ensure that electricity credits would be awarded to those taking action to encourage further deployment of EVs.

The principles also recognize the importance to ensure that all credit value is returned to EV customers, maximize the number of credits captured in the program, maintain simplicity so that it can be applied to various business models and reward innovation.

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MS. SIDECO: Staff considered the following regulated party designations. Electric utilities as a responsible party for all EV charging and EV service providers for residences and public charging stations served.

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MS. SIDECO: For residential charging, we are proposing that electric utilities be the regulated parties because they have the ability and are in the best position to return full credit value to EV customers through lower electricity rates, offer rate options that encourage off-peak charging, and provide public education on EV benefits through outreach efforts.

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MS. SIDECO: For public access charging, we propose EV service providers to be the regulated parties because they can best establish the public charging network and advance innovation in EV charging.

This rewards service providers for establishing a public charging network and advancing innovation in EV charging.

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MS. SIDECO: For fleet charging and private access business charging, it is fleet owners and employers who are taking action to encourage the deployment of EVs and should therefore be the regulated parties. These entities continue to foster EV market growth and under the proposal will be eligible to receive credits.

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MS. SIDECO: Among comments and concerns raised by stakeholders, the most contested issue relates to who would be awarded credits for residential charging. There are differings views on who best serves EV customers.

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MS. SIDECO: In summary, staff identified the entities who are in the best position to provide benefits and encourage electricity use. Electric utilities are in the best position to return full credit value to customers through lower electricity rates. EV service providers are best positioned for public access charging. And employers and fleet owners are best positioned for private and fleet charging.

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MS. SIDECO: The other remaining amendments are listed in the next two slides.

Under CI determination, we propose to convert the rulemaking approval process to a certification process, which would streamline the overall approval process. Also, as directed by the Board, staff updated a number of energy economy ratios, which reflect various vehicle efficiencies.

Additionally, new and revised credit trading provisions, specify the process for acquiring, transferring, and retiring credits, establish how credits and deficits will be tracked, and provide transparency through the release of key credit market information.

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MS. SIDECO: Additionally, the applicability amendments allow more fuel providers to participate in the program and receive credits. These amendments revise regulated party definitions and add specific opt-in and opt-out provisions.

The proposal also simplifies a number of reporting requirements.

Finally, other amendments include specifying default CI values for use when CIs cannot be reasonably determined and new and revised definitions.

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MS. SIDECO: For the proposed amendments, staff found no significant adverse environmental impacts. Most of the proposed amendments are administrative revisions and clarifications for the overall improvement of the regulation.

Accordingly, we don't anticipate a substantive change in GHG emission reductions.

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MS. SIDECO: The proposed amendments will generally have an overall positive economic impact on regulated parties. This is largely due to the additional credits expected in the LCFS credit market.

Clarifications, enhancements, and streamlining are all expected to attract additional credits. More credits in the LCFS market should help reduce compliance costs.

Finally, no fiscal impacts on federal, State, or legal governments are expected.

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MS. SIDECO: The next two slides summarize modifications to staff's original proposal, which are shown in Attachment B of the resolution.

These modifications included updating the base lines, compliance schedule targets, and crude CI values.

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MS. SIDECO: The other proposed changes are listed on this slide, including further refinements to various provisions, fuel pathway updates, and certification information.

In addition, staff intends to continue working with the Western States Petroleum Association to address their comments and may propose additional changes in a 15-day notice.

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MS. SIDECO: As next steps, staff will work with stakeholders on the proposed 15-day changes, continue the indirect land use change analysis, evaluate credits for electric mass transit, and explore provisions for low energy use refineries.

We plan to return to the Board next year in a separate rule-making with recommendations on these items.

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MS. SIDECO: Staff recommends that the Board approve the proposed amendments and modifications for adoption.

This concludes my presentation. Thank you.

CHAIRPERSON NICHOLS: Okay. Thank you. Are there any pressing questions anyone has right now from the Board? Okay.

If not, then let's recess until 1:00, when we'll come back and open this up for public testimony.

CHIEF COUNSEL PETER: Madam Chair, do you want to ask the people to sign up before 1:00?

CHAIRPERSON NICHOLS: Oh, yes, please.

I have a preliminary list. And if it does not include you and you intend to testify on this item, please go talk to the Board Clerk prior to 1:00.

I would also ask you if you are on this list and you're just neutral and/or you have general comments about LCFS but not about this specific proposals that you consider taking yourself off of the list. Okay. Thank you.

(Whereupon a lunch recess was taken at 12:04 p.m.)

AFTERNOON SESSION

1:13 P.M.

CHAIRPERSON NICHOLS: Before we begin hearing testimony, Dr. Sherriffs wants to make a comment.

BOARD MEMBER SHERRIFFS: I need to recuse myself from decision making on this particular item, because I currently hold a number of energy equities that might be construed as causing a conflict of interest. So I will not -- I will recuse myself.

CHAIRPERSON NICHOLS: Thank you.

CHIEF COUNSEL PETER: Madam Chair, for the record, Dr. Sherriffs had left at the beginning of Agenda Number 2, but hadn't made a statement. So this is a statement reflecting his previous departure, and he will be leaving the dias and not participating.

CHAIRPERSON NICHOLS: Thank you.

So without further ado, we'll begin calling witnesses from the list.

And we'll begin with Cassie Doyle, Consul General of Canada. Welcome.

CONSUL GENERAL DOYLE: Thank you. Good afternoon, Madam Chair, members of the Board.

I wanted to start off by just saying how impressed I am with your openness and responsiveness to public input.

And also to congratulate your staff on their willingness to engage with Government of Canada officials during this LCFS amendment process.

As you know, we, in Canada, take a pretty active interest in this regulation, given the importance of the California/Canada energy relationship.

Canada -- first of all, I want to say that Canada supports California's efforts to reduce GHG emissions. And just to note that as a country, Canada shares the very same target as the U.S. government on GHG emissions. And we are active now in reducing our own emissions while maintaining economic competitiveness.

On the LCFS, we've been encouraged to see a number of improvements in the proposed amendments, specifically the replacement of a two-basket approach the baseline approach.

But we still have a number of questions about implementation. So we would continue to urge the Board to ensure that the LCFS applies equal scrutiny and proportional treatment to all crude oil, irrespective of source. And specifically Canada would like to see an amended LCFS that is based on accurate accounting of life cycle GHG emissions, that encourages transparency from all crude oil producers, that gives credit to existing regulatory measures in place, such as Alberta's carbon reduction regulations, and undertakes a rigorous collection and verification of carbon intensity data.

And we await clarification on what carbon intensity values will be used until the life cycle assessment tool is finalized and if a supplemental regulatory advisory will be issued for the 2012 calendar year.

We provided a letter to the Board that elaborates on these points. Canada is encouraged by the efforts of CARB on the development of the LCFS regulatory regime. And, of course, as you would expect, we would continue to follow this process to ensure that Canadian crude is treated in a manner that is consistent with the United States international trade obligations.

And we look forward to continuing our very constructive dialogue with you, the Board and your staff. And we wish you a very happy holidays. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Dan Romasko.

MR. ROMASKO: Madam Chair, members of the Board, I'm Dan Romasko, Executive Vice President of Operations for Tesoro Corporation.

We believe the low carbon fuel standard requirements become infeasible within the 2014 to '15 time frame as we mentioned earlier. And incorporating the crude oil carbon intensity further exaggerates this problem.

Crude differentiation will lead to crude shuffling. Canadian crude oil will not be disadvantaged to the world markets because of this legislation. It will be disadvantaged to one state because of this regulation, and that will be California.

Essentially, the Canadian-type crudes will now transport to foreign markets, and they'll be replaced in California by foreign crudes that are imported into markets, resulting in increased global CO_2 emissions associated with transportation.

Caution must be taken to avoid further disadvantage to California industry relative to global competition, competitors who import into our markets without the effect of this legislation or regulations.

As background, I want to provide some information on our industry. Global refinery capacity has grown in excess of demand of about five million barrels a day since 2007. A majority of this capacity being added in countries other than the United States. The refining sector has managed this situation by decreasing utilization by approximately five percent.

As a whole, the U.S. industry has been able to compete with our global competitors supported by our exceptional employees' engagement and productivity. But recent announcements of refinery shutdowns and employee layoffs on the east coast should serve as a reminder to us about how sensitive regulation and industry and the care we must take to ensure we remain competitive.

As the additional global capacity continues to expand, we must not erode our competitive decision by regulations that uniquely penalize the California refiners with no impact on the rest of the USA or global importers.

Our ability to remain competitive is important to our employees, your citizens, and the state of California. Our industry directly employs 15,000 California workers with average annual compensation of nearly $100,000. The combined direct and indirect employment is estimated to exceed 125,000 employees with jobs in local communities where we operate. These are good jobs, allowing our employees to support families and contribute to local communities.

This is a complex issue. It is too important not to get it right. Any decision can have a lasting impact on the State. I urge you to hold on this decision until you fully understand the unintended consequences and the impact to local jobs, our employees, your citizens, and the state's economy. Thank you.

MS. REHEIS-BODY: Good afternoon, Madam Chair, members of the Board.

My name is Cathy Reheis-Boyd, President of Western States Petroleum Association.

Thank you for allowing me to share our concerns on the proposed regulatory amendments. We have several recommendations and we've submitted extensive comments.

Again, we are not asking CARB to abandon the standard. But as you've heard in the first agenda item, we are asking you to take some reasonable steps to really ensure this program doesn't disrupt the transportation fuels markets or injure the California economy.

I've mentioned those, the annual reviews, the triggers, the alternative approaches, and looking at the cumulative impacts on the refining industry in the state of California and its impacts on the multiple greenhouse gas regulations that are coming at them at once.

Our focus here is really the treatment of crude oils within the low carbon fuel standard program. We support a simple crude equivalency approach that doesn't discriminate crude oils. And we've remained pretty strong in that opinion in support of what we call crude is crude since the adoption hearing in 2009. We hired a contractor, Wood McKinsey, to investigate the impacts and consequences of differentiation. And we made that presentation to the Advisory Panel. And we've also submitted that presentation as part of the record.

We believe a policy that penalizes and limits the flexibility of crude choices for refiners will provide the impetus to shuffle the distribution of crudes. This results, in our opinion, in increased climate change emissions, increased dependence on foreign imports, creates potential supply constraints, and has negative consequences on energy security.

It can likely force California to import low carbon fuel compliant crude and export California crude outside the state at an increased cost, not only in terms of emissions, but also on the impact of in-state oil production jobs.

No crude differentiation -- and the staff did a very good job of summarizing what we felt about that. Thank you, staff.

It does provide for equal treatment of all refiners, including out of state and international refineries. It simplifies an already complex regulation and does provide some certainty to the standards that you're trying to achieve and eliminates the need for development and use of a real complex accounting system.

And it also provides, in our opinion, overall certainty and stability to the marketplace and reduces the cost of the regulations.

So in addition to the four asks I state earlier in the testimony, WSPA would like the Board to consider to adoption the option of no crude differentiation approach and return at this time to a simpler, less impactful approach that will be less disruptive to the cost of transportation fuels.

And make no mistake, it does not in any way deter from your compliance goal of ten percent reduction of carbon intensity. It just makes it more difficult to comply. We're not challenging that. This particular provision has huge impacts. And I do support the previous Dan's statement asking the Board to hold and look at this further. Thank you.

CHAIRPERSON NICHOLS: Just a comment, if you could stay for a question.

MS. REHEIS-BOYD: Absolutely.

BOARD MEMBER D'ADAMO: I understand your position on in differentiation. Could you comment just focusing on the California average as compared to the hybrid system that would require an accounting on a facility by facility basis?

MS. REHEIS-BOYD: Yeah. In my opinion, all the options other than crude differentiation have winners and losers. They all have what I'll call warts that need to be discussed and fully vetted before we make any decisions other than the crude, no crude differentiation.

So I really think each of them needs to be analyzed further and their impacts really looked at as we really go forward and decide which option this Board decides to choose.

I don't think it's a simple answer. And I'm not trying to be evasive. I do think it really does deserve further analysis in the context of the whole picture. And if we had enough time to continue doing that -- I know we've been looking at it for a long time. I'm not saying we haven't invested a long time looking at it. This Board felt very important to look at it because you gave two waivers. You didn't do that lightly. You did that because you were concerned. And, of course, those waivers end. We only can do contracts by the end of the year and deliveries the end of March and that goes away.

So I really think both options, whether it's any of the other options that are in there, you know, California average, all those need to be looked at fully in the context of what the impacts will be to the transportation system as well.

I haven't seen a thorough analysis on this from CARB or the Energy Commission. And I think we need one. I'm happy to do it collectively, but I think it's that important that it needs to be done.

BOARD MEMBER D'ADAMO: Thank you.

BOARD MEMBER BERG: I would like to ask a question.

I'd like to ask staff first in just following through on the analysis, do we have the information that we need from the industry to conduct such analysis? And have we tried to take a look at that? And if so, what has your findings been?

Corresponding

STATIONARY SOURCE DIVISION CHIEF COREY: This is Richard Corey.

As we developed the potential options, the five that we talked about, this goes back about a year process where it was a screening process looking at high carbon crudes. And then as that process played itself out concluded through the process that there were opportunities to refine or improve the existing provision.

That led us to draft, in consultation with stakeholders, potential options as well as survey industry. We conducted two surveys. But for a series of reasons that industry can comment on, that response was very limited. And the data was so limited, it didn't allow for an assessment, for instance, a detailed assessment of the hybrid or finding specific approaches. We believe we had sufficient data to get a sense of the average-based approach. And we were convinced based on that assessment that it represented an improvement over the provision that's currently in the regulation.

BOARD MEMBER BERG: Is it fair to say that the average industry approach was based on data that we could get publicly that we didn't need from the refineries?

STATIONARY SOURCE DIVISION CHIEF COREY: That's a fair characterization. Some of that was done in consultation with CEC as well. That's a fair characterization.

BOARD MEMBER BERG: It seems if industry is willing to do such additional analysis, Cathy, are they willing to provide the information?

MS. REHEIS-BOYD: Yes. I think one of the things we recommended is that information be provided to the Energy Commission under a PRA request. You can imagine how competitive this marketplace is. All of these refiners certainly have their own business plans and cannot get together and discuss these issues. Through the Energy Commission is the best way to keep that data confidential, but make it available to the Air Resources Board for any additional analysis.

BOARD MEMBER BERG: Just one additional minute. We've spent a lot of time talking about where you feel that the low carbon fuel standard is going to fall short in biofuels and things like that. I find it interesting we haven't spent very much time talking about the investment that industry is making and how they're going to ramp up their investment to, in fact, make the low carbon fuel standard work. Could you just give us maybe 30 seconds on what the industry is doing? Because it does kind of feel one way to me.

MS. REHEIS-BOYD: I'd be happy to. And maybe we don't talk about this as much as we should. But, you know, our industries are energy companies and they invest in alternative renewable fuels more than the federal government or any other private industry combined.

The American Petroleum Institute number 71 billion have been invested between 2000 and 2010. That's 38 percent of the 188 billion spent by all the other U.S. industries. That's certainly not pittance.

And they're investing in all the technologies you talked about today, and others that haven't even been mentioned. And so you know, we understand we're transitioning into a low carbon economy. These companies are investing in those alternatives and renewables.

But you have to remember, in the interim, we still have to provide adequate, reliable, affordable fuels today, tomorrow, and the very near future for California consumers. They have high expectations. They wake up every day and expect to turn the lights on, heat and cool their homes, and drive from A to B affordably. And we have to do that, even as we're investing in other things. We don't have the luxury in stopping our current investments and investing everything into the future. We have to invest in today and tomorrow and the future.

BOARD MEMBER BERG: But it would be fair to say that we have to ramp up those investments. Even though $71 billion is serious money, as a percent of what the total is, it appears that we do have to get more investments out. Are you seeing that's going to take place?

MS. REHEIS-BOYD: I mean, each of the companies look at their future business models differently. But I can you, you can visit each of those websites like I do, and you will be impressed at the investments they're making in the energy future and in the low carbon economy.

BOARD MEMBER BERG: Thank you very much.

CHAIRPERSON NICHOLS: It would also be helpful to have a little bit more breakdown of where those numbers are, the collective numbers, because they don't match up with some of the other numbers that we've seen, even on the industry side. So it would be helpful to have --

MS. REHEIS-BOYD: Happy to provide that.

CHAIRPERSON NICHOLS: Thank you.

Okay. Ron White. Roland Hwang.

MR. MUI: Even though I look like Roland Hwang, I'm not Roland Hwang. He's actually taking my spot on number 16.

Can I get the third slide up? Thank you.

MR. MUI: Good afternoon, Chairman Nichols. And I'm Simon Mui with NRDC. Thank you for the opportunity to testify.

We support the LCFS, which is attracting cleaner fuel investments in companies to our state, reducing our oil dependency, and helping cut our emissions. We ask the Board to consider three ways to build upon the successful start of the LCFS.

First, the Board should adopt the modifications to the HICO provisions, but improve it in one critical way.

We can't move one step forward if we are being pushed back two steps by increased dirtier fuels. Already, from 2006 to 2010, staff has shown that the carbon intensity of our fuel pool actually increased by one percent due to HICO. We need to account for them.

Our oil industry investments in Tarsands alone are outpacing their renewable fuel investments by 50 times. That's 190 billion to Tarsands versus four billion in renewable fuels globally over the past five years.

That four billion is obtained by Bloomberg data, by Hart energy data, by other publicly disclosed sources. I believe the $71 billion that was referenced includes everything that oil companies are doing in all types of spaces. I do not believe it represents the clean fuel investments. But we should compare numbers.

Either way, it's a small dot. That green dot there, which you can hardly see, is actually the renewable fuel investment compared to that red dot. We need to change that and reverse that.

The current modifications are a real improvement upon the current regulation. It's more performance-based. Ensures the importers and domestic producers are held to the same bar. Rewards innovation reduction activities and minimizes crude shuffling. And it does so by focusing on gasoline and diesel increasing regardless of the crude mix that oil companies want to choose from.

However, the HICO modifications are weak in one area. The modifications moved away from facility refinery responsibility to industry averaging. Some refineries don't actually increase, could be penalized.

We think the Board should direct staff to provide refineries with an option to report their own performance, should they choose to do so. Doing so will improve fairness, provide greater flexibility, and align responsibility with facility performance. Providing this option though should be conditioned on producers or importers providing data on the carbon intensity of all finished and unfinished products in a manner that can be verified with integrity. This will get to the issue of ensuring that importers and domestic producers are held to the same bar. Thank you.

CHAIRPERSON NICHOLS: Thanks.

Ralph.

MR. MORAN: Good afternoon. Ralph Moran with BP America.

We are very troubled by the low carbon fuel standard provisions that penalize the use of certain crude oils in California. We believe you should be concerned as well.

The low carbon fuel standard is a very specific first of its kind policy tool designed to encourage the development and deployment of new low carbon fuels. It was never meant, nor is it well suited, to deal with emissions from large stationary sources, such as those involved in crude oil production. There are other policies, such as cap and trade, that are better suited to efficiently and cost effectively deal with those emissions.

The low carbon fuel standard should focus on its primary objective, and that's getting more low carbon fuels into the mix.

Perhaps more importantly, staff has never demonstrated that there will be greenhouse gas emission reductions from penalizing crude oils. They haven't demonstrated it, because it is not possible to demonstrate it. The fact is the low carbon fuel standard's treatment of crude oil will not an effect on what crude has produced or how it is produced. It will only effect where it's used.

This is a clear conclusion of careful analysis on this subject that Cathy talked about. We presented that to staff. A market watch article December of this year points out in actuality to message being sent and received regarding the low carbon fuel standard treatment of crude oil. The article states that the US demand for a highly desirable Russian crude oil is dropping drastically and attributes the drop to reaction to the low carbon fuel standard. The demand for this Russian crude is being made up by shipping the crude to Asian markets which highly value this crude.

To fill the gap, U.S. markets are turning to Middle Eastern and other crudes, resulting in significant increase in shipping needed to bring these crudes to the west coast. This is a signal that the low carbon fuel standard is sending by penalizing cruel oils. The short haul crudes that would otherwise be used here are sent someplace else. And these crudes are replaced by long haul crudes sent to the U.S. west coast with more GHG emissions from this extra shipping.

Really, what is the point of this sort of policy? So the crude oil policy of the low carbon fuel standard that you will consider today will alter flows of crude oil. It will not provide GHG emission reduction likely increases and, according to your CEC, could impact the profitability of refiners and increased fuel costs. Is this something you really want to do?

You don't need to do this to achieve the real objectives of the low carbon fuel standard, a low carbon fuel standard that treats all crude as the same incentive for innovation and investment in new fuels.

We ask your assistance in helping to focus staff on the primary goal of the low carbon fuel standard, innovation in new fuels, and to avoid crude differentiation policies that will lead to unnecessary and disruptive impacts to the State's refining sector and fuel consumers. Thank you.

CHAIRPERSON NICHOLS: Thanks.

Paul Clarke.

MR. CLARKE: Thank you for the chance to speak.

My name is Paul Clark. I'm a retired Air Force officer from Marin County. I spent 20 years in active duties with my career spanning the Cold War to operations in Iraq and Afghanistan. And now retired from the Air Force, I still work in the security realm mostly doing counterterrorism.

Early in my career, I had a chance to work at the National Security Council staff at the White House under a democratic President and a Republican president. I saw the fall of the Berlin Wall there and the collapse of the Soviet Union.

This success was brought about by decades-long transpartison strategy. That's how we won that conflict. And now our Department of Defense, our intelligence community, State Department, many three and four star generals and admirals are telling us we face another existential threat. And that is the threat represented by the dual threat of oil dependency and climate change. And I would suggest that this particular challenge also requires a transpartison decades long commitment to deal with it.

It is our greatest threat -- and again, I'm a counter terrorism expert. I see our greatest threat being this other threat.

Fortunately, we have something we can do about it. And sadly, though we have succeeded at the national level, we have not succeeded at developing a strategy. I can say, however, that the military is investing quite a bit of effort and resources into dealing with this strategy, which has been recognized. The Air Force, for example, has agreed to in five years to acquire 50 percent of its domestic aviation fuel from blended alternative green sources.

Why is the military doing this in time of war? Because it realizes it is an issue in time. It is a time-sensitive threat. And there's another reason, benchmarking after the actors like the State of California. Benchmarking after the behavior of this Board and our state. We have a long tradition of providing that sort of leadership for the country. And we see the threat is continuing to grow. So we continue to have this need for our leadership.

I have to tell you, my life's work is about national security. This is a real issue you need to deal, and your decisions will have real impact. I urge you to continue to maintain these low carbon fuel standards.

I thank you for your time.

MR. BRAEUTIGAM: It's Braeutigam. It's hard to pronounce. Chairman Nichols, members of the Board, my name is John Braeutigam. I work for Valero. Valero is one of the largest independent oil companies. We have three million barrels a day of through-put capacity. We have 680 retail stations, two refineries in California. We are also one of the largest U.S. ethanol producers. We have ten ethanol plants, producing 1.1 billion gallons a year of ethanol. And we are investing in a cellulosic ethanol plant in Michigan and a renewable diesel plant in Louisiana.

Valero has been very involved with the LCFS regulations and working with the ARB staff. But we are concerned about the program. The way it's designed, we think it has a high risk of becoming infeasible, which is especially concerned about the HICO provisions and staff's -- we disagree with staff on recommending that the crudes be differentiated.

We believe the impact to your program on the global crude oil and ethanol markets will just result in shuffling like the San Paulo shuffle with ethanol and increased CO2 emissions and have no benefit other than raised costs to California consumers.

I understand this is not what you want to hear, but we believe it needs to be said. Thank you very much.

CHAIRPERSON NICHOLS: Thank you. We actually do want to hear. Believe me.

Okay. Eileen Tutt.

MS. TUTT: Good afternoon again, members of the Board and Chairman Nichols.

My name is Eileen Tutt, and I'm the Executive Director of the California Electric Transportation Coalition. Our members include publicly-owned and investor-owned utilities, as well as auto makers.

CalETC largely supports the staff's amendments to the low carbon fuel standard. We've worked closely with staff. Appreciate their efforts. We're on the Electricity Working Group. And one of our members serves on the Advisory Committee.

You'll hear from a few of our members today. We're trying to divide up our testimony to go short so we don't duplicate.

The proposed amendments that ensure that the value of the low carbon fuel standards goes back to the person that made the investment purchasing the vehicle is incredibly important as a market driver. And we very, very support that as a goal. The utilities are committed to providing every cent of the credit value back to the plug-in electric vehicle customers.

One thing we wanted to point out was in the staff report, the staff indicated that allocating LCFS credits to the utilities in all market segments might not meet the goal of maintaining relevancy. CalEPTC does believe that the utilities are incredibly relevant and that making them the primary recipient of the LCFS credit value in the residential market and the secondary and all the other market segments indicates that, and we very much support the recommendation of the staff.

I think the utility's relevancy is also demonstrated by their significant roles in transforming markets. Like we did with the energy -- or the utilities did with the energy efficiency market. The utilities are committed to doing the same thing with the electric vehicle markets through efforts with workplace, with fleets. And we work very closely with electric vehicle service providers as well. This role has been acknowledged by the CARB staff.

We also want to recommend a 15-day amendment that would allow anonymous third-party brokers to facilitate the sale of the low carbon fuel standard credits. The reason for that is you may have heard that there is a lot of competition between the oil industry themselves and then amongst the energy industries. So this kind of anonymous broker would allow for a healthy competition to continue, but also a healthy LCFS credit market.

I'll just reiterate what I said this morning, which is that we are in tremendous support of the low carbon fuel standard regulation. We don't want to see you back down. We like your current schedule. Thank you very much for your time and consideration.

MR. PEDERSEN: Good afternoon. I'm Norman Pedersen, for the Southern California Public Power Authority. SCPPA strongly supports the LCFS program, and SCPPA strongly supports the amendment to the LCFS to make electric distribution utilities the primary opt-in regulated party in the residential market and the alternate regulated party for the non-residential market.

We look forward to meeting the requirements that the amendments would impose on electric utilities to receive credits. Namely:

1. Use credit proceeds for EV owners;

2. Educate the public about the benefits of EVs;

3. Provide rate options to encourage off peak charging.

Allowing electric utilities to opt in as regulated parties will benefit the LCFS program. Our participation will assure that there won't be unclaimed credits. There will almost always be a utility involved in providing electricity as a transportation fuel.

Conversely, there may not always be an EVSP with a requisite contract with the property owner. Likewise, some fleet operators or business owners may not want to participate in the program.

Additionally, electric utilities are positioned to return credit value to customers efficiently and effectively. In our comments on the 45-day revisions, we did propose some further revisions to facilitate electric utilities provision of benefits to the program. Specifically, we urge the provisions for utilities to meet alternate opt-in parties be revised in two ways.

First, we urge removal of the requirement that there must be Executive Officer approval of electric utility opt-in as an alternate when an EVSP, a fleet operator, or business owner can't claim credits. We don't see what requiring that step of EO approval would accomplish.

Second, we urge that a provision be added for the Executive Officer to provide notice to the electric utility when it becomes eligible to opt in as an alternate to an EVSP, fleet operator, or business owner. It's hard to see how an electric utility would know when it can step in as an alternate without such notice. We proposed language for these revisions in our written comments, and we hope that the revisions can be included in the proposals that are circulated for 15-day comment.

Lastly, we urge that the restriction to on-road vehicles be revisited when issues relating to credits for off-road vehicles are resolved in 2012. And thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Mr. Kim.

MR. KIM: Good afternoon, Chairman Nichols and members of the Board.

My name is Alex Kim. I'm the Director of Customer Innovations for San Diego Gas and Electric.

My responsibilities include SDG&E Electric Vehicle Program, and I served as a member of the LCFS Advisory Panel on behalf of SDG&E. Thank you for the opportunity to testify today.

California is at the forefront of the electric vehicle market. As one of the electric distribution utilities that serve these customers, SDG&E recognizes the critical importance LCFS credits can provide to help create a sustainable market. Developing and facilitating the EV market is an important aspect of achieving CARB's greenhouse gas reduction goals. Using the value of LCFS credits to encourage development of the market by benefiting EV consumers is a major component to satisfying that goal.

SDG&E concurs with statements by staff in various LCFS workshops that it's paramount that the value of the LCFS credits should be given to those who invest in EVs, as well as those who help to transform the market for electricity as a transportation fuel. Providing the value of LCFS credits to EV customers through the utilities send a signal to the market that EVs are important to advancing the State's GHG goals.

Utilities are commit to supporting this effort. Providing the value of LCFS credits to the EV customers through utility rates will reduce EV operating costs, one of the most critical benefits to sustaining consumer interest. This will induce the credits of vehicle electrification, further incentivizing EV adoption and market growth. Because utilities are regulated entities, CARB will have the benefit of regulatory oversight and due process easing administrative burden. Moreover, utilities are stable and longstanding entities upon which CARB can rely to support the long-term development of the EV market and success of LCFS.

SDG&E also supports the regulated parties for electricity engaged in active education outreach to be eligible for a regulated party and receive LCFS credits. The CPUC requires IOUs to educate EV customers about the number of related topics including safety, environmental benefits, off-peak charging, and available EV rates.

Accordingly, utilities play a critical role in supporting the EV market. As an LCFS member, SDG&E commends staff on their steadfast effort on this proposal, and we support their recommendations on regulated party designation.

Thank you for your time and consideration.

CHAIRPERSON NICHOLS: Thank you.

Mr. Karner.

MR. KARNER: Chairman Nichols and members of the Board, my name is Don Karner. I'm the President of Ecotality in North America. Ecotality is headquartered in San Francisco and we're leaders in clean energy, transportation, and storage technologies.

Ecotality is currently the project manager of the nation's largest electric vehicle charging infrastructure demonstration project. This is for the US Department of Energy to study early deployment of electric vehicles in residential public and commercial charging infrastructure. This study has taken place in 18 major metropolitan markets, including San Diego, Los Angeles, and the Bay Area.

On behalf of Ecotality and other members of the electric vehicle services and equipment providers coalition, which includes California-based charging Infrastructure, Better Place, and Coolant Technologies, I'm pleased to provide testimony on our industry's position recommending changes to the amendments proposed for the low carbon fuel standard regulation for parties of electricity.

I should note that members of the Coalition are actively involved in promoting EVs. EVs are our business and they are our only business. Hardware and services convert electricity provided by utilities to transportation fuel. And without our services, transportation fuel is not available.

Using innovations, such as providing meters inside of our chargers, we've already been able to reduce costs of EV owners obtaining charging services significantly, such that well over 90 percent of the Leaf EV owners in California utilize our products and services to fuel their vehicles.

I'd like to address some of the staff's comments that you heard prior to lunch. You have our written testimony already. And the staff has allowed that EV service providers should be a regulated party for public access charging, but not for residential and fleet, although our contributions to residential and fleet are identical to those with public access.

Instead, the utility is at fault, and we have several concerns with this. I'll try to address three in my remaining time.

Staff stated that an LCFS objective was to promote all fuel use. Unfortunately, giving residential charging credits to utilities may have exactly the opposite effect. Utilities have to install a second meter to collect those credits. The installation of that second meter from our experience in California costs anywhere from 500 to several thousand dollars. That obviously is a major impediment to someone adopting an EV. With our equipment, it's already built in. There is no additional cost to the consumer to collect that data.

CHAIRPERSON NICHOLS: I'm sorry. You've used your minutes.

MR. KARNER: I understand.

I encourage the Board to direct the staff to reconsider the amendments and look very hard at its exclusion of EVSPs from residential and commercial charging.

CHAIRPERSON NICHOLS: And we do have your written testimony also. So thank you.

Question, sorry.

BOARD MEMBER D'ADAMO: Maybe not necessarily a question, but in the issue of cost. For staff, can you comment on that? And any of the utilities that plan on coming up, if they could address the issue raise about the 500 to $2,000 cost.

MR. KARNER: Sure. Would you like me to provide some additional detail on that?

BOARD MEMBER D'ADAMO: I think if staff could respond.

TRANSPORTATION FUELS BRANCH CHIEF WAUGH: I'm Mike Waugh. I'm Chief of the Transportation Fuels Branch.

And I think there is a wide variety of prices for chargers. One of the things that the CPUC is considering -- and I believe someone is going to testify here shortly -- is that they're looking at lower cost charging for billing purposes. But chargers are becoming a commodity.

I think we've read in the paper you can go down to Lowes to buy them. So we think they're going to be a commodity and prices are going to come down. So I think they can be as high as $2,000, and we've heard as low as three or $400.

STATIONARY SOURCES DIVISION CHIEF COREY: This is Richard Corey.

I think I wanted to add to something because I think the question partly concerned the need for a second meter. And I think you'll hear from some of the other speakers that there actually are a range of options, even in the residential application, to achieve a lower rate with the single meter or other technologies that are being developed. So establishing a second meter is one option long term in terms to have a dedicated rate for an EV, but it's not the only one. And I think there will be some different perspectives on those options in a minute.

BOARD MEMBER LOVERIDGE: From the point of view of somebody who wants to buy an EV, help me out. Do I have to -- if I just want to stay with my 110, can I do that? Are you imposing a new standard for me to reach?

STATIONARY SOURCE DIVISION CHIEF COREY: Mayor Loveridge, you have the full range of options. CAN you stay with 110.

BOARD MEMBER LOVERIDGE: If I chose to stay with 110, you're not going to beat me up?

STATIONARY SOURCE DIVISION CHIEF COREY: Absolutely not. People are doing that today.

CHAIRPERSON NICHOLS: Okay. Thank you, Ms. Winn.

MS. WINN: Good afternoon, Chairman Nichols and members of the Board.

And I'm Valerie Winn, representing Pacific Gas and Electric Company today. Pacific Gas and Electric Company largely supports the amendments to the LCFS regulations with respect to how the electricity is used as a transportation fuel.

We support the current regulatory language that designates electric distribution utilities to be the primary regulated entity for light-duty on-road charging in the residential marketing sector and is the secondary regulated entity in the fleet, public access, and workplace market segments.

And we are supportive of that primarily for four reasons. And the first being that the current -- the draft of the regulation as is being considered today is a lot more simple than it was when it was adopted in 2009. And we think that that simplicity will help increase participation in the market and help us get a more liquid and robust market for the credits.

Second, we fully support passing the benefits of the LCFS program back to EV customers. And as a regulated entity, we will do that in a very transparent manner so people can see how the moneys are flowing.

Third, we're well positioned to maximize the number of credits generated by the LCFS program preventing claiming unclaimed credits. What we've seen in some markets where customers may get credits instead of the regulated electric distribution utility is that there are many hoops for them to jump through to actually certify to be able to participate in the market. And that would mean credits aren't included in the marketplace, which we think would not be good as we're starting down this road.

And lastly, for over 20 years, PG&E has invested and been actively involved in supporting the development of alternative fueled vehicle. We've been a steady but innovative force in the market and we'll continue to be so in the future. And we're steady because, regardless of the shifts in the market, we'll continue to be a provider of electricity as a transportation fuel.

We've been very innovative. And we support research and development in this area. And we have recently installed the nation's first publicly accessible DC fast charging station in Vacaville. We're very proud of that.

Largely, in the conversation that we just had, I understand for Level 1 residential vehicles that there is no need for a separate meter. People can still go plug into the outlet. No need for separate billing or for additional infrastructure. We like that simplicity for that program and ask you to keep the regulation as it's currently drafted.

Thank you very much. And thanks to the staff as well for all their work on this issue.

CHAIRPERSON NICHOLS: Thank you.

MR. ANDREONI: Thank you, Chairman Nichols and members of the Board.

My name is Tony Andreoni. I'm the Director of Regulatory Affairs at the California Municipal Utilities Association. CMUA includes more than 40 publicly-owned electric utilities or POUs, we like to refer to it as, which provide electricity to roughly one-fourth of all Californians.

Just as background for the Board members, POUs are local government entities and, as such, have no profit motive. Our members are committed to local economic development and job creation and have an excellent track record in providing reliable electricity at lower rates and have demonstrated leadership on both environmental issues like climate change, renewable energy, and energy efficiency.

Our members also have a lengthy history of helping to transform the electric transportation market through research, purchase of plug-in electric vehicles, PUVs, for fleets, and educating our customers, in developing low-cost off-peak electricity rates, and in developing a smart grid network.

Today, CMUA is pleased to voice our support for the proposed LCFS amendments and have provided written support on December 8th.

CMUA believes that the staff's proposal is reasonable, helps to further meet the 2020 carbon intensity standards, and could be scaleable to a national program. CMUA worked closely with ARB Staff, Mike Waugh, and his folks, Richard Corey, as we went through many meetings, including the other utilities, other organizations to come to this today on the amendments proposed that focus on electrical distribution utility as a primary regulatory party provider in both residential and multi-family situations. Thus, eligible to earn the LCFS credits if a utility decides to opt in.

We also believe that the staff proposal provides a logical and understandable division of regulated party providers according to those charging applications and where the provider is the most influential in affecting the PUV owner decision.

CMUA feels strongly and agrees with staff that the LCFS credits for electricity used as a transportation fuel should go to the utilities since our members can easily transfer any value earned to the PUV customer.

I did have one comment today regarding the complexities of adding off-road such as mass transit, but I do see it in the Resolution that this is going to be looked at in the future in 2012.

We do recognize that there's more work ahead. And as ARB begins the implementation process, we do encourage staff to consider developing additional guidance documents to assist stakeholders with my implementation issue.

We look forward to working with you and staff and urge your adoption of staff recommendations today. Thank you and happy holidays.

CHAIRPERSON NICHOLS: Mr. Teall.

MR. TEALL: Thank you for this opportunity.

My name is Russell Teall. I'm the President of Biodico. We've built five commercial biodiesel facilities, both in the United States and internationally, and have produced over 50 million gallons of fuel.

Since 2002, we've operated under a cooperative research and development agreement with the US Navy in doing sustainable and renewable energy projects down at Port Hueneme. And we'll be opening a ten million gallon per year advanced biofuels plant there hopefully the spring or summer of this year.

As a member of the Advisory Panel for the low carbon fuel standard, first of all, I would like to commend staff. This was a tremendous interchange of ideas that's very thorough, methodical, open, broad range of ideas. And even though there wasn't a consensus on every issue, I think everybody was heard on it.

I do need to comment that it was a lot more transparent than the Advisory Panel I sit on for the Office of the Chief Scientists of the Central Intelligence Agency.

Generally, we support the recommendations of staff that are before you today. But in particular, I'd like to draw your attention to three areas that have a special impact on our industry.

The method 2A and 2B certification process versus regulation will help to speed the implementation of innovative ideas. There is a lot of work going on on advanced feedstocks and technologies that we're going to see over the next ten years. And I think without sacrificing anything in terms of the quality of review, we can get rid of a lot of the regulatory baggage by going through the certification process.

The trading system, it's absolutely essential. If you look at the Kyoto protocols and the clean development mechanism and the CERs, it was burdened with a lot of excess baggage. I think that the trading system that has been put in place here will be a very good and innovative approach to it. Everybody will be watching it. It will take tweaking, of course, over time. But I think that the recommendations of staff which is proving that process are well considered and will help the entire process.

Finally, I know it's controversial, but the indirect land use impact changes cut both ways in our industry. It depends upon what feedstock that you're making the biodiesel from. We happen to use yellow grease and non-food products that are produced locally in

California. But I would urge staff to continue in the direction that they have been going in, which is to apply the best available science and data. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Roland Hwang. I would note you and Simon are not interchangeable.

MR. HWANG: Sometimes we are. In this case, we're not.

Madam Chair, members of the Board, my name is Roland Hwang. I'm with the Natural Resources Defense Council.

Today, I'd like to urge the Board to reject the oil industry's recommendations for eliminating crude differentiation and setting up an annual review process and automatic triggers.

The effect of these modifications would be to set up a program for failure rather than success. I want to reinforce what you heard this morning, which is that since 2007, we have seen enormous accounts of activity and investments by companies that are willing and able to move forward on clean fuel production. So in fact, the low carbon fuel standard is a success and is doing exactly what we wanted it to do, which is provide a market incentive for clean fuel investments.

And as you heard today, there are not just a single company or a single technology. There is a range of companies from advanced biofuels to electricity to natural gas and others. These companies are hard at work developing new fuels and new technologies to comply with the standard.

And there is no shortage of innovation. There is no shortage of supply. Companies are ready to scale up, to produce the fuels needed to meet the standard. In fact, according to the environmental entrepreneurs report, the domestic advanced biofuel industry is poised to produce five times more fuel than what the low carbon fuel standard would require in 2015.

According to the Clean Tech Group, there has been $2.4 billion invested in the North American biofuels industry since 2007. Weakening the program will have the effect of pulling out the rug from underneath these companies and these investment.

And unfortunately, as you heard from my colleagues, Simon Mui, the oil industry has not stepped up to the plate to the level which we need to achieve. The $2.4 million investment in North American biofuels was dwarfed by a $2 trillion investment in overall oil production and $200 billion just in dirty fuels in the dirtiest fuels, such as Tarsands.

So there are three things that we are urging the

Air Resources Board to do today in order to ensure success of this program.

One is we're urging the Air Resources Board to adopt the recommendations on the electric vehicle credit provisions. We believe that will help electrification by returning value back to the customer.

Second is we're asking to approve the high intensity carbon crude oil provision as my colleague, Simon Mui described, add a voluntary option to allow refiners to have refinery specific baseline.

And third, we support the Advisory Committee on creating a robust credit training mechanism. So in sum, I simply urge the Board to move forward today as it has historically done with leadership, with vision, and most of all, ambition. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Adam Langton.

MR. LANGTON: Hi. I'd like to thank the Board for giving me the opportunity to speak here today.

My name is Adam Langton. I'm an analyst with the California Public Utilities Commission. I'm the staff lead for our alternative vehicle proceeding, proceeding number 0908009.

The CPUC supports the proposed LCFS regulation. The revised staff proposal recognizes the utility as the primary recipient of LCFS credits in the residential charging context and as the backup or secondary recipient in the case of fleet, workplace, and public access charging.

In staff's view, this is a reasonable approach as it recognizes the potential role LCFS credits can play in incentivizing the installation of public and workplace charging infrastructure.

In contrast, in the residential context, there were more options for using that value to support the EV market, including reducing electric vehicle rates, and reducing the installation costs associated with EV charging equipment.

A signing of LCFS credits to utilities is consistent with the Commission's interest in supporting the development of a robust, competitive market for charging services.

The potential uses of LCFS credits that accrue to the utilities will be considered as part of the CPUC's GHG regulatory proceeding, proceeding number 11-03-012. In considering this issue, we understand and appreciate that the ARB requires that this revenue be used for the direct benefit of electric vehicle drivers. And this will certainly play an important part in the Commission's deliberation.

The phase of the proceeding where the Commission will be specifically addressing the use of LCFS credits is scheduled to begin in early February. And we look forward to continued collaboration on this issue with the ARB.

CHAIRPERSON NICHOLS: Thank you very much. We really appreciate your coming over and sharing your views with us.

Mr. Boyce.

MR. BOYCE: Thank you to the Chair and members of the Board.

My name is Bill Boyce with the Sacramento Municipal Utilities District. Environmental leadership is a core value of SMUD, and we have pursued activities and to encourage electric vehicles in support of air quality in Sacramento for the last 22 years through numerous programs that range from R&D to development of charging infrastructure, all the way to public outreach and education.

SMUD supports staff's proposed amendments to the LCFS regulation and, in particular, the role of electric utilities. We feel that this will ensure that the credits get to market for robust regulation and that the credit value used to enhance the market creation for plug-in electric vehicles.

SMUD also sees the need to remain technology and business model neutral in this nascent charging market. We don't want to pick winners or losers because we do anticipate significant technology changes as the market grows. However, despite all the change that we anticipate, the delivery of electricity fuel will always involve the electric distribution utility. This also includes supporting the often overlooked simple 110 volt electricity used by many PEV owners today that does not require any special service model.

At SMUD, we do have a submeter solution where customers are participating in that. As part of that effort, the additional meter to track the energy is provided free to the customer. The majority of their costs is simply installing that meter socket box in the line. So we do have data that that we can share with staff as was questioned earlier.

We also see a host of other metering options that are available of anything what's available on board of the vehicle. Many of the cars do have meters that are envisioned to being able to detect electric vehicle charging load at the house meter or even now network type plugging meters that you can plug into an outlet.

We are committed to returning the LCFS credit value to customers in a transparent, non-biased manner that ensures that that maximum credit gets back to the EV customer. We see this very much very similar to utility programs for energy efficiency, which we have used successfully to transform markets in other areas, such as efficient lighting, refrigeration, and also with HVAC type of investments.

SMUD is in this for the long haul. We have been supporting the delivery of electricity for 60 years and have worked with ARB staff and the stakeholders for LCFS since it started way back in the initial University of California studies.

We see this is an important step forward. And thank you for the opportunity to make comments today.

CHAIRPERSON NICHOLS: Thank you for coming.

BOARD MEMBER SPERLING: Could I ask a question?

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER SPERLING: Both for Bill Boyce and for the staff, the following up question that Mayor Loveridge had earlier in a discussion with Ecotality, much of the electricity is going to be used in plug-in hybrids in the future. And in fact, even with the Nissan Leaf about I think on something like 15 percent of the vehicles are using 120 volt.

The question is: Without any metering, can the utilities be able to -- can they measure or how are we going -- I guess how is ARB thinking together with the utilities it's going to measure that electricity so that credit can be allocated?

And of course, that ties back into the transparent credit marketing system and how that's going to be part of the compliance processes.

CHAIRPERSON NICHOLS: Mr. Waugh. I think we should have staff respond to that, the question as far as how ARB is thinking about it.

TRANSPORTATION FUELS BRANCH WAUGH: Our regulation allows the utilities to estimate up until 2015 what the electricity use would be. So we are open for any kind of ideas that they may have that would be worth -- have a technical basis to it. We're open to that.

In 2015, we require direct metering. There is an estimation of approach until then.

BOARD MEMBER SPERLING: I'm thinking we might need to think -- that's what I used to say also.

I'm thinking having been driving a plug-in hybrid this past week, I realize you don't need the 220 volt. And so you don't need the metering. And this might be a longer term issue.

So we always thought -- I think the staff always thought about this as a stop-gag approach. But I'm thinking this might be a more permanent.

And, you know, maybe Bill Boyce does have some insight into that because --

CHAIRPERSON NICHOLS: You're welcome to add your thoughts.

MR. BOYCE: I've been driving a Volt for over a year. And one of the experiments going on is my staff looks at my load profile from my home meter and they can lock at my load profile from home and detect when I am charging at nighttime on 110. Most of the signatures of the charger are easy to see, particularly Level 2. Those are some of the things that can be low cost and are analytical based and that we see as potential to pick up the 110 volt charging behavior.

CHAIRPERSON NICHOLS: So this is progress.

BOARD MEMBER SPERLING: Just as a little thing, I think we need to think about that differently and it is more of a long-term permanent challenge.

CHAIRPERSON NICHOLS: Tim, thank you.

Mr. Plotkin.

MR. PLOTKIN: Thank you, Madam Chairman, Board members. Norm Plotkin representing the California Independent Petroleum Association.

CIPA is greatly concerned with the changes that move from production default carbon score to a possible future complete differentiation.

While not directly regulated under the LCFS, CIPA members are concerned they could become collateral damage. Carbon intensity measurement changes will have unintended consequences for California heavy oil production.

As we move from default score to statewide averaging approach, we ask of you, first, do no harm to our domestic production, which is an integral part of California's economy and represents nearly 40 percent of the crude oil supply in California.

We're very concerned over possible drive to abandon California baseline average for full differential of crude stocks, feed stocks. Switching to a scheme that requires detailed reporting for California production but relies on default assumptions for imported crude potentially has negative environmental and economic consequences for state production.

In the staff report, they suggested the intent of the reg is to ensure LCFS benefits are not diminished due to increases in GHG emissions from higher carbon intensity crude supplies. Yet, the only operational understanding, not theoretical, not hypothetical, not modeled of carbon intensity inputs available are those from domestic production, which is the most permitted, regulated, reported environmentally sensitive production in the world.

Carbon intensity values from the rest of the world production are extrapolated from NOAA flaring data with a transportation at or appended and use of complex mix of non-standardized conversion factors and based on unsubstantiated assumptions.

The practical meaning is that the carbon intensity scores for carbon intensity data based on actual data versus scores for the rest of the oil production based on guesses, while less important under averaging scheme than fully differential methodology domestically produce crude will suffer against the imports based upon accurate scoring or lack thereof.

Buying behavior of regulated parties who will suffer cost deficit for taking in too much crude feedstock with higher carbon intensity scores will be negatively influenced.

You're attempting to answer this data gap through contracting with Stanford University to help construct the OG (phonetic) model. By its own admission, the OG Scoping Plan will suggest a trade off between accuracy and required data that will be addressed by addressing comprehensive default parameter value.

We're told that all required inputs to model will be assigned default values that can be left as is or changed to match the characteristics of a given field or marketable crude oil blend.

If only limited amount of info is available for a given project, then most values will remain as defaults.

In contrast, the Scoping Plan notes, if detailed data are available, a more accurate emissions estimate can be generated, to which we conclude under OG where there's data, there's accuracy. No data, no accuracy. So under fully differential construct using OG model for domestic production for which data is readily available will be accurate -- if I may just finish this --

CHAIRPERSON NICHOLS: Finish just that point and summarize.

MR. PLOTKIN: -- the rest of the world production will get default scores occurring in the project Scoping Plan creates an unlevel playing field for California crude. And we would ask that you address this as you complete the regulation. Thank you.

CHAIRPERSON NICHOLS: Thank you.

MR. EISENHAMMER: Good afternoon. I'm representing an organization called the Coalition of Energy Users. And we're concerned first and foremost with energy affordability. So we look at the CEC's estimate of additional cost -- of additional cost and expressed great concern.

Furthermore, on the restrictions on carbon intensity of fuels, we're concerned that will increase our reliance on imported fuel, which will raise cost, kill jobs, and jeopardize our energy security.

We're also concerned about the civil rights impacts and that higher gas price will disproportionately harm the poor and the working poor.

To the extent that this plan relies on biofuels such as ethanol, we're concerned that worldwide food shortages will be increased and even starvation in the third world, which I would remind you the riots in the Middle East were a result of rising food prices. So when we start to burn food for fuel, you wind up with less food for people in the third world and higher prices.

I also would like to stay that I have submitted a petition signed by over 550 Californians urging the Board to reject this proposal. Thank you.

CHAIRPERSON NICHOLS: Thank you.

MS. HOLMES-GEN: Chairman Nichols and Board members, Bonnie Holmes-Gen with the American Lung Association of California.

And the American Lung Association is pleased to continue our support for the low carbon fuel standard as a critical program to transform California's transportation fuels and improve the lives of millions of Californians that are living with unhealthy air. And our urgent air pollution problems in California, the mounting threats of climate change, and increased public health emergencies that follow call for us to quicken the pace of action. And we're pleased that Dr. Maxwell was here to be able to share more about the public health impacts and broad range of health organizations that are behind this regulation.

Quickly, the quicker we move forward on this regulation, the quicker we can reap the benefits of diversifying our transportation fuels. And we are very concerned with the reality that oil companies have been turning to dirtier sources of crude oil tat impede our progress toward addressing climate change. And this is a trend that must be reversed.

We have three critical points we wanted to make, as you make your decision today. Number one, that we support the staff proposed amendments and believe that the Air Board must maintain the on-time implementation of the low carbon fuel standard. As you're aware, the history of regulation shows us this is the time when the affected industry pushes back the hardest. It's not surprising that you're hearing a lot of oil industry calls for delay. But staying the course now will pay off and achieve the transportation that we need to cleaner fuels. So we are opposing any calls for delays or built in offramps to the LCFS program.

Second, we want to make sure that the LCFS ensures the proper accounting for all fuels and differentiates between sources of fuels. We oppose the WSPA proposal to weaken the high carbon intensity crude oil provision and allow all petroleum fuels to be treated the same way, regardless of differences in the relative difference of carbon intensity.

And instead, of course, we support the staff approach that maintains the HICO provision and ensures that petroleum fuels do not become dirtier over time. We feel it's very important.

And furthermore, we want to support the recommendations of our colleagues at NRDC and other groups that are encouraging you to strengthen the high carbon intensity provision by allowing individual refiners the option to report on the carbon intensity of their own specific fuel mix.

We think this is the best way to go, to allow individual refiners to report when where achieving better than average progress in terms of their carbon intensity. And we feel this will help to encourage cleaner practices and the best possible support for our program goals.

California is moving in the right direction on transportation fuels. And we're proud of that. We look forward to your action next month on the advanced clean cars regulation. But we need to maintain the LCFS as the critical foundation for our transition to cleaner transportation.

CHAIRPERSON NICHOLS: Thank you.

Chris Chandler.

MR. CHANDLER: Good afternoon. Thank you for the opportunity to speak today.

My name is Chris Chandler. I'm the refinery manager for ConocoPhillips Los Angeles Refinery. We have 600 employees and 400 contractors that work each day to operate and maintain the refinery. Three-hundred-fifty of our employees are represented by the United Steelworkers.

I have met with many of you to share our concerns about the implementation of high carbon intensity crude oil under the LCFS regulation. We have also had meetings with CARB staff and NGOs to share our concerns.

The current HICO approach grandfathered some crudes, effectively excluded others, and subjected the remaining crudes to a lengthy review process. Non-crude raw materials, blend stocks, and finished imports from outside of California were not subject to any accounting of their crude source, placing out-of-state refineries who produce these fuels at a significant advantage over California refineries.

The staff proposed California average approach looks at all crude processed in the state and accurately accounts for its carbon intensity. This approach ensures that any of the gains made with biofuel blending account with the change in the crude slated for the state.

While we would prefer no crude differentiation, it has become evident to us this Board does not share our view. CARB staff convened a multi-stakeholder LCFS Advisory Panel to review this very issue over a nine-month period, weighing the pros and cons of various approaches. We view the California average approach proposed by staff for approval today as an improvement to the existing regulation. Fundamentally, it allows each refinery to pick the most economic crudes for its particular configuration and capability.

The proposed amendments more accurately account for crude carbon intensity. They're simpler. And they sustain the goals set forth in the legislation.

We do oppose the company-specific and company-specific refinery specific approaches. Such methods will restrict the type of crudes that an individual refinery can process, potentially creating winners and losers and causing leakage. These approaches open the door to out-of-state markets by providing a loophole around crude carbon intensity accounting. It is very important to focus on how the regulation is implemented.

CARB staff has developed an approach, which we believe is fair, accurate, and simple. The human element of this regulation must be recognized. Jobs can be created or eliminated depending on how the regulation is implemented.

At the end of the day, we need to decide if we want to continue to support the in-state manufacturing of fuels and protect jobs in California. If not, many are waiting across the Pacific and across State borders, happy to provide the commodity of transportation fuels to Californians without Californians benefiting from the jobs that transportation fuel manufacturing creates.

Thank you.

BOARD MEMBER SPERLING: May I say something?

CHAIRPERSON NICHOLS: Excuse me. Dan.

BOARD MEMBER SPERLING: First of all, I'm pleased to hear that support for the California average at least as an improvement over the previous. I personally believe that we do need to be -- we should be going towards more of a company-specific approach. And we'll talk a little bit about that later.

But you made a lot of assertions about the effect on costs and jobs. And going back to an earlier question by Board Member Berg, in my discussions with your company, with other companies, with the staff, we have not -- I don't feel like we've gotten the kind of information that we need to understand whether those assertions really are true and to what extent they're true. We know there is a lot of shuffling going on out there. We know that your refineries are designed to run on specific types of crudes. You can't change the refinery very easy. You can't change the mix of crudes very easily.

There is a big differential between the different crudes. So there is all this stuff going on out there. And you know, a question in my mind is how big is that signal from the LCFS in terms of the shuffling part of it. And you know, I don't think you'll be able to answer it right now. If you could, that would be great.

But I think that's where we really need to understand better and your company and the other companies have to work with us in a credible way to answer it. Otherwise, you know, my take on it is we should just go to a company-specific rules and put the burden on you to tell us to provide real evidence that that really does have the kind of impacts you're talking about.

MR. CHANDLER: Let me take a quick attempt to answer your question on the impact of restricting crude to an individual refinery.

Take an average size refinery in the state, 150,000 barrels a day. Half of them are larger. Half of them are smaller. That's 50 million barrels of crude oil that that refinery processes every year. So today, crude is about $100 a barrel. So that raw material cost for that average size refinery are approximately $5 billion a year.

So a small change in crude price -- and you can look on public postings crude prices vary five, ten, sometimes even $20 a barrel based on their quality. So let's just assume a dollar a barrel. The refinery ran 50 million barrels. A dollar a barrel change in cost because a refinery can't pick its most economic crude is $50 million a year. And $50 million a year could make the difference between a business having a positive income or a negative income.

That's how big it is in our mind is it's -- we make or lose money in a lot of cases on how well we pick the optimum crudes for our refineries. That's why we're so concerned about anything that might restrict that.

Does that help?

BOARD MEMBER SPERLING: We don't want to lose jobs or hurt the economy. We want to make this work. So we need to follow up on that.

One other last little question is there is this proposal this so-called hybrid approach. I'm just characterize it as using a California average for crude oil, but if any company does better, then they can get credits. What's your position on that?

MR. CHANDLER: We haven't heard a lot about that yet. I saw the slide earlier today, as we all did.

I think if you move away from what CARB staff is proposing today, the question of how to handle these materials that could come through the loophole -- and the materials are the intermediates we run. This is non-crude raw materials. Some of the refineries in the state might run 20 percent of material that's not crude based. That's currently not accounted for in any of the approaches being discussed. It's not clear how that would be done on a hybrid approach either. That's one.

We buy blend stocks. We might buy something and blend it into the gasoline we sell. That's not accounted for. There's no accounting of what crude was used to make that blend stock.

And then the third piece is actual imports, finished products. Whether we bring them in or other companies bring them in, if the carbon intensity of the crude oil that's used to make those materials is not accounted for, that's a loophole that could penalize in-state refineries while not holding out-of-state or out-of-country refineries accountable.

BOARD MEMBER SPERLING: Let me ask the staff to respond, because my understanding is that the intention was to take into account the intermediate products and the finished products and the blend stocks. Is that correct? In the hybrid approach.

STATIONARY SOURCE DIVISION CHIEF COREY: Professor Sperling, one of the provisions in the amendments is to include as part of the reporting for each refinery not only the finished product produced but also the imported intermediaries areas. So annually, we have a good sense if there is any change or if there is a significant response from a circumvention standpoint, we can annually monitor and assess that. Today, they represent a relatively small volume. But be mindful of that possibility and therefore included a reporting element as part of these amendments.

BOARD MEMBER SPERLING: So I think what you said is we would be responding to those concerns?

STATIONARY SOURCE DIVISION CHIEF COREY: That's correct.

MR. CHANDLER: I do think it's important that there is assurance that also applies to non-refineries that import material into the state. And we've shared concerns with CARB that might not be the easiest thing to report, because we don't always know when we buy some of this material exactly where it came from from a crude source standpoint. And determining that would be a challenge from an accounting standpoint and certainly from an enforcement standpoint. That's the big certain we would have around the hybrid approach.

CHAIRPERSON NICHOLS: I think we need to continue this conversation. There will be more to come. Thank you.

Lisa Hoyos and then Catherine Houston.

MS. HOYOS: Good afternoon, Chairman Nichols and Board members.

My name is Lisa Hoyos. I'm the California Director of the BlueGreen Alliance. We are a national coalition of 11 big unions and four major national environmental groups.

As you can see, we are standing here together today with the United Steelworkers and also with NRDC to submit a joint letter that was borne of several conversations with leadership of our national organization, leadership -- regional leadership of the United Steelworkers and ourselves, the BlueGreen Alliance. So if it's okay, I'd like to cede the rest of my time to the next speaker in case it goes over, but our letter should be less than three minutes.

MS. HOUSTON: Thank you, Madam Chair and Board members.

On behalf the BlueGreen Alliance, the United Steelworkers, and its members in the ten unionized last California oil refineries and Natural Resource Defense Council and its members and activists, we provide this letter identifying joint areas of support on the low carbon fuel standard and joint recommendations going forward.

All three organizations have been strong supporters of AB 32 since its passage and worked actively to protect against Prop. 13 in last year's election.

We also share the goals of the low carbon fuel standard to attract investments in cleaner fuel production and hold all products sold in the state to the highest standards possible. We want to see companies investing more in California to this end.

We thank Air Resources Board for their efforts to make improvements to the LCFS, including the high carbon intensity crude oil provision. Specifically, we support the efforts made to modify the HICO provision along the following lines.

1. Ensuring a level playing field that raises the bar equally for both fuel importers and domestic producers. Specifically, we understand that importers of all finished and unfinished products be held to the same bar under the LCFS HICO provision and we'll need to offset

their emissions and introduce cleaner alternatives, just as California fuel producers are starting to do so today. Doing so will prevent leakage of California's jobs and its market to imported fuels from states and countries that do not participate in similar programs.

2. Providing refineries greater flexibility to by and sell crude oils without penalty so long as the average performance does not worsen over time. The proposed modifications grandfather in the carbon intensity of refineries rather than 2006 baseline crude oil sources. Doing so provides greater flexibility for refineries to buy and sell crude oil as normal, with debits accrued only if actual performance worsens going forward. Greater environmental benefits will also be achieved since this new approach is more performance based.

3. Providing incentives for upstream reduction activities that reduce crude oil reduction emissions. We also support modifications that will provide credit for upstream production activities made by oil producers, increasing the flexibility even more to comply with the standard while encouraging projects that could occur in the state.

Going forward, we look forward to working with ARB to ensure that LCFS standard implementation continues in a smooth manner.

We recommend that ARB management establish a process for direct dialogue between labor and ARB, potentially through the Blue Green Alliance process, to concerns or questions can be addressed on an ongoing basis as AB 32 is implemented.

We also recommend that ARB form a work group to identify and evaluate potential projects in California to reduce emissions at oil production facilities, as well as investments that can be made in refineries to produce cleaner renewable fuels.

We believe California can become a major producer and exporter of clean fuel products, even as it moves forward to provide cleaner gasoline and diesel to markets here and abroad.

Thank you for the opportunity to provide input. And we look forward to working together on the successful and smooth implementation of LCFS.

And I'm submitting this on behalf of Lisa Hoyos of the BlueGreen Alliance, Rick Lathum, sub-director of the United Steelworkers and Simon Mui from NRDC.

Thank you. And thank you to staff for your time and efforts on this. We feel it's really important. Thank you.

CHAIRPERSON NICHOLS: Thank you.

That was a rare and remarkable example of three groups actually managing to combine. And it worked. Excellent.

Mr. Malins.

MR. MALINS: Thank you, Madam Chairman.

I should emphasize that contrary to appearances, I'm not a member of the BlueGreen Alliance.

(Laughter)

CHAIRPERSON NICHOLS: You found a way to raise the issue, which I was waiting for someone to do. Congratulations.

MR. MALINS: I remain Chris Malins, the fuels program lead for the International Council on Clean Transportation.

Firstly, I wanted to say that we very much support the amendments on credit trading. I think this is an important step towards an effective credit trading market. And that does represent a very important path to achieving the goals of the LCFS.

On the constantly interesting issue of high carbon intensity crude oil, I'd like to echo the sentiment from the Consul General from Canada. I think there is an important direction of travel here, not just for California, but for the rest of the world, where transparency and sort of full life cycle assessment of crude oil is something that needs to be moved towards in one way or another.

I think it's important to bear in mind that there are more responses to a full crude differentiation than simply shuffling. There are efficiency opportunities at refineries.

If a value signal can be provided, all among the chain, there are opportunities to achieve very significant carbon savings, from flaring, opportunities to move investments towards lower carbon crudes in the future and away from higher carbon fuels.

I think that the further exploration of appropriate mechanisms to impose these costs and benefits on to operators is important. I think that the staff position that further exploration of these issues is appropriate, is important. I think in particular the issue with the comparative value of shuffling versus carbon intensity improvements is one more further examination. The same message came out at the national LCFS project. And the ICCT is committed to doing further work to move us on in that area.

As a final thought, I would like to mention that I think crude efficiency and carbon savings from crude can be a compliance pathway as well as a burden as crude differentiation moves in. And I hope that California can be part of an increased reporting regime that will help us close the information gap between jurisdictions. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Jon, and then Frank Harris if he's still with us, and that will be our last.

MR. CONSTANTINO: Thank you, Madam Chair.

Appreciate the opportunity.

Jon Constantino on behalf of the Kern Oil Refining. And Kern Oil is one of those remaining two small refineries in the state of California.

And our comments are on HICO as well, but they're a slightly different look at the issue. And it has to do with the fact that Kern is a small refinery by a small percent of the crude oil in the state and the fact that California average puts us all in the same boat. So when you establish your business plan and go on your compliance curve, if the California average goes up, you find yourself in a deficit based on what your competitors have done.

So we think that's a problem. And we've suggested specific suggestions in our comment letter that we'd like to encourage the Board to ask staff to look at. And they have to do with those that either don't use HICO or those that use very little HICO. And so we strongly encourage that provision get looked at going forward.

And the fact that we also have a question about additional data with respect to specific oil fields and the carbon intensity of which crudes come from which. And for us to make the big decisions, we need to -- we need more additional data and we encourage that data to be presented.

So with those comments, that's all I have to say. Other than I wish Bob Fletcher a good retirement and happy holidays.

CHAIRPERSON NICHOLS: Thank you.

MR. HARRIS: Fewer this afternoon than this morning. That's surprising.

Madam Chair, members of the Board, thank you for the opportunity to speak today. Frank Harris, Manager of Environmental Policy for Southern California Edison.

SCE supported the LCFS in the 2007 Executive Order signing and again in the April 2009 hearing. And today, we wanted to reiterate our support for the program and particularly for the staff proposal.

The proposal does not provide any single party all that it wants. However, the proposal is fair, it's workable, it's fact based. And the proposal meets the staff's stated goals. And it doesn't create too heavy a regulatory burden on industry or staff. As Bob is still interested in advocating, even though he's going to be enjoying a long fishing trip here pretty soon.

Edison is committed to upholding the requirements placed on the utilities as the primary or alternate regulated party. And the key to these requirements as was represented by the CPUC representative earlier is the requirement that utility precedes in the utility sector be used for the benefit of plug-in electric vehicle customers. We fully support that requirement.

We also strongly support applying these same requirements to other regulated parties in the electricity fuel portion of the LCFS.

And SCE commends the staff for implementing the principle of fairness for all the parties.

SCE also agrees with the earlier comments by Mr. Goldstene, that it's important for the Board to stay the course, particularly as it applies to the identification of the regulated parties in the electricity sector. This regulatory certainty will send an important signal to all the regulated entities and the market participants as a whole.

SCE and other utilities remain being very relevant in the EV markets in many ways because of our long-term commitment to investing in the transformation of these markets.

This commitment can be seen in our extensive customer education programs, our engagement with auto makers, and other service providers and communication with the community at large. Our customers come to us, because they see us as a trusted energy advisor. We provide them with a range of services, including information on infrastructure costs, deployment considerations, benefits and trade-offs of vehicle charging, and best practices for affective load management, a critical issue with the increase in electric vehicle charging.

Working together to help these customers make optimal decision regarding PEV fueling and infrastructure development, SCE further commends the ARB for encouraging all utilities to fulfill these regulatory goals.

In closing, SCE activity supports the staff proposal, commends the staff on their hard work, and I refer to our written testimony for our other comments.

Thank you very much for this opportunity.

CHAIRPERSON NICHOLS: Thank you. Any questions? Very good.

We do have one other card that came in, so we will add him to the list. John.

MR. SHEARS: Apologize. I signed up online yesterday morning but we got --

CHAIRPERSON NICHOLS: Something got lost. Anyway, welcome.

MR. SHEARS: So yes, John Shears, Center for Energy Efficiency and Renewable Technologies.

Again, in support of the regulation, although we would like to encourage CARB to move more to the specific refinery type model going forward. We understand, you know, nascent. We're trying to develop a nascent market. So moving incrementally forward on this.

I just wanted to briefly touch on the shuffling issues because I know the shuffling issue is a concern for some of the Board members. And Ralph has provided us with a very good example in his comment referring to Russian crude being shuffled. There could be positive shuffling in greenhouse gas terms or negative shuffling, E.I. increases or decreases in emission depending on shuffling. If we go with Ralph's contention that this was attributed by an employee at TNK BP, the joint concern that BP is involved in in Russia, that could be related to the California pending regulation, in fact, this particular example of shuffling ended up in reducing greenhouse gas emissions, because the crude was actually being routed from eastern Siberia and all ended up going to the Pacific Asian countries.

So I just want to highlight when we're talking about shuffling, recognizing that shuffling goes on for a lot of reasons as part of normal business practices in the industry, you can have examples of shuffling that actually reduce greenhouse gas emissions, not just the example that industry has been asking us to focus on in terms of the increasing emissions. So thank you.

CHAIRPERSON NICHOLS: Thank you.

I believe that John is our last witness, and so I'm going to close the record on this agenda item, with the understanding that the record will be reopened after the 15-day notice of public availability is issued.

In the mean time, written or oral comments received after this date but before that notice won't be accepted as part of the official record. When the record is reopened for a 15-day comment period, the public may submit written comments on the proposed changes, which will be considered and responded to in the Final Statement of Reasons for the regulation.

I now want to bring this back to the Board. I'm sure there will be people who will be eager to join in our conversation, but you're not invited unless we invite you. This is for the Board members.

So just to be clear, we now have an opportunity to discuss the Resolutions before us and any amendments people may wish to offer or other comments or concerns they might want to make.

I do also want to indicate just for the record that in the past we have sometimes polled the Board members one by one and had them each state all the ex parte communications they've had. We have changed that procedure, and the Board members' ex partes will be filed in writing and will be available to anyone who's interested upon contacting the Clerk of the Board. We're not going to go through that ritual at this meeting.

So we are now open for comments or thoughts that anyone might wish to share about the proposal that's before us for the staff to the low carbon fuel standard. And I'll recognize Mrs. Riordan first, because she's moving her microphone.

BOARD MEMBER RIORDAN: I'm moving my microphone.

Thank you, Madam Chairman.

First of all, let me just say to the staff, thank you for an excellent report and briefing that you provided to me.

There is one thing that has occurred to me that might be deviate slightly from your report, and that is when we are talking about accounting and how we do it and this hybrid approach, the hybrid approach is one that I can see some advantage to, and I'll tell you why. I think if some of the participants are doing a really good job, they ought to be rewarded for that. And I've long held that I didn't want to be punished for somebody else's problem if they were acting in an inappropriate way.

But I also know that everything is so technical and everything is so competitive, and there are lots of things that occur here. I'm wondering if there might be a way to develop this more so that I feel a little bit more comfortable. I mean, I'm not quite comfortable with that one element. I really would like to reward people who are doing a good job. And yet, at the same time, I know that there are other things that may come into play, unintended consequences.

So I don't know, Madam Chairman, that's just my uncomfortable negligence of this. Otherwise, I support the staff recommendation and the Resolution before us.

CHAIRPERSON NICHOLS: Well, I think others have given some thought along those same lines as well. And I'm going to -- maybe Mr. De La Torre might want to respond to that.

BOARD MEMBER DE LA TORRE: Yes, thank you, Madam Chair.

I, in talking to staff both at the staff briefing and subsequent to that, have come up with some language to try to get to an option for individual regulated parties, refiners, to be able to measure their own carbon intensity versus the standard, as opposed to just this lump sum mix that we've been talking about here.

We think -- I think it's only fair, you know, that folks be measured by their own performance. To the extent it benefits some to be lumped in with others, great. But there should be an option for folks to be measured on their performance if they're doing all the right things. And by doing those right things, they see no benefit to it. Or in fact in some instances could be penalized for it. So I think it's very important to have that option.

To that end, I wanted to request a consideration for an amendment or a Resolution that it be resolved that the Board directs the Executive Director -- Executive Officer to evaluate and propose, as appropriate, an option for individual regulated parties to have their deficits for gasoline and diesel determined on the refinery-specific basis that accounts for the carbon intensity of domestic and imported crude oils, intermediate products, and finished fuels.

It's broad direction to staff to come up with an alternative that will give that flexibility, that will give that option. And I think that was my concern as I met with the folks from the outside and reflected in my conversation with the staff. And I think this helps get us in that direction.

BOARD MEMBER LOVERIDGE: Did staff sign off on that?

CHAIRPERSON NICHOLS: I believe that the staff can accept the language as long as it's not time-specific. There was some concern that if they had to propose it as part of the 15-day changes they would not be ready to do it because it's complicated.

But if they're given the opportunity to continue working on this and to bring it back when they're ready, that they would be able to support this idea.

I see some head nodding out there. Okay.

BOARD MEMBER D'ADAMO: Do you need a Resolution before you?

CHAIRPERSON NICHOLS: You can formally --

BOARD MEMBER D'ADAMO: Move adoption of the Resolution.

CHAIRPERSON NICHOLS: Sure. That's a good way to do that, Ms. D'Adamo.

BOARD MEMBER D'ADAMO: So moved.

CHAIRPERSON NICHOLS: Move the Resolution. Do we have a second?

BOARD MEMBER RIORDAN: Second.

BOARD MEMBER BALMES: Second.

CHAIRPERSON NICHOLS: We now have a proposed amendment by Mr. De La Torre, seconded by Mrs. Riordan. All right.

So any other -- let's just before we do any voting, let's see if there are any other amendments that anybody wants.

BOARD MEMBER BERG: I don't have an amendment, but I do have a concern. That is certainly one I would like some discussion either from staff on the various testimony in regard to the shuffling and how we are going to monitor this new amendment.

Evidently, when we looked at the original low carbon fuel standard, it was my understanding that we were looking at life cycles of each of the fuels. So I was confused as to why the various crudes weren't accounted for in the beginning. And so now we have this crude issue, and we were always looking at shuffling as a potential problem. And it is absolutely vital that we don't get involved in the operational issues of these refineries and tie their hands in a way that they can't produce what they need.

On the other hand, I'm in full agreement that the mandate of the low carbon fuel standard is vital. So how do we marry to make sure -- what are we going to do as a staff and as a Board to understand the shuffling issue, the operations issue, now that we're becoming more prescriptive?

STATIONARY SOURCE DIVISION CHIEF COREY: Ms.

Berg, this is Richard Corey.

A few points to those questions. One is in terms of directly on the shuffling comment, we touched on this as well as some other speakers.

Shuffling is not a new concept. You look at crude slates from one year to the next. Crude moves. It's not a commodity. It moves around the world. It's not a fixed commodity. And I think the change here is that there is a consideration, an additional consideration of GHG implications.

In terms of the amendments, so we already had, as you know, a provision that considered high carbon intensity crude within the existing regulation. So there was an accounting for it, but it was basically -- there was a bright line. What we have with the proposed amendments is improved accounting, because what we ended up finding with the existing provision is we didn't capture an increase in carbon intensity of crudes over a period of time because of the grandfathering provision. We also had a situation in terms of imports where in a sense there was an advantage related issue.

So with the proposal, one, it allows for improved accounting. Two, we actually think to the extent there would be a shuffling response at all, even a small signal, we think with the proposed amendments that reduces that option. The proposed amendments provide more flexibility, more options treating all crude the same irrespective of its origin by removing the grand fathering element.

And three, I think this is a really important element to the revisions, and that is refiners would be providing as part of reporting their crude slates every year. We know what the changes are. We are monitoring the amount of crudes, their origin, because in a sense, that information is used to annually revise the carbon intensity.

So what we end up getting is better reporting for information refineries already have. We get better tracking, and we get better accounting with the overall approach.

BOARD MEMBER BERG: Thank you very much for that explanation.

And do I understand that we will have a baseline? And that ten percent that's going to be reduced is off of that baseline? Then the annual reporting then if higher intensity crudes have come in throughout the year and they're slightly above, that's when you will handle that increase, so to speak, at that time?

STATIONARY SOURCE DIVISION CHIEF COREY: That's correct. That increase will be apportioned under the average. So you're correct we update the baseline there's updated data '09 -- actually 2010 is what we want to include as part of the 15-day changes.

You're right. Going forward, if there is no change in the average, if there is no overall increase in high carbon intensity, there is no incremental deficit resulting. So in a sense, what it does is define a situation where there is not a change, there is not a resulting deficit. But it results for annual monitoring to see if there is a general response, increase in high carbon crude.

BOARD MEMBER D'ADAMO: And then would the resolution that was just proposed, that would allow facilities to opt in on a voluntary basis for an individual measuring if they so chose?

STATIONARY SOURCE DIVISION CHIEF COREY: My interpretation of the discussion I just heard was this. It was that if the Board chooses to act on the average, that the direction would be to staff to further evaluate the opt out or opt in to the hybrid based approach. And as appropriate, after the appropriate data is collected, analyzed, evaluated to make sure there aren't adverse outcomes, return to the Board with the recommendation.

Staff's assessments is that would not be within a 15-day. We think that's a longer process. But the idea is we go through the evaluation and plan to report back to the Board with either a recommendation for an adjustment or assessment where it's not appropriate.

BOARD MEMBER BERG: And maybe we could bring that back in the same time frame as the 2012. Aren't we bringing back in another amendment at that time?

STATIONARY SOURCE DIVISION CHIEF COREY: We're returning to the Board 2012 with a separate rule making for the indirect land use work and a few other amendments as well.

My sense is with respect to this opt out provision, I don't think the analysis would be completed in that time frame.

BOARD MEMBER BERG: I understand there is no date.

CHAIRPERSON NICHOLS: Excuse me. I was just going to add one other thing, which is I think when we talked about this idea earlier, staff was also looking at the possibility of because there is so much fluctuation in crude stocks that come into refineries, looking at a longer averaging period for people who wanted to take advantage of some sort of an opt out, it would not be an annual, but could be actually a three-year rolling.

STATIONARY SOURCE DIVISION CHIEF COREY: Madam Chair, that's correct.

Even in the context of the average approach as proposed, industry and some others suggested a rolling average in terms of as we update kind of as to determine whether or not the changes occurred relative to the base line.

We flagged that as something we want to discuss further as part of the 15-day changes and something we're open to take a closer look at to see if they have merit.

CHAIRPERSON NICHOLS: It seems like a really good idea.

BOARD MEMBER BERG: It really does. I think what's so important in a low carbon fuel standard is that we really capture the rule within the parameters of what's happening on the ground. And I think if we can tie that, not try to win the battle at the cost of losing the war. And as we're developing this, I think that is a really critical piece.

CHAIRPERSON SAWYER: Dr. Balmes, you had your hand up.

BOARD MEMBER BALMES: My question was just answered.

CHAIRPERSON NICHOLS: Okay. Good.

BOARD MEMBER BALMES: I'll have some comments later.

BOARD MEMBER SPERLING: I'd like to think that as we give guidance to the staff, we provide it in terms of what are the overall principles and structure that we're talking about and not get too caught up in the weeds here.

And so I'd like to emphasize that what I think are the goals here -- one is, we have come to appreciate and understand that there is a continuum of carbon intensities improves. The position of crude is crude is just thought tenable. We know that there is a large variation and an important principle here is that that is part of the purview, part of the goal of the low carbon fuel standard is to restrain or reduce the carbon the carbon intensity of all the transportation fuels and the crude is part of that mix. And I think that's where we've moved.

I want to commend staff for the last proposal from a couple years ago to this. There is a big improvement in that sense. So that's the first one is, you know, to be moving in that direction of unappreciating that and reducing that overall carbon intensity.

The second is that it's to make companies accountable and responsible for the carbon intensity of their fuels and for us to provide an incentive for them to invest in and pursue innovations to reduce that carbon intensity, which was in the staff report.

And I think what that all leads to is moving towards company-specific approach. And I agree with the -- I guess the amendment, because we don't have enough information to be sure that there aren't unintended consequences. We don't know what the implications are.

But I think we should be sending a signal. And I'd like this to be either part of the amendment or part of the overall guidance is that it is our intention to gradually move towards a program where the companies are responsible and we will create a structure that does reward them for innovation and investment. And that's what I think we should be saying.

And let the staff figure out the details of how to do that. And that part of that is what we talked about earlier. They need more information. And they need help from the WSPA companies to do that.

CHAIRPERSON NICHOLS: John.

BOARD MEMBER BALMES: So as often is the case, Professor Sperling said some of the things that I wanted to say.

But I want to re-emphasize, to me, it's really important to send a strong signal for investment and production of alternative fuels. Whether it's 71 billion as WSPA said or four billion as NRDC said, it's not enough. We need to move away from reliance on fossil fuels if we are going to make any dent in the problem that the former Air Force officer said was the most important war that we're fighting now, which I thought was an amazing statement.

And so I don't think there is any question that we have to go forward with a program that, as Dr. Sperling says, moves towards a company-specific approach so that we can incentivize people to do a better job.

So I support Mr. De La Torre's amendment. I think it's actually very nice that we have a legislator on the Board so he can whip out some language very quickly.

And one last comment is one or two of the people testifying were concerned about the impact on California consumers of the low carbon fuel standard in terms of potential increased fuel costs. And I'm concerned about that. I think every member of the Board is concerned about that. I think if we do it right, they'll be -- actually by increasing alternative fuel supply, we'll be protecting California consumers in the future in terms of the price signal. So I think we need to move forward as we're discussing.

CHAIRPERSON NICHOLS: Thank you.

Ms. D'Adamo.

BOARD MEMBER D'ADAMO: I just had a few things.

Along those lines of the impact to the California consumer, what I think is missing here is maybe a little bit more of a partnership with the industry. And what I'd like to see when staff comes back -- well, first of all, some questions. When they do come back, in 2012, I guess it's for the indirect land use report, but want to clarify we will also receive a report at that time on an update for what we're doing today.

CHAIRPERSON NICHOLS: I think it's two separate things. If I could speak for the staff, which I probably shouldn't.

But my understanding is that they're proposing some regulation change to deal with the sustainability issue, because we directed them to do that. And that will come forward as soon as it's ready. But they've also committed to do an annual monitoring and bring that back to the Board. So those might or might not happen at the same time.

BOARD MEMBER D'ADAMO: Okay. So I just wanted to maybe talk a little bit about that report. I think that it's interesting because we saw such a wide range of impacts. I don't have it here before me.

But the chart that NRDC pulled up on costs, the Sierra Research, and then I think it was DEO, a variety of different reports. I think that before the staff comes back, it would be nice for them to continue their work, obviously, with the Energy Commission, but also hear from Sierra Research, how did they get those figures? Why is there such a huge gap?

And just echoing the comments that Ms. Berg made earlier, we do need to hear directly from industry on their accounting and on their investment. And I think that would be great if we could have that be part of the report to get -- staff would hear from the various stakeholders and agencies and then provide us with their insight about what those numbers mean.

As far as coming back often, I think it's good. We spent a lot of time on this today, but it was really heartening to hear from all of the alternative fuel providers and some of the innovation that's going on. So I think from my perspective, anyway, I don't mind spending the time and getting an update.

The other thing I wanted to do was just ask about flexible compliance. I was really intrigued by that when it came up by a few of the witnesses. There's not much meat on the bones there.

Can staff comment on flexible compliance in the event that things get tight as we go forward here on the credits?

STATIONARY SOURCE DIVISION CHIEF COREY: Yes, Ms. D'Adamo.

So this was something that was discussed in the context of the Low Carbon Fuel Standard Advisory Panel.

And the context really was: Are there opportunities to provide even more certainty to the market should an event or a situation play out where there's some limited or near term or short term limit on available credits. Maybe an individual refinery may be short. What were the options that might be available? And by including a mechanism, for instance, where credits would be available at a pre-defined price, that would send a signal to the market: One, we're standing by the targets; two, there is an opportunity to cross that bridge.

But what I want to be clear on, this was discussed in a subset of Advisory Panel members. Discussed really what I characterize at a conceptual level. A subset of Advisory Panel members did more work on this, continue to look at this issue. Really pleased with the work they've done.

But what our perspective is -- and we've included this in the Resolution -- is that we think there may be something there that merits further analysis. We want to continue to work with the sub-group. We want to pull other stakeholders in in the 2012.

And the fundamental question is: Could a mechanism like this be constructed that actually enhances the program. They're clearly -- even in the discussion with Advisory Panel members, several members were concerned about it. So there kind of was a mixed bag in terms of the overall value that it would provide. So you heard from the business community that believes that could enhance the program.

So what we have at this point are some approaches -- potential approaches this sub-group has developed. We are seeking and identified in the Resolution was the message that we want to work further to take a closer look at this and really ask the fundamental question does this have a role in the program? Could it enhance it? To the extent it does -- either way, we would return to the Board with our assessment, having worked through stakeholders whether this could benefit the program overall. We're appreciative of the work that the subgroup of the Panel did, but we think it merits a deeper dive.

CHAIRPERSON NICHOLS: I think a number of witnesses commented on the extent of interaction there has been on this program. And I don't expect to see that slacking off very much, at least in the next year.

About to put this to a vote. But before I do, yes, I have one more person who wants to speak. Okay.

BOARD MEMBER LOVERIDGE: I would defer to Dan first.

BOARD MEMBER SPERLING: So just to add to that discussion.

First of all, I think that this flexible compliance mechanism has to be not a question. I'd like to elevate it. I think for this program to be successful, we have to have it. As many people have said, there is a lot of uncertainty. We don't know how this is going to play out. It's very risky to have a rigid program where there's not some kind of flexibility built into it when things don't play out the way we anticipated.

We need to be very clear that we're committed to the targets. There is no backing off. This is what we're going to do.

But at the same time, we do have to appreciate the reality of how things might not play out the way we want. So I would try to -- I want to elevate this to a very high priority saying this I would argue is fundamental to the success of the LCFS. And if we don't -- like WSPA is saying, there has to be a trigger, you know, that's kind of the next level. If we can't do the flexible mechanism and we do have to go to some other kind of mechanism, I personally don't support using a trigger, because it does create too much uncertainty for the investors and industry. It will suppress investment. And that's the wrong message for us to be making. So that's on that. And then I just have one or two other things.

One other principle I think that we want to be using as we move forward is the idea building on what Chairman Nichols said it earlier is that we are -- what we do has a lot to do with the rest of the world both ways. We're learning from them. They're learning from us. And we need to -- this program we're putting in place does not -- can't be just a California program. It's not going to be a success.

So we need to be thinking how to -- including with this hybrid mechanism and California average, we need to be thinking about as we go to a national program, as we interface with the European program, is this going to work well? Is this the right mechanism? So I would urge more effort be put into thinking about consistency and exportability of the program.

I want to support the credit trading provisions. Just going on record, I think that's important in terms of making that more transparent and open.

And I just want to close in saying that I think the LCFS has been a huge success already. And sometimes we lose sight of that. And that is when I talked to a lot of the executives in the oil industry, almost unanimously they say the LCFS has changed their thinking, changed their approach already. They think -- whether they're thinking about oil or any other oil field, they're always thinking about how can we reduce the carbon footprint. How can we make it more efficient. And it really has changed the thinking and the investment patterns already and stimulating innovation.

So we have done our job already and we want to keep doing our job into the future.

But we shouldn't lose sight of that. It has been a success, and we want to make sure it continues to be a success.

CHAIRPERSON NICHOLS: Mayor Loveridge.

BOARD MEMBER LOVERIDGE: This is a more general comment, but I was talking to Dan Sperling. There was a very important column in the L.A. Times talking about the future of energy and how important electricity was to that future. I agree with the principles for the regulated parties and trying to encourage electric vehicles.

But, you know, they're no longer laboratory types. They're in the store fronts now. And if half of California consumers bought electric vehicles, we'd be having a different conversation today.

It seems to me that as the CARB Board, you want to track what's taking place in terms of the EV market.

Two, I think we have a vested interest as the principle suggestion trying to increase that market.

Currently, it's fairly flat. And it does a lot in terms of whether we're importing oil, whether in terms of air quality, in terms of greenhouse gases. And I think rather than sort of passively watching what happens in terms of the share of the marketplace, that we have a high stake, and the State has a high stake in increasing the percentage of consumers' choice. And it's good for the consumer. It's cheaper for the consumer to have electric vehicle in terms of the distance you should travel than in terms of a gasoline vehicle. It's more of an editorial statement.

CHAIRPERSON NICHOLS: It's kind of a preview for the next Board meeting in January where we're going to be taking up the vehicle standards.

But there is an important point to be made here, which is that while I completely agree with you that we need to be doing everything we can to encourage and support the nascent market for electric vehicles and electric drive train vehicles, gasoline powered vehicles will be with us for a long time to come. And they have to be operating more cleanly, too. And the auto industry has told us in no uncertain terms that they need help, that it's not all on them. It's also about the fuels that are available for their vehicles as well. So we have to be really managing on all these fronts at the same time and be clever about it.

I don't normally speak with a lot of empathy for the petroleum industry, but I do want to say I think they're in a difficult position right now. I appreciate the fact that Dan is talking to people who say their thinking has changed. But I don't see a lot of change actually happening on the ground here in California, not as much as we need to see anyway, and certainly not the levels of investment that we need to see. And part of that is frankly I think because confusing signals are given at times about what we want.

And I want to be also on record here as saying that one of the things I think this Board needs to do in the coming year -- and this would be an important piece of our mandatory update of the Scoping Plan, which believe it or not we already have to be doing now, another version of the AB 32 Scoping Plan, it's incumbent upon us to look at the various different ways in which we are regulating the oil industry, whether it's through the low carbon fuel standard or through the cap and trade program, or other mechanisms, mandatory audits, et cetera, you know.

One thing after another. And to try to -- and this is something that we should do in conjunction with the industry as well as with other stakeholders is to see where are we getting the bang for the buck. And if there is a need for adjustment overall in terms of where we're putting our emphasis, we should be prepared to make those kinds of changes.

So I want to be sending the strong signals of support for the programs and the investments that people are making. But I also think it's important that we recognize as somebody said -- one of our witnesses said here today, it's really all about fuels and energy. It's the electricity and oil industry. Now we have them both here under the low carbon fuel standard and the cap and trade program. Let's take a more comprehensive view here of where we're going to get the reductions from and where we have the best ways of sending signals.

And so I think it's -- this has been a very high level discussion. I really appreciate the quality of the testimony that we got on both sides here today, but recognizing there's more to be done.

BOARD MEMBER SPERLING: Should we follow up on what you suggest in terms of the oil industry? Because I agree with you. Maybe there should be some kind of working group with the oil industry to look at how to bring all this together, make it more synergistic as opposed to negative. Make sure everything is consistent. Maybe there is some streamlining that could be done.

CHAIRPERSON NICHOLS: Well, and I'm also mindful of the fact that, as Cathy Reheis-Boyd said, they're very sensitive. She represents a trade association. But individual companies have a lot of problems with data and what happens to the data and where and how they can discuss it with each other. So I think we need to do some conferring before sort of creating a process here. But I'm definitely of the view we need to have a process. So to be continued.

Okay. So we have first -- I think we should vote first on the amendment. I didn't detect any dissension, but I want to make sure an indication of support for the De La Torre/Riordan amendment.

All in favor, please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed? All right.

We now have the main Resolution in front of us then. And again, I think we can just do this on a voice vote. All in favor, please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Unanimously carried. Good work, staff. And thank you for everything.

We will take a five-minute break while the staff re-assembles.

(Where upon a recess was taken.)

CHAIRPERSON NICHOLS: The next item is actually one where we get to give away money. So I think it's a little easier. Sometimes it's harder.

We are now on Agenda Item 11-10-3. This item is to consider an award Proposition 1B grants to agencies for projects to reduce diesel emissions from goods movement activities.

In June 2010, the Board awarded $200 million for projects with bond money that we had on hand at that time. The local agencies are implementing projects for trucks, shore power for ships, and harbor craft using these funds. Last year, at that same hearing, we tentatively approved allocations of another $275 million for additional projects based on the anticipated future bond sales.

The Air Resources Board received the next installment of cash in the amount of $100 million from an October 2011 bond sale and we may receive additional funds in spring of 2012 as well.

I'd like to just note that given the state of the economy and of the great restraint that's being used by the Governor and the Treasurer's office in selling bonds in this market, the fact that we are being awarded additional money for these programs is an indication of the belief on the part of the administration that we are spending this money well and that these are important projects that also help to stimulate the economy.

So I'm very pleased that we are in a position to be dealing with this issue at this time. By providing direction to staff on both the use of the new cash and the potential spring money, ARB can meet the administration's directive to quickly inject bond funds into the economy.

Today, we're going to be hearing public testimony on the staff's proposal for the Board to award these funds to support truck projects. We appreciate the continued confidence of the administration in this program and also the fact that there are real public health benefits associated with these programs as well. So they're meeting their objectives on both fronts at this time.

When funding helps thousands of business owners to clean up their diesel equipment in advance of ARB regulations, this is a win for everybody. And of course, it's also helping to create and retain jobs here in California, while supporting businesses that design, sell, and install green products here.

We are not dealing today with the drayage truck regulations. That's already been approved by the Office of Administrative Law. We want to make sure that people understand that the only action that we're dealing with here today is the Prop. 1B grants in case there's any confusion about what's actually before the Board.

Mr. Goldstene, do you want to introduce the staff report?

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

Staff's funding recommendations you're going to hear about today are consistent with the program guidelines and priorities that the Board approved last year. They also further the Board's objective to quickly reduce diesel emissions that impact communities near ports, rail yards, and distribution centers.

Under ARB regulations, the drayage trucks serving these facilities must upgrade to cleaner models ahead of other trucks. ARB, the air districts, and ports and the federal government have provided more than $200 million in public incentives to transform the drayage industry from the dirtiest trucks to the cleanest fleet. The ports of Los Angeles and Long Beach have now completed that transformation. The transition in other ports, like Oakland and San Diego, as well as the rail yards, is still underway.

Staff recommends a second increment of Prop. 1B moneys to assist these drayage truckers who install diesel particulate filters on their existing truck as an interim step and who must still replace those trucks with fully compliant models. The proposed reduce of those drayage trucks with filters to replace the oldest agricultural trucks in the Central Valley would expand the air quality benefits of the Prop. 1B money even further.

It's also critical to provide additional bond moneys to the air districts to fund the long list of approved back-up projects for non-drayage or other trucks subject to ARB's truck and bus regulation. These truck retrofit and replacement projects are ready for early compliance, pending the availability of money.

Staff has worked to develop a proposal that balances the need for both drayage and other truck funding, considering the regulatory compliance deadlines, and the need to move bond money quickly into projects to benefit communities.

I'd like to introduce Ajay Manjat, who's going to provide the staff presentation. But I also want to let the Board know that since we've had a long day, as he goes through the presentation, he may skip some slides to speed up his report. You have the full report in front of you though.

CHAIRPERSON NICHOLS: Thank you.

(Thereupon an overhead presentation was presented as follows.)

AIR RESOURCES ENGINEER MANGAT: Thank you, Mr. Goldstene. Good afternoon, Chairman Nichols and members of the Board.

In the interest of time, we're going to abbreviate the presentation and hit on the high points.

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AIR RESOURCES ENGINEER MANGAT: The Board's action today is to consider award of $100 million from the fall 2011 bond sale and approve the process for awarding potential proceeds from a spring 2012 bond sale. Staff would also appreciate your feedback on the proposed truck reuse program.

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AIR RESOURCES ENGINEER MANGAT: Could we jump to slide ten?

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AIR RESOURCES ENGINEER MANGAT: In early 2011, the local agencies, in coordination with ARB, targeted outreach and publicized the program on a statewide level. This coordinated and simultaneous approach aimed to maximize the number of trucks on each district's list.

The statewide solicitation resulted in a significant demand for the program as districts received eligible applications totaling almost $300 million. Projects from the solicitation were competitively ranked against all application received by that local agency.

Due to the demand being in excess of $175 million, each district was able to generate a list of backup projects.

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AIR RESOURCES ENGINEER MANGAT: As mentioned before by Chairman Nichols, drayage trucks are an important focus of staff's proposal today, so let me provide a quick background on the regulation.

The Board has made drayage trucks a priority due to health risk concerns in communities near ports, rail yards, and distribution centers. In response, owners of these trucks have to act earlier than other truck owners to upgrade their fleet under ARB's truck regulations.

Phase 1 of the drayage regulation requires installation of a PM filter and Phase 2 requires upgrade of trucks to 2007 emission levels. Many of the Board members will recall that about a year ago they considered a delay in Phase 2 of the drayage rule and decided to retain the original schedule. The compliance date for Phase 2 is December 31st, 2013.

There are already more than 13,000 drayage trucks based in California that are compliant with Phase 2 of the regulation. To support these drayage upgrades, the ARB, port, air district and federal programs have provided $200 million of incentives. This proportion is much greater than the incentives provided for other trucks.

Now I'm ready to move onto the staff proposal.

Our proposal includes the award of $100 million in fall bond funds, the process for spending the 2010 funds, and truck reuse.

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AIR RESOURCES ENGINEER MANGAT: The proposal today is a continuation of a concept presented to the Board over a year ago.

In April 2010, ARB staff issued a Notice of Funding Availability and called for local and State agency projects to implement up to $475 million in program funds.

The Board awarded $200 million in available cash from the spring 2010 bond sale with the preliminary awards for the 275 million contingent on future bond sales.

The focus now is on finalizing the actual award based on the $100 million of new cash received from the fall 2011 bond sale and approving the process for funding projects, if proceeds become available in spring 2012.

To support California's recovery, Governor Brown has placed an emphasis on getting bond funds out to the economy as soon as possible. Staff is proposing an accelerated schedule for the allocation and expenditure of these bond funds.

Staff recommends that the entire $100 million in new cash go towards funding truck projects. This includes funding the drayage priority reserve and providing additional funding for other trucks on the district lists of backup projects.

To implement the drayage funding, staff has identified the owners of about 2100 eligible drayage trucks based on the criteria the Board established last year. Staff is proposing a combination of grants as well as a new financing element for drayage truck owners.

We recommend that the Bay Area Air Quality Management District and the South Coast Air Quality Management District administer the grant portion of the drayage priority reserve since the majority of drayage trucks visit ports and rail yards located in these two corridors. However, the pool of eligible trucks extends to corridors. The ARB would administer the loan assistance portion of the drayage reserve.

A maximum of $66 million would be needed for all of the potentially eligible drayage trucks. Although 100 percent participation is unlikely, staff would set aside this amount until the demand is assessed in February.

Under staff's proposal, the rest of the funding would be available to other truck backup projects already on existing district's lists. The first step in allocating these funds would be to restore the funds to the San Diego border region that the Board temporarily redirected to the Central Valley last year.

The second step would be we would allocate funds to the air districts in rough proportion to the corridor targets considering the drayage funds as well. ARB would sign grant agreements and distribute these funds to districts in January.

We believe that additional funding will be available for other trucks. We recommend that any of the $66 million reserved but not used for drayage trucks be directed to these other truck backup projects to best achieve the overall corridor funding targets.

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AIR RESOURCES ENGINEER MANGAT: This table shows the result of a feasible scenario. Starting with the second column, we are showing half of the drayage grant funds and all of the drayage loan assistance moneys being used. In this case, drayage would utilize almost $36 million. This scenario would leave $65 million for other trucks. The redirect and restore column shows how funds are moved from the Central Valley and restored back to the San Diego and border regions. And then staff adjusted the funding amounts for other trucks to bring the cumulative allocations for each corridor closer to the overall trade corridor targets.

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AIR RESOURCES ENGINEER MANGAT: This slide shows how the 50 percent drayage use scenario would affect the cumulative corridor funding levels compared to the Board's corridor targets over the course of the program. If you look at the column labeled "Overall Percentage," you can see that the corridor percentages would be very close to the program targets.

Most of the drayage trucks eligible for the priority of reserve funding operate in the Port of Oakland. As a result, the Bay Area would receive extra funding in this round.

Staff proposes to ensure that future funding awards brought to the Board restore each corridor to its percentage target. The proposed Board Resolution includes direction to staff to achieve this result.

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AIR RESOURCES ENGINEER MANGAT: If additional bond funds become available in the spring, staff proposes to expand financial assistance to owners of certain drayage trucks with model years 2005 and 2006 engines.

Staff recommends that any additional funds be applied to the existing list of trucks already evaluated by the districts and approved by ARB staff.

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AIR RESOURCES ENGINEER MANGAT: The

implementation of drayage truck grants is going to result in a number of trucks being upgraded. Instead of scrapping drayage trucks which have filters, staff proposes to utilize this unique opportunity to reuse these trucks and applications to that have the most extended compliance dates under the truck and bus rule.

These applications would primarily include low use and specialty agricultural trucks. Between the four trade corridors, more than 80 percent of these trucks are based in San Joaquin Valley.

Staff recommends the San Joaquin district administer a truck reuse program to replace even older trucks that aren't required to upgrade until 2017 or later. This would provide many years of early and extra PM reductions.

The South Coast and Bay Area districts have expressed interest in reuse of drayage trucks in their areas as well. While we continue to recommend that the drayage trucks first be available for reuse in the Valley, we support the ability to use any remaining drayage trucks to replace low use agricultural trucks in the Bay Area and South Coast in proportion to the number -- in proportion to the numbers in each region.

What we're recommending is that the San Joaquin district hire contractors to administer this reuse program for the Valley, but also coordinate with the South Coast and Bay Area -- with South Coast and Bay Area such that these districts could provide additional funding to the contractor to administer the same program for any trucks available to those regions. The current program guidelines provided for truck reuse programs that meets specified criteria and are approved by ARB's Executive Officer.

Staff is describing this proposal today because it would involve the transfer of trucks between regions.

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AIR RESOURCES ENGINEER MANGAT: In conclusion, staff recommends that the Board adopt Resolution 11-40. This Resolution identifies primary and backup projects that reflect the proposal to fund drayage and other truck projects as I've described. The Resolution would provide Board delegation to the ARB Executive Officer to redirect un-used drayage funds to other truck backup projects.

We also ask that the Board approve the minor guidelines changes to streamline the process so we can meet the accelerated schedule for this round.

Finally, although the guidelines have already authorized truck reuse programs, staff is asking for your support to proceed with the reuse of drayage trucks to replace low use and specialty agricultural trucks in the

San Joaquin Valley.

Thank you. And we'd be happy to answer any questions you may have.

CHAIRPERSON NICHOLS: Okay. Any questions?

If not, we'll go straight to the testimony beginning with the San Joaquin Valley and then moving on to South Coast/Bay Area.

MR. SADREDIN: Thank you, Madam Chair, members of the Board. It's been a long day. Happy holidays to everyone. And I want to wish my friend, Bob Fletcher, happy retirement. He and I started about the same time, but he has aged more than I have also. But we will miss him.

So back to business. At your last Board meeting, you took decisive action to re-affirm your longstanding commitment to environmental justice. And I want to congratulate you today. The item that's before you with your staff recommendation shows that you mean what you said and puts those priorities regarding environmental justice in play here for everyone to actually benefit from.

We do share your concern with the pollution impact and the port neighborhoods. As you said, the environmental justice communities in Los Angeles and Bay Area. And therefore, we support putting a focus this year on the drayage trucks in those areas. And I say that knowing that that means more money this year will go to Bay Area and Los Angeles.

But we also want to do what we say, and we don't want to have a parochial concerns stand in the way of doing the right thing for environmental justice in those communities. So we support that. And we know that you will ultimately make each area whole in terms of their overall allocation. So no problem there.

We also support your truck reuse recommendation that we have been talking to your staff about. We believe that it will go a long ways in addressing environmental justice issues in San Joaquin Valley. As staff mentioned, we have 80 percent of the trucks in that fit that category of not having to retrofit until after 2017.

It's also a good government in this economy. You don't get credit often enough regarding your concern and sensitivity to the fiscal issues. But this is also good for the economy if you can take the old trucks and put them back in business.

Now, we value that program so much I'm also here to announce that the district, our district, is actually willing to put some local funding in play here to make this a no-cost option/proposition that will be available to the truck owners in those environmental justice community so that they can take that option and be able to use these trucks without any out-of-pocket expense. It's going to be a new program to administer, but we think we can do it.

I do have a couple of recommendations for you -- a couple of administrative changes that I have talked to the staff and they are okay with it, pending your Board's approval, if I get 20 more seconds I can spell out.

CHAIRPERSON NICHOLS: We'll give you extra time for having come up with extra money.

MR. SADREDIN: On page 26 of your staff report, the staff is recommending a number of temporary streamlining measures to make the project move forward faster and reduce administrative cost. We believe those are good ideas that deserve to actually be made permanent. Now, I understand some of them may not be transferable to other project types, because drayage trucks may not have all of the competitive components that go into these other programs. There are two specific recommendations that I've discussed with your staff and I believe with your Board's blessing we should make them permanent and extend them to the other programs that the district also administers.

One of them is that for the trucks that have been recently inspected, because we already funded retrofits for them, there is no need to inspect them again. If they have been inspected recently and they have gone through that process, we can save the cost on the time. And we suggest your Board extends that to the grant administered by the district and make them permanent.

The other recommendation that we have relates to allowing the applicants to at their own risk purchase trucks before their contract is approved. That will also expedite the process.

Now, we don't want to have somebody buy a truck and five years later come to us and say we don't want to pay for, we don't want to pay for any way type reduction. What I'm simply suggesting is for trucks that are purchased after an applicant files an application with the district at their own risk they proceed with buying the truck before we have made final ruling on the application, that that should not disqualify them from receiving funding.

So for that short period of time after they filed the application, they should be able to make advanced purchases. And I've discussed those with Ms. Marvin and she seems to be okay with it.

CHAIRPERSON NICHOLS: Okay. Thank you.

Henry Hogo and then Jack Broadbent.

MR. HOGO: Good afternoon, Madam Chair, members of the Board. I'm Henry Hogo, Assistant Deputy Executive Officer at the South Coast AQMD.

I want to express our concerns to three items that our Chair, Dr. Berg, submitted comments on. And two of the three items have been addressed by staff. And we want to thank staff for addressing those issues relative to keeping -- meeting the original targets that the Board had approved and also expediting the use of -- or turning back -- taking used funds and reallocating those funds as expeditious as possible so we could clean up more trucks.

Relative to the reduce program, we feel it's an environmental justice issue also and the program should be open to all ag trucks and low specialty use trucks throughout the four trade corridors, because we believe that even though we recognize that San Joaquin has the lion's share of the trucks, we believe that most of the funding would go to San Joaquin, but it would be important that sends the message that environmental justice applies throughout the four trade corridors. So we'd like to see a program where all these trucks are put on equal footing. And we are open to working with San Joaquin and the other air districts and having one program throughout the four corridors.

And we'd like to continue that discussion if that is made available to the other corridors. Thank you for consideration of our comments.

CHAIRPERSON NICHOLS: Thank you.

Jack Broadbent. You're not Jack, but you do represent the bay area.

MS. MC CREE: Good afternoon, Chairperson Nichols and members of the Air Resources Board. Mr. Broadbent was unable to attend this afternoon.

My name is Tina McCree, and I work with the Strategic Incentives Program at the Bay Area Air Quality Management District. Your staff have entered into the record for today our full remarks and our slide set, which I'm going to skip using for this time period.

I'm happy to speak here before you in support of the staff's recommendation for the third installment of the goods movement bond funding. Staff's recommendation to provide over $61 million of drayage truck upgrades is a hugely important step in completing the work to reduce the cancer health risk in west Oakland community.

As you may remember, our agencies conducted a joint health risk assessment in west Oakland in December 2008, and that assessment identified cancer risk levels that were three times higher than any other area of the Bay Area, some numbers exceeding risk levels of 1500 to one million. Drayage trucks were identified as being a large component of this risk and the air district in partnership with the port of Oakland, U.S. EPA, and your agency moved quickly to provide $26 million to address that risk by installing particulate filters and replacing vehicles. That action in 2009 and '10 has lead to a 50 percent reduction of emissions from drayage trucks. And we particularly would like to thank and commend Cynthia Marvin and the staff of the ARB Goods Movement Program for their dedicated efforts to achieve these reductions.

While this is a welcome improvement in air quality, our work in west Oakland is not finished. As recent studies suggest, the proportional risks assigned to drayage trucks may be higher than originally estimated. The replacement of drayage trucks in this community is critical to lowering overall health risks over time. The air district believes that the drayage community in Oakland has partnered with both of our agencies to clean up operations, and this is evidenced in the chart that was submitted into the record in our slide set showing 1,319 trucks retrofitted with our moneys. And there are an additional 400 trucks that were retrofitted using private funds that will also need to be upgraded to meet the upcoming Phase 2 regulatory requirement in 2014.

Staff's proposal makes California goods movement bond funding available for both sets of these truckers and re-enforces the idea of providing financial assistance to those who take early action to come into compliance ahead of regulatory deadlines.

However, while staff's proposal to fund these truckers makes sense, the air district believes that the applicant process being proposed for the allocation of funding has some flaws and we've expressed our specific concerns to staff and believe that ARB and the air district will be able to work together to address these.

One specific area of concern that remains for us is the manner in which retrofitted trucks are assigned for reuse, possibly outside the air basins in which local funds were used to pay for the retrofit filters. And we look forward to working with the San Joaquin Air District and the ARB in order to address these concerns. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Carl Dolk and then Mike Watt and Mike Loutzenhiser.

MR. DOLK: Good afternoon, Madam Chair and members of the Board. My name is Carl Dolk. I work for Devine Intermodal, a trucking company based in west Sacramento. Most of our business involves moving freight to and from the port of Oakland. Although we support staff's recommendation, we do believe the proposed grant amount for model year '94 through model year 2003 truck is insufficient. And I could like to direct you to our first slide here.

It's important to remember that pursuant to program guidelines replacement vehicles must have fewer than 500,000 miles to be eligible for a grant.

Slide two please.

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MR. DOLK: Slide two shows the mileage of Class A trucks sold during the four-month period of June 2011 through September 2011. If you trend the mileage and use the average as your starting point, which is a conservative average, we can project what the mileage will be in September of 2012. I chose September 2012 as the deadline because that is midyear -- the mid-amount of the time frame when the expected funding will be for this project. You'll see it as very unlikely that the population of 2008 model year trucks will be on the cusp of the 500,000 mile limitation. If you look at the middle of the column there, very bottom, you're talking about 496,000 miles projected at the time that we believe that funding may be available. Because of this anticipated high mileage for 2008 model year truck, it is likely that a grantee would seek a 2009 or newer vehicle.

Slide three, please.

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MR. DOLK: This slide details the average retail price of Class A vehicles sold for the 11 months ended November 30th. As you can see the difference between the 2009 model year and 2008 model year is 8,500. Staff estimates $70,000 as the amount that truck will cost at that time.

To help a grantee afford a truck that would have a better chance to last for the next ten years through 2022, we respectfully request the Board provide a grant in the 30,000 to $35,000 range. This is a $5,000 increase over the staff's recommendation. Thank you very much.

CHAIRPERSON NICHOLS: Mike Watt. Mr. Watt.

MR. WATT: Madam Chair, members of the Board, my name is Mike Watt, Mobile Source Incentive Manager for the San Diego County Air Pollution Control District.

I'm here today speaking on behalf of the entire San Diego border trade corridor, which includes our agency as well as the Imperial County APCD.

We fully support the funding allocations outlined in the staff report. There are over 350 in-use diesel trucks with uncontrolled emissions currently on the waiting list for funding in the San Diego border trade corridor. Your staff proposed allocation of at least $8 million in additional funding to the San Diego border trade corridor will help to ensure these trucks are replaced or retrofitted, which will result in additional annual emission reductions of up to seven tons of toxic diesel particulate matter and 140 tons of smog forming oxides of nitrogen from related goods movement activity in our corridor.

As was discussed by San Joaquin earlier, your staff's proposal also includes recommendations to approve a temporary variance from the guidelines to allow for a streamlined application process for these priority drayage truck funds. We are supportive of these recommendations as well. And we would also like to request that the proposed temporary streamlining measures, particularly those pertaining to vehicle mileage documentation as well as vehicle registration documentation, be permanently incorporated into the guidelines.

Permit adoption of these streamlining measures will simplify the application process for equipment owners, ease the administrative burden for participating local agencies, and result in earlier achievement of emission reductions.

San Diego and Imperial County APCD would like to thank ARB's goods movement staff who have worked closely with us to ensure these projects were successfully implemented as expeditiously as possible in order to achieve the goals of the program and get the needed reductions in our trade corridor. We look forward to continuing our collaborative relationship with ARB staff. And thank you for considering these issues today.

CHAIRPERSON NICHOLS: Thank you.

MR. LOUTZENHISER: Good afternoon, Chairman Nichols and members of the Board.

You know I can tell I've been up here a few too many times over the years now when you can actually pronounce my last name correctly. I'm Mark Loutzenhiser, representing the Sacramento Air Quality Management District today. I oversee and manage the district's incentive programs.

Just I'm going to keep this very short. Since I wasn't sure what time we were going to get to this presentation today, I ended up going back to my office briefly, the building being just down the block. So I did go ahead and put it down into writing as well. I'm going to keep it very short.

We support the changes being proposed by the ARB staff and we appreciate all the work and effort they've been doing with this program going forward. And we recognize the need to go ahead and get these additional funds as provided by the State and through the Department of Finance as quickly as possible in order to be able to show the continuing need for these bond sales to finish up the program.

One small suggestion we have provided to staff and just mentioned in this is for the spring bond sales. And that is just in the -- because we are forecasting out -- we are pullling out our crystal ball in terms of what's been happening, I just want to share our experience at the moment. We're a little bit fortunate at the moment in the sense of that we're on the front end of the curve in terms of getting our applications out. It looks like we're going to be sending out our applications next week for the contracting of last year's bond sales. I believe that will be putting us at the first district getting those out.

One of the things we've found as we're going through this process, we are making phone calls to those participants and letting them know the applications are coming. And while the majority of them are very excited and ready for them, we are seeing a small percentage, but some people are saying things have continued to change for them in terms of their business model as we go forward.

And so my only concern in terms of trying to forecast and boxing us in too much on the spring bond sales is that other districts may find as they get to this point that that list may not be quite as big as everyone hoped it would be to begin with. And our list was originally upwards of 15 million. We're down to 11 million. We've gone through the applications having gotten in all the documentation that's required as part of the program.

The only small change we would throw out there is just to leave the door open for the spring bond sales in terms of as opposed to saying we are only limiting it to the spring 2011 solicitation is just to leave the door open that there may be needs of solicitations coming forward into the spring of 2012. I'm not saying that's the direction that would have to happen, but rather than closing that door, if that option is still available, I think it would be more proactive going forward to show Department of Finance the continued demand for the program of not just existing lists, but if people are going to be in a different financial position now than they were a year ago, especially as they're getting up closer to the regulations dates and maybe in a better position to move forward.

With that, I thank you very much.

BOARD MEMBER LOVERIDGE: Two minutes and 50 seconds.

MR. LOUTZENHISER: What was that?

CHAIRPERSON NICHOLS: You used up two minutes and

51 seconds.

MR. LOUTZENHISER: So not as short as I would have hoped.

CHAIRPERSON NICHOLS: It's fine. Thank you.

Staff want to respond to any of those comments?

ASSISTANT DIVISION CHIEF MARVIN: We appreciate the support -- this is Cynthia Marvin.

We appreciate the support from the air districts in terms of the overall proposal and the understanding that it needs to fluctuate with priorities and everyone will be made whole.

In terms of the specific comments that were made, Mr. Sadradin from the San Joaquin Valley talked about two streamlining measures that we had discussed earlier in the day. And in general, we do support those. I just want to clarify that the second item, which we characterized as allowing truckers to purchase trucks after they applied but before they have a grant contract, what we've proposed is allowing folks to order trucks, not purchase trucks.

CHAIRPERSON NICHOLS: So they wouldn't be getting reimbursed?

ASSISTANT DIVISION CHIEF MARVIN: Well, the important distinction is on the bond funds, you can't have already purchased it. We actually couldn't do that, even if the Board wanted to.

So with the understanding that second streamlining provision is allowing folks to order trucks after they've applied at their own risk, then that is something that we would support.

The other comments regarding truck reuse, we continue to support the original recommendation, which is that any reused drayage truck available from Bay Area, South Coast, or other regions be prioritized to the San Joaquin Valley. Not only are most of the trucks that would ultimately be replaced be agricultural trucks in the San Joaquin Valley, this also helps us address San Joaquin Valley SIP needs and provide extra PM reductions in the valley.

I would point out that the Bay Area and the South Coast are getting a larger share of funding and have done so because of the drayage priority of that the Board has set before. So this is also a way to try to balance the early and extra benefits that this program provides across the major regions of the state.

If there's any other items you'd like us to address, we'd be happy to. But these seem to be the important ones.

CHAIRPERSON NICHOLS: The issue about the open opportunity for a solicitation next spring, that's always a possibility, isn't it, if we chose to.

ASSISTANT DIVISION CHIEF MARVIN: The difficulty here is that in our discussions to advocate for bond funds for this program, we are going to have to guarantee that new funds from spring of 2012 go out the door right away. The only way that we can do that is to reference the existing lists that have already been created. So what we're suggesting is through spring of 2012 we work on the existing list that the districts have already compiled. After spring of 2012 when we are fortunate enough to get the next bonds proceeds, we reopen the process. Districts can re-submit.

CHAIRPERSON NICHOLS: Yes, Dr. Balmes.

BOARD MEMBER BALMES: So maybe I missed it. But did you respond to Mr. Dolk's concern about the cost of the trucks?

FREIGHT TRANSPORT BRANCH CHIEF KITOWSKI: This is Jack Kitowski, and I can respond to Mr. Dolk's.

What Mr. Dolk was pointing out was that there is a requirement on our program that any used truck purchase have a maximum of 500,000 miles. And the purpose of that is to ensure that the trucks that we're bringing into this program that we're paying for have a long life. He provided some information that with this requirement what is going to end up happening is that there will be fairly broad availability of '08 and '09 trucks, but not the average '07 truck would not be able to be used. But he is talking averages. So there will be a number of trucks that can't fit into the program, a number of trucks that can.

And our objective was never to make sure every truck was being purchased, but simply that there would be trucks available and ensure they have long lives.

I guess I would point out one other point, and that's the prices that were on his presentation were from November of this year. We expect if, as he says, that we're really dealing this program in September next year when he extrapolated the mileage that the prices would also come down on those used trucks a little bit. We think we're in the right ballpark to get a robust supply of trucks. Not every truck, but a robust supply.

CHAIRPERSON NICHOLS: And they're trying to spread the money further obviously.

FREIGHT TRANSPORT BRANCH CHIEF KITOWSKI: There's a key point too obviously.

BOARD MEMBER D'ADAMO: Do you want a motion?

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER D'ADAMO: I'd like to move adoption and just would like to briefly thank staff.

Cynthia, you've done a lot of work on this and the entire staff. And the first time this came before us, it was pretty rocky. It's just great to see some creative ways of moving forward in order to spread these dollars out, stretch them.

And thanks also to Seyed for keeping on us with that reuse program. I know you guys have wanted this for a long time. So it's exciting to finally have it implemented. Thank you.

BOARD MEMBER SHERRIFFS: I'd like to second the motion. I'd also like to say I'd be happy to buy a used trucks from Seyed.

CHAIRPERSON NICHOLS: Okay. Any additional Board member comments?

If not, okay. All in favor, please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed? Very good. Thank you all. Great program.

We have one more regulatory item. Do we have witnesses who signed up for that one? Two. The staff will get bonuses for shaving time off of their report. And they wouldn't believe me anyway, and rightly so. But I could try.

We have two witnesses signed up and they're both in support. So I think it's possible to expedite this, if people don't mind. Can you do it?

BOARD MEMBER LOVERIDGE: Do we need a report?

CHAIRPERSON NICHOLS: Do we need a report at all? We can do it on consent.

BOARD MEMBER RIORDAN: Well, we can take public testimony.

CHAIRPERSON NICHOLS: Well, the two people who are here support it. The question is, do they feel a great desire to actually get up and speak? They do. They want to get up and speak. Okay, staff, go.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

California began controlling exhaust emissions from off-road mobile sources in the early 90s. Over the years, since then, the U.S. EPA has already promulgated similar control measures at the federal level with the same mobile sources.

In the interest of reducing the burden of compliance on industry, both agencies have made efforts to harmonize the regulatory requirements as much as possible.

To that end, the proposal before you today seeks the better align California with the most current federal certification requirements for both small off-road engines and off-road compression ignition engines.

The benefit of this proposal is that it maintains the stringency of our current emission standards while eliminating unnecessary reporting requirements and duplicative testing for the manufacturers. Additionally, the proposal modifies the fuel that off-road manufacturers will use for exhaust emission certification testing to the ten percent ethanol blend of gasoline, which is for the same fuel that the Board will also consider adopting next month for testing on on-road motor vehicles and which is currently dispensed from commercial gasoline pumps throughout the state. This modification will apply not only to the small off-road engine regulations, but also to the regulations for off-road large spark ignition engines, recreational marine engines, and off-highway recreational vehicles.

I'd like to have Yun-Hui Park of the Mobile Source Control Division make the staff presentation.

(Thereupon an overhead presentation was presented as follows.)

AIR RESOURCES ENGINEER PARK: Thank you, Mr. Goldstene. Good afternoon, Madam Chairman and members of the Board.

The following presentation is the staff's proposal to amend several of California's off-road regulations and test procedures.

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AIR RESOURCES ENGINEER PARK: First, I will provide some background information and present staff's proposed modifications beginning with the small off-road engine test procedures and then compression ignition or diesel fueled engine test procedures, and finish off with the exhaust emission certification fuel requirements for several off-road categories.

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AIR RESOURCES ENGINEER PARK: To begin, here are some of the examples of equipment that are in the small off-road engine test proposal. The engines are generally installed in a variety of lawn and garden and utility equipment typically categorized based on the size of the engine.

Next slide.

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AIR RESOURCES ENGINEER PARK: For the test procedures applicable to small off-road engines, ARB references the Code of Federal Representation, or CFR. The U.S. EPA revised these test procedures in 2008, which go into effect in the 2011 to 2013 time frame. As part of their revisions, they moved the current test procedures to Part 1065 of the CFR and introduced standards in Part 1054. Manufacturers of small off-road engines would like ARB to align our test procedures and requirements with those of U.S. EPA.

Next slide.

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AIR RESOURCES ENGINEER PARK: Staff is proposing that the Board modify the small off-road engine test procedures to adopt portions of the U.S. EPA's CFR Parts 1065 and 1054. This would further align the certification and exhaust emission testing requirements without any changes to the stringency of the emission standards and without any cost impacts.

Next slide.

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AIR RESOURCES ENGINEER PARK: Next I would like to focus on diesel engines which are used in a variety of applications and are the preferred choice where durability and fuel economy are the primary considerations. Off-road applications include agriculture, construction, and general industrial equipment.

Next slide.

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AIR RESOURCES ENGINEER PARK: The Board adopted the Tier 4 emission standards for off-road diesel engines on December 9th, 2004, incorporating the majority of requirements promulgated by U.S. EPA earlier that year. In 2004, U.S. EPA has made a number of revisions to the federal Tier 4 requirements. The most significant of these revisions is the new NOx plus HC emissions standard adopted in 2010. Like the SORE manufacturers, diesel engine manufacturers want ARB to align with the federal test procedures and requirements in order to avoid duplicative testing requirements with no associated emissions benefits.

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AIR RESOURCES ENGINEER PARK: In addition to the new NOx plus HC emission standards previously mentioned, listed here are other significant proposed amendments to the Tier 4 regulation.

The proposed combined emission standard would provide industry with additional compliance flexibility while preserving the emission benefits and cost effectiveness of the original regulation.

To assist ARB's various in-use off-road compliance program, staff proposes that all engine control labels, including the information necessary, to properly register these engines under those programs.

The additional information would also facilitate ARB's enforcement efforts regarding in-use engines.

Additionally, anti-stockpiling requirements are proposed to ensure the manufacturers do not over-produce engines prior to a change in emission standards to circumvent the regulations. And if I could skip to next slide.

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AIR RESOURCES ENGINEER PARK: And the next one. Off-road gasoline fueled spark ignition engines are used in four off-road categories. These include already discussed the SORE category, the recreational marine engine category, the large spark ignition category, and the off highway recreational vehicle category.

Next slide.

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AIR RESOURCES ENGINEER PARK: The basis for these proposals lie with the pending change to the on-road motor vehicle test fuel requirements which the Board will consider next month as part of the advanced clean car regulatory proposal.

I'll skip to the next slide.

The current emission testing fuel requirements for most off-road spark ignition engine categories are the same as those for on-road motor vehicles.

Next slide.

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AIR RESOURCES ENGINEER PARK: Therefore, staff is proposing that the exhaust emission test fuel requirements for the small off-road engine, recreational marine engine, large spark ignition engine, and off-highway vehicle categories be amended so that they are consistent with the new E10 test fuel that is presently proposed for testing on-road motor vehicles.

To allow time to completely adjust the new fuel, staff proposes that this be optional for the 2013 through 2019 model year and would become mandatory in the 2020 model year.

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AIR RESOURCES ENGINEER PARK: Slide 15.

Since the release of our proposal, we've had some minor changes. And we will be having 15-day changes to account for these.

Next slide. Last slide.

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AIR RESOURCES ENGINEER PARK: In conclusion, staff recommends that the Board adopt the proposed revisions, including modified Parts 1054 and 1065 for small off-road engines, adopt proposed revisions including modified Parts 1039, 1065, and 1068 for Tier 4 diesel engines, adopt the E10 exhaust emission certification test fuel for small off-road engines, recreational marine engines, large spark Ignition engines, and off-highway recreational vehicles and adopt the proposed 15-day changes along with staff's suggested modifications.

Thank you.

CHAIRPERSON NICHOLS: Thank you. We appreciate your making the extra effort to compress the staff report.

But I want to congratulate you on having worked through some very complicated issue and obviously achieved a lot of support.

We can now hear from our witnesses here, John McKnight and Mark Riechers. Start with John.

MR. MC KNIGHT: Good afternoon, Madam Chairwoman and Board members.

My name is John McKnight. I'm director of Environmental Health and Safety for National Marine Manufacturers Association. We have a lot of experience with ethanol because we represent the people who build recreational boats and marine engines and accessory. It's been a disaster for us from the beginning. But it happened many years ago and over the years, both our manufacturers and our consumers have learned to live with ethanol. I can say today that E10, being a nationwide fuel -- although I still get all the complaints from the boaters, it's a usable fuel within the marine environment. E15 is not. And Mark Riecher is going to talk about some testing that was just done with DOE funding, of which we had some major failures on outboard engines. But we're not here to talk about E15 today. And if staff ever does decide to do that, please let me know so I can be here.

The real difference is E10 is three percent oxygen. And although we certify our engines at E0, we calibrate them and we do our durability test at three percent oxygen. And E15 is up to five percent oxygen, and it basically makes the engines run too hot.

Because of this ethanol problem in the marine industry, a lot of companies that work on renewable fuels and low carbon fuels have contacted my association and said would you like to take a look at do some testing of these renewable fuels.

One of the ones that we tested last summer was Butanol. There's some really positive things that we found out. We ran 16.1 percent Butanol, which has the same oxygen content as E10 at three percent. It's also not soluble in water, as the alcohol fuels are. It has about the same solubility as gasoline, which is not a problem in the marine environment. It's not corrosive like ethanol is. It has a higher BTU value than ethanol. It has a lot of positive things.

I think one of the negatives we have is it's really not available in production quantities yet. One of the companies we are working say they have 50 million gallons coming on line by next June, and there is a lot of talk about the future of what they call drop-in renewable fuels, low carbon fuels.

When I took a look at what staff was

recommending, I said, you're saying you want to certify E10 and we're going to do that. As marine manufacturers, we're already doing testing on E10. But I said what would be a nice thing to do is just put some language in there and say that the new certification fuel be E10 or any other California-approved renewable fuel that comes out of in the future. I puts some language that I'll pass on to you.

Just because why lock ourselves into E10? It's like locking yourself into the rotary phone. Don't say everybody has to use a rotary phone. Say design me a communication system. And I think going down this path I'm going to have these same discussions with EPA in the coming months. Let's go with that route. And that's what I ask. I hope you take it under consideration.

Thank you for your time.

CHAIRPERSON NICHOLS: Thank you.

Mr. Riechers.

MR. RIECHERS: Good afternoon. Almost good evening.

My name is Mark Riechers. I'm Director of Regulatory Development for Mercury Marine, and I just wanted to hit on some of the things and expand on some of the things that John just said.

First of all, we have submitted to you some copies of some slides. And while we know that California right now is not looking to go beyond E10, we did some testing on E15 because EPA is going that route and we want to share that information with you so that if you ever do consider going there, you can see it didn't look so good. We blew up engines on E15. So it's not real good for the legacy fleet out there.

With regards to the particular issue we're dealing with right now, as John discussed, we have had some issues with E10. And the biggest thing right now is that we're starting to see a lot of development on bio Butanol and other fuels out there that do show a lot of promise. And one of the great things about Butanol is you can go to 16 percent today on it versus there is this big fight with EPA over going to 15 percent ethanol.

There are two companies that are really pushing it right now. One is called GVO and the other is called Butimax. And one of the things that's interesting about Butimax, it's a joint venture between two companies you probably heard of, DuPont and BP. And companies like DuPont and BP don't jump into something on speculation. They figured out there is a business case for this stuff.

So we just wanted to make sure that as we go forward because this is something that doesn't become mandatory until 2020. And in 2020, I'm not sure any of us can say what the fuels are going to be out there. And we'd like to just have wording in there that leaves some flexibility for staff to react to it. And we have actually proposed language that we gave to staff this morning that's literally just adding a few words in there and it takes care of that.

So thank you for your time. Appreciate it.

CHAIRPERSON NICHOLS: Thank you. This is actually more interesting than I thought it was going to be. How's that for great praise. I think you got our intention.

Question is: Staff, have you had a chance to look at what was submitted? They are making some pretty sensible sounding suggestions.

EMISSION RESEARCH AND REGULATORY DEVELOPMENT BRANCH CHIEF CARTER: Yes, Michael Carter.

We've talked to Mr. McKnight and Mr. Riechers prior to this as they suggested, and we looked at their 15-day change language they're suggesting. What they're suggesting is certainly reasonable. We are on the same page.

One thing should be made clear. In order for a fuel to be accepted as a certification-type fuel, it would have to be the predominant fuel or the dominant fuel in that particular industry. So it's representative of what's actually out there in the field.

So with that assumption being the case, it would normally go through the typical fuel evaluation process with our fuel evaluation folks. And certainly it could be looked at in the future. Certainly, we will leave the door open. And as I said, we will incorporate 15-day language to make sure that happens.

CHAIRPERSON NICHOLS: Okay. I think you got what you came for. All right. Any further comments or questions? If not, do I have a motion?

BOARD MEMBER RIORDAN: I would move -- just a minute. Let me get this on the table.

Let me move Resolution 11-41 and add then a 15-day change that staff work in, generally speaking, with the testimony that we've heard.

BOARD MEMBER D'ADAMO: Second.

CHAIRPERSON NICHOLS: Already Mayor Loveridge.

BOARD MEMBER LOVERIDGE: Jet me just see if I understand the premise. There is a dominant fuel and you can't certify a new fuel until there is a dominant fuel? How does that -- I must not have understood correctly.

EMISSION RESEARCH AND REGULATORY DEVELOPMENT BRANCH CHIEF CARTER: No. The suggestion is when they certify the engines, they certify on a particular type of fuel. That fuel should be representative of what fuel is out there they use in normal real life --

CHAIRPERSON NICHOLS: You have a new engine coming in to be certified.

BOARD MEMBER SHERRIFF: I'd like to second, even though I'm very happy to have sold my boat.

CHAIRPERSON NICHOLS: All right. Nothing like somebody who's eager to get in there second motions. Okay.

In that case, I think we're ready to vote. All in favor, please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed? Very good. We are adjourned. Happy holidays. We are almost done.

We have four witnesses who have signed up to speak on different items during the public comment period. So we begin with the --

EXECUTIVE OFFICER GOLDSTENE: Chairman Nichols, I think Dr. Sherriffs would like to --

CHAIRPERSON NICHOLS: I'm sorry.

BOARD MEMBER SHERRIFFS: I wanted to make some comments about my first day on the Board. Would you like me to make them now --

CHAIRPERSON NICHOLS: You could do that after the public comment period or before the public comment period. But I think after would be better, because after you hear the range of public comments, you're going to have even more thoughts about your first day.

BOARD MEMBER SHERRIFFS: You may are sorry.

CHAIRPERSON NICHOLS: I want to give you an opportunity to more fully experience this.

John Larrea from California League of Food Processors.

MR. LARREA: Hello, Board members. Thank you very much for allowing me to comment here. I'll try to keep this quick and brief.

And Dr. Sherriffs and Mr. De La Torre, I want to welcome you to the Board here. Glad to see a full Board.

We just have just some very brief comments on the cap and trade. As you know, we've been engaged with staff on a number of issues involving food processors.

First of all, I'd like to say we are very pleased with staff with regards to the leakage study. We've been very engaged with them, and they have been with us. We have been communicating back and forth on a level we feel is appropriate for this. And we feel like we are very much a part of the development of this study that's going to go forward.

However, on a couple of other issues, we have some concerns. As you know, we've been engaged in a industry-wide benchmark issue for the past year and a half. And just about a month ago -- well, no. When was it? It was right after I got back from my vacation, I inquired about the status of the benchmark and was informed they were not going to be using the equation that we had been developing and that they just decided to go with the 85 percent.

Now, what that's based on is our concern is that we have yet to understand why that decision was made. We haven't seen any data on that. This is not to say we aren't communicating with staff on this. But we are concerned that it was just kind of dropped on us. And we'd like to see at least some reasoning behind why we spent a year and a half on this and they decided not to go with that.

Secondly, we had another miscommunication or some difficulty regarding new entrants. We thought we had an agreement with at least with staff on new entrants and the allocations associated with production growth. However, we were just informed last week that that is not going to be the case either. Now, a lot of our members are very upset about that, because what that would have done was put us on an even par associated with product-based benchmarking so if we were increasing production, we would see an increase in allocations associated with it. That now wipes it out. We want to understand what's going on in that particular area, too.

Finally, we were told -- you know, I know that the Board and the staff would really like us to get involved in product-based benchmarking. It's very difficult and we talk about this quite a bit. We understand that you are now negotiating with a company called Ecofys in order to develop a product-based benchmark for food processors. At least that's what we were told last week on the our meeting by one of the CARB staff members.

If that's the case, it's going to be requiring a lot of cooperation and a lot of data from our particular industry. So we would like to learn more about Ecofys and also about what you envision in terms of trying to develop this product based benchmark and be actively involved in it.

But having said all that, I do want to know that I was in contact with staff program managers today and we have set up a meeting to discuss these issues and others right after the first of the year. So we are looking forward to that meeting, and we'll be trying to resolve a lot of these issues because these are going to be important for our members and for the communities in which we operate.

CHAIRPERSON NICHOLS: Thank you. As you know, when someone raises an issue in the public comment session, all we can do actually is direct staff to talk to you. So you've already taken care of that.

MR. LARREA: I already got that. So happy holidays.

CHAIRPERSON NICHOLS: Yes, Dr. Sherriff.

BOARD MEMBER SHERRIFFS: I'd just like to add, I'm glad to hear staff is involved in this because this is a very important type of business in the valley. It's value added to the agricultural produce in the valley. And often, these kinds of businesses are located in communities where employment is a real issue. So thank you, staff.

CHAIRPERSON NICHOLS: Okay. Our next witness is who wishes to talk about global warming is Ken Percival.

MR. PERCIVAL: I was hoping to say good morning, Board, but I don't think that's possible anymore.

I offered last month something for you to read. It had its problems in regards to who typed it, but the conclusions I offered, there was no problems with.

I return again. The questions I offered last month in regards to how does one atom of carbon raise the temperature of 1250 molecules of nitrogen oxygen was greeted with silence. I did get a letter yesterday from Mr. Croes where he actually end up making my own argument for the reason why you wouldn't find carbon dioxide in a layer blocking in heat.

I brought a few examples to show you. These are actually called books. These are the books that no one on your staff ever read or I suspect none of you read written by very eminent people that would disagree with your global warming concerns.

I'll quote one, just tell you about one man. His name is Roy W. Spencer principle research scientist at the University of Alabama Huntsville where he directs a variety of climate research projects, received his Ph.D. from University of Wisconsin 1981, formerly senior scientist for climate studies at NASA. Dr. Spencer also served as a U.S. science team leader for the advanced microwave scanning radio meter and also the aqua satellite. He's the developer of the original satellite method and precise monitoring of global temperatures. He would disagree violently with you.

I quote his other second book I offer you today where all he wants to do is actually have the debate over global warming, and that's what I'm trying to do. I've sat with much interest today, and I am trying to understand how this Board can work at cross purpose. You serve two masters: One, air letter, which I'm behind. And if you're talking about black carbon, carbon monoxide, things like that, I support you. But if you're talking about carbon dioxide, which is not a pollutant, then I disagree with you totally in that carbon dioxide cannot raise the temperature of any climate or any air mass at current levels.

Now the piece I offer you today, all I ask is that you read it. Mr. Bode has been very kind. I'm trying to develop a dialogue. I know I come to this debate late. I'm non-political. I don't play Kabuki football, which is what politics have turned into. I stand here though amazed that a Board -- first time I've ever seen a Board unanimously agree constantly. I've never see that before. I hoped there might be one dissenting voice about something. As of yet, I haven't seen one. I hope maybe as we continue this process that I do.

I ask only your indulgence and read what I offer up. I can prove everything I put in my paper and I don't pretend to know things that I call the minutia of reality, whether carbon dioxide is vibrating or whatever, they say it does. I agree. That's what thermal dynamics says.

But when it comes to the point of raising the temperature of an atmosphere -- I'm running out of time. I've been here all day. Can I have more time, please?

CHAIRPERSON NICHOLS: You've submitted an ample amount of material in writing, and our staff has responded to you.

MR. PERCIVAL: And in regards to the questions they attempted to answer yesterday, the response I got to my question was because a molecule of carbon dioxide could stay up in the atmosphere for 100 years, apparently they don't understand what darkness is.

So I'll leave it at that. Just please read my material and let's have the dialogue. That's all I ask. And we'll go from there. And thank you, Mr. Boyd, for your support.

CHAIRPERSON NICHOLS: Michael Lewis from the Construction Industry Air Quality Coalition.

MR. LEWIS: Thank you and good afternoon.

I think -- I want to talk to you today about the on-road rule. I have with me representatives from the Dump Truck Owners Association, the Engineering Contractors Association, and the concrete pumpers.

And in the interest of time, they asked me to sort of speak and not take up any more time this afternoon.

I wrote you earlier I think in November, Chairman, about some concerns we had about the devices -- particularly the Cleaire device and how that was affecting the implementation of the rule. I got -- your staff shared your response with me today, and I appreciate that.

But it raises a number of issues. The rule was final with OAL on Wednesday of this week. Your website for reporting for all the contractors or the truck owners to report also became available this week.

The guidelines, which is 28 pages long and explains to you how to handle the reporting system, was available on Tuesday of this week. And the DPF, which is one of the more popular ones in use, which came off the market 90 days ago only got re-verified last week. So there are a number of issues that have come up as a result of that.

First of all, the only copy of the rule that's available on line is still the strike-out, underline version, which is about 78 pages long. And I don't think that any truck owner is going to be able to read that version and understand it.

The online system is very incomplete. It doesn't recognize doors, passwords, and user's names, as an example, as we were told it would. It doesn't print the certificate of reporting compliance, which is the one reason you want to report is to get the certificate so you can use it and show people that you're legal.

There are a raft of other issues that we discovered as people started trying to report and we've been relaying some of those to your staff.

The reverification of the Cleaire devices I'm not sure solve the problem. You just frankly put a big diaper on the same device and I'm not sure anyone who was looking at one of those device as a possible option would want to continue to consider it.

You also recently changed the rules for data logging, the engine installation. And most of the companies don't have those data loggers now so you're sort of dependent on the installers to do the data logging, which adds further delay to ordering and selecting a device.

We were also told this morning that a number of other manufacturers have pulled off their high horsepower devices off the market, because they don't want to have another Cleaire type incident.

So it would be fine if we were having this discussion last July. The problem is the compliance date is 15 days away and we've created a lot of uncertainty about options. And frankly, it's not that we're not ready. It's that you're not ready. You used up an awful lot of time in preparation since this rule was last amended a year ago, and we're now in the final seconds of the game and you sort of dumped it in our lap and asked us to comply.

What I would like to ask of you today is not -- we're not asking for a rule change. I think you've taken up a lot of time to get ready. What we would like is a little more time.

I'm not sure that your staff has any discretion to grant a lot of time from that January 1st compliance date. But I'd like to at least get the 90 days that you took to re-certify the device. And I think absent some Board direction and to grant more time, staff's not going to have a lot of discretion. And I'd like to ask you direct staff to find a way to grant some additional time for compliance with that January 1st date so we don't end up with a lot of confused scofflaws on January 2nd. Thank you.

CHAIRPERSON NICHOLS: Thank you.

I don't think under the circumstances that we could give direction without having had something more like a hearing on this topic. But I can certainly direct staff to look at the issue and to think about it and to meet with you and to get back to you prior to the deadline here so that we can get a Resolution on your request.

EXECUTIVE OFFICER GOLDSTENE: There is a meeting scheduled for Monday.

CHAIRPERSON NICHOLS: There is a meeting now scheduled for Monday. So I don't think that's a meeting that people are intending to come to without an open mind. So we'll take it from there.

Okay. Thank you. We have one more witness, one more person who wanted to testify, I believe. I lost my list, Ken Nelson. Mr. Nelson, are you here? Ken Nelson from Element Markets. No. It was someone who had a question. Apparently, hopefully, it got answered. Okay. Thank you.

Dr. Sherriffs, closing.

BOARD MEMBER SHERRIFFS: Thank you. Have you started the timer?

CHAIRPERSON NICHOLS: Board members are allowed to violate the three minute rule.

BOARD MEMBER SHERRIFFS: Well, I wanted to share some reflections about the day for the new kid on the block. I had thought about making some remarks at the beginning of the meeting and in some ways I'm glad I didn't.

Part of this reflection comes from speaking to someone before the meeting, a friend, "Congratulations you're on the Board. Isn't this wonderful?" And I'm thinking, "Yeah, it's wonderful and it's a lot of work." And he said, "And aren't you being paid for all this work?" And he said, "Why are you doing this?" And my answers at that point, they're the same answers I have now. But the answers I have now are a bit more complicated, a bit deeper.

Yes, this is highly important: Air quality and health. It's key. It's what we're all about. It's our primary mandate. Why be involved with this Board. I look at the past 40 years and I see success. Much has been accomplished. A long way to go, but much has been accomplished. And very exciting the Board is engaging really the next critical step of greenhouse gases.

What I want to reflect on is that discussion about low carbon fuel. I wasn't in the room here, but I was able to observe and it was very exciting. It was very exciting. And I think the discussion was really emblematic why at the end of the day I look back and say, "Yes, this will be a lot of work but good decision to make that commitment."

You know, staff is so knowledgeable, so bright, so creative and so enthusiastic, so interested in solving problems and making adjustments as issues come up, as was just demonstrated.

The public is engaged. Marvelous how the public is engaged in the process, innovation, in their ability to clarify their requests about what will help them change direction with the least disruption.

It's also very impressive how much information you can get in three minutes and that you can even sometimes have a little discussion.

The other thing that I came away with, the decrease in carbon intensity working on the low carbon fuel standard, this is not the paternalistic CARB presenting what will be done. The goal is not CARB's goal. The goal was the goal of everyone who was here. Everyone was engaged. And everyone who was represented by the people here were engaged.

Remarkably, at the end of the day, it was a unanimous vote, which to me suggests a lot of hard work went into it, that there was a consensus at the end of the day. And that is always gratifying because it means it getting much easier to accomplish what we're trying to accomplish. Everybody is on the same page.

And so who are the winners of all of this? The citizens of California. Thank you.

CHAIRPERSON NICHOLS: Thank you very much. Thank you for those closing words. They're really a great way to end the year. It's been an amazing year. This is our last Board meeting of 2011. I'm pleased with what we've accomplished this year. We've got an exciting year ahead of us next year. We start off in January with a Board meeting in Los Angeles. So you'll be on my home turf and looking forward to seeing you all then. And until then, everybody have a very good holidays season and happy new year.

(Whereupon the Air Resources Board adjourned at 4:56 p.m.)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 27th day of December, 2011.

TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277