MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

JOE SERNA, JR. BUILDING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

BYRON SHER AUDITORIUM, SECOND FLOOR

1001 I STREET

SACRAMENTO, CALIFORNIA

THURSDAY, MAY 28, 2009

9:10 A.M.

JAMES F. PETERS, CSR, RPR
CERTIFIED SHORTHAND REPORTER
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APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John R. Balmes

Ms. Sandra Berg

Ms. Dorene D'Adamo

Ms. Lydia Kennard

Mrs. Barbara Riordan

Mr. Ron Roberts

Dr. Daniel Sperling

Dr. John Telles

Mr. Ken Yeager

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Mr. James Goldstene, Executive Officer

Mr. Tom Cackette, Chief Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Mr. Michael Scheible, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Dr. Alvaro Alvarado, Health and Ecosystems Assessment Section

Dr. Albert Ayala, Chief, Climate Change Mitigation and Emissions Branch

Ms. Analisa Bevan, Chief, Sustainable Transportation Technology Branch

APPEARANCES CONTINUED

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Mr. Matthew Botill, Planning and Technical Support Division

Dr. John Collins, Research Division

Mr. Bob Cross, Chief, Mobile Source Control Division

Ms. Lesley Crowell, Zero Emission Vehicle Infrastructure Section

Mr. Jorn Herner, Greenhouse Gas Technology and Field Testing Section

Ms. Diane Johnston, Senior Staff Counsel

Ms. Cynthia Marvin, Assistant Division Chief, Planning and Technical Support Division

Mr. Mike McCarthy, Advanced Engineering Section

Ms Dana Papke-Waters, Climate Action and Research Planning Section

ALSO PRESENT

Mr. Panama Bartholomy, California Energy Commission

Mr. Jonathon Burke, Westport Innovations Inc.

Mr. Todd Campbell, Clean Energy

Mr. Tim Carmichael, Coalition for Clean Air & American Lung Association

Mr. Les Goldman, A123 Systems

Mr. Rob Gremban, The California Cars Initiative

Mr. Paul Guzyk, 3 Prong Power Inc.

Mr. John Holmes, Port of Los Angeles

Ms. Bonnie Holmes-Gen, American Lung Association of California

APPEARANCES CONTINUED

ALSO PRESENT

Yvonne Hunter, Institute for Local Government

Mr. Thomas Jelenic, Port of Long Beach

Mr. Ben Jones, Plug-In Supply Inc.

Mr. Chung Liu, South Coast Air Quality Management District

Mr. Pete Price, California Natural Gas Vehicle Coalition

Mr. Charles Protheroe, Plug-In Hybrid Industry Association

Mr. Rob Protheroe, Plug-In Supply Inc.

Mr. Michael Read, Navistar Inc.

Mr. Michael Schmitz, ICLEI

Mr. Matthew Schrap, California Trucking Association

Mr. John Shears, Center for Energy Efficiency and Renewable Technologies

Mr. Daniel Sherwood, 3 Prong Power Inc.

Mr. Mike Shuemaker, Central Valley Trailer Repair, Inc.

Ms. Lisa Stegink, Engine Manufacturers Association

Mr. Michael Stepper, Cummins Inc.

Mr. Eric Swenson, Navistar Inc. Trucking Engineering

Mr. John Trajnowski, Ford Motor Company

Ms. Lisa Trankley, Attorney General's Office

Mr. John White, A123 Systems

Mr. Michelle White, Port of San Diego

Mr. Ryan Wiggins, Communities for Clean Ports

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PROCEEDINGS

CHAIRPERSON NICHOLS: Good morning, everybody. Welcome to the May 28th meeting of the Air Resources Board. The Board meeting will please come to order. Before we do the roll call, we customarily begin with the Pledge of Allegiance. So I'll ask you all to please rise and face the flag.

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

CHAIRPERSON NICHOLS: Thank you. The clerk will please call the roll.

BOARD CLERK VEJAR: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK VEJAR: Ms. Berg?

BOARD MEMBER BERG: Here.

BOARD CLERK VEJAR: Ms. D'Adamo?

BOARD MEMBER D'ADAMO: Here.

BOARD CLERK VEJAR: Ms. Kennard?

BOARD MEMBER KENNARD: Here.

BOARD CLERK VEJAR: Mayor Loveridge?

Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK VEJAR: Supervisor Roberts?

BOARD MEMBER ROBERTS: Here.

BOARD CLERK VEJAR: Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK VEJAR: Dr. Telles?

BOARD MEMBER TELLES: Present.

BOARD CLERK VEJAR: Supervisor Yeager?

BOARD MEMBER YEAGER: Here.

BOARD CLERK VEJAR: Chairman Nichols?

CHAIRPERSON NICHOLS: Here.

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

CHAIRPERSON NICHOLS: Thank you very much. I have a couple of announcements that I need to make before we get started. First of all, just as a reminder, anyone who wants to testify should sign up with the Clerk of the Board. You're not legally required, but we appreciate it if you include your name on the speaker card.

We do impose a 3-minute time limit on speakers. We appreciate it if you would state your first and last name when you come up to the podium. And also that you not read your testimony. If you've given us written testimony, we appreciate it if you'd just summarize that in your own words, because the written testimony will be entered into the record.

I also need to point out the emergency exits at the rear of the auditorium. In the event of a fire alarm, which we actually had yesterday -- the day before

yesterday, we're required to evacuate this room immediately and go down the stairs and out of the building into the park across the street. Then when the all-clear signal is given, we are told to return to the room and we'll resume the hearing. I think we're not in danger today, at least I hope not.

Okay. So I believe the first item on our agenda is our health update.

Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Good morning, Chairman Nichols and Board members. In past health updates, staff has presented results from studies that show a relationship between PM2.5 exposure and premature death. Today, we will report on a recently published study that found increased life expectancy with lower PM2.5 levels. This important new finding demonstrates that our efforts to reduce PM2.5 pollution will improve the health of Californians.

Dr. Alvaro Alvarado from our Health & Exposure Assessment Branch will make the staff presentation.

Dr. Alvarado.

(Thereupon an overhead presentation was Presented as follows.)

DR. ALVARADO: Thank you, Mr. Goldstene. Good morning, Chairman Nichols and members of the Board. In

this health update, I'm going to discuss a study that investigated the association between PM2.5 and life expectancy in 51 U.S. metropolitan areas, including Los Angeles, San Diego, San Jose and San Francisco. We have presented health updates in the past that show an association between PM2.5 and premature death. This study asks the question, "Have improvements in air quality over the last 20 years resulted in longer life spans?"

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DR. ALVARADO: Many studies have shown an increase in premature death associated with particulate matter. These studies include, long-term cohort studies, like the Harvard Six Cities study, the American Cancer Society studies, intervention studies, like the Utah Valley Steel Mill strike, and short-term studies like the CALFine study in California.

The effect that particles have on premature death is especially important in California, because we estimate that 18,000 premature deaths in California each year can be associated with exposure to PM2.5.

The study presented to you today by Dr. Pope and colleagues, evaluates how the changes in PM2.5 from approximately 1980 to 2000 have impacted life expectancy. This type of study has the advantage of accounting for both short-term and long-term changes in PM2.5. And it

also helps answer the question of whether the observed deaths would have happened in a few days or much later.

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DR. ALVARADO: In the study presented today, researchers matched two sets of data from 51 cities across the nation, including Los Angeles, San Diego, San Francisco, and San Jose. The changes in air pollution between 1980 and 2000 were matched to death statistics to track longevity during the same period. The research team analyzed air pollution data gathered by the U.S. Environmental Protection Agency from 1978 to 1982, and from 1999 to 2000. There was no national monitoring network between 1983 and 1999.

The scientists applied advanced statistical models to account for other factors that could affect average life spans, such as socioeconomic status, as measured by income and high school graduation rate. The study also controlled for demographic characteristics and deaths from lung cancer and chronic obstructive pulmonary disease, a proxy for cigarette smoking.

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DR. ALVARADO: This slide shows how public exposure to PM2.5 has changed over the years. Nationwide, PM2.5 decreased 6.5 micrograms per meter cubed during the study period. In California, the PM2.5 decreased 13

micrograms per meter cubed from 1987 to 2006.

In California, there has been about a four percent improvement in air quality per year over the last 20 years, due primarily to the Board's motor vehicle and diesel engine control programs, as well as the continued implementation of stringent local district rules on combustion sources.

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DR. ALVARADO: This figure shows the study findings in graphical form. It plots the changes in life expectancy against reductions in PM2.5 from 1980 to 2000 for the 51 metropolitan areas included in the study. The trend line shows that life expectancy improves as cities reduce PM2.5. As you can see, there's a certain amount of scatter in the data. This is to be expected because many factors influence life expectancy other than air quality.

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DR. ALVARADO: A summary of the study findings are shown in the slide. From 1980 to 2000, the general life expectancy in the United States increased by 2.7 years. This is mostly due to improved health care, lifestyle, and diet. The results of the study presented today found a decrease in PM2.5 of 10 micrograms per meter cubed was associated with an increase in life expectancy of 0.61 years or 7 months.

This result remains significant even after the authors made statistical adjustments for changes in socioeconomic conditions, demographics, and smoking patterns. During the last 2 decades life expectancy has increased 2.7 years. The researchers calculate that about 15 percent of that improved life expectancy was associated with reduced PM2.5.

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DR. ALVARADO: This slide, kindly provided by Dr. Telles, gives some context as to how improvements in life expectancy associated with air quality compare to medical advances.

Nationally, the average increase in life expectancy attributable to improved PM2.5 was nearly five months. As you can see, air quality improvements over the last two decades compare favorably to the preventive interventions shown on this slide.

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DR. ALVARADO: The results of this study are good news. Steps to curb PM2.5 over the last 20 years are paying off. While many factors influence life expectancy in the past two decades, including medical advances, income growth and lifestyle changes, this study suggests that PM2.5 exposure has a measurable effect on longevity and validates our concerns about PM2.5 and its effects on

the health of Californians.

The researchers also observed gains in life expectancy, even in cities that initially had relatively clean air but made further improvements in air quality. This suggests that ongoing efforts to reduce air pollution will continue to improve public health.

This concludes my presentation and we would be happy to answer any questions you may have.

CHAIRPERSON NICHOLS: Thank you very much.

Board members, do you have any questions?

Starting down at the end here, Dr. Balmes.

BOARD MEMBER BALMES: Well, I don't really have a question, just a comment. So first of all, I'm very familiar with this study. I actually was one of the reviewers of the study for the New England Journal of Medicine.

I think we briefly talked about it at a different board meeting. I also use the study in a course that I taught in at UC Berkeley, where I was teaching undergraduates about community health, and tried to use this study to show that there was an impact on community health of improved air quality.

So I think this is an important study. It's not -- there are not many studies of air pollution to make the New England Journal of Medicine. They have to be

really cutting edge or provide some important new information. And here it's really accountability for the air quality regulations that this agency is responsible for.

And so I applaud staff for bringing this to the attention of the rest of the Board. And I also thank Dr. Telles for adding the slide that put the air quality -- the improvements in life expectancy related to air quality in context with other efforts.

Most of the improvement in life span has been in cardiovascular disease, of which Dr. Telles is an expert.

CHAIRPERSON NICHOLS: Great. You want to claim credit for that with, Dr. Telles?

BOARD MEMBER TELLES: No. With my slide, I just wanted to point out that improving air quality is better than getting a colonoscopy.

(Laughter.)

BOARD MEMBER BALMES: I didn't need the slide to tell me that.

(Laughter.)

BOARD MEMBER TELLES: But what I pointed out there was just that six months doesn't sound like a big gain. Actually, from a public health point of view, it's actually a very big gain. And especially to see that 15 percent of the gain is related to air pollution control.

If you put that into perspective of things that I do, even bypass surgery and angioplasty hasn't had that big a gain. It's one of the reasons why I got involved in this thing, it's because I knew the impact of doing these things.

One thing you didn't point out is, in California there's a big -- just like the rest of the country, there's a -- it's scatter diagram in California too. And I'd like to -- is Mr. Yeager here today?

CHAIRPERSON NICHOLS: Yes, here he is.

BOARD MEMBER TELLES: San Jose is the big winner in California. Life expectancy in San Jose is something like 80.2 years versus San Francisco, which is the loser in the study. Life expectancy is down around 77.8 or 78 years. And it didn't -- it was just kind of interesting statistics if you read the whole study.

CHAIRPERSON NICHOLS: Interesting.

I'd like to note that Supervisor Roberts is coughing, because he swallowed coffee the wrong way and not because of any cardiovascular issues or objections to the study.

(Laughter.)

CHAIRPERSON NICHOLS: I hope you're okay.

BOARD MEMBER ROBERTS: I think the coffee may be toxic, but everything else is fine.

(Laughter.)

CHAIRPERSON NICHOLS: Thank you.

Well, in all seriousness, this is really impressive work. People have been asking for years. So if air quality is better, how come public health hasn't really improved? And as others have indicated better than I can, it's very difficult to do a study that actually proves that. But this is the first, I think, really solid piece of work that we have that ties all of our efforts to actual health outcomes in a positive way.

BOARD MEMBER BALMES: There was one other study that I'm aware of, the Six Cities study started many years ago to look at the health effects of air pollution. And they had longitudinal data sufficient to show that there was also improved life expectancy, but that was just for six cities. This is, I don't know, it's 95 different metropolitan service areas or whatever.

CHAIRPERSON NICHOLS: All right. If there's no further comment, this is a great health update. Thank you very much.

And our next item is also an informational item on the agenda. This one is an update on some in-house research, really technical evaluation of diesel retrofits. And I think this is also something that is worthy of the Board's attention.

The diesel program obviously has been one of the

Board's highest priorities for several years now. So we've directed staff to stay abreast of research that underlies the diesel rules.

This presentation today is intended to highlight some important information on diesel particles and the latest retrofit technologies. And it also touches on the work that the staff plans to do to continue this study.

Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

The diesel risk reduction plan requires a comprehensive effort to clean up diesel fuels, meet stringent new engine standards, and apply retrofits to in-use fleets. Most engine manufacturers are developing new diesel traps to meet these new requirements. The traps greatly reduce emissions, but also may change some characteristics of the emissions.

The data presented in today's update are the latest results of ongoing in-house research activities led by our Research Division. The studies examine changes in the physical, chemical and toxilogical makeup of exhaust from diesel engines equipped with various types of diesel traps.

Dr. John Collins of the Research Division will make the staff presentation.

Dr. Collins.

(Thereupon an overhead presentation was Presented as follows.)

DR. COLLINS: Thank you, Mr. Goldstene. Good morning, Chairman Nichols and members of the Board.

It's customary for staff to brief you on major research activities, so we're here to offer an update on a large multi-agency study of diesel retrofits that ARB staff has been conducting. The study is ongoing, but we are at a juncture where key findings are being published in the peer-reviewed literature and we'd like to share some of them with you.

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DR. COLLINS: We in the Research Division benefited from the dedication and talent of many of our ARB colleagues in other divisions, especially our Monitoring and Laboratory Division, who helped us with most of the chemical analyses, and our Mobile Source Control Division who operate the vehicle emission laboratories.

We also collaborated with several academic partners and we are very appreciative of the in-kind contributors who provide the fuel to vehicles and retrofits.

And finally, we'd like to thank our co-sponsors,

the South Coast Air Quality Management District and the California Energy Commission.

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DR. COLLINS: The diesel control program is designed to protect public health by reducing emissions of PM2.5 and NOx. The reductions are achieved as new engines conform to more stringent standards and as older in-use engines are retrofitted with after-treatment devices.

The diesel particulate filter, also called a DPF or trap, has transformed the way we mitigate the impact of diesel PM engines in use today, both here in our state and in fleets around the world.

Similarly, the SCR catalyst, where SCR stands for Selective Catalytic Reduction, will dramatically reduce NOx emissions. Soon, the SCR catalyst will be a major and very important component of new diesel engines.

These devices are truly game-changing technology. They have allowed the ARB's diesel control programs to achieve significant emission reductions. And these reductions will be even greater over time.

As the emissions of diesel PM mass decrease, a research focus of high interest worldwide is the formation, transformation, and potential health impacts of particles in the exhaust.

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DR. COLLINS: The Board's research program on vehicle and engine emissions has grown over the years, reflecting the fact that the diesel emissions programs and the low-emitting vehicles program are Board priorities. An important activity for research staff has been to stay abreast of the most current diesel control technologies and other emerging technologies for achieving near-zero emissions, enabling the Board to be proactive on these issues.

This presentation is made in response to the Board's need for a technical assessment of the most recent advancements in diesel control technology. The technology is growing in sophistication and complexity. It is causing changes in the emissions that require investigation.

The study not only informs policies in California, but also the Board's position on related initiatives by the federal government, industry and others

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DR. COLLINS: Vehicle emissions impact health through a chain of events. Vehicles, traffic patterns and driving modes all affect vehicle emissions. Meteorology and spatial distribution affect the dilution and chemical transformations of the pollutants emitted. These same factors affect the exposure of people to the pollutants.

Finally, human activity and exposure to pollutants results in health risk.

This study focuses on emissions, the first step in the chain. So when we discuss reduction in health risks and reduction of indicators potentially associated with toxicity, we are speaking of emissions in relative terms.

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DR. COLLINS: The work presented here is a continuation of a series of studies by Board staff, including a prior study on the emission attributes of compressed natural gas buses relative to clean diesel buses. Those studies have informed several Board policies by showing, for instance, that the clean technologies could benefit from additional control and improvement.

The current study evaluates current diesel technology that will meet our most stringent PM and NOx standards coming into force next year. We build on the previous work, characterizing the chemical, physical and toxicological properties of the emissions.

The research program is ongoing and will soon examine the latest technology CNG buses, light-duty vehicles and alternative fuels. We will continue to investigate emissions and formations of ultrafine particles.

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DR. COLLINS: The emission testing for the current study was conducted by staff at ARB's emission laboratory in Los Angeles. The engine systems are evaluated by placing a vehicle on a dynamometer, essentially a large treadmill for the truck, and exercising it over various driving cycles, while capturing and characterizing the truck emissions.

We are fortunate that the ARB laboratory has undergone significant upgrades and is now a first-class research facility. It's capable of performing high-caliber work, possible in only a handful of facilities around the world.

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DR. COLLINS: For this study, we borrowed vehicles and equipped them with various types of retrofits. Here we show one that controls PM in order to meet the 2007 standards, and the second one for control of PM and NOx in order to meet the 2010 standards.

The diesel particulate filter traps diesel soot, then eliminates the soot in a process called regeneration.

To comply with our most stringent emission standards, taking effect in 2010, all but one engine manufacturer have chosen an after-treatment approach. There will be wide use of the diesel trap to control PM,

and selective catalytic reduction, or SCR, to control NOx. A conventional oxidation catalyst will control hydrocarbon and carbon monoxide emissions.

The SCR requires the addition of ammonia to reduce NOx. This ammonia will be supplied in the form of urea. SCR, which has a long history of application for stationary source control, will now gain significant penetration for use in light-duty and heavy-duty diesel vehicle applications in California. The result is expected to be a 90 percent plus reduction in PM emissions and an equal reduction in NOx without compromising vehicle performance or durability.

It's important to note that we tested retrofit systems. The retrofits cannot be optimized to the same extent that new engine, original equipment systems will be. But the control technologies are sufficiently similar to the type expected in new systems, that they provide us with a window into the characteristics of future emissions from clean diesels.

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DR. COLLINS: The primary result of our tests is that diesel after-treatment systems meet their design goals. We confirmed that a well-functioning diesel trap can result in PM mass emission reductions of more than 95 percent. Similarly, when a trap is integrated with an SCR

retrofit, NOx reductions of more than 70 percent from engine out are achieved. When applied as original equipment, we expect the technology to yield even greater emission reductions and improve durability.

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DR. COLLINS: Based on the reduction of diesel PM mass, the relative cancer risk is correspondingly reduced by more than 90 percent. Similarly, we found reductions in response to an assay indicative of oxidative stress potential. The oxidative stress potential of PM is thought to be an indicator of toxicity, and a promising metric to examine airborne particulate matter. The U.S. EPA funded the Southern California Particle Centers, whose investigators have conducted and written extensively about oxidative stress initiated by the formation of reactive oxygen species, or ROS, and the presence of pollutants in ambient air near roadways inducing ROS response.

Here, we have used the same ROS technique to examine the emissions from our test vehicles. Specifically, we show the results of a chemical assay sensitive to the effects of organic compounds, providing one measure of the ability of our PM emission samples to generate reactive oxygen species.

The PM samples from the diesel vehicle without a trap generated the highest response on a per mile basis.

As you can see, the application of the diesel trap or the trap plus SCR greatly reduced the response in the chemical assay.

These results are encouraging. It is important to note that in our study, we are conducting other assay tests for indicators of toxicity. So we expect to expand on these results in the near future.

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DR. COLLINS: We are examining other results for internal consistency. For example, we looked at poly-aromatic hydrocarbons, or PAH. These compounds are known to cause adverse health effects, as some are potent carcinogens. As you can see, both the PM trap and the trap plus SCR greatly reduce the emissions of these compounds per mile.

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DR. COLLINS: In addition to reducing the PM mass emissions, the trap and SCR dramatically change the chemical makeup of the diesel PM emissions.

The engine-out diesel PM emissions consist mostly of elemental carbon, i.e. soot, and organic carbon. In contrast, the very low emissions coming from a trap or trap plus SCR-equipped diesel engine, are dominated by sulfate and other ions. Normally, most of the sulfur in the fuel and oil is emitted as sulfur dioxide or gas. But

under some operating conditions, a large fraction of the sulfur in a trap-equipped system can become sulfate ion particles. Diesel soot is almost entirely captured by the trap, hence elemental carbon represents only a small fraction of the retrofit PM emissions.

We have hypothesized that these sulfate aerosols are less harmful than soot and organic compounds, hence generating a reduction in some indicators of toxicity. This is a key point in the continuation of our study research.

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DR. COLLINS: The reason for the dramatic change in the composition can be found in the details of the after-treatment systems.

A non-catalyzed diesel particulate filter, acting alone, removes soot, but it would not significantly change the chemical composition of the particle emissions. However, most DPF systems operate together with other components designed to manage soot build up or to manage NOx emissions. These components include catalytic surfaces that create strongly oxidizing environments by design. The oxidizing environments reduce soot and organic compounds, essentially burning them off in a controlled manner.

A byproduct of the oxidizing surfaces is that

under some vehicle operating conditions, the sulfur in the fuel and lube oil, normally emitted as sulfur dioxide gas, can become completely oxidized to sulfur trioxide. This compound combines with water in the exhaust, and is a precursor to ultrafine particle formation, a process well established in the literature.

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DR. COLLINS: As the trap system removes soot and eliminates more than 95 percent of the PM mass emissions, it also reduces the number of particles emitted by more than a thousand times.

If the vehicle operating conditions do not meet the thresholds needed for producing sulfate, then the particle number of emissions after the trap can be lower than ambient backgrounds.

But under vehicle operating conditions where sulfate is produced, then the trap-equipped vehicle can produce numbers of sulfate particles that are comparable to or exceeding the numbers of soot particles found in the pre-trap engine exhaust. However, because these particles come from sulfur precursors, their position appears less threatening than soot or particles formed from organic components.

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DR. COLLINS: Finally, we also examined the

emissions of some greenhouse gases. The retrofits impact fuel efficiency or CO2 emissions only slightly. A significant climate benefit does come from the reduction of black carbon, a major fraction of diesel PM emissions. But when SCR is applied for NOx control, we observe increased emissions of nitrous oxide, offsetting the reductions of black carbon for an overall neutral climate impact.

Again, the devices we tested are retrofits. We expect that optimization of aftertreatments in the 2010 compliant new engines will achieve improvements in fuel economy and will minimize N20 formation, thus providing a very significant climate impact benefit.

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DR. COLLINS: To summarize, a key finding is that diesel aftertreatment systems do reduce PM and NOx emissions, as required by the diesel control program, and therefore do provide the corresponding health benefits.

In addition to these results reductions, preliminary indications are that the PM emissions, after the retrofit, are more benign than if the trap is not used. Soot and PAHs are reduced, and an indicator of oxidative stress sensitive to organic compounds is also reduced.

The retrofits cause little net impact on climate

changing pollutants, but it is anticipated that aftertreatments incorporated in new engine systems will produce a significant climate change benefit by improving fuel efficiency and by reducing black carbon and N20 emissions.

Our observations about toxicity and particle emissions are generating quite a bit of interest from the international research community, so we will continue to examine these emissions in other settings and by means of other measurement methods. We are examining particle formation, particle measurement approaches and ways to assess their impact. We continue to pursue additional indicators of toxicity, including chemical and cellular assays, as well as assays for mutagenicity.

We need this information to inform the Board's future policy. Most notably, we are beginning the LEV III standard setting process, where we will combine criteria and greenhouse gas emission controls and where the relevance of setting a limit on the number of particles emitted from some cars, as Europe has done, could take center stage.

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DR. COLLINS: Forgive us if much of the information we have presented to you is rather abstract. It was recently said about Dr. Steven Chu, the new

Secretary of Energy, that he does well one of the hardest things for a scientist to do, which is to not sound like one.

So I would like to leave with you a visual demonstration of the effect that the diesel control program is having on diesel emissions.

The picture on the left is a photograph of emissions from a diesel vehicle without aftertreatment collected on a Teflon filter used for sampling vehicle exhaust. The particles you see are agglomerates of toxic soot. The entire picture is about ten microns wide.

The picture on the right is a photograph of emissions collected on the same filter media at the same scale from the exhaust of a diesel vehicle with 2010 aftertreatment technology. What you see are simply the fibers that make up the filter media used to collect the sample. PM is not evident.

I'd like to thank Dr. Su of the Fritz Haber Institute in Germany, one of our collaborators, for the images.

And I'll leave you to imagine breathing the sample on the left rather than the one on the right.

On behalf of the research team, I thank you for your attention.

CHAIRPERSON NICHOLS: Thank you very much.

Before I turn to the other Board members on this, I just have one question, which didn't emerge clearly for me from the presentation. And that is a comparison between new vehicles that use traps versus retrofit traps. We've heard in some contexts a claim that perhaps there's a big difference in performance between retrofitted traps versus traps that are supplied by the original manufacturer as part of our newer generation diesel vehicles. Is your research addressing that question or do you have any information to bring to bear on that question?

CLIMATE CHANGE MITIGATION & EMISSIONS BRANCH CHIEF AYALA: This is Albert Ayala with the Research Division. We've examined a few original equipment technologies. And I guess my question for you would be, in terms of performance, we see the same ability to reduce the emissions very significantly. So is there something else?

CHAIRPERSON NICHOLS: Well, I don't know if there's a need to do a side-by-side comparison. But just out of curiosity, in terms of the public perception, as you know, there's always a resistance, I think it's fair to say, on the part of the owners of vehicles to having to install aftermarket parts, unless it's something that they choose to put on because they think it, you know, will

improve mileage or something like that.

But when it comes to regulatory programs, retrofit programs, as we have seen, can be very difficult to implement, and people raise objections to the equipment itself. And needless to say, everyone who owns a truck, you know, has a certain degree of expertise in that particular vehicle. But when it comes to the question of whether you're actually getting the emissions performance benefits that the program is designed to get, it seems to me that's a question that might be able to be addressed through research. Maybe, Mr. Cackette can add something to this.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We have a verification program for the retrofit devices and for filters. You know, most of the devices that we see there are essentially identical to what's being put on the new vehicles. They're absolute filters where the particles cannot go through a wall of the filter, but the gases do. And they operate on principally the same principles. And so I think the efficiency of them is both, you know, extremely high in the high 90 percent range.

The only difference would be that on the OEM vehicles, I think there is more effort I think put into absolutely assuring that they regenerate or burn off the collected particulate than there is on more of the

fit-and-run-type retrofit devices. But we have not seen any problems generated by that with the retrofit devices either. So I would put them on the same par in terms of efficiency.

CHAIRPERSON NICHOLS: I think it's -- I have no -- no one has ever submitted any data to me on this. It's just one of those areas where if there was a way you could resolve the question, it would be good to be able to do that, I think.

CLIMATE CHANGE MITIGATION & EMISSIONS BRANCH CHIEF AYALA: The one thing that we didn't show in the presentation because of time, is we actually have results from one of these original equipment systems. So our study reports will compare that system to the retrofits.

CHAIRPERSON NICHOLS: Okay, that would be interesting, I think, to see.

Do we have comments, questions?

Dr. Sperling.

BOARD MEMBER SPERLING: Yeah. I do have questions, not comments.

That was an excellent presentation, but I'd like a little more science. I know you didn't want to sound like a scientist. It has to do with the question of the emission reductions. And the data that was shown, such as I guess summarized in Slide 9, I didn't catch whether

these are average reductions or maximum reductions. And are these -- okay, that's the first part of the question.

DR. COLLINS: Those are average reductions over the driving cycle. There's two different driving cycles, an urban -- one that simulates urban driving and one that simulates high speed freeway cruising.

Each of those are averages over their cycles. And this is actually an average of both of those.

BOARD MEMBER SPERLING: So this is a Class A engine, I presume?

DR. COLLINS: Yes.

BOARD MEMBER SPERLING: So trucks operate -- you know, engines are used in very different ways in trucks and very different applications. And when you're talking about retrofits, you know, their engines are degraded in all kinds of ways. I guess the question is how robust are these numbers, these findings, in terms of the kinds of reductions that are really likely to result from the retrofits? Do you have any feel for that?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, on the filters themselves, you know, we've got hundreds of thousands, probably millions of them on the road now, including in Europe for many, many more years than we've had them in the U.S. And there's just no reports back of any widespread failures on these devices.

And the way they work, they don't really deteriorate per se. If they're going to physically crack, so that the soot could go through them, that might be a failure mode. But otherwise, you know, they're an absolute filter of type, so they control the particulate matter. And what ends their life would be something like a mechanical failure or an overheat, when, for some reason, they don't regenerate properly or they regenerate with too much soot material in there and you get a very high temperature, which could melt them or do things like that.

So in general, if there's a problem with them in the field, it's because they don't regenerate, the back pressure would build up and the vehicle tends to stop or lose people and people know about it. But that's not been our experience at all. They seem to be extremely robust.

On the SCR part, the NOx reducing activity, there's less information on that. That's not really being widely retrofit. It's more of an OEM thing. And it's really only started on some '07 engines and will be widespread on the 2010 engines. There is again more experience, I think, with it in Europe, but not nearly the degree that we have with the filters. And it is a device that, you know, could have a deterioration with it. It might become less effective over time.

BOARD MEMBER SPERLING: So does this suggest that the kinds of cost effectiveness calculations that were done earlier were probably, you know, pretty accurate, I mean, given these large reductions. So we're basically feeling good about the earlier calculations that were done on cost effectiveness?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes, I think so, because we just don't see anything that says that the DPFs will die and so we expect them to last, you know, most, if not all, of the life of the engine. And then on top of that, as you'll hear this afternoon, we already have a program for on-board diagnostics that does, you know, in a relatively crude way, measure the performance of the trap, and can find when there's a big failure and turn on the warning light. So there are mechanisms when things do go wrong to try to catch it and get it fixed.

BOARD MEMBER SPERLING: Okay, one other small question, and that's the N20 emissions. You know, the assertion was made that as the technologies improved, going from prototype to commercial production, that these would be reduced. Is there anyway to be sure that they really are going to be reduced or is there any reason to believe that they would -- I mean, because there's no regulation in place or no other reason for them to focus

on that, other than to make it well-functioning. And I don't know that a well-functioning SCR results in higher or lower N2O emissions. Do you have any feel for that?

CLIMATE CHANGE MITIGATION & EMISSIONS BRANCH CHIEF AYALA: The reason we made the assertion is because there is some literature that has looked at some original equipment that suggests that the emissions are going to be lower than what we saw with the retrofits. And in talking to the makers of the devices, that collaborated with us, they state and confirm to us that their thinking is that they're going to optimize the systems to essentially eliminate this issue.

BOARD MEMBER SPERLING: Okay, thank you.

CHAIRPERSON NICHOLS: Others?

BOARD MEMBER TELLES: It was interesting for me to note that what comes out of the filters is a little bit different than what goes in. And the particle size that comes out, is it smaller than if you didn't have the filters at all? I understand it's like ultrafine particles.

DR. COLLINS: Yes. The soot particles are on the order of 100 nanometers, 50 to 150. The sulfate particles are on the order of ten nanometers and as small as five nanometers.

BOARD MEMBER TELLES: And you suggested that

there's no -- maybe Dr. Balmes can help me with this is that there's no -- the sulfur particles may not be as active biologically as organic particles. But some of my reading suggests that they are still pretty active, especially when you get down to ultrafine particles. They're like the worst of the worst. And maybe this has already been done, but it seems like it would be helpful somewhere along the line to do a biological study on the impact of what's coming out of our new filters. And have we changed the composition and actually -- I think, we've improved things, but we want to make sure that these ultrafine particles aren't causing some biological problem we didn't anticipate.

DR. COLLINS: Well, there are other studies ongoing that are exposing laboratory animals to diesel exhaust. That should address those questions.

CHAIRPERSON NICHOLS: Dr. Balmes, do you have any comments?

BOARD MEMBER BALMES: Well, I was going to make that same point that Dr. Telles did.

In talking to staff in advance of the presentation, I brought up that same issue. And they assured me that they are proceeding to make sure that we test these ultrafine emissions.

I would say, on the face of it, based on my own

research with larger size sulfuric acid aerosols, that because they're likely to be soluble, that they'll have different potential impacts, like on the cardiovascular system, than ultrafine carbon particles. I think they, again, would be suspected to be less toxic. So I agree with the point made in the presentation.

But that doesn't mean we shouldn't know more about them. So I endorse Dr. Telles' point.

And I wanted to make a comment in support of what the staff is doing here with this research. This is one of the first times that an environmental protection agency has looked at a biologically relevant parameter in terms of oxidative stress, when they're looking at emissions testing from the vehicle. And I really compliment the staff for forward thinking. And I'm on several clean air scientific advisory committee panels for U.S. EPA. And as you all know, we currently, under the Clean Air Act, have to regulate air quality first, a pollutant at a time. And there's increasing frustration scientifically with that, since it may be, for example, that oxidative stress is one of the final common pathways by which pollutants cause health impacts.

And I think in the future, we may have to regulate in a different way than sort of just pollutant by pollutant and talk about the cumulative impact of criteria

pollutants in the air and oxidative stress, potentially one way to approach that. I mean, we're a long way from being at that point. But I think this is important work that the staff is doing contributing to the knowledge base in this regard. So I wanted to compliment staff for that.

And then my last comment would be, it said in one of the slides for future research that you wanted to look at alternative fuels. And is biodiesel one of the -- thank you, because I'm constantly getting questions about the toxicity of biodiesel emissions. And, you know, I think the databases is kind of limited in terms of toxicity in that regard.

CLIMATE CHANGE MITIGATION & EMISSIONS BRANCH CHIEF AYALA: Yes. Just to build on the point on the alternative fuels. In fact, our agency is already undertaking in the same laboratory a very extensive, much more extensive than what we presented here, study of biodiesel fuels, including different blends and different feed stocks. So that's already under way. And the Board will hear an update on that as time allows.

If I may add just one point to Dr. Telles' comment, because I think it's very important. And that is, I'm fond of saying that not all particles are created equal. And the point we're trying to make here is that for this particular technology that we expect to see in

wide use next year, these particular particles, as we've shown, are very different than perhaps some of the organics like you've mentioned. So I think it's important to understand that. Just because we talk about ultrafine particles, doesn't mean that they're all the same. And we need to understand not only the physics, but also the chemistry and the toxicological signature.

CHAIRPERSON NICHOLS: Well, thank you. I think, as you can see, this is an area where we need to be doing continuing updates of the Board on your research and look forward to hearing you.

Yes, Ms. Berg.

BOARD MEMBER BERG: I'd just like to have one follow-up question. And that would be, if we're tracking the retrofit efficiency and also tracking that they are becoming more efficient to the duty cycle of the engine and along with the cost. So when we transfer this great information on the positive impact for emissions reduction, are we also looking at real-world, on-the-road performance, and how that's working?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes, we are going to do a number of screening tests, not of this level of complexity, but screening tests on vehicles that have been retrofitted. And, of course, the retrofits are primary filters only, not SCR, or not NOx controls. So

you know, we don't expect to find anything unusual. But if the screening tests do, we will then move a few vehicles down to the laboratory in Los Angeles, where we can do more detailed testing.

CLIMATE CHANGE MITIGATION & EMISSIONS BRANCH CHIEF AYALA: I'd like to also point out that the vehicles that we're testing are actually in revenue service, and we borrowed them. So we literally take them as is with the retrofit systems and we provide extensive testing. And then we put them back into service. So we believe that these are representative of real-world efficiencies.

BOARD MEMBER BERG: I had written down in my notes that I had wondered if we calculated or gathered the information on how many miles that actual retrofit had been in use, and if we were tracking that data as well.

GREENHOUSE GAS TECHNOLOGY & FIELD TESTING SECTION MANAGER HERNER: Yes, we did actually track that -- oh, Jorn Herner, Research Division.

If you look at Slide 9, the reduction we see in that vehicle is with the retrofit that has been in service for 65,000 miles for several years.

BOARD MEMBER BERG: Great. Thank you.

CHAIRPERSON NICHOLS: I believe we had some members of the public who had wanted to testify on this?

Not on this item?

BOARD CLERK VEJAR: Not on this item.

CHAIRPERSON NICHOLS: There's none.

Okay. Well, in that case, I think we will move on to our next agenda item, Item number 3, which is related to our ongoing implementation of AB 32 and also those of you who were here last month, which I think is pretty much everybody, will recall that we looked at a tool kit that had been developed for small business use. Today's item, which we're also being asked to approve and send out into the world, is a tool kit that's aimed at local government operations.

We understand that local governments, in many instances, have moved out very aggressively to deal with the issues of climate change to measure, monitor, take action, but others are waiting for help and guidance as to what to do. And even those that are already quite actively engaged, I think, are still interested in seeing some sort of a statewide effort here that will put other cities on more of a level playing field.

So, we'll hear the staff's presentation on the latest efforts of our web portal, CoolCalifornia, and our Local Government Toolkit.

Welcome.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols. Local governments are essential partners in

attaining the goals of AB 32. And it's the local decision makers that will need to lead the way in efforts that address climate change in their communities.

While many cities and counties are already taking action, several have great interest in tools that help them design voluntary greenhouse gas reductions.

Today's presentation describes one of several ARB efforts to assist cities and counties to voluntarily reduce greenhouse gas emissions with an emphasis on cost-saving strategies.

Staff from the Research Division led this effort with considerable support throughout the Board and Board members, as well as from many other State agencies and external stakeholders.

Dana Papke-Waters will make the staff presentation. Following Dana's presentation, two of our toolkit partners will provide brief presentations. Panama Bartholomy from the California Energy Commission will present an update on federal stimulus funds. And Yvonne Hunter from the Institute for Local Government will present an overview of their Climate Leadership Recognition Program.

Dana.

CHAIRPERSON NICHOLS: I thought maybe you'd succeeded in hiring both of them, but I guess not, no.

(Laughter.)

CHAIRPERSON NICHOLS: Oh, well.

(Laughter.)

CHAIRPERSON NICHOLS: That would have been a coup.

All right. Never mind. Welcome.

(Thereupon an overhead presentation was Presented as follows.)

MS. WATERS: Good morning. We are pleased to introduce you to the Local Government Toolkit that will help cities and counties participate in California's efforts to reduce greenhouse gas emissions, and in many cases, save money. The Local Government Toolkit complements the Small Business Toolkit that we briefed you had on last month.

Before I discuss the Toolkit, I will highlight the important role of local governments in meeting California's climate change goals. I'll then discuss what other organizations and State agencies are doing to assist cities and counties in how the Local Government Toolkit is unique and complementary to existing efforts. The remainder of the presentation will focus on an overview of several toolkit components and future plans for expanding the toolkit.

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MS. WATERS: Cities and counties have broad influence. And in some cases, exclusive authority over activities that contribute to significant greenhouse gas emissions. By implementing local programs, passing ordinances, building standards and codes, and establishing community-wide emission reduction targets, local government actions will help to reduce statewide greenhouse gas emissions.

As essential partners in achieving the goals of AB 32, the scoping plan encourages local goals be consistent with the statewide target to reduce emissions by 15 percent below current levels by 2020. Cities and counties can assist with meeting the regional transportation-related targets as part of SB 375.

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MS. WATERS: Many local governments are already taking action. About 30 percent of California's cities have signed on to the U.S. Conference of Mayors' climate protection agreement to reduce greenhouse gas emissions 7 percent below 1990 levels by 2020.

Nine California counties are registered as Cool Counties with a commitment to reduce emissions to 80 percent below current levels by 2050. These commitments to take climate action represent 80 percent of California's population. Although many local governments

have committed to reducing the greenhouse gas emissions, not all of these cities and counties have the resources to track their progress.

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MS. WATERS: As part of the process to develop the Local Government Toolkit, we evaluated existing efforts of organizations providing assistance to local governments. On the international level ICLEI, Local Governments for Sustainability has led the way by providing technical assistance to members by developing greenhouse gas inventories and climate action plans.

In California, there are several organizations committed to assist cities and counties. The Local Government Commission focuses on outreach and education connecting land-use and climate change policies. The League of California Cities, the California State Association of Counties, and their research affiliate, the Institute for Local Government, provides a climate action best practices framework and is developing a climate leadership recognition program.

After analyzing the activities underway, we identified several gaps that the Local Government Toolkit is trying to fill.

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MS. WATERS: Compiling guidance for local

governments in one centralized location at no cost has been a goal of developing the toolkit resources from the beginning. Gaps that were identified include details on how to implement climate friendly actions, California success stories, climate action plan templates and a list of available financial resources.

In the next slide, I'll cover the process we've undertaken to develop the content of the toolkit.

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MS. WATERS: Staff coordinated initial ideas with the Land Use Climate Action Team, which recommended the development of guidance to address greenhouse gas emission reductions and climate change in regional and local climate action plans.

Information on resources needed was summarized as part of our Climate Change Scoping Plan. We conducted research and drafted content in consultation with a broad spectrum of stakeholder partners. The initial concepts were shared during a public workshop in March of 2009. We also formed an advisory group to solicit expertise from practitioners and direct feedback from local government representatives. I presented the draft Toolkit to the Strategic Growth Council and attended over ten different external conferences to receive feedback. Lastly, I recruited more than ten cities and counties to test drive

the Toolkit.

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MS. WATERS: This is the list of our project partners. Air Resources Board staff, members of the State Agency Team, and Advisory Group have provided guidance to support the development of the Local Government Toolkit. The cities and counties and public commenters that have reviewed the content and provided suggested changes were critical to help improve the Toolkit as well as shape the vision for its future.

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MS. WATERS: As many of you remember from the April board meeting, CoolCalifornia.org is our overarching resource portal designed to provide all Californians with free resources and tools to voluntarily reduce greenhouse gas emissions. Tools have been developed for small business, local governments, and individuals. Our next phase of the web portal includes developing tools and resources for youth, schools, and community organizations as well as translating the site into other languages. Though there are many existing resources that promote climate-friendly action, they're not organized in a central location. CoolCalifornia.org strives to do just that.

This is a look at the Local Government Toolkit

home page, which is now available online through the CoolCalifornia.org web portal. It's a one-stop shop of guidance and resources to help local governments reduce greenhouse gas emissions and save money.

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MS. WATERS: The Local Government Toolkit includes the same components as the Small Business Toolkit, however the main focus unique to cities and counties is guidance for climate action planning and financial resources to implement programs. I'll focus specifically on these resources and highlight California's success stories during today's presentation.

First, I'll begin with the guidance related to climate action planning.

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MS. WATERS: Cities and counties can achieve greenhouse gas reductions in a variety of ways. Many local governments have adopted climate action plans, which summarize baseline emissions and a reduction target. In September 2008, the Board approved the Local Government Operations Protocol, which provides the calculation methods to estimate emissions from municipal operations. The Toolkit recommends that cities and counties lead by example, set policies for reductions at the community level and challenge residents and businesses to reduce

emissions.

A climate action plan outlines specific policies and measures a city or county will implement or is already implementing to achieve its target. It outlines a short-term and a long-term roadmap for achieving emission reductions. During the public workshop, we received comments that many of the smaller cities and counties do not have the staff resources to fund development of a climate action plan. And in response, we developed these tips for climate action planning.

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MS. WATERS: The Local Government Toolkit provides a climate action plan template, rules of thumb to estimate emission reductions, and several sample measures to reduce emissions. The sample measures are suggestions, which may offer a significant reduction based on the statewide greenhouse gas emission inventory. The next slide will cover several of the sample measures outlined in the Toolkit.

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MS. WATERS: There are three sample measures provided for cities and counties to implement building retrofit programs and green fleet vehicles. These measures were selected based on the statewide emission reduction potential, but there are also examples of cities

and counties that are implementing these types of programs, as well as current funding opportunities available to offset upfront costs. For brevity, I'm going to focus on the local government programs to retrofit existing buildings.

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MS. WATERS: Using the rules of thumb, here's a look at the cumulative emission reduction potential for three types of existing building retrofits. This type of information is especially relevant as cities and counties are pulling together their grant applications to receive stimulus funds. And many may not otherwise have the resources to estimate these reductions in time for the June 25th deadline.

In the next slide, I'll highlight local governments that have successfully implemented these types of programs.

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MS. WATERS: Here's a snapshot of several cities that are implementing building retrofit programs. Berkeley and Redding have measured reductions as a result of their home and municipal building retrofit programs. Berkeley has also launched Berkeley FIRST: A Financing Initiative for Renewable and Solar Technology, which allows residential and commercial property owners to pay

for efficiency improvements and solar system installation as a voluntary long-term assessment on their individual property tax bill. Berkeley FIRST is a package of solar-related tools that will help the city achieve emission reductions by 2020.

Los Angeles and San Francisco have identified similar programs to help reduce emissions. And as more cities and counties implement programs to retrofit existing buildings and install solar PV systems, it can lead to achieving our statewide greenhouse gas targets.

CHAIRPERSON NICHOLS: Can I interrupt you for just a second here --

MS. WATERS: Yes.

CHAIRPERSON NICHOLS: -- because this slide has an asterisk and compares actual versus projected reductions. So I want to ask you if you can help explain how these reductions are actually being measured? What is the technique for doing that?

MS. WATERS: Berkeley has retrofitted many of their city buildings. And so they've been able to measure the reductions of those retrofits.

CHAIRPERSON NICHOLS: By literally metering the electricity going into the building --

MS. WATERS: Exactly.

CHAIRPERSON NICHOLS: -- and doing a before and

after comparison.

MS. WATERS: And similarly they have a residential energy conservation ordinance that requires homes to retrofit their property at the time of sale. So they've actually seen community scale reductions as a result of that program over the last -- since 1985, they've been able to measure reductions from that program.

CHAIRPERSON NICHOLS: But I think a lot of cities don't -- and other government entities don't even meter their individual buildings, right? So how are we going to -- how are we going to really get at the reductions here? Maybe this is beyond the scope of this presentation.

BOARD MEMBER ROBERTS: I don't think there are many. There may be some in Los Angeles, but it's very rare to have government buildings that aren't metered. They have to pay electricity just like everybody else.

CHAIRPERSON NICHOLS: But the city has -- well, I'm thinking about those that have their own municipal utilities, I suppose, but --

BOARD MEMBER ROBERTS: There aren't that many.

CHAIRPERSON NICHOLS: -- for example, the University of California, where I used to work, did not have meters that would enable an individual building on campus to see how they were doing.

BOARD MEMBER ROBERTS: I think if you check, you're going to find the vast majority of cities meter all their buildings. I can tell you every one of ours is metered. And I can tell you the programs that, prior to any of this legislation, were started to drive those costs down.

CHAIRPERSON NICHOLS: Well, that's great. Then I come from a particularly backward part of the world.

(Laughter.)

EXECUTIVE OFFICER GOLDSTENE: This is --

BOARD MEMBER ROBERTS: I didn't want to say it in those terms.

(Laughter.)

CHAIRPERSON NICHOLS: No, it's always good to know where you stand.

EXECUTIVE OFFICER GOLDSTENE: This is an issue certainly with State facilities that we've come across also, with the Department of Corrections. They know the load going into a prison, but they don't have each building at the prison metered. So it is -- overall it is an issue that we'll have to address.

BOARD MEMBER ROBERTS: If you know the load going in, you can measure any changes.

CHAIRPERSON NICHOLS: Okay. Sorry for the interruption.

MS. WATERS: Great. Thank you. No problem.

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MS. WATERS: In particular, cities and counties can help to meet the greenhouse gas emission reduction potential of our Green Building Strategy. And estimated reduction of 26 million metric tons of carbon dioxide equivalent is included in the Climate Change Scoping Plan.

This estimated reduction offers a comprehensive approach for reducing greenhouse gas emissions that cross-cut multiple sectors, including energy, water, waste, and transportation. Green buildings also offer increased public health benefits due to improved indoor air quality.

Existing building retrofit programs implemented through local governments can help to achieve a significant percentage of the 2020 target. And as I mentioned previously, local governments are in a unique position to fund existing building retrofit programs.

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MS. WATERS: With the passage of the American Recovery and Reinvestment Act, California local governments are receiving direct funding to implement programs that reduce energy usage. An estimated 36 billion is available nationwide that the U.S. Department of Energy will administer through competitive grants and

other financing for energy and climate change related programs.

Over 300 million has already been allocated directly to California local governments. About 50 million is available to small cities and counties through a competitive grant program organized by the California Energy Commission. An additional 226 million is available through the CEC's State Energy Program for energy efficiency and renewable energy programs.

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MS. WATERS: The Local Government Toolkit provides a summary of financial resources available. It also provides recommendations to help cities and counties spend federal stimulus funds. It recommends that cities and counties use some of their energy efficiency and conservation block grant funds to develop comprehensive climate action plans. Local governments can also apply directly to the California Energy Commission for funding to implement existing building retrofit programs.

These funds can be leveraged as cities and counties establish innovative tax assessment districts, where homeowners can obtain financing through the city or county to retrofit homes.

The California success stories feature examples of how cities and counties have financed climate action.

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MS. WATERS: And there are many cities and counties with innovative ideas to reduce greenhouse gas emissions. The Toolkit provides a summary of comprehensive strategies being implemented as part of climate action plans. It provides estimates for greenhouse gas reductions and cost savings. We're partnering with the Institute for Local Government to develop detailed case studies that showcase successful green building, land-use and transportation programs.

Although, there are many success stories to feature in the Toolkit, and several cities and counties represented by our board members, are actively pursuing climate protection strategies, I'll provide two examples of case studies available in the Toolkit.

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MS. WATERS: Riverside is participating in the Department of Conservation's Emerald City Pilot Program. The city has a climate commitment to reduce greenhouse gas emissions seven percent below 1990 levels by 2012. In coordination with the Green Action Plan, the city has been implementing a green building policy, as well as a solar rebate program, and is on the path to achieve 50 percent renewable energy by 2013 to achieve greenhouse gas emission reductions and other air quality benefits.

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MS. WATERS: Sonoma county is taking a county-wide approach to climate action, where no city is left behind. They plan to reduce their greenhouse gas emissions to 25 percent below 1990 levels by 2015. In order to achieve these reductions, Sonoma County is focusing on Efficiency FIRST, setting an ambitious target to retrofit 80 percent of homes and commercial space, as well as institute green building standards. Sonoma county is creating the infrastructure to shift transportation from fossil fuel vehicles to transit, walking, bicycling and electric vehicles. One other key aspect of their plan includes developing a low-carbon electricity portfolio.

In many cases, the hurdle for cities and counties to implement these types of programs is financing. Sonoma County is pursuing several financing options to pursue their priorities, including establishment of the first county-wide AB 811 tax assessment district, Community Choice Aggregation, and Pay-As-You-Save.

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MS. WATERS: Now that I've shared several of the major components of the Toolkit, I'd like to give a brief overview on the distribution strategy. A key avenue will be working with our partners and stakeholders to share the Toolkit through existing networks. Staff regularly give

Toolkit presentations at conferences and is willing to make presentations for interested local government. We're also working closely with ARB's Office of Communications to develop a marketing strategy.

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MS. WATERS: Given the Toolkit is a work in progress, and we've received excellent public feedback, we will continue to find ways to make the Toolkit more interactive and user friendly. There are a few components proposed as future elements of the Toolkit, including development of a decision support tool, that would allow cities and counties to develop customized climate action plans, a financial wizard that would make funding opportunities easier to access, videos of case studies, and peer networking forum for cities and counties to interact with one another and with residents and businesses. A Climate Leadership Recognition Program is also under development through a partnership with the Institute for Local Government, where cities and counties would receive recognition for reduced emissions.

In addition to the recognition program, ARB and Toolkit partners could organize a carbon footprint challenge, where cities and counties of similar size could compete to see who can reduce greenhouse gas emissions in the most cost effective and sustainable manner.

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MS. WATERS: Since the Board highlighted the issue of establishing milestones for the Small Business Toolkit, here are several proposed milestones and measures of success for the Local Government Toolkit. Over the next five years, our goal is to work with California local governments through the air districts to adopt greenhouse gas reduction targets consistent with the statewide target.

ARB staff is developing a community scale protocol, so that between 2010 and 2015, local governments have methodologies to prepare baseline emissions and track reductions over time.

As part of the Toolkit, we could develop a climate calculator for local governments to measure emission inventories and reductions over time.

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MS. WATERS: With the proper resources, tools and guidance, local governments can help ARB to achieve the goals of AB 32. As we move forward, implementing the measures of success, we plan to conduct research to evaluate actual greenhouse gas reductions achieved from municipal buildings and green homes, as a comparison to the estimated reductions for community level climate action planning purposes.

Over time, ARB staff will continue to work with local governments to refine, improve and distribute the Toolkit.

Thank you for your attention. I would be glad to answer any questions. But first, I'd like to invite two guest speakers to present to the Board.

Yvonne Hunter with the Institute for Local Government will unveil some initial concepts for the Climate Leadership Recognition Program.

And following Yvonne, Panama Bartholomy with the California Energy Commission will present an overview of the latest guidance to cities and counties regarding the federal stimulus funds.

Thank you

CHAIRPERSON NICHOLS: Thank you.

MS. HUNTER: Okay.

Good morning, thank you for inviting me.

(Thereupon an overhead presentation was Presented as follows.)

MS. HUNTER: I'm Yvonne Hunter. I'm the program director for the California Climate Action Network, which is a program of the Institute for Local Government. We have had the distinct pleasure to partner with the ARB staff working very closely with them and my compliments to you on your staff. It's been a very, very productive

collaboration.

Next slide, please.

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MS. HUNTER: Just really briefly about the Institute. We were founded in 1955. And we are the nonprofit research arm of the League and CSAC, which means we have the ability, through our connections with the league and CSAC, to reach out to all cities and counties, but also to hear back from them. And we think that's very important, in a number of areas, but especially as it relates to climate change.

Next, please.

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MS. HUNTER: The California Climate Action Network is about three years old. We provide resources, best practices information to cities and counties. We help cities and counties connect with each other and others. And we are developing a way to recognize accomplishments to reduce greenhouse gas emissions. And I'll get into that in a second.

Next slide, please.

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MS. HUNTER: We take a holistic approach to looking at climate action at the local level. Dana mentioned that we do have an activity going on. It's part

of a contract with the ARB to collect information on what cities and counties are doing in four areas. We also are doing a parallel activity with the Waste Board. And we're able to combine both activities and work more efficiently. The areas that we are collecting case stories on are land-use and community design, efficient transportation, green buildings, commercial recycling - that's the Waste Board component - and public engagement, public participation.

I have here actually about 40 -- we'll have 40 when we're done and when we add the ten from the Waste Board case stories of what cities and counties are doing, ranging from very large cities and counties to very small. And that will complement the case stories that your staff has already developed.

We're also about halfway through putting together a short publication on how to involve the public in your city or counties climate action plans.

One of the key pieces of our program though is to recognize city and county activities to reduce greenhouse gas emissions. So the drum roll, please.

Next slide.

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MS. HUNTER: This is the formal unveiling. We're no longer just calling it a Climate Leadership Recognition

Program. After extensive research and consultation, including consultation with the Board staff, we're calling our program the Beacon Award, Local Leadership Towards Solving Climate Change.

And it is designed to encourage and promote, through a variety of ways, including a little competition, cities and counties --

Next slide, please.

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MS. HUNTER: -- to take meaningful action and to celebrate that activity to reduce greenhouse gas emissions and energy reductions in municipal operations and in the community.

We have three levels that we are proposing. And we're prepared to add a 4th level, if it's appropriate.

Just to go back to the Chair's question about tracking energy. It's my understanding that most cities and counties are able to track their energy consumption. They generally -- some of them are a little bit farther along and more sophisticated than others. Many of them are adapting or adopting energy management tracking systems. But this is something that they are doing in concert and we've been in continuous consultation with the investor on utilities and the munis on this, because there is an energy reduction component. So that is absolutely

very, very key.

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MS. HUNTER: The Beacon Award is designed, as I said, to encourage voluntary action. We think it's going to stimulate creativity at the local level and it is consistent with the Board's -- the scoping plan, 15 percent voluntary reduction. We had hoped to launch it last year. We are waiting for long-term stable funding. And the primary funding source has always been conceived of being the Public Utilities Commission, public goods charge. We are working very closely with the utilities. Unfortunately, the PUC decided to delay the program one year. So we're chomping at the bit on this.

Depending on how it's rolled out with the PUC, we may begin to roll it out, focusing on agency operations and then move to the community as a whole. As I said, we've been delighted at the partnership with the ARB. We're working with your staff on a number of other things and we look forward to briefing you again about the recognition program and to continuing a good collaboration.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you. When you refer to long-term stable funding, you're referring to support

for the information aspects of the awards or actually for the cities themselves or --

MS. HUNTER: No. Well, cities themselves and counties obviously need additional funding. But for us to administer support and market the program, we're very cautious, financially cautious. Once we roll the program out, we want to be able -- we have a full marketing program plan. We want to be able to support it, so that we can help cities and counties move ahead.

CHAIRPERSON NICHOLS: I understand. Thank you for that clarification.

Okay, Panama.

(Thereupon an overhead presentation was Presented as follows.)

MR. BARTHOLOMY: Good morning, Madam Chair and Board members. Thank you for having me today. My name is Panama Bartholomy. I'm an advisor for Chairman Karen Douglas over at the California Energy Commission. Chairman Douglas sends her regards and also her regrets that she wasn't table to join you this morning. She's at a workshop today.

She did want me to bring the message that she agrees with your scoping plan. That local governments are absolutely a critical partner in achieving not only our climate goals, but also our energy goals here in the State

of California. And she wanted to congratulate the Board on the adoption and the creation of this new Toolkit. Not only the product, but particularly the collaborative effort that the staff went through to be able to develop this.

She wanted me to bring the message that this is absolutely a perfect example of good government at good work. So thank you very much an congratulations on this.

I've been asked by Ms. Papke-Waters to keep this brief and by Mr. Scheible to not be cynical.

(Laughter.)

MR. BARTHOLOMY: So taking away my two strong points of my presentation style --

(Laughter.)

MR. BARTHOLOMY: -- I will endeavor on to briefly cover the American Recovery and Reinvestment Act and how it relates to local government.

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MR. BARTHOLOMY: In total, about $800 billion in funding appropriations and tax relief, about $63 billion of that goes for energy activities. This is the largest clean energy bill ever passed in the United States. And it provides about $42 billion in direct appropriations and about $21 billion in energy tax incentives.

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MR. BARTHOLOMY: We are very proud to have the first recovery act website up in the State. Although, we seem to be the only one that actually cares about that distinction. And you can follow along with all of the different programs of the Recovery Act as it relates to energy at that website, energy.ca.gov/recovery.

Of the energy appropriations, 11 billion -- about $11.3 billion are directly given to either State or local governments in four different programs. I will be briefly covering two programs, the State Energy Program and the Energy Efficiency and Conservation Block Grant Program. The other 2 programs providing money directly to State or local governments was the Home Weatherization Program for low-income residents; and the Energy Efficient Appliance Rebate Program, where the Energy Commission will be receiving around $30 million for energy efficient appliance rebates.

These are the two programs I'll be covering today: The State Energy Program funded at $3.1 billion nationally. The Energy Commission will be receiving $226 million and then the $3.2 billion Energy Efficiency and Conservation Block Grant Program, where local governments, large local governments, in California will be receiving

about $300 million and the Energy Commission will be receiving about $49 million.

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MR. BARTHOLOMY: The State Energy Program is a longstanding program, administered by the Department of Energy giving money down to the states through the State energy offices. In California, that's the California Energy Commission. Here are the types of programs that can be funded under the State Energy Program. I challenge you to find me a program that could not be funded under this program and what is allowed here. We are getting $226 million. We have never received more than $3 million out of this program in the past. So we've asked the Governor for 80 times more staff as well, but I've yet to receive an answer back on that.

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MR. BARTHOLOMY: We are breaking the implementation of this program up into two tiers. The first tier that we are calling our quick-strike opportunities. These are the programs that through greater administrative ease, we can immediately implement. And we're looking at funding work-force development, to be able to build up some -- particularly the building

retrofit and the renewable energy work force in California, a significant need, if we're going to have to really change the building retrofit and renewable energy markets in the state.

We are also looking at an opportunity to fulfill one of the scoping plan's measures on retrofitting State buildings as well, creating a revolving loan fund for energy efficiency retrofits of State buildings. And then a significant investment in local government building, municipal building retrofit programs, expanding upon our already successful program and putting a significant amount of resources into a revolving loan fund for local government building retrofits.

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MR. BARTHOLOMY: The second tier of the funding, really where the majority of our funding will be going, is into what are probably going to be competitive programs, that we're going to have to spend a bit longer in developing. These will be rolling out more towards the fall and winter timeframe. Right now in California, we already invest about a billion dollars a year into energy efficiency retrofits for buildings through the investor-owned utility energy efficiency programs.

Yet, we still have a very weak and fragile

building retrofit industry here. $226 million in that light is not a lot of money. What is nice about this money is that we actually have quite a bit of flexibility in how we spend it. And so what we were looking at is how can we spend this money to go after transformational programs that allow us to better leverage that billion dollars a year we already invest by going after some of the major market barriers in California with these funds.

We think in particular one of those major market barriers is the elegant financing systems. Ms. Papke-Waters covered AB 811-type financing districts. And we are looking at supporting local governments and developing these for building retrofits and clean-energy retrofits out into the future.

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MR. BARTHOLOMY: Here is our timeline for implementation of the State Energy Program. I think the really important thing for you to know is that between now and July, we are developing the guidelines for this program. We anticipate the first group of funding to go out around September 2009. All of our money must be encumbered, in other words, out of the Energy Commission's hands by September 30th, 2010 and be fully drawn down, meaning lights and PV panels in and on buildings by April

1st 2012.

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MR. BARTHOLOMY: The second program I'll cover is the Energy Efficiency and Conservation Block Grant Program. It was funded at $3.2 billion nationally. Almost 70 percent of this money goes directly to large local governments. Those cities over 30,000 and those counties over 200,000 population. The odd thing here is that the Department of Energy calculates the population of counties after you take out the large cities from that population base.

So, for instance, Supervisor Yeager, I believe, for the first time in his term, is now overseeing what is considered a small county under this program. And so the small counties or small cities and counties that fall under these population thresholds will be applying to the California Energy Commission for us running a grant program of about almost $50 million. We are going through the guideline development of that program right now.

The larger cities and counties are applying directly to the Department of Energy for their funding and about $302 million are coming in to those large cities and counties.

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MR. BARTHOLOMY: This funding for both large and small cities and counties can be spent in these three general areas. Again, I challenge you to show me an energy or climate related project that would not be eligible under this criteria. This is everything from climate planning, to a transportation program, to a home retrofit program, basically anything that a mayor, a supervisor, a city council member wants to implement that has anything to do with energy or climate could be implemented here. What we are hearing from local governments is right know anecdotally, a significant amount of this money seems to be going towards municipal building retrofit programs.

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MR. BARTHOLOMY: Here's our schedule for -- and as well as the local governments schedule. All of our applications are due to the Department of Energy by June 25th. DOE will take somewhere between 60 to 120 days to approve these applications. We are currently developing the guidelines, so that by the time the money hits the Energy Commission we'll be able to quickly get it out.

The first round of funding going to large cities and counties is in September or October timeframe. One of

the real complications for the Energy Commission is the $50 million that we'll be administering for small cities and counties in California. And there's about 340 jurisdictions that meet those thresholds.

We must encumber those funds within 180 days after receipt of those funds from the Department of Energy. So it will be a real challenge running a competitive grant program, which we have never run before, in getting that money out the door quickly.

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MR. BARTHOLOMY: Just briefly mention some of the other significant programs under the Recovery Act that local governments are eligible for, are targeted for local governments. The Clean Renewal Energy Bonds Program is a long-standing program at the U.S. Treasury. The Qualified Energy Conversation Bond Program is a very new one. Those two programs basically offer zero interest loans for local governments that want to make energy efficiency or renewable energy retrofits. And then I think you're pretty familiar, probably here at the Board, with the Clean Cities and the Electric Drive Vehicle programs.

Again, I welcome you to join our fund over at the Energy Commission by signing up on our list serve on our website.

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MR. BARTHOLOMY: And I'd be happy to answer any questions you have about these or any other programs.

CHAIRPERSON NICHOLS: Well, first of all, thanks very much for coming over and helping us to have a sense of how all these various efforts can be integrated with each other. Because I do think that the Toolkit that the ARB staff is working on, although it's obviously aimed more at the front-end stages of planning, is going to be helpful for people to figure out how to document savings and to prioritize programs. I think in the early stages of excitement about climate, there was a tendency for people to kind of runoff in all directions at once and to be perhaps lured into projects that might or might not be the ones that would actually achieve the most, in terms of greenhouse gas emissions reductions.

And with this new infusion of funds, but also all the documentation that's going to be called for, I think there's some discipline being put into the system here as well that will be very helpful to us as well as to you in tracking what kinds of benefits we're really going to get from these programs. I mean, not to dampen enthusiasm for any energy efficiency or renewable technologies, but just to say that sometimes when there are too many choices,

there really are no changes and people become paralyzed. And so I think we're beginning to see some sort of shaking out of some of the projects that people can do and focusing on things that will really help. And I think it's terrific that the Energy Commission is now in a position to step up to really play a significant role in helping that to happen.

So we do have a couple of witnesses. Maybe we can hear from them and then move into any Board discussion before we actually approve the Toolkit.

So we have 2 witness, Lisa Trankley and Michael Schmitz.

Lisa, yes, there you are.

MS. TRANKLEY: Good morning.

CHAIRPERSON NICHOLS: Is it on?

MS. TRANKLEY: Good morning.

My name is Lisa Trankley. I'm from the Attorney General's office. I'm one of the attorneys who helps local governments address climate change in their CEQA documents.

Over the last couple of years, we've seen a significant transformation in the way local governments are approaching climate change. The vast majority have now accepted the fact that they have to analyze and mitigate greenhouse gas emissions under CEQA and AB 32.

Many of them, as Dana was talking about, are drafting and implementing climate action plans. Your website CoolCalifornia with the Local Government Toolkit and its climate action plan template and assistance is a great resource for them.

For the most part, the local governments are really trying to do a good job with their climate action plans. Unfortunately however, while their ambitions have grown, their budgets have shrunk. They're in dire need, it goes without saying, of any financial assistance that they can access. And at the same time that they need this money, they're losing so many staff, that the remaining people who are still there, don't have a lot of time to do research to figure out what money is available for what types of projects.

And this is where the CoolCalifornia website, I think, really is of great assistance. One of the upgrades that Ms. Papke-Waters mentioned is the addition of a tool called the Financial Wizard. And with that tool, local governments would be able to plug in information about what projects they want to fund and then be directed to sources and application information, et cetera.

This would allow them to strategically plan the financing of various projects and apply for the funds that they desperately need without wasting a lot of time trying

to figure out the process. Even from Mr. Bartholomy's brief presentation, you can tell this is a really complicated area trying to figure out what kind of money is available for what kind of projects and what kind of deadlines you have to meet.

So to the extent that the CoolCalifornia website can assist local governments even more in figuring this out, we think it would be a great help.

We've assisted local governments ourselves with some funding information, because we think it's critical that they get all the help that they can. But your website is really the authoritative source for climate change action for local government. You've done a great job and we support you doing even more.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you for that.

Can I just ask a question, are we going to provide links at least from our website to the CEC? We do already, good. Excellent.

Mr. Schmitz

MR. SCHMITZ: Good morning, Chair Nichols, members of the Board. My name is Michael Schmitz. I'm the new California director of ICLEI, Local Governments for Sustainability.

In the interests of time, I'll just touch on a

couple reasons we believe that this Toolkit has the potential to be a national model for assisting cities in their efforts to reduce GHG emissions and realize critical energy cost savings.

Local governments face significant resource related challenges in achieving their climate protection goals. The array of add-value self-help tools and strategies available through the Toolkit help address these key challenges.

Many organizations and advocates are developing useful tools and strategies for tackling climate change, but lack the ability to connect with end users. The Toolkit platform connects these providers with the localities so desperately in need of solutions on a one-stop shop platform.

Coordination and collaboration among jurisdictions is vital to advancing climate protection work. The Toolkit provides forms for all agencies and organizations working to support local governments to communicate, coordinate, share tools, resources and organize.

The challenges facing cities will continue to change. The Toolkit platform is dynamic and flexible, allowing for growth and the ability to further develop and respond to emerging needs, like the development of

regional tools and strategies.

I just wanted to underscore how important this project is in advancing the work of local jurisdictions, in the face of continuing economic and budgetary difficulties. As a result of the forward-thinking approach of the State to develop the Toolkit and make sure it gets rolled out, the critical efforts of cities across the State will continue to move forward.

Thank you for your time. And we look forward to continuing to work with the Board and the other State Agencies on this very important project.

CHAIRPERSON NICHOLS: Well, thank you and welcome to your new position. I look forward to working with you.

All right. That concludes my list of witnesses. And now back to the Board. The staff has asked us to formally endorse this project, this tool. So I'd like a motion.

BOARD MEMBER TELLES: Can I ask a question.

CHAIRPERSON NICHOLS: You may.

Questions are allowed first.

BOARD MEMBER TELLES: To Mr. Bartholomy.

Is that your real name?

(Laughter.)

MR. BARTHOLOMY: I actually change it for each Board I testify in front of.

(Laughter.)

BOARD MEMBER TELLES: Just for my own edification, how do you prioritize how you're going to give out $256 million?

MR. BARTHOLOMY: That's an excellent question. Right now, our guideline development process is focusing particularly on that. As I said, it's not a lot of money in the context of what we already invest in California. And there's a great need out there, not only need for the industry, but also need among local governments for staff assistance and funding as well.

So there's a number of different criteria we're currently considering, things such as economically disadvantaged communities, high unemployment areas, areas affected by environmental -- different environmental problems. But there's a number of different criteria we're currently looking at. It's going to be an issue on our State Energy Program, but it's going to be a significant issue on our Energy Efficiency and Conservation Block Grant Program. With 340 eligible entities and only $50 million, we're going to have to have a very robust and transparent process for deciding between applicants.

BOARD MEMBER TELLES: Yeah. You're already getting at what I'm suggesting is that the highest

priority would be to -- I would suggest would be to low-income families to retrofit their homes, because they're going to be the ones that are going to be hit the hardest by this. But it sounds like your organization or your board is already looking at that.

MR. BARTHOLOMY: We are considering that for -- it meets with California policies as well as some of the policies given to us through the Recovery Act. The two primary policies, the first one was to create and preserve jobs. And the second one was to help individuals most heavily impacted by the recession. So that is directly in line with what you're suggesting.

CHAIRPERSON NICHOLS: Additional questions?

Deedee.

BOARD MEMBER D'ADAMO: Well, just in follow up to that. What about technical assistance, because there are certainly some communities that are just overwhelmed with a number of other issues, much less, you know, trying to figure out how to apply for another grant program.

And secondly, matching funds, what's -- can you just quickly walk through the various programs in terms of what the requirements will be for matching funds?

MR. BARTHOLOMY: Absolutely. I can't get into too much detail, as we haven't developed those guidelines yet. And I would hate to mislead you about anything that

might be not developed fully until the end of July, which amazingly is actually far away, even in the context of guideline development.

As it relates to technical assistance, we are looking at whether or not we can use some of this funding to offer technical assistance. It presents a real tension in California, where you have some leadership communities and then some communities that are very new to energy efficiency and climate planning. And you'd hate to see all of the money just going to the leaders, when so many other communities need some of these helps with their first steps. And so we are considering looking at opportunities to providing up-front technical assistance funds to be able to apply for some of these activities.

With our currently existing retrofit program for municipal buildings, we actually pay for an auditor to go out to local governments and do the audit and work with local governments and help them submit an application to us.

So one of our programs can already actually help with that. The other way to get around some of the technical assistance problems and to deal with such a wide variety of applicants with such a small amount of money is we are looking at encouraging regional partnerships. And so you don't just have individual cities or counties

competing with each other within the same region for similar goals, but having actually team up and then bring about real economies of scale. And this can also help with your second point, which is providing matching funds of some significance to be able to compete with other regions as well.

Matching funds is probably going to be one of the criteria that we're going to heavily consider in both the State Energy Program as well as the Energy Efficiency and Conservation Block Grant Program, how much money and resources applicants can bring to the table.

BOARD MEMBER D'ADAMO: And I just follow up with what Dr. Telles said about communities that are in need. Just a suggestion, that you bring down those matching funds requirements close to zero with regards to communities that are in need, because they're just not going to be able to come up with the matching funds in many instances.

And then lastly, a question on the financing districts. I'm not familiar with AB 811. Would there be an incentive for communities that, you know, maybe they're not up to speed just yet, in terms of their knowledge base on climate change issues and requirements. And then also with regard to challenges on coming up with matching funds, what incentive would there be for those communities

to enter into financing district agreements?

MR. BARTHOLOMY: Sure. So just very briefly, Assembly Bill 811 was passed last year. And it allows local jurisdictions to set up financing districts so local jurisdictions can provide financing for individual homeowners or commercial building owners to be able to make energy efficiency renewable energy retrofits on their buildings.

And the beauty of what is allowed under this bill is that the obligation to repay that debt acts as a lien against the property. And that obligation is repaid through property taxes to the local government and to the counties. And so one of the major market barriers in the past particularly for home owners, where in California we only stay in our homes on average about seven years, is you don't want to take on 25/30 year debt obligation when you know you're going to be flipping your house in seven years, maybe now probably more like 15 years. And you don't want to take on that obligation in dealing with trying to transfer that to the new owner. This legislation allows the obligation as well as the benefits of that debt to be carried on to the new owner of that property.

Right now, there is a veritable wildfire of activity around financing districts in California. Each

of the major metropolitan areas, Sacramento, the bay area, San Diego and L.A., are already collaborating on putting together county and region-wide financing districts. And we're looking at providing funding that can help them set up the programmatic background of these programs, not so much the financing themselves, but the money to be able to set up the programs for this.

CHAIRPERSON NICHOLS: If I could interject though, there is an issue about places where there's a lot of property that's in foreclosure, and how you deal with properties that are actually owned by the banks. The agencies that originally paid on the mortgage -- and this is one of the obstacles or one of the barriers that I think is going to need to be overcome to help some of the communities that you're particularly asking about.

I mean, I just -- I want to say, and this is a real compliment to the Energy Commission. I think the Commissioners have really plunged in to sort of assessing what the barriers and obstacles to getting this money out the door efficiently are going to be, and are preparing to utilize whatever resources they can put to bear on this, in terms of their staff, support to actually do the kind of hands-on assistance that's going to be needed to develop really good funding proposals, so that California, as a whole, can do well in the national competition for

how these monies are going to get spent as well.

Thanks.

Additional questions?

Yes.

BOARD MEMBER YEAGER: I know when it comes to local government, I'm trying not to be full of too much doom and gloom. But just reading this morning's paper, it was a step backwards for me in my fight. I guess, I'm trying to -- it's sort of maybe a general question. But I worry that we're still sort of caught in these two worlds that we're in, where government was on the cliff and now it's at the bottom of the cliff.

And I -- you know, local governments, particularly counties, are going to be -- have the hard difficulty of deciding are you going to provide health care for low-income children or are you going to spend funds in your planning department on climate control. And it's going to be difficult. And I'm just sort of wondering what flexibility is sort of out there, and some of my board members had mentioned this, of -- are some of these funds going to be able to actually pay for full personnel costs, issues about no matching grants, because there really may not be any money left at all.

And, you know, again going back to counties, and I know it's going to be the same for cities, when it comes

to general funds, it's going to be trying to back-fill all the State programs that were just devastated. And cities are going to say all right, do we close a fire house or do we, you know, pay for some of this other stuff?

So I'm just trying to figure out how -- and that world hasn't happened yet, but it's coming. And so how do we sort of coordinate this and what is coming? And I know that -- and I think it's something that we're going to need to track. One of your slides, Slide 4, talked about all of the resources that are -- that exist at the local level. But it will be interesting to see in the next six months how many of those resources still exist, and whether these kind of programs are going to be the very first things that cities and counties are going to cut. And then how do we sort of respond, what help can we still provide for those jurisdictions that just no longer can do this?

MR. BARTHOLOMY: I'll just respond briefly to the part directed towards me.

Absolutely, under both the State Energy Program and the Energy Efficiency and Conservation Block Grant Program programmatic costs, such as staff costs, are eligible and I assume will be eligible under how we implement these programs, particularly the Energy Efficiency and Conservation Block Grant Program. This is

a program that for the last three to five years the U.S. Conference of Mayors has been pushing hard to implement for exactly these sorts of programs, being able to have staff on hand within mayor's offices, within planning departments to be able to implement programs. So absolutely eligible for that.

For the State Energy Program, we're also under additional criteria though to actually have energy reduction. And so, as much energy, as much money as we spend on staff, the staff has to then translate into actual energy reduced. So it can't just be staff necessarily to do planning, but also staff to do planning that will result in real emissions as well as energy reduction. But, yes, I would imagine that staff costs will be eligible under both programs.

CHAIRPERSON NICHOLS: Ms. Hunter.

MS. HUNTER: You raised an absolutely crucial point. And one of the key messages that we've been giving to cities and counties, and frankly at the CSAC institute that I participated in about a month ago, is virtually all the activities involved in reducing greenhouse gas emissions have co-benefits, reducing energy use and therefore savings, reducing resource conservation, efficient communities, land-use, community design, water conservation, all of those are the kinds of activities

that we think cities and counties are doing and have been doing that promote good planning and good government.

We're now looking at these under the umbrella of climate change, so you get the extra added benefit of reducing greenhouse gas emissions. But many of the activities that do result in reduced greenhouse gas emissions are -- have many other benefits as well.

And so we're encouraging cities and counties to look at it from a broader perspective rather than just a narrow one.

CHAIRPERSON NICHOLS: Thank you. Additional questions?

Yes.

BOARD MEMBER SPERLING: I do want to say I'm very delighted, pleased to see all of this collaboration and interaction and activity, you know, in the Energy Commission, Attorney General's Office, League of Cities, ICLEI. It's all wonderful.

I have one question and one comment. And, you know, after being on the Board here for over two and a half years, I'm starting to think like a regulator, and it's a scary thought.

BOARD MEMBER BALMES: Very scary.

(Laughter.)

CHAIRPERSON NICHOLS: It was the job you were

appointed to do, however.

(Laughter.)

BOARD MEMBER SPERLING: And, therefore, carrying out my responsibilities.

All this talk about tool kits and research to understand -- to evaluate greenhouse gas impacts, emission calculators, is good. It's great. It's moving in the right direction. But where I think Chairman Nichols was going, she was talking about tracking emissions in energy use. But actually as we look at SB 375, as we look at actually developing formal programs for reducing greenhouse gases, especially at the local metropolitan level, we're going to need, you know, better than rules of thumb. We're going to need actual models, actual models that we can use for regulatory purposes.

And I'm wondering, is that -- you know, I didn't really hear that explicitly. But is that the next step? Are we moving in that direction? Because, you know, the next step of SB 375 is saying, "Okay, regions, you know, you're going to reduce emissions." But the cities and counties need to know what they can do and how much impact there will be from those actions. And then there has to be some process for managing all of this. And, you know, this is the new world we're going into. And are we keeping up with the tools and capabilities? Are we

preparing for that day?

DEPUTY EXECUTIVE OFFICER TERRY: There's a couple of quick comments. With respect to SB 375 and the advisory committee process, I think there's been a lot of thought going into, as we -- as they develop the methodology recommendations, that the issue of tools and the pragmatic issues that are raised by tracking are going to be part of the report back from the RTAC, at least that's our expectation the way things are going. And certainly as staff of the Board, we are putting some thought into that; and in our role as providing support to the RTAC, we're going to be bringing ideas to the fore.

The other -- obviously the overlap of the transportation-related focus of SB 375 and our previous work on the community -- the local government protocol that we brought to the Board several months ago, we have been putting some thought into trying to develop an online service for local governments, where they could -- similar to what you're hearing today, but more specifically designed to be emissions tracking. And so that's an idea we have and we're working on. And so we'd be happy to keep the Board updated on the progress on that

BOARD MEMBER SPERLING: Well, I don't -- I would not expect the RTAC -- I've been following and participating. I don't expect that they're going to come

up with the kinds of insights and specific -- you know, they're certainly not going to develop anything. And they might come up with recommendations about what to do. So I guess I would just suggest that this become a -- move this up the priority list of things that the Air Board think about, staff, and work with ICLEI. And, you know, I don't know exactly how this would happen, but it's more than tracking.

It has to be more than tracking, because cities and counties have to know that if they do something, this would be the effect. And because we're going to be talking about revenue streams - you know, going back to some of these questions about, you know, how are they going to be able to afford it - there are going to be revenue streams. Otherwise, it's not going to work. So we know there's going to be incentives and revenue streams.

And so, you know, when you start talking about real money and you start talking about real enforcement and so on, we're going to need tools that we don't have.

CHAIRPERSON NICHOLS: Real measurement.

Other comments? Yes.

BOARD MEMBER ROBERTS: Do we have public testimony?

CHAIRPERSON NICHOLS: Pardon me?

BOARD MEMBER ROBERTS: Is there public testimony?

CHAIRPERSON NICHOLS: No, we've already heard from the public. We're ready to move on this item as soon as the Board is ready to move.

BOARD MEMBER ROBERTS: I will be very brief.

It's actually comforting to hear some of the concern about how is local government going to pay for these things. If you recall, at the very earliest hearings of AB 32, I voiced this concern. And I think the Toolkit is a very positive step in helping local government. It leaves a lot of things to be done, but I think it's a very positive step.

I guess I have two concerns. And my hope is that with all this money spent, there's actually something to show for it at the end. And while local government at any level probably is going to be struggling a little bit, it just seems to me that you need to have caps on overheads, because projects can have a lot of overhead and very little result and you should be thinking about that.

We've seen at the federal level a lot of stimulus money that doesn't stimulate anything. I'd hate to see that be the legacy here in California if we're -- we're going to get a lot of money to create a vastly improved environment, and we ought to make sure that that happens, that we don't have just a lot of people sitting around

doing planning of projects and things. And I hope it's successful. I'll continue to say that, yeah, local government has concerns. You know, I'm very cognizant of that, to say the least, with the changes that are coming and the choices that we're going to have to make.

But this is an important -- very, very important stuff, and I know that San Diego County is going to continue to pursue dollars, you know, the actual dollars for projects, which is more important even than the staff or us and to get things done.

CHAIRPERSON NICHOLS: I would never look gift money in the mouth. But I do want to underscore something that Panama said earlier, which is that in the context of California, this is not actually that much money --

BOARD MEMBER ROBERTS: No, it's not.

CHAIRPERSON NICHOLS: -- in proportion either to what we're already spending or certainly in proportion to the need. So while it's really important that we use it well and that we get as much as we can for the right things, I don't want to overpromise what we -- what the results are that we think are going to be accomplished as a result of these funds, because I think we're going to find that it will be somewhat modest. But hopefully it will all be leveraging other money and be supporting other goals as well.

All right. I'm going to call a halt to this at this point and ask for a resolution of support.

Ms. D'Adamo.

BOARD MEMBER D'ADAMO: So moved.

BOARD MEMBER YEAGER: Second.

CHAIRPERSON NICHOLS: All in favor say aye, please?

(Ayes.)

CHAIRPERSON NICHOLS: Opposed?

Thank you.

We are going to be taking a lunch break today, and we do have an executive session scheduled over lunch. This is just for people's future planning purposes. I hope we can do the on-board diagnostic item before lunch.

Will that work?

We need a break.

Let's take a ten-minute break and then come back.

Thank you.

(Thereupon a recess was taken.)

CHAIRPERSON NICHOLS: Okay. We're going to get started. And the others are going to make their way in. They can still hear us when they're in the back room.

So this next agenda item concerns amendments to the ARB's On-Board Diagnostic System requirements, known as OBD II for light-duty and medium-duty vehicles and

heavy-duty OBD for heavy-duty engines and vehicles.

The Low Emission Vehicle Program requires California's light-duty and medium-duty vehicles to meet very stringent emission standards. The emission standards for heavy-duty vehicles also became more stringent during the 2007 through 2010 model year. Our On-Board Diagnostic Program is important, because it ensures that engines meet these standards in use and remain clean for their entire life.

Basically, you could look at this as sort of an on-board kind of inspection and maintenance program that gives information directly at the level of the vehicle.

When emission problems are detected, drivers are alerted by a warning light, and repair technicians can access diagnostic information to identify the nature of the problem. Our Board regularly receives updates on the progress of the OBD regulations, including the one that we're going to be hearing today.

Mr. Goldstene, would you please introduce this item.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

As directed by the Board, staff has been evaluating manufactures' progress in designing and implementing heavy-duty OBD systems for initial

implementation in the 2010 model year.

Since the heavy-duty OBD regulation was adopted in 2005, staff has identified several changes that need to be made. Most of the modifications are related to the monitoring requirements for diesel vehicles.

Staff is also proposing to update the medium-duty diesel OBD II requirements in this rule-making to be consistent with our proposed changes to the heavy-duty OBD regulation.

The proposed amendments would also update existing gasoline monitoring requirements and other provisions in both regulations. Staff also developed a set of enforcement requirements specifically for heavy-duty OBD compliance issues.

I'll now turn the presentation over to Mr. Mike McCarthy of the Mobile Source Control Division, who will provide you with a summary of the proposal and present staff's recommendations.

Mr. McCarthy.

(Thereupon an overhead presentation was Presented as follows.)

ADVANCED ENGINEERING SECTION MANAGER McCARTHY: Thank you, Mr. Goldstene.

Good morning, Chairman Nichols and members of the Board. I'm here today to present a proposal to amend our

on-board diagnostic regulations.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY: I will start today's presentation by providing some background on the On-Board Diagnostic, or OBD, Program before giving you a brief overview of the proposed changes to the existing regulations and a proposal for a new enforcement regulation.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

The OBD system is comprised mostly of software in the vehicles on-board computer and it uses existing sensors on the vehicle to monitor the various emission controls.

When a component or system being monitored has been determined to be malfunctioning, a warning light is illuminated on the vehicle instrument panel. Additionally, information about the malfunction and the driving conditions at the time the fault was detected can be downloaded from the vehicle using a standardized hand-held scan tool.

We currently have two OBD regulations. One is known as OBD II and is already in place on all 1996 and subsequent light- and medium-duty vehicles such as passenger cars and trucks.

The second is heavy-duty OBD. Heavy-duty OBD was adopted in 2005 and applies to heavy-duty vehicles such as line-haul trucks, urban buses, and delivery vehicles. 2010 model year will mark the launch of the first heavy-duty OBD-compliant engines.

While we are proposing changes to both regulations today, the changes will primarily affect the heavy-duty OBD regulation.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Today, there are over 130 million cars in the U.S. with OBD II systems, which is over 50 percent of all cars on the roads. This number includes all cars in the U.S. because virtually all manufacturers design and certify their vehicles to the more stringent California requirements in lieu of the U.S. EPA requirements.

There are 25 states in the U.S. currently using OBD as part of their vehicle inspection and maintenance programs, including California. There are nearly 18,000 Smog Check OBD inspections per day in California alone.

And, as I mentioned, the first heavy-duty OBD systems are about to hit the road next year.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Implementation and improvements are needed for

the OBD regulations to keep up with new vehicle technologies, to incorporate technician input, and to close the loop from lessons learned during the time of certification.

Biennial reviews, such as today's, and the proposed changes from such reviews ensure that the OBD regulations remain relevant to current vehicle technology and that the OBD systems are robustly detecting malfunctions in use. And for heavy-duty OBD, today's review reflects the first review since the regulation was adopted in 2005.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Work began on this regulatory update in 2007. Staff had numerous meetings with the affected industry, which is primarily the heavy-duty engine manufacturers, their association, and some suppliers to the heavy-duty manufacturers. A public workshop was held last October and draft regulatory changes were made available at that time.

A draft of the new enforcement regulation that we'll be discussing today was released last December, and staff has had several follow-up discussions with the engine manufacturers, both individually and as a whole, to refine the proposed amendments.

The primary stakeholders affected by OBD regulations include engine and vehicle manufacturers and their associations, such as EMA, AAM, and AIAM. Vehicle owners and repair technicians are also affected in that the OBD system alerts them to the presence of a fault and provides information for repair technicians to diagnose and fix those faults.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY: I will now provide a brief overview of the proposed amendments to the existing OBD regulations.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

To put some of today's proposed amendments in context, this slide provides an example of a typical diesel emission control system for the 2010 model year. Compared to just a few years ago, these systems have become increasingly complex and include the addition of several new emission controls. A few key components to point out would be the diesel particulate filter in the exhaust, which was newly implemented with the 2007 model year and is the primary control for PM emissions.

New for the 2010 model year and also in the exhaust is a selective catalytic reduction, or SCR, system that injects urea into the exhaust to provide high levels

of NOx reduction in the catalyst.

Most also have an oxidation catalyst in the exhaust to help reduce hydrocarbon and PM emissions as well as promote proper operation of the filter and the SCR catalyst.

Together these three components make up what is commonly called the aftertreatment for the engine emissions.

But it is also important to note that these engines and systems also have a tremendous number of other components for emission control, including exhaust gas recirculation and sensors for temperature, pressure, air/fuel ratio and NOx concentrations.

The interaction of all these emission controls provides a significant challenge to the industry for design and calibration, especially when you consider that these engines will often operate for a million miles or more before they are retired.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Now, on to today's proposed amendments. Most of today's changes are to the heavy-duty OBD regulation and primarily concern diesel engines, the dominant technology in that weight class. They include a laundry list of smaller amendments that I won't be covering but that you

would typically expect during a review, including clarifications to existing requirements, moderate delays or changes in lead time to other requirements and some adjustments for emerging technologies.

One of the more significant changes involves reduced monitoring stringency for some components. Specifically, for the 2010 through 2012 model years, staff is proposing to relax the monitoring requirements for the diesel PM filter, the SCR catalyst, and for NOx sensors used to monitor the SCR catalyst.

Faults would still be required to be detected. However, tailpipe emissions would be allowed to reach higher levels before faults of these systems would be identified.

These changes are proposed primarily because the monitoring technology has not advanced as fast as staff had initially projected. But they still reflect the most stringent monitoring levels that today's technology will allow.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

In meeting with industry over the last few years and seeing the near finalized engine configurations planned for the 2010 model year, staff identified areas where additional requirements were needed to ensure all

faults that can cause an emission increase will be detected. In several cases, this necessitated adding new requirements, with lead time as appropriate, for future model year OBD systems. Examples of such things include emission control strategies that had not been anticipated, emission controls or strategies used to mitigate emissions during cold starts, and cooling system faults that previously would go undetected.

The added requirements also include additional data that must be output in a standardized format to scan tools commonly used by repair technicians or during compliance testing by ARB.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Industry has asked for several additional changes that staff evaluated and rejected. An example is the non-methane hydrocarbon catalyst monitoring requirements where industry asked for a relaxation of the requirements. However, staff's assessment of monitoring technology is that most manufacturers are indeed on track to meet the current requirement and no further adjustment is necessary.

And, in many cases, changes were made that represent a compromise that that staff believes will still get the majority of the intended result, while easing the

burden on manufacturers when developing or calibrating the system.

An example is a requirement for manufacturers to account for adjustment factors - a complicated subject that addresses the unique nature of some diesel emission controls that must periodically purge stored emissions. Staff has made changes to the regulatory language to allow a less rigorous calculation methodology to account for these emissions, and has also agreed to provide additional direction in a future guidance document to ensure that manufacturers have clear instruction as to the types of engineering judgment and shortcuts we expect them to use.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

As I mentioned before, we currently have two different OBD regulations, including the OBD II regulation for light- and medium-duty vehicles such as full-size pick-ups and the heavy-duty OBD regulation for heavy-duty engines such as delivery trucks. Some manufacturers produce engines or vehicles that span both weight classes and, thus, have to design for both regulations. The proposed amendments today include changes to both regulations to harmonize the requirements across these weight categories as much as possible.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Next, I'd like to provide an overview of the proposed enforcement regulation.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Today's proposal includes a new stand-alone enforcement regulation for heavy-duty OBD to ensure that the systems work properly in use. It is modeled after the existing enforcement regulation for light-duty systems that was adopted after we had several problems with in-use vehicles, including legal challenges that resulted in poor performing OBD systems not being recalled or fixed. We are proposing it now for heavy duty to avoid having similar in-use problems.

The regulation provides clear direction to manufacturers as to the procedures that will be followed for testing the systems. It includes details on how engines or vehicles are to be selected, pass/fail criteria to be used, including interim less rigorous criteria for the first six years, and defines remedial actions such as recalls and fines. It even defines some major noncompliance as egregious enough to warrant mandatory recall to ensure the worst problems are remedied. This has been a very powerful element of the light-duty enforcement regulation in guaranteeing that the most

important monitors are functioning.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Another item in the enforcement regulation requires emission testing of engines. That is, to verify that a fault is detected before tailpipe emissions exceed the allowable levels, you actually have to implant a fault in the system and emission test it. Unlike light-duty vehicles, that are commonly tested at ARB's lab in El Monte, heavy-duty emission testing is engine-based, not vehicle-based. The engine must be physically removed from the vehicle and tested inside of a specially equipped laboratory. ARB does not currently have any facilities capable of performing such testing. And there are very few independent laboratories that are capable of it. In fact, the only ones who routinely do this type of testing are the engine manufacturers themselves. Accordingly, the proposed procedures require manufacturers to do this testing of their own engines and submit the results to ARB.

To provide a balance between the thoroughness of enforcement testing of all products and manufacturers' limited resources, the number of engines that each manufacturer has to test is limited to a small sample of what they produce. For most manufacturers, they would

test one engine per year. For the two largest manufacturers, they would eventually be testing two or three engines per year.

If the first engine tested fails and indicates a possible noncompliance, additional like engines are tested to get a more representative sample. In the event the tested engines continue to indicate noncompliance, a maximum of ten engines would be tested and then a final pass/fail determination would be made.

As with other elements in the enforcement regulation, failing results found from such testing can be the basis for ARB to take enforcement action.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

The engine manufacturers are opposed to the self-testing requirement. They have indicated the such testing would impose significant added cost and workload. They have further indicated that they believe it is inappropriate to have recall jeopardy for any noncompliances discovered during such testing, and they question ARB's legal authority to require such testing.

Staff's experience from light-duty indicates that enforcement testing is necessary to ensure OBD systems are compliant in use and manufacturers are uniquely qualified to be able to do this testing effectively and efficiently.

The cost a manufacturer would incur by doing this testing was calculated to be less than $2 per engine sold. For reference, the retail cost of a heavy-duty engine is typically 15 to $25,000.

Regarding resources, testing one engine per year, as most manufacturers would be required to do, represents a small fraction of the certified engine families. Even for the largest manufacturer, testing three engines a year would be a small percentage of the current 20 different engine families they certify each year.

Regarding industry's concern about recall jeopardy, staff believes that if serious noncompliances are indeed identified, it is appropriate that they be corrected. However, the proposal does include substantial relief in the first six years to allow manufacturers to make significant mistakes without recall jeopardy.

And the requirement to make manufacturers test their own products to verify compliance is within ARB's authority and has been done before. ARB has broad authority to adopt test procedures or standards to ensure our regulations are met. And this testing will ensure that the heavy-duty OBD requirements are indeed met. Existing regulations for heavy-duty engines, light-duty vehicles, medium-duty engines, and other classes of engines all require some form of manufacturer self-testing

that is used to determine compliance.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

Lastly, I'll summarize the calculated cost effectiveness of the proposed amendments.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

In general, the amendments proposed today to both the OBD II and the heavy-duty OBD regulation are minor changes that do not reflect changes in the long-term cost to implement OBD systems. The new heavy-duty enforcement regulation does, however, impose new costs for the manufacturer self-testing that was just discussed. Adding this to the previously calculated costs, the cost to implement a heavy-duty OBD system is expected to add $134 to the retail price of an engine. For perspective, this is much less than two percent of the retail cost of a new engine.

For emission benefits, heavy-duty OBD systems are projected to yield emission reductions of approximately three tons per day of reactive organic gases, 38 tons per day of NOx, and .4 tons per day of PM in the 2020 calendar year.

The cost-effectiveness heavy-duty OBD program is very good relative to other adopted programs, and is

approximately 15 cents per pound of ROG plus NOx and $22.50 per pound of PM. This cost effectiveness calculation also takes into account the cost of repairs that would be performed on in-use vehicles to correct detected emission problems.

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ADVANCED ENGINEERING SECTION MANAGER McCARTHY: In concluding today's presentation, the proposed amendments to the existing OBD regulations are necessary to ensure emissions remain low for the entire life of vehicles and engines. The proposed new enforcement regulation is also essential for the heavy-duty OBD program to be effective.

Staff recommends the adoption of the proposed amendments and the enforcement regulation with 15-day changes.

This concludes the staff's presentation, and I thank you for your attention.

CHAIRPERSON NICHOLS: Thank you.

Mr. Goldstene, do you have any wrap-up or should we go directly to witnesses?

EXECUTIVE OFFICER GOLDSTENE: Witnesses.

CHAIRPERSON NICHOLS: Okay. I have a list of seven witnesses who've signed up to testify here. And we will be enforcing the three-minute comment. I know we've

got written comments from a number as well.

We'll start with Lisa Stegink - I hope I'm not mispronouncing your name - from EMA and then Mark Stepper from Cummins.

MS. STEGINK: Thank you and good morning.

It's green, so maybe I just need to get closer. So --

CHAIRPERSON NICHOLS: Oh, sorry.

MS. STEGINK: -- I'll lean.

I'm Lisa Stegink this morning here on behalf of the Engine Manufacturers Association.

Engine manufacturers have had discussions with staff over several months, as Mr. McCarthy pointed out, regarding the proposed amendments to the OBD rule.

We believe many aspects of the rule need changing, but I'm going to focus today only on one - the provisions making manufacturers pay for and conduct their own in-use testing.

This is a whole new program. It deals with significant fundamental issues. We haven't had really enough time to fully understand all its implications.

More important, ARB simply does not have the authority to force manufacturers to bear the cost of in-use enforcement testing.

Despite that, we have tried intensively over the

past couple of weeks to work out a compromise. This is a progressive industry. We're trying to do the right thing. Staff has been working with us. They've been great in trying to work something out. But we have not been able to come to an agreement. In fact, there's still a lot of confusion and misunderstanding over what is in the enforcement reg language.

As it stands, there is simply far too substantial exposure for industry and the costs are far too high for us to accept the last proposal, especially when ARB does not have the authority in the first place to make manufacturers take on this burden.

We're not saying ARB doesn't have authority to do its own testing or that ARB shouldn't have data on real world emissions. But there's not authority to force this self-testing.

The self-testing that Mr. McCarthy referred to is primarily with new engines, engines that have not left manufacturers' control. And this is a different kind of testing that we're being asked to do, to take engines out of in-use trucks and vehicles from customers.

This places significant further stress on an already financially distressed industry. Companies that would have been here testifying today that you would normally see are not here simply because of that financial

distress. To that end, we're asking the Board to remove the manufacturer self-testing provisions from the enforcement rule.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Mark Stepper from Cummins, followed by Michael Read of Navistar.

MR. STEPPER: Good morning. Thank you, Madam Chair and Board. My name is Mark Stepper. I'm speaking on behalf of Cummins, Incorporated. I lead the group at Cummins that has responsibility for on-board diagnostics and service information, certification and compliance.

Cummins is a manufacturer of heavy-duty engines used in on-highway applications as well as other products that are non-road. Cummins is a member of the EMA organization and supports the oral and written comments EMA has submitted.

Cummins has devoted an enormous amount of time and resources to meet the OBD requirements and to meet with ARB staff to discuss many various OBD topics. Staff has been good to meet with us and work to resolve any of the open issues that we've had. As a result, the proposed rules contain many clarifications that are partly a result from these discussions. We compliment the talented staff at ARB for their efforts in the process.

These rules do help to ensure cleaner vehicles throughout product life. We understand that. But there are some issues that need to be addressed.

And as Lisa's already talked to, ARB has proposed this enforcement rule, which was anticipated because they indicated they were going to do that. And we thought it was going to be like the OBD II enforcement rule. However, a new section was added, and it contains a manufacturer-ran testing program. This program is totally funded by the manufacturers. This program also does not have an end date; that is, it continues indefinitely at the cost of hundreds of thousands of dollars to millions of dollars a year per each manufacturer.

Cummins reiterates our support of the detailed comments made by EMA on this topic. And Cummins urges the Board to have this section removed from the heavy-duty OBD enforcement regulation.

Another topic I want to bring up is EMA's comments to reduce the number of demonstration tests that are required for model year 2011 and 2012 vehicles. We are looking to have this modified from two per year down to one. And some manufacturers, it should be noted, have zero to demonstrate until the 2013 model year.

Cummins also urges the Board to direct the staff to more openly consider what EMA has discussed regarding

the vehicle speed sensor diagnostic monitoring requirements. EMA believes we have provided thorough reasoning why staff should accept what EMA has proposed. The vehicle cannot legally operate without the speedometer being functional. And the vehicles with an automatic transmission, they simply can't be used to do the work that they've been bought to do.

As a manufacturer, Cummins would like to see these updates to rules be completed prior to the need for certifications. So we'd like to see that happen, as we say, earlier.

CHAIRPERSON NICHOLS: Your time is up.

MR. STEPPER: Yes. I thank you for the opportunity to speak. And we'd be glad to answer any questions.

CHAIRPERSON NICHOLS: Okay. Well, we may have some at the end. Thanks.

CHAIRPERSON NICHOLS: Michael Read from Navistar, followed by John Trajnowski from Ford.

MR. READ: Good morning, Chairman Nichols and Board members. My name is Michael Read. I am representing Navistar, Incorporated, Powertrain Engineering Division. And my responsibilities are OBD certification and compliance.

CHAIRPERSON NICHOLS: Could you speak up a

little? I'm sorry, this system is not picking up well today. Or maybe you could move the mike up a little bit closer to you.

MR. READ: Is that a little better?

CHAIRPERSON NICHOLS: Yeah, that's much better. Thank you.

MR. READ: All right. Thank you. I apologize for that.

Again, I'm Michael Read from Navistar, Incorporated, representing the Powertrain Engineering Division.

I'd like to thank the Board for the opportunity to provide comments on proposals -- on proposed revisions before you today. I'd also like to thank ARB staff for working with the Engine Manufacturers Association and Navistar in reviewing, discussing, and amending some of the areas in the proposed revisions; although much of this discussion has taken place between ARB staff and the Engine Manufacturers Association regarding the proposed revisions to OBD II, heavy-duty OBD, and now the enforcement regulation.

At this time, Navistar cannot support in good faith the proposed enforcement regulation 1971.5 for heavy-duty engine OBD for the reasons previously stated in the Engine Manufacturers Association comments, with the

addition of the practicality of the proposal, and the ability of manufacturers to meet the desired outcome of the enforcement in a reasonable period of time, the cost and cost benefits of the proposal, and the standard of pass/fail criteria as applied to the heavy-duty engine OBD program.

Navistar asks that the enforcement regulation, as proposed today, not be accepted. However, Navistar does support further discussion between ARB staff to reach an amicable solution of the enforcement regulation that is timely and in a cost-conscious manner.

That concludes my statements for today.

CHAIRPERSON NICHOLS: Thank you.

Is Mr. Swenson with you? Are you two testifying together or you put the same -- you're both with Navistar.

MR. SWENSON: That's correct.

MR. READ: We're both from the same parent company.

CHAIRPERSON NICHOLS: Well, why don't you follow directly - it seems more logical - if you don't mind. And then we'll let the Ford witness come after.

MR. SWENSON: Thank you, Chairman Nichols. Am I coming through? I'm a little tall.

CHAIRPERSON NICHOLS: We can hear you.

MR. SWENSON: Okay.

CHAIRPERSON NICHOLS: I know this mike is about right for somebody my height, I know. It's not fair.

MR. SWENSON: My name is Eric Swenson. I am employed with Navistar, Incorporated, in Fort Wayne, Indiana, at our truck engineering facility, and have been involved in integrating electronic vehicles for the past 20 years.

I personally support the Engine Manufacturers comments and will express my own views on vehicle speed sensors and the topic of hybrid drive certification.

In my opinion, the changes to increase five one in the OBD rule compels engine manufacturers to diagnose the operation of hybrid drive systems, which they do not design, develop, manufacture or sell. The costs of OBD for hybrid drive systems I think are more properly borne by the hybrid drive manufacturers themselves, who are not -- who are separate corporations in our horizontally integrated industry.

Existing 2010 engine control systems are not designed to meet these needs, which suggest that hybrid drive systems cannot be certified for HD OBD, unless the engine manufacturer serves as his own certification to this separate corporation to insert that the hybrid drive system controls include appropriate diagnostics.

The issues in my opinion with hybrid drive

systems are better served with a separate rule-making that includes the engine manufacturers, vehicle manufacturers, hybrid drive manufacturers, and transmission manufacturers.

I'll briefly add my own comments on vehicle speed sensor systems. It's my estimation that the policies regarding vehicle speed sensors for electronically controlled transmissions will require vehicle manufacturers to install a separate duplicate vehicle speed sensor at a cost of additionally $30 to $100 per vehicle. I wish that these costs be considered in the cost benefit analysis of future biennial reviews along with other unanticipated costs.

Thank you.

CHAIRPERSON NICHOLS: Thank you very much.

Mr. Trajnowski from Ford Motor Company.

MR. TRAJNOWSKI: Good morning. My name is John Trajnowski, and I am an emissions regulatory manager with Ford Motor Company.

CHAIRPERSON NICHOLS: We can't hear you either.

If anybody can do anything about the sound system, we would appreciate it. I think our engineer is going to go try.

But apologies. If you can just speak up, we'd appreciate it.

MR. TRAJNOWSKI: Okay. I'll get a little closer.

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

First, I'd like to point out that Ford is not opposed to many of the changes proposed by staff in the rule-making package. But we do oppose the requirement for manufacturers to conduct our own in-use OBD enforcement testing at least as it is currently proposed. And we fully support the EMA comments on this requirement.

But let me be clear. We fully expect our engines to comply with OBD requirements if tested for enforcement. That's not our concern with this testing. Our concern beyond the authority issue is with the cost of this program, which we have estimated to be unreasonably excessive. The cost of this program must be reduced significantly for Ford to consider supporting it.

Now, both manufacturers and ARB staff have worked very hard to try and negotiate a reasonable compromise. Although I believe that significant progress was made on both sides, as of today we were unable to reach an agreement. I believe that this is partly because we were a bit late in starting our negotiations and we simply ran out of time.

If additional time was provided to continue the negotiations, I believe there's a chance we could reach an

agreement. As a result, Ford requests that the Board not adopt the proposed Section C of 1971.5 today, which is the -- that's the section for the manufacturer-run testing; but instead direct staff to continue the negotiations with manufacturers for at least up to an additional 60 days, so that we can try and reach an agreement on this important issue.

So that concludes my statement. And I'll be happy to answer any questions.

CHAIRPERSON NICHOLS: Okay. Thank you.

We have two more witnesses - Tim Carmichael, followed by Chung Liu.

MR. CARMICHAEL: Good morning, Chairman Nichols, members of the Board. Tim Carmichael with the Coalition for Clean Air. And today I have the privilege of also representing the American Lung Association of California.

We support the staff's proposal. OBD is where we need to go - light duty, heavy duty, diesel, hybrid. It's important -- for the future of air quality in the state, it's important for this agency's ability to gather data and enforce its regulations.

On the point that seems to be the most contentious for the industry, we believe strongly that in-use testing should happen. There's plenty of evidence over time that there's a difference between engines tested

on the bench and engines tested in use or after they've been used. And just considering the options that ARB has, if you agree that that testing needs to be done, it seems to us that having the manufacturers do it is the most efficient way to do it.

An alternative of course would be for the Air Resources Board to charge fees on every new engine sold in the state, including enough money to administer a testing program. And it just seems to me that that would not be the most efficient way for ARB to proceed. So we encourage you to support the staff proposal as drafted.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

MR. LIU: Good morning. My name's Chung Liu. I'm the Deputy Executive Officer for the South Coast AQMD. And the district sent a letter in supporting of the staff recommended modification, also the enforcement regulations. And I want to just very quickly go over just on the point we want to emphasize.

This is the last category of the mobile source that doesn't have an adequate OBD regulation and there's no smog check program for this heavy duty on a routine basis. And this is a significant category. And the team actually pointed out good points that the certification pass results and the in-use results generally could have

major differences. In order to assure the NOx emission reduction of the PM, the ROG reduction can actually be achieved, you need this program to really make sure the NOx reduction will be there. Our staff have reviewed the proposals and the procedures and believe this is quite a reasonable approach to do it.

And Tim's also pointed out, I cannot believe that the engine manufacturing company would like somebody else to do the test since they have the capability and they know how to do it. And I think that you should really move on with this program.

So with that, I just want to conclude saying that South Coast really strongly support the staff recommendations.

CHAIRPERSON NICHOLS: Well, thanks for coming and for expressing your support.

That is the final witness that signed up to testify. So I think we should go back to the staff and just offer you an opportunity to conclude briefly and then the Board members can ask questions.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I just want to add one point on, you know, the discussions that have gone over the last week to try to find a compromise to present to the Board were very cordial. I think we clearly -- we could put ourselves in EMA shoes and

understand their viewpoints and their members' viewpoints. So I think they understood what staff's viewpoints are. I don't think it comes down to anything technical or -- it comes down to a philosophical or policy difference in view, that we think that they should have to do testing of their own products to figure out whether or not they are performing properly in use and that they should bear the costs for that. And they believe that we don't have the authority to ask for that; and given that, they don't feel like they should do testing, or if they do do the testing, which they agreed they would do, they don't want the results to be used to hang themselves, so to speak. So that means then we would have to go out and do the duplicate testing once we got an inkling that there was a problem. And we just don't think that's a very efficient way and our lawyers do not agree with them on the legal authority issue.

So we just, you know, came to a friendly disagreement in the end. And I think that's, you know, why it's been left with you. We just couldn't meld our beliefs of what this program should do. All the rest of the extremely technical program as you've known before, and I think we've got most of that worked out, except for I guess the speed sensor issue, which actually I don't even know what that one is, so it's a bit of a surprise.

But our technical staff can address that if you'd like.

CHAIRPERSON NICHOLS: Okay. Thank you. I will ask for some further clarification on this speed sensor issue, and then also ask about whether you think any further time would result in an agreement or could result in an agreement.

ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

On the vehicle speed issue. The only reason it's complicated is because most of what we talk about is the engine on the heavy-duty engine vehicle, the speed signal comes from the transmission. And so it was a crossing over two different suppliers in the heavy-duty vehicle and wanting to use that information for the diagnostic system. And it didn't fit completely well in our existing regulation. There were some warranty implications if it failed. And then engine diagnostics no longer work. But we've talked internally to our warranty folks since the last discussions with EMA. And we actually believe we can accept the EMA's proposal on this issue. We think that what they're proposing is protective of the environment and we also believe -- you know, it will -- if the sensor fails, it will be detected. A warning light will be indicated. The transmission manufacturers apparently have a warranty long enough to cover it for the warranty period that emission warranty would apply. And that I think

it -- there's some little nuances and we'll have to address that with some 15-day language changes to try to make the --

CHAIRPERSON NICHOLS: But that's good news that there is a way to resolve this. I appreciate that.

BOARD MEMBER RIORDAN: Madam Chairman?

CHAIRPERSON NICHOLS: Mrs. Riordan.

BOARD MEMBER RIORDAN: First of all, let me just say that years ago I had the pleasure of touring the Cummins plant with some of my Board members back in the nineties. And I was very impressed with the operation. And I have to believe that Navistar and Ford have similar operations, whereby they develop their engines and really have incredible capabilities - big investments, there's no question - but incredible capabilities as they develop the new engines for the future.

Having said that, it would seem to me, given those capabilities that I believe are there, that there would be some sort of natural curiosity on the part of the engine manufacturers to know indeed if their engines and the surrounding monitors were working correctly. And so I am not, as I say, I think compelled to think that this is burdensome. I would think it's just very good business. And the fact that you're doing it would be of a comfort level that indeed these tests were done correctly and

accurately.

So while there may be some things that need to be worked out if indeed this Board feels that given a few extra weeks might help work that out, I have to believe that the testing should and could be done by these companies. And the legal argument may be made, and that's not for me to make or not, in terms of whether or not we have the authority. But I would just think and know that you are the best to run these tests. I feel that very strongly.

So, Madam Chairman, I wanted to make my position very clear, having been there, having seen what I consider to be a first-class operation there at Cummins, and I'm sure there are at the other facilities, and I would support the staff recommendation.

CHAIRPERSON NICHOLS: Thank you very much for that.

Ms. Berg.

BOARD MEMBER BERG: I would like to follow up on your question, which is of staff. Do you feel that additional time with the engine manufacturers would allow some sort of agreement that both parties could sign off on?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No, I don't. I think we, you know, reached a mutual

understanding that we disagree on whose responsibility it is, and I don't know any way of resolving that. I think that's really -- falls on the Board now to resolve.

BOARD MEMBER BERG: In the testimony -- in their written testimony, they do have a chart that shows their estimation of cost, which no surprise is about four times what we're estimating. They also estimate that that's the worst case for 30 engine tests. And my understanding on this program was there would be one engine test per year. So I'm a little confused as to, are we talking about one engine test, and we're estimating that to be around $2 million?

ADVANCED ENGINEERING SECTION MANAGER McCARTHY: Our estimate is about $160,000 to test one engine. I saw that chart that you're referring to. They missed some of our costs. I'm not sure which costs they missed. But our numbers came out to about $160,000 to test one engine.

There's about nine manufacturers in the heavy-duty market. Seven of them would be testing one engine per year.

BOARD MEMBER BERG: And the other two?

ADVANCED ENGINEERING SECTION MANAGER McCARTHY: The other two are bigger. One would probably be testing two a year or three a year. And the largest,

Cummins, would be testing three a year.

And then they each test one engine from -- even the biggest manufacturer would test three engines. If the first engine they test fails, then it triggers two more engines or four more engines, up to a total of ten. So to get to 30 engines, it would only be Cummins, the largest manufacturer. And it would have to assume every engine they test fails. And so they get to a maximum of 30 -- 10 engines for each of the three families. So in that case, I guess they spent some money on testing, but they also have -- three of their 20 products are noncompliant and we're probably going to pursue recall and they're going to be spending even more money at that point.

BOARD MEMBER BERG: Yeah, if it failed --

ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

We estimated in the -- in the staff's numbers, we estimated about a ten percent failure rate. So for -- most manufacturers would be testing one engine a year. About one engine every ten years they'd test they would fail, and that would trigger additional testing. We figured that was a reasonable noncompliant rate that we could estimate. Certainly, if a higher percentage of them are failing, that will trigger more engines early on.

BOARD MEMBER BERG: Now, that ten percent, is that consistent with our other testings that run along

these lines?

ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

You know, around -- can you pull back up slide number eight.

In our light-duty program, not the OBD program, but the light-duty tailpipe program, we started testing back in 1984 for compliance testing. We tested very few families in 1984 and they all failed. But you can see with time, after ten years of sustained compliance testing, the failure rates dropped below ten percent and they stayed below that ever since then.

I actually believe the heavy-duty OBD manufacturers will -- that the systems will do better than starting out at a hundred percent failure rate. I don't expect anybody to have anywhere near what they did back then in the eighties for tailpipe stuff. But --

CHAIRPERSON NICHOLS: It's really about durability, isn't it? It's about building endurability into the emissions-related components?

ADVANCED ENGINEERING SECTION MANAGER McCARTHY:

That certainly is a big part of it, about knowing that what you're producing is going to work in use, yes.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I would point out that there's really two different issues here. One is we think OBD provides a very strong incentive,

since it identifies failures, for them to design more durable parts. But the other piece of this is that our experience with light-duty vehicles is that OBD didn't always work.

And, you know, we need to have a very high degree of it functioning if we're going to use it for a compliance tool or for like smog check, which we're doing on the cars right now. And when it didn't work in use, we ended up getting into lawsuits and trials and, you know, multi-tens of -- hundreds of millions of dollars of recalls and things like that. And so we tried to learn from what happened on cars and said that you really do have to look and make sure these things function, that they find the faults in use.

Some of these -- in the light-duty area we had a problem with an evaporative system. It passed just fine in certification. In use it couldn't find a single failure. So, you know, that's what we want to try to avoid.

And the remedy on that for that manufacturer if we'd gotten to that point was hundreds of millions of dollars.

So we want to make sure they work right and that -- in the early years and, you know, get that information back, as Ms. Riordan said, so that if there

are problems, they can be fixed. And that's why we're pushing this, you know, strongly and believe that this has to happen to make the system work and provide the assurances for in-use emissions.

BOARD MEMBER BERG: And did I hear correctly that for a period of time that we're going to have some understanding that there will be a learning curve, so it won't be a matter of recalling, but a matter of correcting, and so that the next generation of these sensors and things that they're -- the components that they are in fact using are better, that we're going to have a block of time for this self-improvement?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We have two things. One is a block of time, meaning the ultimate remedies, which could be a mandatory recall, do not occur in the first five or six years. They're only out to the past.

But the other thing we also have is they don't occur -- we put a multiplier factor. So in other words, if the OBD sensor is supposed to detect at some multiple of the standard -- of the exhaust standard. And those multiples are typically three or something like that right now. So already it won't go off until you're three times the standard. We put another multiplier on top of that, like 2X or 3X - three times that - before the remedies

occur. So we've given them a big cushion in the early years to basically say we understand some things might go wrong. And if they do, and they don't go wrong completely badly, you know, disastrously, that we wouldn't end up with recalls, there'd be some other kind of remedy done and hopefully a learning curve from that.

So we think we've got it in a couple of dimensions here to recognize that it's a new complicated technology for them and some mistakes will be made.

CHAIRPERSON NICHOLS: Additional comments or questions from Board members?

BOARD MEMBER TELLES: Question -- or comment.

I think that this is a very important thing to do. And what I hear from industry is that it's expensive, as we always do hear. And what I hear from staff is that they're the ones that's most qualified to do this, but then they're not the ones who are most qualified to tell you how much it costs to do, which I kind of have a difficult problem with, because I think they're the ones who would probably also tell you how much it really costs.

So what I would -- what I would suggest that we do with this is that if it costs as much -- way past what staff is estimating, and some astronomical cost, that this whole issue be revisited as far as the type of in-use testing that is being done.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: To partly address that, with the OBD regulation on light duty and now on heavy duty, we've agreed to come back every several years with the Board with updates. This was an update, for example. And so we could address that when we get I guess roughly to the -- first engines don't have to be tested until 2013. So 2010 engines tested when they're three years old in the field. So at that point, if the difficulty in recruiting engines, et cetera, is way out of line, we would be able to tell you that.

I do want to point out though that the difference in the estimates has more to do with what do we think will happen and what is the worst-case scenario. Those 30 engines for Cummins is not going to happen. And yet those estimates are apparently made on, you know, what happens if we have to test all these engines and every one of them fails and so we have to do ten per engine family instead of one. We think it's going to be, you know, mostly one or 1.1 with a ten percent failure rate. So that I think has a lot to do with the difference in the cost.

CHAIRPERSON NICHOLS: Well, from a business perspective, it makes sense to estimate the worst case for their own planning. And I don't think there's anything inappropriate about that. But I agree that it's sort of our business to try to make a judgment as to what we think

is going to happen in the real world. And I think the staff has a pretty good, though not perfect, track record on that. And, again, if we have built-in systems to monitor, I think that's probably the best protection that we have if you're going to be reporting back.

All right. One more.

Yes.

BOARD MEMBER D'ADAMO: I'd like to make a motion.

CHAIRPERSON NICHOLS: Oh, okay. Good. You're welcome to do so.

BOARD MEMBER D'ADAMO: All right. I'd make a motion that we adopt Resolution 09-37.

CHAIRPERSON NICHOLS: Do we have a second?

BOARD MEMBER BALMES: Second.

BOARD MEMBER RIORDAN: Second.

CHAIRPERSON NICHOLS: All right. All in favor please say aye?

Oh, no. We have ex partes.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: If you could be clear that the staff -- on the speed sensor thing, the staff said they could accept the EMA proposal. I don't think that's a new rule.

CHAIRPERSON NICHOLS: Yes. We will accept it with the modification that the staff is proposing. Yes, I trust that would be part of the resolution.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That would be a 15-day --

CHAIRPERSON NICHOLS: Yes, yes. Thank you for that.

And also we're really not supposed to vote without disclosing any ex parte communications. And I forgot, because I didn't have any. So if anybody does, you can disclose them at this time.

Hearing none, then we can call for the vote.

All in favor please say aye.

(Ayes.)

CHAIRPERSON NICHOLS: Opposed?

Very good. Thank you very much.

I think we will take our lunch break before we start a new item then.

And the Board is going to be moving into an executive session to hear a report from our counsel on pending litigation. If any action is taken, we will report that action when we reconvene after lunch.

And we'll be back, I hope, at about 1:20.

Thanks, everybody.

(Thereupon a lunch break was taken.)

AFTERNOON SESSION

CHAIRPERSON NICHOLS: We're now back in session.

Ellen Peter, our General Counsel, will summarize the closed session.

CHIEF COUNSEL PETER: We've just had a conversation about pending litigation and took no action.

CHAIRPERSON NICHOLS: Thank you.

I can vouch for that. It is true.

All right. Our next item on the agenda is a continuation of a public hearing to consider adoption of aftermarket parts certification requirements for plug-in hybrid electric vehicles.

Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

In response to your direction, staff worked with the stakeholders to develop a phased approach to certify aftermarket plug-in hybrid vehicle conversion kits.

The new approach ramps up the requirements so that a converter can sell up to ten kits without emission testing and up to 100 kits with limited demonstration of emission durability.

Sales of more than 100 kits would essentially follow the current certification process used for other conversion kits, such as liquid petroleum gas and

compressed natural gas, which is what we had proposed in January.

Similarly, the warranty requirements are reduced at low sales volumes.

We think this phased approach balances the need to assure emission controls do not degrade as a result of kit use while simultaneously reducing the costs for a small business to enter into the conversion business.

Lesley Crowell of the Mobile Source Control Division will now begin the staff presentation.

Ms. Crowell.

(Thereupon an overhead presentation was Presented as follows.)

AIR RESOURCES ENGINEER CROWELL: Thank you.

Good afternoon, Chairman Nichols, members of the Board, ladies and gentlemen.

We are here today to discuss staff's modified proposal for certification procedures for plug-in conversions of hybrid electric vehicles.

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AIR RESOURCES ENGINEER CROWELL: Staff brought proposed certification procedures to the Board in January of this year, along with modifications to test procedures necessary to test plug-in hybrid electric vehicles. The emissions test procedures for plug-in hybrid electric

vehicles were approved at the January Board hearing.

Multiple conversion system manufacturers submitted comments that the certification requirements were too costly and would cripple their industry. At the January Board hearing, the Board was sympathetic to their pleas and directed staff to continue to meet with the conversion system manufacturers to determine if additional flexibility could be incorporated into the certification procedures and report back to the Board with staff's findings.

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AIR RESOURCES ENGINEER CROWELL: As the Board directed, staff continued to meet with manufacturers individually and in groups to discuss their concerns. After several meetings, staff introduced a modified proposal at a workshop in Sacramento on March 25th, 2009. This proposal was further refined and introduced to the public in a supplemental staff report, which was released May 12th, 2009.

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AIR RESOURCES ENGINEER CROWELL: Several issues were considered in the development of the certification procedures.

First, the original vehicle's design and limitations were considered along with the emissions

standards that the vehicle was originally certified to meet. Most hybrids are extremely clean and, if certified to the advanced technology partial allowance zero emission vehicle category, carry an extended warranty on the emissions system. The original equipment manufacturer, or OEM, designs and chooses sensors and parts based on the amount of use these parts will experience.

The addition of the conversion system may impact the emissions if cold starts and canister loading and purging are not addressed adequately. Adequate emission testing is a necessary component of the certification process to ensure compliance. Emission systems malfunctions are identified through the On-Board Diagnostic system. Proper integration of the conversion system into OBD is essential. The conversion may affect OEM parts and systems by increasing use, and this increased use may cause an early failure. While in most cases the OEM is responsible for parts and emission related components, a conversion company may be responsible for OEM parts if an early failure is due to the conversion.

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AIR RESOURCES ENGINEER CROWELL: The proposed procedures are similar to other aftermarket parts certification procedures, where there is the potential for

increased emissions from the conversion system.

As in the proposal presented in January, these proposed procedures apply to installations on 2000 and subsequent model year hybrid electric vehicles and thus allow conversion of vehicles still under warranty. Conversions of non-hybrid vehicles are not covered by these requirements.

Overall the certification procedures contain the following main components: Exhaust and evaporative emissions testing; durability; in-use testing; OBD compliance; and warranty.

The emissions testing will cost aftermarket manufacturers just under 10,000 per model type. This is substantially less than what is required by the OEMs, at over 40,000 per model type.

Durability is also substantially reduced as bench scale testing can be used for the conversion.

The modified proposal allows manufacturers to meet certification requirements using a tiered process, in which a limited number of converted vehicles may be sold as the manufacturer works towards full certification. The tiers are described in the following slides.

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AIR RESOURCES ENGINEER CROWELL: In Tier 1 conversion manufacturer can sell up to ten vehicles as

long as the application requirements of Tier 1 are met. The main components of this tier are an engineering analysis showing that the converted vehicle does not increase emissions.

Durability requirements of this tier are met through the test plan and initial durability data of components. This is component and in use, and typically provided by the manufacturer of those components.

As with other aftermarket procedures, warranty requirements are described for manufacturers and installers. Installers of PHEV conversion systems would be required to warrant to the vehicle owner and subsequent vehicle owners that the conversion system will not fail to meet certification procedure requirements due to incorrect installation, and that no part on the vehicle will be damaged due to incorrect installation.

These warranties and agreements shall begin on the date of the installation and be effective for three years or 50,000 miles, whichever comes first.

The requirements of Tier 1 must be met and approved by the ARB prior to the vehicle sales.

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AIR RESOURCES ENGINEER CROWELL: Tier 2 allows the sale of up to 100 conversions. The additional requirements include emissions testing using the exhaust

and evaporative emissions-related test procedures approved at the January Board hearing. The emission results from these procedures must show that the converted vehicle does not show an increase in emissions beyond the original vehicle certification standards and do not trigger OBD malfunction indicator light and diagnostic trouble codes. A plan to meet OBD system requirements is also part of the requirements in this tier.

In addition, the durability tests for the conversion system must be started, and they need to show that the conversion still appears durable for the useful life of the converted vehicle. To ensure that the PHEV converted vehicles continue to operate as presented during the certification process, the proposed procedures contain in-use testing requirements for conversion system manufacturers. The ARB may start conducting these tests during Tier 2.

Conversion system manufacturers' warranty requirements are increased to five years or 75,000 miles for all parts on the conversion systems and the system must be supported throughout the vehicle's useful life.

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AIR RESOURCES ENGINEER CROWELL: Tier 3 allows sales beyond 100 conversions. In addition to the requirements of the two previous tiers, a few additional

requirements are added. At this time, the durability test requirements are completed for the vehicle and the battery. Conversion system manufacturers need to demonstrate that the converted vehicle has a fully compliant on-board diagnostic system.

In addition, the warranty is increased to cover the remaining OEM warranty or five years, 75,000 miles, whichever is longer.

The requirements of Tier 3 are similar to the original proposal to the Board in January, with the exception of the conversion system warranty, which is reduced for conversions occurring over a year after the sale of the original vehicle.

This tiered approached is limited to the first 5,000 conversions sold industry-wide, after which time manufacturers must meet Tier 3 requirements.

Although staff believe the tiered approach being proposed for plug-in hybrid electric vehicle conversion systems provides the flexibility and support for conversion system manufacturers requested by the Board in January, we are concerned about the policy and precedence that this sets for other aftermarket alternative fuel conversion systems.

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AIR RESOURCES ENGINEER CROWELL: This slide

presents the impacts of the modified proposal.

Warranty requirements are reduced for each tier in this proposal.

The modified proposal allows sale of a limited number of converted vehicles without emissions testing. If cold starts are not adequately addressed by the conversion system manufacturer, exhaust emissions could increase up to five times. If canister issues are not addressed evaporative emissions could increase by up to 16 times the original vehicle certification values. These estimates are based on testing results of converted vehicles by a national laboratory.

Staff recognizes that the overall potential emissions impact from the limited number of vehicles in Tier 1 and 2 in our proposal is minimal at the levels proposed.

Verification of emissions is critical for identifying gross polluters. Smog check has an exemption for hybrids through 2010. As a result, these conversions may be able to continue to operate even if their emissions performance is compromised.

On-board diagnostic systems are essential to determine if hybrids are experiencing emission problems. Conversion system manufacturers are not required to meet full OBD compliance for up to 100 vehicles. ARB does have

an in-use testing program to verify certification standards. However, it will not catch all vehicle issues or problems.

There is no overall change in economic impacts from the original proposal. However, the impacts are shifted to allow sales of conversion systems to raise funds to assist with the costs of subsequent certification requirements. These impacts are most significant in Tier 1 and Tier 2. The warranty reduction is the most significant impact on the consumer.

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AIR RESOURCES ENGINEER CROWELL: Although conversion system manufacturers have welcomed staff's efforts to create flexibility in the certification procedures, they still have concerns regarding this proposal.

Manufacturers would like the thresholds for Tier 1 and 2 increased to around 100 and 200 or more, respectively, and would like the overall cap of 5,000 vehicles to increase as well.

In addition, they believe that the warranty provisions should be reduced further.

A few manufacturers have requested a mechanism for existing converted vehicles to be allowed to certify without modifications or testing.

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AIR RESOURCES ENGINEER CROWELL: Staff has revised the certification procedures to add additional flexibility to meet certification requirements without violating Vehicle Code 27156, which requires that modified vehicles not increase emissions compared to the OEM vehicle. Staff, therefore, recommends the adoption of the modified proposal as presented.

Thank you.

EXECUTIVE OFFICER GOLDSTENE: So we're happy to take any questions that the Board has.

CHAIRPERSON NICHOLS: Okay. Are there questions before we hear from the witnesses? We do have a list of eight witnesses here.

Let's go ahead and hear from them then, beginning with Ron Gremban from the California Cars Initiative, followed by Daniel Sherwood and Paul Guzyk.

MR. GREMBAN: May I ask a question before presenting?

CHAIRPERSON NICHOLS: All right.

MR. GREMBAN: The 5,000 vehicle limit, is that vehicles just in -- is this better?

CHAIRPERSON NICHOLS: It's in the base of the thing, there's an on-off?

MR. GREMBAN: Testing.

CHAIRPERSON NICHOLS: Yes, we can hear you.

MR. GREMBAN: Ah, thank you.

Does the 5,000 vehicle total limit apply only to total vehicles in Tier 1 and 2 or to total vehicles in Tier 1, 2 and 3?

SUSTAINABLE TRANSPORTATION TECHNOLOGIES BRANCH CHIEF BEVAN: It's the total vehicles in Tier 1 and 2.

Analisa Bevan.

MR. GREMBAN: Thank you.

CHAIRPERSON NICHOLS: We didn't take that off your three minutes. So go ahead.

MR. GREMBAN: Thank you.

Yes, I'm Ron Gremban, Cal Cars technical lead. And I definitely thank you for this opportunity as well as for your work in general. We really need clean air.

Hybrid conversions and eventual ICE conversions, which aren't covered today, have great greenhouse gas importance for reasons detailed in our posting.

Today I'm offering a more certain, simple, quicker, and less expensive way of assuring continued criteria emissions compliance of hybrid conversions than the currently proposed dynamometer testing regimes.

What has been determined from testing of existing conversions at our Argon Labs and elsewhere is that there are just two ways in which conversions have been found to

increase criteria emissions by reducing the effectiveness of the hard work the hybrid manufacturers have done.

Number one is allowing engine warm-up under load, either because it wasn't started upon vehicle activation or because the cat was allowed to cool below operating temperature during EV operation.

Number two is purging the evaporative emissions canister too seldom or incompletely so that it may become saturated.

Additional concerns are that unless the OBD system is kept intact and extended as necessary, the system can deteriorate over time without alerting the driver that repairs are required; and that batteries do wear out and fail; and because few PHEVs, all of them conversions, have been on the road long enough to develop field experience, reliability and longevity are unknowns despite best effort laboratory testing.

Conversions can help provide this field experience, but there must be a mechanism to avoid excess criteria emissions due to battery deterioration or failure. They can also help with that experience for more products and chemistries than otherwise.

All four of these issues have specific known solutions that can and, in fact, must be verified separate from the dynamometer testing. Our proposal is to replace

dynamometer testing with verification of accepted solutions on paper and via logging of normal hybrid-like operation for Tier 1 and 2 and via additional physical verification for Tier 3.

A concurrent requirement is to instrument a sample of vehicles with a canned logging and transmission system, such as offered by V2Green. The data are to be periodically and automatically transmitted to a central database available to Board staff to ensure continued compliance.

A final important point concerns both conversion battery warranties and durability testing, both of which are potentially huge problems for small conversion companies and could cause the delay of conversions by many years. Our suggestions are as follows:

CHAIRPERSON NICHOLS: I'm sorry. Your time has expired. I didn't hear the buzzer go off.

MR. GREMBAN: I thought that was hopefully 15 seconds.

(Laughter.)

CHAIRPERSON NICHOLS: No, sorry. Thank you.

Okay. Daniel Sherwood, then Paul Guzyk.

We do have your written comments.

Please be ready, since I've told you in advance, so we don't lose time, because we have some Board members

on tight schedules. Thanks.

MR. SHERWOOD: Hi. My name's Daniel. I'm the President of 3 Prong Power. We're an aftermarket conversion company. And we've met with CARB staff on several occasions since the last Board meeting. And we found them actually to be friendly and helpful, if not always lenient.

We do appreciate their willingness to propose a tiered certification process in an attempt to give our industry the flexibility we need to grow and develop and ultimately produce the cleanest vehicles on the road. We recognize how this flexibility is very exceptional and not something that's generally offered to aftermarket industries.

By setting the industry maximum of 5,000 vehicles -- they can ensure that the worst-case scenario they calculate, I think was around 20 tons of NOx, by setting that maximum for the industry. We believe this is a worst case that's highly unlikely. It assumes that every -- that we, first of all, hit that cap before the industry becomes certified. But also, more importantly, it assumes that every single person in the industry gets their engineer analysis completely wrong, which we think is likely given that we already have some preliminary results from Argon to work with. And we think if the

staff's willing to work with us, we can do an engineer analysis that would be accurate. You know, the source of these emissions are well understood.

We feel that the risk of this short-term, possibly nonexistent, increase in NOx is well worth the upside of modifying vehicles so that we can move California towards plug-in vehicles.

Our main concern with the proposal is that by far the longest and the most expensive part of the compliance requirements is the lab testing. And the staff report says that they want to spread out the cost of compliance over the hundred vehicles, but then they set the most expensive part at ten vehicles in Tier 2, which, in our opinion, isn't much of a spread out.

You know, we would like to be able to do a hundred vehicles before we do lab testing. The thing being that we've already done a couple dozen vehicles. Everyone in the California industry has done more than ten. No one's done less than ten.

If we could do a hundred, we could do engineering analysis, retrofit our existing fleet of vehicles in the field to meet the engineering analysis compliance requirements. Then we'd actually be cleaning the air in California and not leaving those people to continue to pollute. We could also continue to operate our business,

working on the grants that we're working on, and some private investments come from money to do a certification. And then, boom, we'd have a certified industry in California.

On the other hand, with Tier 1 at ten cars, we have no hope of being legitimate. We have more than ten cars out there. We can't even keep our doors open long enough to go through the process of completing the laboratory testing.

Put this in a Catch 22 situation. I'll give you an example. We've been approached by an agency to do thirty cars for them, which we feel that our investors would give -- would be the grounds for their invest -- to give us the money to do the certification. But of course the agency wants it to be CARB certified. So if we were in Tier 1, we could legitimately get the PO, weight it to our investors, do the certification. We'd be rolling, we'd be in business, we'd have plug-in clean vehicles in California. But at ten vehicles we know we're just toast.

So that's all I have to say.

CHAIRPERSON NICHOLS: That's it. Thank you.

Paul Guzyk, Ben Jones.

MR. GUZYK: Ladies and gentlemen of the Board and the ARB staff, thanks for the opportunity to speak, as we've spoken here before.

Rather than speak about the technical details, like some of my colleagues are, I'm going to talk about the big picture and why start-ups like ourselves are here today.

Think about televisions, cell phones, bicycles - what do these consumer products have to do with cars? Well, these industries no longer manufacture in the U.S. Okay, there's perhaps a few high-end bicycles that are still made in the U.S. But those other industries are gone. When I was last in the room about four months ago, in late January, the big three auto makers were having tough times. Now, Chrysler's bankrupt, GM will most likely declare bankruptcy in the coming days. Many auto plants have closed. The number of dealers has been hugely downsized.

Now, as a technologist, I was excited to see press about the GM Volt. Now there's rumors flowing around that the Volt project will get canned. And will U.S. auto industry survive? Will the Volt make it to showrooms? Nobody knows for sure.

These are transformative times for the auto industry, the environment, and the next generation technologies.

In the current issue of Wired magazine, the June issue, the writer talks, "The only way for the Big 3 to

survive is to harness the innovation of the myriad start-ups working on automotive technology." In other words, we all have to pay less attention to big auto and embrace what we call new auto.

Now, 3 Prong Power believes electrification of the automobile is the future, first with PHEVs and then ultimately a hundred percent EVs. Electrification of vehicles is critical to our generation's transportation and environmental future. More importantly, it's important to future generations.

A premature regulation and high costs will adversely affect these start-ups, like ourselves, forcing many new auto entrepreneurs to just throw in the towel and apply their talents elsewhere. There has to be a way for new auto and regulators to work together in the short and medium term without incurring massive costs and market delays. Otherwise, 10 to 20 years from now there will be no domestic auto industry and the new cars we drive will all be made in China.

Now, some of you might smirk at those comments. But in the seventies few people thought Toyota would ever be bigger than General Motors and that Chrysler and GM would file for bankruptcy.

So the decision today is not just about PF test procedures. It's about the future of new auto.

In closing, we'd like the tiered approach. But Tier 1 should be raised to 100 vehicles for companies like us to survive, and/or we would like financial assistance to get the testing done that needs to be done.

Thank you.

CHAIRPERSON NICHOLS: Okay. Ben Jones and then Charles Protheroe.

MR. JONES: Good afternoon, Board, staff. Ben Jones, Plug-In Supply. Thank you for the opportunity to speak again.

We're a small California-based start-up manufacturer that builds systems to create vehicles that reduce oil dependence, air pollution, and greenhouse gas emissions. Our first product was for the Toyota Prius, with hopefully others to follow.

In January, we explained how the original proposal was cost prohibitive for small companies. The proposed tiered system that we are speaking about today still fails to address the extremely high compliance costs. Despite some changes from the original proposal, these rules would still impose a significant financial burden that threatens to put us, and other small companies like us, out of business, thereby further delaying the introduction of plug-in hybrid electric vehicles to California's roads and squashing a growing sector of the

green economy that is badly needed for California's future.

We estimate that our cost of complying with the new proposed regulations will be $1.25 million in the first year. This number is most likely conservative, assumes a relatively brisk certification process, and is only for a single product for a single vehicle. A detailed cost breakdown was submitted.

At $1.25 million, we could not afford to comply, and few companies could.

The proposed changes do not sufficiently address the issues that the Board had directed staff to address. Plug-in hybrid conversions represent such a small fraction of California's automobiles and, by extension, the state's pollution, that such heavy-handed certification requirements are unwarranted.

There have been many good ideas proposed that would keep the industry alive. I would like to highlight several changes to the proposed regulations that we recommend CARB make.

First, increase the number of systems for Tier 1 to at least a thousand vehicles. The high cost associated with the testing requirements of Tier 2 cannot be offset with the sale of only ten units.

Second, reduce the battery warranty requirements.

No battery manufacturers offer a warranty on its batteries for the duration that these rules require. Requiring a warranty period greater than that offered by battery manufacturers will force companies to incorporate the cost of one or more battery replacements into the initial cost of the system, putting the conversion out of reach of many of the early adopters who are key to progressing this technology.

And, third, revisit the battery durability requirements. Durability testing a battery requires years to complete. This will delay sales of plug-in conversions for several years.

Thank you for considering my comments.

CHAIRPERSON NICHOLS: Thank you.

BOARD MEMBER SPERLING: Could I -- just a couple points.

Yes.

BOARD MEMBER SPERLING: How many vehicles have you converted?

MR. JONES: In California? It's, I'd say, roughly in the 40 range.

BOARD MEMBER SPERLING: Around 40. In that 1.25 million, how many cars was that --

MR. JONES: This is -- the 1.25, we have based it on a projection of 500 systems in the first year, which is

about 20 per month, give or take.

BOARD MEMBER SPERLING: Thank you.

CHAIRPERSON NICHOLS: Okay. Go ahead.

MR. CHARLES PROTHEROE: All right. My name is Chuck Protheroe and I'm speaking on behalf of the Plug-In Hybrid Industry Association. We're a group of small businesses and nonprofits that are working on the aftermarket PHEV conversions.

To summarize, these regulations will financially bar most, if not all, of our member manufacturers from selling in California. These are the same businesses that have been pioneering plug-in hybrids and giving the public the first taste of clean electric driving they crave.

The good news is there are alternatives. You don't need to choose between air quality and innovation. We can have both. Our association, along with others, have submitted many workable alternatives that would allow these leading plug-in conversion manufacturers to stay in business, while not negatively affecting air quality.

Although proposed alternatives have been largely ignored by staff in the past, we hope the Board will seriously consider them as possible solutions.

Briefly, the three alternatives that our association would like to offer are as follows:

Leave regulations as is but raise tier numbers

high enough for low-volume manufacturers to finance certification through sales; leave regulations as is but give a two-year window for low-volume manufacturers to come into compliance; or leave regulations mostly as is and give incentive for plug-in hybrid conversions by financing successful testing.

There are more details provided on these proposals in the online submission by the Plug-In Hybrid Industry Association. These are only three of many options available to the Board that could save plug-in hybrid conversion manufacturers along with the California air and prompt mass PHEV adoption.

Thank you for giving me this chance to speak, and I hope you will vote in favor of both the PHEV industry and the air quality.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Rob Protheroe.

MR. ROB PROTHEROE: Madam Chairman, Board, staff, my name is Rob Protheroe and I'm the president of Plug-In Supply. We're a California-based manufacturer of plug-in hybrid electric vehicle conversion systems. And I'm here today to ask you to delay adoption of these proposed regulations for at least a year.

There are many reasons to justify asking for the

delay, and I just want to speak briefly on two.

The first is that these regulations do not accommodate products with advanced features. They're based on the first generation of plug-in hybrid conversions. And, for example, if you take our product, we have many features. One of those features is a button. And when you push that button, it turns the car into a pure electric vehicle. So you can pretty much run around all day as an electric car not burning any fuel. But according to these proposed regulations, that conversion is illegal, it's tampering, and it's also considered a gross polluter.

How can that be? It's because if you were to drive the car in that mode of operation where the gas engine did not come on for a period of three days, then the evaporative canister would vent. And these regulations are blaming us for that venting. So the reasoning is if there were millions of these cars on the road, we'd have a major problem.

However, every car made has the same evaporative canister. And when it's parked, after three days it vents. So when you ride your bike to work, your canister is venting. If you're taking a bus, it's venting. If you're away on holidays, it's venting. But because I'm pulling that same gas engine around in a car that's now

just being driven as an electric car, I'm being blamed for that venting even though millions of other vehicles in California are also venting at the same time.

Following that logic, every car salesman should be going out turning on the engine on every car in every sales lot every three days.

So that is just one example of a feature that these regulations fail to address.

The other thing I'd like to talk on is, as my colleague just mentioned, is the cost. At $1.25 million, that is a huge burden to put on a small business. As we all know, the banks aren't lending. It's just an additional hardship that I think is going to be hard to accommodate.

Further along those lines, the staff issued a technical document, Appendix K, for the economic impacts related to the proposed exhaust and evaporative test emissions. And that document clearly states that these regulations will increase the cost of testing a plug-in hybrid by 50 percent.

CHAIRPERSON NICHOLS: Time's up.

MR. ROB PROTHEROE: Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

BOARD MEMBER D'ADAMO: Madam Chair?

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER D'ADAMO: I have a question of staff.

CHAIRPERSON NICHOLS: Yes, go ahead.

This is for staff. But you can --

BOARD MEMBER D'ADAMO: I'd like to get a better handle on this evaporative canister issue. The points made by the witness just caused concern - and maybe I'm not understanding the issue - with regard to plug-ins versus IC engine vehicles.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right. And unfortunately I think the example given was an apple versus orange comparison.

In our normal cars on the road today, they've been tested under what's called a three-day diurnal. So you put the car in a shed to measure its emissions, its evaporative emissions. And the temperature starts out at 68 degrees in the morning and goes to 105 in the afternoon and then cools down overnight, and you do this three times. And each time you do that, some of the fuel evaporates and becomes hydrocarbons and it gets sucked up into this canister. And the canister has to -- it's like a sponge. It has to have the capacity to handle three days' worth of these emissions.

Now, every time you start your engine up, you suck the hydrocarbons out of the sponge and put it into

the engine where it's burned. So for a normal car, we drive it once a day, let's say. And every time we park it, it gets some evaporative emissions. And every time we drive it, those get sucked back out of the canister until the canister's empty. So that's what happens in the normal drive.

Now, if you take a plug hybrid vehicle, for example, and you drive less than its all-electric range, then that engine will never come on -- the gasoline engine will never come on and it will not reduce the emissions. So after three days of going through these hot-cold, hot-cold, hot-cold cycles, the canister will be full and the next day all of the emissions that come off the car will go into the atmosphere because there's no more room in the canister or the sponge for them to be absorbed. And so that's what happens if you don't drive the car.

Now, his example was lots of cars sit on lots. Well, that's, you know, a few percent of the cars are on used car lots, for example. And a fraction of the cars sit at an airport for more than three days. And that's true, and those cars after three or four days start emitting a lot of emissions.

But his example was that somehow this is all of the cars. And that's only a tiny fraction of the cars that are not driven every day.

So most cars it works just perfectly. They have minimal evaporative emissions. And the concern here is that the plug hybrid electric vehicles won't if there isn't some kind of a system on board to at least start the engine up once in awhile.

BOARD MEMBER D'ADAMO: Are there systems available where the engine would be started every three days? Is that something that is contemplated by the industry?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That's up to them, I guess, as to how to assure that the -- you know, how to assure that the car has a chance to, what's called, purge its canister.

BOARD MEMBER D'ADAMO: Does that produce any unintended consequences of, you know, just starting the vehicle --

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, it would be a cold start, which would be comparable to what your normal car would do once a day or twice a day as well.

It's not good to have to start it up. But unfortunately with the evaporative emissions, when the sponge is saturated, the canister is full, the emissions become very, very high and, you know, can get up to 30 grams per test, which on a 30-mile typical day of

traveling means there's a gram per mile of evaporative emissions equivalent. And the car's designed to emit 1/100th of a gram per mile of hydrocarbons from the tailpipe. It shows you how big of a source this can be relative to the tailpipe emissions for a very clean car.

So that's why there's the concern. It's not one of these things that's gradual. When it fills up, whammo, you get -- the next diurnal cycle will be very high emissions. So that's the concern that's being described.

BOARD MEMBER BALMES: I'm not quite sure it's as much of an apples and orange comparison as you said. Because I just left my car in a lot for over three days. I suspect that there are more cars on airport lots for three days than we're envisioning, you know, converted plug-in hybrids.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, yeah, certainly that's true. I mean, the question here is the amount of vehicles that we're talking about, and do we, you know, turn a cheek for a thousand vehicles or 5,000 vehicles and have some cap on it or not? I think that's, you know, part of the overall discussion. But on a vehicle-to-vehicle basis, the comparison isn't --

MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: And all vehicles are required to have the three-day capability when they're manufactured. So the real -- the orange in

the situation is whether somebody is allowed to turn that off and not use it.

BOARD MEMBER YEAGER: If I could ask some follow-up questions as well.

So with the regular gas engine, what happens after three days, then the evaporative emissions go up; is that correct? And is that what you're comparing now to the hybrids when you say that their evaporative emissions can be 16 percent higher?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right. For a car that sits around for a week at the airport in a hot summer month, it will have hydrocarbon emissions from evaporation by sometime after the third day.

BOARD MEMBER YEAGER: Right. So I guess what I'm still trying to understand, so if -- you have the problem after three days regardless of what vehicle. But it seems like you're saying that with the plug-in hybrids, you're almost going to penalize them for something that any gas engine is going to do after three days.

And how do you know that -- with a plug-in hybrid, that they may go a very long time without having the gas engine kick in because of other issues. And likewise, you know, if people are sort of using this for their daily commute, they might well be using the gasoline engine in that three-day period so the emissions wouldn't

be any higher.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, you give an example of where it is comparable, where the same thing happens. But most cars are not parked for three days. If you just look -- you know, look at the street. Everybody's driving their car very frequently. And so the vast majority of the cars are driven every day or every other day. And none of those cars that are driven in that mode will get the evaporative emission effect. It will all be controlled.

BOARD MEMBER YEAGER: But at least in theory, a plug-in hybrid could also use its gas engine on the same regular basis and so the emissions wouldn't be any higher. It just seems you've given us worst case by saying 16 percent higher when actually it may not be.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No, that's true. And to the extent that you drive the plug hybrid vehicle 50 miles a day, then the engine will come on. But it all depends on the design. And this regulation, you know, is not designed to figure every design.

CHAIRPERSON NICHOLS: This is an interesting conversation actually. It's illuminating in a lot of different ways. We do still have additional witnesses to hear from that may help frame the discussion also.

Thanks.

So our next witness is John White, followed by Les Goldman.

MR. WHITE: Thank you, Madam Chair and Board members. My name's John White and I'm here today representing A123 Systems, which is a company that manufactures battery conversion -- excuse me -- plug-in hybrid retrofit kits for Priuses. We are likely to be in the Tier 3 arrangement, given the size. We have several hundred orders currently placed. And thousands potentially can be launched by the stimulus.

We've been working closely with the staff and are here today in general support of the regulations. We think it's time to move forward to put these in place.

We also feel that having done a significant amount of testing of emissions on through the process that was allowing for us to have an anti-tampering exemption, we have some experience to offer about what the real world likely emissions are with these vehicles. And so we're comfortable proceeding forward.

But the one issue we wanted to raise is that because this conversion, unlike some of the others, does not touch on the core system of the Prius, but simply supplements an additional battery, we think a slightly different treatment on the warranty issue deserves and

will be more practically beneficial, that provides the functional equivalent of the warranty provisions that the staff has proposed.

Basically, what we had proposed is that -- in discussions with the staff, they were concerned about if there is a dispute between us and Toyota about whether or not there is coverage of the Toyota warranty, that we would agree to make explicit in our own warranty that we will stand between the customer and Toyota and not send them off on their own. That means that we will back -- that anything that affects the Toyota warranty, that we're responsible for, we will take care of and we won't make the customer make the demonstration.

We, therefore, think allowing a five-year warranty rather than the ten-year warranty for the supplemental battery is a good middle ground, because we're not affecting the operation of the core vehicle equipment on the Prius. So we have made a specific proposal. We have 30 copies presented. My colleague, Mr. Goldman can provide further detail. But with this small change, we think we could really launch a very, very significant opportunity while providing the functional equivalent of the coverage that was proposed by the staff.

But at this stage, being a new company with some significant effort in this area, the burden of the

ten-year stand-alone we don't think serves enough of a purpose to justify the costs. We think the way we've proposed to handle it provides the same benefit to the consumer as was originally proposed, and would urge your consideration of that slight modification.

CHAIRPERSON NICHOLS: Thank you, Mr. White. Your time's up.

MR. WHITE: Thank you.

CHAIRPERSON NICHOLS: Mr. Goldman.

MR. GOLDMAN: Thank you.

This is not an easy issue, and the staff has done an amazing job from our perspective - and we've worked with them a lot - in terms of trying to strike a balance between safety and emissions and entrepreneurial creativity.

A123's been at this for a good while. I personally have been driving one of these cars for almost three years now. And it's really an unbelievable experience to know that the technology is here today where you can plug in every night, feel patriotic, and put gas in the tank every eight, nine weeks. I average in that period of time in Washington D.C. about 100 to 110 miles per gallon. And if more people could get to experience that, that's what this is about.

And our perspective on this modification to the

supplemental battery is really designed to try and strike the difference between, for at least A123, who has spent millions and millions on the testing and complied, but is not in the same ballpark as a BMW or a Toyota -- where is that spot where we can see thousands or tens of thousands of these as a kick-start to the electric transportation revolution that you all have stood in the forefront, that the President is backing?

And if you just look at what your objectives are and what we're talking about in the proposal that we're making, we would stand behind -- in any converter that was doing what we would be doing, would stand behind the 15-year emission warranty that you require, the ten-year original equipment battery warranty that you would require, and would fully replace or fix the conversion module that was supplement, which can be taken out of the car or shut off at any time, leaving you with the exact Prius, because it was designed to just leave the Prius as it is. It only adds a lot more electricity. It doesn't change it.

So you'd have a five-year program out of the box. We did the first 500 on three years. We're going to five now, as we get more experience. There's thousands of orders in the Clean Cities Program. There's at least a thousand in California alone. If you could make that

adjustment, then a company like A123, that's in the middle of -- not the biggest auto companies, but having done a whole lot more than some of the other folks you've heard from, we can really make a difference with thousands and thousands of these. And we might not be able to if we have to put on our books today a backstop for a ten-year warranty. We have enough experience with the five. We feel very comfortable. We expect to do even better.

But we urge you to consider this change as something which accomplishes all of your goals, gives us the advantage of a new cutting edge program, at the same time protecting all of the regulatory prerogatives that you all have wanted to put in place in terms of the 15 years and the 10 years. And we urge you to give serious consideration to that, so that the programs can go forward on a much quicker and faster basis.

Thanks a lot.

CHAIRPERSON NICHOLS: I just want to clarify.

MR. GOLDMAN: Sure.

CHAIRPERSON NICHOLS: That with that addition, you are comfortable that you can comply with the rest of the provisions here?

MR. GOLDMAN: In fact, I think that so much with regard to -- that's how -- yes, we support -- we support moving forward now based on this one change, which is a

relatively small change in terms of all the objectives. But thank you for asking that question.

CHAIRPERSON NICHOLS: Okay. Thank you.

BOARD MEMBER TELLES: Mary, can I ask a question?

CHAIRPERSON NICHOLS: Yes.

Excuse me, Mr. Goldman. Before you leave -- hold it. A Board member has a question.

BOARD MEMBER TELLES: Just a question.

Where are you guys located and how many cars have you done?

MR. GOLDMAN: We have -- the main headquarters are in Watertown, Massachusetts.

CHAIRPERSON NICHOLS: What's the problem?

MR. GOLDMAN: Sorry about that.

There.

CHAIRPERSON NICHOLS: Okay. Thank you.

MR. GOLDMAN: Actually, I've got to watch my thumb.

We are located -- the main headquarters are in Watertown, Massachusetts. We have to date done about 470 conversions. We have orders under the Clean Cities Program for about another 3,800. And we would have plans -- we're in discussions with the City of Los Angeles and other cities all over for major fleets. And we have the factory capacity to gear that up.

And so I think we can make a real business out of this, and help the American public understand what they've been hearing about for ages, but be able to drive cars like I've been driving for the last couple years. It's very exciting. And you guys have been the leaders in helping make it happen. And I think with this one adjustment, it can really take off. And that's what we're asking today.

But we have the capability to do thousands and within a year tens of thousands. But you've got to walk before you run. And you know what that line is like.

CHAIRPERSON NICHOLS: Thank you.

MR. GOLDMAN: Any other questions?

CHAIRPERSON NICHOLS: I think that's it for the moment.

MR. GOLDMAN: Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

MR. GOLDMAN: We appreciate your consideration.

CHAIRPERSON NICHOLS: Bonny Holmes-Gen.

Are you here, Bonnie?

Yes, she is.

Followed by John Shears. And Tim Carmichael will be the last.

MS. HOLMES-GEN: Good afternoon.

CHAIRPERSON NICHOLS: No expansive hand gestures.

Don't lean on anything, don't touch anything.

MS. HOLMES-GEN: I'm Bonny Holmes-Gen with the American Lung Association of California. Good afternoon.

And first of all, I wanted to say that we agree with the value and importance of plug-in hybrid conversions and their importance in getting advanced hybrid technologies on the road, helping the public to get familiar with these technologies and spurring more action by the OEMs to ramp up development and deployment of these important technologies to reduce global warming, improve air quality, and improve the sustainability of our transportation system.

And we greatly appreciate the hard work of the staff. And it's been very difficult, I know, to try and balance the need for other testing and verification of air quality and durability of these vehicles -- air quality benefits and durability of the vehicles, but also provide flexibility that's needed for the smaller companies.

And in general, we support the regulation that the staff is bringing before you today and the flexibility that's been included. And our only concern is that we are concerned that the Tier 1 piece of this may be too lenient and that it does not require actual testing and verification of emissions. And that's the one concern we wanted to bring to you today.

Given California's severe air quality situation, which as you know leads to public health emergencies, hospitalizations, and premature deaths, we are concerned that the Board needs to keep a close watch on the emissions from these vehicles.

And so we think that the best policy for the Board would be to require emissions testing for all aftermarket conversions.

And without this requirement, we're concerned that the Tier 1 vehicles -- the Tier 1 approach could result in gross polluting vehicles on the road and vehicles that are poorly engineered.

So we have signed on to a letter, that I think you have, along with other environmental public health organizations. And we have suggested some options. One could be eliminating the Tier 1 piece of it or increasing the requirements of Tier 1 to require an actual emission test. Another option would be to phase out the Tier 1 after a substantial number of plug-in hybrids are on the road. The suggestion is that after a total of a thousand plug-in hybrid conversions are on the road.

So, again, our suggestions are meant to be -- we want to see the Board move forward. We appreciate the value and support, the need for supporting companies that are investing in these advanced hybrid technologies. At

the same time, we just want to make sure that we do have adequate testing of air quality emissions and that we know exactly what is happening in terms of the pollution emissions from these vehicles.

Thank you for taking the time to hear our testimony.

CHAIRPERSON NICHOLS: Thank you.

Tim Carmichael.

Oh, I'm sorry. I missed John Shears. I apologize, John. Excuse me.

Yeah, Tim wants to be last. I know he does.

MR. SHEARS: Good afternoon, Madam Chair and members of the Board. And thanks for the opportunity. My name's John Shears. I'm with the Center for Energy Efficiency and Renewable Technologies.

And I'd like to thank the Board and also the staff. We were one of the organizations that was actually pushing for flexibility -- a more flexible approach in relation to the original staff proposal to accommodate, you know, the conversion companies. But at the same time, we also would like to advise and urge caution. We are also signatories to the letter that Bonnie just mentioned.

One of the other key issues that we've raised is the possibility - and, you know, hopefully maybe the legal staff can help clarify their thinking on this - about

setting a precedent given some of the flexibility that's, you know, being envisioned through this three-tiered approach, recognizing there are other aftermarket conversion systems for other technologies that are out there, you know, for retrofitting for flex fuel vehicles, natural gas, et cetera, et cetera.

So we just want to also be sure that in trying to accommodate the manufacturers while protecting the conversion kit manufacturers for PHEVs, that we're not setting a precedent that might also jeopardize the broader set of regulations.

So with that, we also generally support the staff proposal and would ask that the Board move forward with those cautions.

Thank you.

CHAIRPERSON NICHOLS: Okay. Thank you.

Mr. Carmichael.

MR. CARMICHAEL: Thank you, Chair Nichols. Tim Carmichael, Coalition for Clean Air.

I echo the comments of my colleagues, Bonnie Holmes-Gen and John Shears, and simply note that this is another example of the environmental community taking a pretty conservative approach, cautioning, you know, not the -- we want flexibility but not too much, so that it could come back to bite us as this great new technology

rolls out. And that's the caution that we're raising today.

Thank you.

CHAIRPERSON NICHOLS: Okay. Thank you.

Before I go to Board member comments, questions, staff have any last comments?

BOARD MEMBER RIORDAN: Madam Chairman?

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER RIORDAN: Just a question for staff. I'm not sure that I heard a response to the proposed changes that Mr. Goldman and Mr. White offered.

Have you had a chance to see it and review it? I know it says it was issued on the 12th. That doesn't mean it arrived here on the 12th.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah, I think we've looked at it, and I looked at it quickly there while the testimony was going on. And it sounds like a reasonable accommodation.

BOARD MEMBER RIORDAN: Okay. Thank you.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER D'ADAMO: Madam Chair?

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER D'ADAMO: On that issue -- and I'm not sure that it's a problem or not. But before Ms. Berg left she asked me to ask a question and perhaps ask for a

change on her behalf in the event that the warranty language is adopted.

She had a concern about notice to consumers, wanting to make sure that the consumers are notified in the event that a different warranty is adopted.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That means that if you go in to buy one of these conversions, that you would get adequate notice that your warranty might be affected in some way?

BOARD MEMBER D'ADAMO: Yes.

MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: As part of the instructions that come with the kits, the warranty is explained. But I think that we could do a better job of it.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, we could add something in, if you wanted, that would be a little bit more explicit. I think what Bob said was it's just -- it's, you know, going to be part of the instructor's manual, just like the thing you have in your glove box for your car now, which nobody reads. So maybe we should make it more explicit in the contract or something that they disclose what the warranty is.

BOARD MEMBER D'ADAMO: Okay.

CHAIRPERSON NICHOLS: Okay. I think we have heard the issues laid out pretty clearly. We're in, I

think what everybody agrees is, a transition period, although nobody knows how long it's going to be, where consumers are very interested, at least a significant number of them are interested, in moving into a plug-in world and there aren't enough plug-in vehicles available or not enough affordable plug-in vehicles for everybody who'd like to buy brand new ones. And so there's going to be a market out there for conversions, and that's a good thing.

The question is sort of how far can the ARB go in bending or adapting our rules to make this market easier, more fluid for people who want to get into it.

And we're seeing that there's some -- at least one company that's come in and testified that they think they're going to be able to do fine in this, and another several who don't feel that way or at least are very worried about it.

I am a little bit concerned. I suppose I will plead guilty to being a regulator. But I think that our job in this situation is to look first at making sure that overall our programs are doing what they were designed to do to protect public health from air pollution and then, secondarily, to look at the technology promotion side and the hope for the future, which we would like to be a part of.

I think staff have gone way farther than they meant to at the beginning of this process in terms of making accommodations for conversion technologies that are not going to ever probably establish huge numbers, but also would not be able to exist at all if they had to go through our normal test procedures. So I think they've tried to strike a balance here.

I think there's some vulnerability, frankly. And not -- from a straight legal perspective, there's a question as to whether we really can even be doing what we're doing here in terms of creating these tiers. I don't know who would challenge us on it exactly. But, you know, sometimes people come from various directions in that regard. And I don't know whether we have a comment here from our legal team about how comfortable they are with this approach that we're trying to put together.

SENIOR STAFF COUNSEL JOHNSTON: My name's Diane Johnston and I'm with the legal staff and am the attorney for this rule-making.

And Chairman Nichols is exactly right, that what the law requires here is that the Board make a finding that there are no emissions increases as a result of the modifications to the vehicle when the conversion system is installed.

And so what we've been looking at is trying to

create a scheme where some conversions are allowed because there's a de minimis effect from the conversions. And so the question really is is what level should the de minimis effect be set at? And so the staff has tried to set that at a very low level, because ARB's programs have always required testing for emissions effects. And so in this Tier 1, there would be no testing. So really that level needs to be very small to have a de minimis effect and for the Board to be able to, with all sincerity, make a finding that there are no emissions increase. So that's kind of a legal framework for this rule-making.

CHAIRPERSON NICHOLS: Okay. Thank you.

BOARD MEMBER TELLES: I would agree that there should be -- when we make an action here, there should be no emissions increase.

But I would challenge the staff to try to measure any emissions increase here, I mean, if we're talking ten cars. I mean, just from a practical point of view here, ten, hundred cars, a thousand cars, if we did every Prius in the State of California, it represents less than one-thousandth of the cars that are driven in California.

I mean, let's get practical here besides just being regulators. If we -- I'm sorry, Mary, but --

CHAIRPERSON NICHOLS: No, you don't have to apologize to me. I'm proud of it. But I'll answer your

point in just a second.

BOARD MEMBER TELLES: I really would have to compliment the team from Massachusetts that came out first. But I think as regulators, we shouldn't pass something which will kill an industry that is just beginning in California. And I would really be in charge -- I mean --

(Laughter.)

BOARD MEMBER TELLES: -- I would be in favor of increasing that Tier 1 -- ten cars, hundred cars, it doesn't make much difference as far as true emissions increase. And with all due respect to the lung society, which I appreciate, but ten cars is not going to really reduce the health in people in California. A hundred cars won't. A thousand cars may not that are in this. I mean, we've got to look at this from a practical point of view. And I would be in favor very much of increasing that Tier 1 number up to the 100, which the local industry said that they need to kind of survive. Let them survive. If they don't survive after a hundred cars, so be it.

CHAIRPERSON NICHOLS: I just want to respond to the underlying comment that you're making here, at the risk of prolonging a philosophical debate, which maybe is not worth doing. But, you know, this is a program that's about parts per million and inches. Everything we do to

some extent, almost every rule we pass is dealing with some industry or some entity that in and of itself is only a tiny part of the air pollution program. I've been at this for more years than anybody else on this Board, and I have never been involved in a rule-making where the affected industry didn't come in and explain that they are only a small part of the problem and that you are punishing them, as opposed to all those other people who are the real problem.

That's the fact of what we face. If you want to talk about being practical, let's be practical about what it takes to clean up the air. I'm not really arguing your 10 versus 100. But I'm arguing the underlying approach, which says, you know, what the heck, it's just a small amount. Well, everything is just a small amount to somebody. But in the grand scheme of what it takes to put a SIP together or to meet ambient air quality standards, we are dealing with tiny amounts of pollutants.

So I think it's important to put it in a context.

I think Dr. Sperling wants to speak here.

BOARD MEMBER SPERLING: First, I'm going to speak as an engineer and then as a lawyer -- or ask a legal question.

CHAIRPERSON NICHOLS: Better not speak as a lawyer or I'll complain to the State Bar.

BOARD MEMBER SPERLING: I have to say I'm not convinced by the emissions analysis. You know, one could postulate scenarios where there are in fact not only not a small increase but even an improvement, you know, because you can say, okay, so we take a vehicle, you know, with one of these buttons that goes in all-electric mode. So it is in all-electric mode so it's not emitting. The combustion engine's not working. And it's not only reducing hydrocarbons during that time, but it's also reducing NOx. And NOx is not a canister issue.

So, I can craft a scenario where the cars are operating in ZEV mode for awhile instead of combustion mode, saving emissions then. That when they are getting evaporative emissions, it's not in 105 degree temperature. And maybe these cars will be actually garaged because they're going to be plugged in, and so they're not sensitive to -- they're not going to be subjected to the high temperatures and therefore the diurnal emissions will be much less, you know, than forecasted here in this analysis.

And you can also do a scenario that even -- I guess, as Dr. Balmes was saying, even these cars -- even though they're in all-electric mode, when you're in all-electric mode you -- if you're on a freeway, it still -- the engine has to come on. It doesn't override.

I think it only goes up to 45 or 50 miles per hour. Is that right?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, there's nothing in this regulation that says what the design of these vehicles are. So it could be one that comes on lots of times or one that comes on rarely, acts like a Volt, you know, as a 40-mile vehicle and hardly ever comes on. So we don't distinguish that way. So the regulation was designed to try to cover all those scenarios.

BOARD MEMBER SPERLING: But I think in the -- I was actually referring to the Prius conversions. And it might be different for different -- well, I guess you can't -- they don't have the buttons on the other cars. So it's actually just a -- I guess it's just a Prius question.

And in Prius --

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: It depends on how you do it. I mean, the --

BOARD MEMBER SPERLING: Okay. I guess the point is though that, you know, one can create plausible scenarios in which the emissions are actually less, I think, as much as they are more. I haven't gone through and actually crunched the numbers. But it just doesn't seem compelling. Because we don't know how the vehicles

are going to be used. And so, you know, if someone just, you know, does -- the engine does turn on once in awhile if you're going beyond just the local streets, then it does -- it will purge the canister and meanwhile you are saving all the NOx emissions because you're not running the engine.

So I guess, you know, in the end, it seems like a tiny effect on emissions.

So the other issue for me is the precedent issue. And so I'm not going to make -- I'm not a lawyer. I don't want to make any -- but I do have a question on the precedent. To what extent is this really -- I mean, it would be a concern to me if this really was an important precedent. But, you know, when I think about it, as long as in the conversions they don't mess with the engine, and at least in the high motion -- you know, A123 and, you know, the other ones that I'm familiar with, they don't touch the engine.

And if you don't touch the engine, then, you know, the precedent -- I'm not sure what that precedent is, because all it does is put you back to a regular Prius or a regular hybrid. You know, whereas if you do a CNG conversion, then you are messing with the engine, you are messing with the engine controls, and you do have the threat of a high emitter. And so, you know, this comment

about being high emitters, I don't -- if you don't mess with the engine, it can't be a high -- you know, it won't be a gross emitter as far as I can think it through.

So the precedent -- it's not obvious to me what the precedent is except in a -- as long as -- maybe we have to have a -- part of the rule has to be that, you know, if you have the Tier 1 or, you know, if the Tier 1 would go up to 100, that would only be allowed if you didn't do anything to the engine might be, you know, one way of dealing with that.

SENIOR STAFF COUNSEL JOHNSTON: Again, this is Diane Johnston.

I think it is a big precedent, because right now, for example, ZEV vehicles are -- we certify them and, you know, they submit their data and everything.

So, I suppose if -- and I don't know if this -- we'd have to ask our engineers here -- whether we could carve out some kind of an exception where they could do less testing or no testing where the engine was not affected. But I still think the precedent that we have here of accepting the engineering evaluation for this de minimis number --

CHAIRPERSON NICHOLS: That's what the precedent is.

SENIOR STAFF COUNSEL JOHNSTON: Right.

CHAIRPERSON NICHOLS: Excuse me for interrupting. But no increase is no increase. I mean, you know, the Air Resources Board doesn't let people mess with cars, we don't let people mess with fuels. We are rigid about this. We are nasty. We are tough. There are a lot of people out there who'd like to be in business selling additives to vehicles and gasolines, and we have fought them all back over the years. And most of them, I would venture to say, were legitimate people. They weren't shysters. They were people who'd invented something and put their money into something which might have done some good. But because there was a risk that it might make the air worse, we didn't go for it without very strong burden of proof that it really was not going to increase emissions, not -- zero, none. And so I think this is dangerous territory here.

Dr. Balmes.

BOARD MEMBER BALMES: Well, I specifically waited for Professor Sperling to speak because I wanted to be on stronger engineering grounds. Not only am I not a lawyer. I'm not an engineer.

(Laughter.)

BOARD MEMBER BALMES: But, first of all --

CHAIRPERSON NICHOLS: It's okay.

BOARD MEMBER BALMES: -- I wanted to compliment

the staff. I wasn't here for the January 29th -- I think I may have the date wrong -- day when this was first discussed. But I had to read the testimony. I had to certify to Charlyn that I had read the testimony, and I did. And I found it instructive. And I wanted to compliment the staff for the tier approach, which I think, as Mary said, was probably more than you wanted to do. But I think it's the right thing.

And my only problem -- or my major problem is the number of vehicles in Tier 1 - it's been brought up before - because I share with Dr. Sperling the feeling that we're not talking about a lot of emission increase. I can't certify that there'll be no emission increase, but I think it's unlikely that there would be much with a small number of vehicles. I just think -- and in terms of the precedent, there's a difference between this and a fuel additive. Because I think this is overall a good technology that's going to benefit air quality in California. And we're talking about nurturing that. It's different than somebody who wants to, you know, add an additive to fuel to make the engine run more efficiently or get more speed or whatever.

CHAIRPERSON NICHOLS: Get more gas mileage, that's what --

BOARD MEMBER BALMES: Or gas mileage.

CHAIRPERSON NICHOLS: That's a good thing. It saves --

BOARD MEMBER BALMES: Gas mileage is a good thing. But we're talking about emissions here. And I don't see how promoting plug-in hybrids is bad for the air quality in the State. So I do think there's a difference.

And in terms of the precedent, I don't -- you know, we are requiring a review in terms of the staff's approach of the engineering analysis, there's a durability test plan. So ARB has to approve this. And, you know, whether it's ten vehicles or a hundred vehicles, that doesn't seem to be -- the precedent is there. So I'm just arguing about the number of vehicles. And I just -- hearing the testimony from small California-based conversion companies, I think they've all made more than ten, so why do we even have a Tier 1?

So I would support Dr. Sperling's -- or whoever said a hundred vehicles. I guess it was Dr. Telles. It seems more reasonable to me.

CHAIRPERSON NICHOLS: Well, we don't even have a motion to make an amendment to. But I'm beginning to get the drift of the conversation here.

Mr. Cross?

MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: Can I say something about the precedent just very quickly.

CHAIRPERSON NICHOLS: Sure.

MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: That the status quo for fuel conversions and aftermarket parts is that when -- if one wants to invent, if you will, they get an experimental permit. And that means that they can maybe run one or two or three specialized vehicles with permission from the Air Resources Board that they don't have to make a showing that they, in fact, pass any test standards. Those vehicles cannot be sold to anybody. They're just basically permission to do something investigative. And then what normally happens is that the information from that vehicle is used to proceed into some sort of certification or rarefication process before any more vehicles are sold.

So I think that the -- and that's for all of these other fuel conversion systems. So that's why the staff is squirming, is because we're -- you know, it's not just -- it is a precedent because it's changing the way we do business with all of the small entrepreneurial businesses that want to -- you know, that want to sell stuff.

CHAIRPERSON NICHOLS: Supervisor Roberts.

BOARD MEMBER ROBERTS: Yeah. First of all, I'd -- for the record, I have read the prodigious amount of discussion and testimony from the earlier hearing, and

I've been briefed by the staff on this item. And it seems to me that there's a lot to be gained here if we're successful in this. And there's something unique here that's quite different from things that we've considered in the past. And I think the observation that we're not putting anything into the engine or affecting the operation of the engine, it seems to me with respect to the precedent we ought to define -- clearly define what we're doing and why we're doing it, which I think if the circumstances were the same in the future, I wouldn't feel uncomfortable doing it again. But I feel comfortable with the staff's position and with the modifications that were requested. And I think we ought to maybe tighten the legal statement up.

But I don't feel uncomfortable in going ahead with this, with the expectation that ultimately we're going to see some significant benefit and we might learn some things that we don't know. Not every problem necessarily has to be solved by our gigantic corporate research model. And to some extent I think we've put ourselves in that box where the testing and other things are so incredibly expensive that small companies can't do those things. And we have an opportunity here that I think would be -- I think it would be a shame if we lost it because of that approach.

So I'm satisfied with the suggestions and the requested modification.

CHAIRPERSON NICHOLS: Okay. Supervisor Yeager.

BOARD MEMBER YEAGER: Yeah, I'm trying to -- under Tier 1, I know that we've talked a little bit about it, but there's supposed to be an engineering analysis showing no impact on emissions. Can you talk a little bit about what type of analysis that's going to be, and will we know -- if when that's conducted, will we know a little bit more or has that really already been done?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Asking if we had an actual example of one that has done that? I guess not at this point.

BOARD MEMBER YEAGER: So that might give us some more information. I mean, I think -- I mean, all of us are concerned that - and I think Chair Nichols said it very well - we don't want to do anything that's going to increase the amount of pollutions in the air. But you could also argue -- and going back to the discussion about the canister purge. It just seems on one level that the plug-in hybrids could run exactly the same as any gasoline engine and therefore doesn't increase the emissions at all. It isn't that it can't, but it -- and it could certainly reduce them as well.

So I think we're in that one gray area where we

really just don't know enough about the driving behavior of a lot of what's going to happen with these cars to understand what the impact is.

But going for the larger view, I think this is an area where we do need innovation, where we do need people that, you know, tinker in the garage and figure out, you know, if there's a way to do this, that will bring about a whole new industry. And keeping it in California rather than -- Massachusetts is a great state, but certainly want to make sure that we have companies here that can also do this type of work.

It's also -- you know, the other part about the plug-in hybrids is that if they're driving them to work, they need to be plugged in at work. And if we get more on the road, if we have more employees telling their employers, you know, can we have a plug-in station somewhere, that when we get to the day of all-electric vehicles, hopefully a lot of those plug-in stations will be there. So I think there's a lot we can do to sort of keep this industry alive.

And I also worry that ten is too low. None of us, I think, know what the right number is, but it could well be a hundred. But one way to sort of consider this too is if you want to move up to a hundred, maybe collapsing Tier 2 and Tier 3 and just having one other

tier, a Tier 3. And that way if for some reason we're off and there is an issue, we can catch it at a hundred cars rather than going beyond that if we're already at Tier 3. And I don't know if staff had any reaction to using that as maybe a safeguard if we do go up to a hundred.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, I think at Tier 3 you have to do the whole shebang for the 101th vehicle. So it would be a question of when you started doing that, which I guess -- the thing you would miss out of that scenario is you wouldn't have any emission test then for the first hundred cars. That's what it is.

And, you know, I think just to be clear on what the costs are, the costs are on the order of $10,000 to do that emissions test. I looked at the comments about the million point two dollars. And if you look at the paper that they've presented, the vast majority of that cost is, quote, lost revenue due to an appeal process or approval process. So you have a $595,000 cost for a Tier 2, of which $500,000 is lost revenue due to approval process, which says 84 conversions that didn't occur, I guess. So, you know, the costs really are not that large until just to --

CHAIRPERSON NICHOLS: Those are not out-of-pocket costs.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah, it's not the million dollars. But it's $10,000. It's not trivial for a small company and we understand that.

If I could make one comment based on what Supervisor Roberts said, is I think what you were getting to is some kind of -- something on the record that helps narrow the precedent, if that's what I was thinking.

BOARD MEMBER ROBERTS: That's exactly right.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Because the things that I think the staff worries about, having to deal with this day-to-day, has to do with the sort of value judgment that you're having to place on this regulation versus the value judgment that we would have to place on other similar regulations or administration of things. For example, right now if you want to sell hot rod exhaust headers on a vehicle, you do an FTP; you spend $5,000 for a test before you can sell the first one. That's the way the rules work now.

So the question would be that is the precedent that we -- let's not worry about that until we sell a hundred headers, and should that be the way the staff looks at any future regulation? And, you know, I would argue that the headers have no value to the environment at all, so we probably should be tougher on that. But then I could turn around and look at General Motors and say,

okay -- let's say you're introducing the Volt plug hybrid electric vehicle and you want to sell 800 in the first year. Should we make you run a complete durability evaluation on that like we do now or should they get a chance to get the first thousand or the first hundred, or whatever it is, without having to go through that? I can --

CHAIRPERSON NICHOLS: And what does their lost opportunity cost, if all the people who would have bought Volts have gone out and converted their existing Prius? I mean you're in a realm of the unknowable.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: And we have small manufacturers, you know, that we make go through virtually all of the same hoops as the big manufacturers do. But they might not sell a thousand vehicles a year. And if it was a Ferrari or a Rolls-Royce, you'd probably say, "Well, too bad," you know. But if it's, you know, some Subaru or something that's -- a Porsche or something that's a small volume, we might have to look at it differently.

So I think it is really important to get the signal from the Board of what is the sort of narrowing of the precedent here so that we don't run off in the wrong way here.

BOARD MEMBER SPERLING: How about the precedent

being that there is no -- it is not allowed to change the engine or the controls of the engine in any way whatsoever, that the only changes would be unrelated? So like if you talk about the headers, that affects, you know, the actual engine combustion, and all of the other examples also did, would that be a distinction that would work?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, it could be. But it goes back to the problem that we developed -- we were discussing before, is that it doesn't change the way the engine combusts, but it changes how often it combusts. Or what's its operational duty cycle? We're not saying the engine, when it runs, is any different than Toyota in the case of a high motion, for example, type design.

CHAIRPERSON NICHOLS: Not threatening emissions increase.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: But our argument was it's going to operate differently, and that has an effect on emissions. And so I know you don't agree with that. But, you know, in your example with the engine coming on so there's lots of purge, I'd also argue that car has four or five cold starts a day instead of one or two. And that has a NOx increase that -- you know, in your example it was NOx decrease. But you would have it

be a NOx increase if the engine, you know, got cold after 15 minutes, which a catalyst typically does, and then it had to come on, you know, nine over ten times a day. And that doesn't happen with the Prius because it comes on frequently.

So, you know, it's a -- I understand the argument about the total volume here. But it really would help to understand, you know, kind of the precedent. And I think it's hard to nail down, but that's what we need to try to narrow I think a little bit here. Or at least that would be helpful to the staff certainly.

CHAIRPERSON NICHOLS: Would people like a pause so they can reflect and pray or --

(Laughter.)

CHAIRPERSON NICHOLS: -- what should we do here? You know, I think this is not easy. You know, I'll do my job.

I'm going to ask that somebody move the staff proposal. And then if people want to make amendments to it, they can make -- they can offer amendments to it.

BOARD MEMBER RIORDAN: Madam Chair, let me do move the staff proposal. And I would amend though to include the staff's acceptance of the Goldman-White request.

BOARD MEMBER ROBERTS: I'll second that.

BOARD MEMBER TELLES: So what's the Goldman-White?

BOARD MEMBER RIORDAN: Well, it's more on warranty --

CHAIRPERSON NICHOLS: -- the warranty provision that was offered.

BOARD MEMBER RIORDAN: And to accept also Ms. Berg's request that the warranty be made very clear to the purchaser.

EXECUTIVE OFFICER GOLDSTENE: We're thinking like written informed consent at the time of purchase, something along those lines.

CHAIRPERSON NICHOLS: Yeah, something in plain English.

EXECUTIVE OFFICER GOLDSTENE: Yes.

BOARD MEMBER RIORDAN: Simple language.

EXECUTIVE OFFICER GOLDSTENE: Okay.

CHAIRPERSON NICHOLS: Greater than two point type.

BOARD MEMBER RIORDAN: Don't let an attorney write it. Just some simple language.

(Laughter.)

EXECUTIVE OFFICER GOLDSTENE: We'll ask Dr. Balmes to write it.

BOARD MEMBER RIORDAN: I agree. That would be --

BOARD MEMBER D'ADAMO: I have a question regarding the issue of precedent.

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER D'ADAMO: It seems to me that whether it's ten or a hundred, the staff has a legitimate concern about the issue of precedent. And I would just suggest that Legal come up with some statement of reasoning for the record. I would think that you could come up with a number of distinguishing factors that makes this situation rather unique, because of the hoped benefit that we would be able to receive. And so whatever we end up deciding on the actual numbers, I think that would be an appropriate job for Legal.

BOARD MEMBER RIORDAN: Let me just say, Madam Chair, my motion doesn't anticipate any change in that.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER RIORDAN: All right. And also just for the record, I need to say that I have read the transcript for that meeting that occurred on - what was it? - January 23rd or thereabouts.

CHAIRPERSON NICHOLS: That was when we first considered this item, yes.

BOARD MEMBER RIORDAN: And I was not present.

CHAIRPERSON NICHOLS: But you have reviewed the record?

BOARD MEMBER RIORDAN: Yes.

CHAIRPERSON NICHOLS: Thank you.

Okay. Yes, Ms. Peter.

CHIEF COUNSEL PETER: Disclosures --

BOARD MEMBER TELLES: There needs to be a second for the motion.

CHAIRPERSON NICHOLS: I thought there was.

BOARD MEMBER ROBERTS: I seconded.

CHAIRPERSON NICHOLS: Supervisor Roberts.

BOARD MEMBER TELLES: I would like to make a motion also. That I would ask staff to increase the Tier 1 to a hundred.

CHAIRPERSON NICHOLS: That would be in the form of an amendment --

BOARD MEMBER TELLES: Amendment.

CHAIRPERSON NICHOLS: -- to the staff proposal.

Do we have a second to --

BOARD MEMBER BALMES: I'll second.

CHAIRPERSON NICHOLS: Okay. That's been seconded -- moved and seconded on the amendment.

Before we take a vote, Ms. Peter had a comment.

CHIEF COUNSEL PETER: Are you going to make your disclosures in terms of ex parte communications?

CHAIRPERSON NICHOLS: Well, we have to do that before we take a vote. I'm willing to do that at any

time.

CHIEF COUNSEL PETER: I'm just making sure.

CHAIRPERSON NICHOLS: I'd already indicated I hadn't had any ex partes. I don't know if anybody else has any that they would like to disclose.

Yes.

BOARD MEMBER BALMES: So I spoke last week with representatives from 3 Prong Power. And they -- what we talked about was almost exactly mirrored by their testimony today.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER D'ADAMO: The same thing with me. Daniel Sherwood and Paul Guzyk from 3 Prong Power, telephone call yesterday.

BOARD MEMBER YEAGER: Yeah, same with me. I did meet with Daniel Sherwood and Paul Guzyk from 3 Prong Power and had a brief conversation with Bonnie Holmes-Gen at a reception on this yesterday.

CHAIRPERSON NICHOLS: Okay. Yes.

BOARD MEMBER SPERLING: And I met with Dan Sherwood and Paul Guzyk at their facility in Berkeley, the 3 Prong Power, a few days ago. And I also had a series of Email and phone conversations with Jamie Knapp, who was representing those environmental groups, that wrote a letter.

CHAIRPERSON NICHOLS: Okay. Those environmental groups.

BOARD MEMBER SPERLING: Those folks over there.

CHAIRPERSON NICHOLS: Great.

BOARD MEMBER SPERLING: You know who you are.

CHAIRPERSON NICHOLS: Anybody else?

No.

All right. Now to the question then.

Any discussion on the motion?

I guess I'd just like to -- I mean, I understand we're talking about what does it mean to have no increase and what does no increase mean. That's the legal question. Is there anything else that the staff considered in terms of the business model that's involved here in coming up with those numbers that we should be understanding before we take a vote on the difference between ten and a hundred for Tier 1?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No, I don't think so. I think we just looked at it in terms of the first number since there's no hard factual scientific evidence, emission data of any kind that that ought to be smaller towards the kind of experimental permit numbers we give out for people to develop vehicles, because that's what the first phase would be. And that was, you know, always under ten. So that's where we came up with that.

And then, you know, going to the hundred I think was just enough vehicles to be able to amortize the cost of a $10,000 emission test sequence. That seemed like, you know, not an unreasonable number there. That's about, you know, arguably a thousand to a car. But I hope they would spread that over longer. And giving them some time to start the -- using those cars to start the durability demonstration. So that it's not really a separate test program, but they can use the cars that they've sold to people to get some mileage on them.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER BALMES: A point of information, Madam Chairman.

CHAIRPERSON NICHOLS: Yes, sure.

BOARD MEMBER BALMES: If we change -- if we accept the amendment that's on the floor, then Tier 2 and Tier 3 have to change, just because Tier 2 is now 11 through a hundred and Tier 3 is beyond a hundred.

CHAIRPERSON NICHOLS: Right.

And how would the staff propose to deal with that?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well -- I'm sorry, I was having a side conversation. But if that was what happens to Tier 2, is that what it is?

CHAIRPERSON NICHOLS: If Tier 1 comes up to a

hundred, then there's no Tier 2 anymore.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Then I think, yeah, there's probably no Tier 2 and you'll have to do Tier 3 at 101 -- is that --

CHAIRPERSON NICHOLS: Um-hmm. I think that would be the effect. Yeah, I think that's correct.

BOARD MEMBER D'ADAMO: Are we discussing --

CHAIRPERSON NICHOLS: We're having discussion on the amendment before we vote on the amendment.

BOARD MEMBER D'ADAMO: Yeah, I have a few things to say.

I really do favor increasing the numbers, mainly because I've just been at this for so long and we've really been struggling to get ZEVs out there. And, you know, I was around when we so-called killed the electric car. So, you know, I personally am looking for any opportunity to encourage this industry to move along.

But I'm nervous about making these decisions at the bench like this. And I'm just wondering, what kind of timeline are we under? Maybe it would be more rational if we gave it back to staff if there seems to be an interest on the part of the Board to increase the numbers. I'm uncomfortable with just doing away with Tier 2, because Tier 2 does give us some additional authority here and a way to, you know, track this in a more significant way.

So do we have a timeline? Do we have to make a decision?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: There is one factor, is that Friday is the deadline for applying for some of the recovery money which is available for these conversions. And I know people have been calling us, you know, trying to say -- I think the guidelines say it has to be certified by EPA or ARB. The problem with those guidelines is that neither one of us has a regulation to certify them by.

CHAIRPERSON NICHOLS: Yeah, I can comment.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So we're the only act in town I believe. And that may be a consideration.

CHAIRPERSON NICHOLS: I have not had any conversations about this rule-making with any of the parties outside of this hearing. But in a completely separate action, I had indicated that I was going to write a letter to I guess DOE telling them that ARB was going to be certifying conversions and supporting funding from the Economic Recovery Act going to Clean Cities for these conversion projects. So we knew we wouldn't actually have any certified yet because the regs wouldn't have taken effect. But at least we could say, you know, we were going to have them.

Mr. Goldman, did you -- if you have something to add to that.

MR. GOLDMAN: Thank you, Madam Chairman.

Working from Washington and having been following this, there's about $400 million in stimulus funding in the Clean Cities Act, a good chunk of which is available to California, and a lot of cities have applied. And DOE had originally had a rule that had said -- well, it had to be certified by the 29th, and you guys are meeting today. They have responded to the congressional leadership who have asked -- that that seems unreasonable since we're on the road and the people who are ahead with regard to having received the test results and have had them reviewed. So that it became very important in the applications, that California had acted before the deadline, to at least put it in place, which the estimates are in California that could mean another 80, 90 million bucks coming in for funding of this in California. So that is a consideration.

CHAIRPERSON NICHOLS: We definitely want to be in the business of certifying conversions. But to that point and to what Ms. D'Adamo was saying, it's like the low carbon fuel standard - why wouldn't we want the money to be going to the conversions that we know are going to do the job? I mean, this desire to promote the little guy in

his garage with his, you know, 70 vehicles is at war with the desire to actually get a lot of money out there so that cities like mine can do big conversions for the conversion -- with conversions that are really going to do the job, that we can show are going to do the job because we've tested them, as opposed to just giving them a pass because we don't think they're going to do any harm.

BOARD MEMBER SPERLING: So if we set the limit at a hundred, does that mean though that -- instead of ten, for instance, if they apply for funding for more than a hundred vehicles, then what does that mean in terms of the testing? They have to do that before --

CHAIRPERSON NICHOLS: If it's more than a hundred, they'll have to do the testing before they can show that their kit is certified.

BOARD MEMBER D'ADAMO: Well, one thing that would help me decide here is -- it seems that we are under a deadline. And I imagine that staff wrestled with a lot of different scenarios. Is there something in between the ten and a hundred that you considered, you know, with the eye towards emission reductions and not going over, and with regard to the different tiers, is there some combination that -- not necessarily that you would support, but that you considered and have some back-of-the-envelope analysis on if we looked at

increasing the various tiers?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I think that, you know, getting the basic emission test is probably the most valuable piece. That moves us from, you know, engineering judgment to real hard data. And then, you know, it's -- the longer term is the durability, when we get to a large number of vehicles, to make sure they don't, you know, fail in use in some way and that they have full OBD and things that are forgiven partially at the early days.

So, you know, I guess from my viewpoint, if you make a change, you would not raise Tier 1 as much and still keep Tier 2 in place, so that you force the emission test earlier than a hundred, and that gives us real data to look at.

BOARD MEMBER YEAGER: But under the amendment, just going back to what you were asking, we aren't really getting rid of Tier 2, it's just -- we're collapsing 2 and 3 together, right, I mean if we go with the hundred, just because of how the numbers would work --

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, my understanding, you --

BOARD MEMBER YEAGER: -- under the amendment that's on the floor?

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,

my understanding of the amendment, if I got it right, is that you do an engineering evaluation and you're authorized to sell a hundred cars. And then at 101 you have to do the full -- you have to do the January proposal at 101, which is the full emission test plus durability evaluation.

BOARD MEMBER YEAGER: Right. So in that sense you're not getting rid of Tier 2, I guess, is...

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So that's what the amendment is, as I understand it. What you were asking me, Ms. D'Adamo, is there some other alternative? And it would just be that there -- we keep three tiers, but you raise Tier 1, not to a hundred, but somewhere less so that we actually get the emission data earlier, just as a suggestion.

CHAIRPERSON NICHOLS: So you'd start to get some data at an earlier point, right.

BOARD MEMBER D'ADAMO: So then really the only other alternative would be something less than a hundred on Tier 1, maintaining Tier 2 and Tier 3.

CHAIRPERSON NICHOLS: Right.

BOARD MEMBER D'ADAMO: Well, if we make a change, I'd feel more comfortable with that. But I don't know what it would be -- what the number would be.

CHAIRPERSON NICHOLS: Okay. Well, I think we

need to move forward here to at least expand the discussion.

So we should vote on the amendment, which, as we've just said, would increase Tier 1 to a hundred and then make Tier 2, Tier 3 at 101 vehicles.

We can do a roll call vote on this if you want to.

I am going to vote no. And I'm late in the list. So just so you know.

All right. Let's have the clerk call the roll please.

BOARD MEMBER BALMES: Are we voting on the amendment?

BOARD MEMBER RIORDAN: You're voting only on the amendment.

CHAIRPERSON NICHOLS: Changing the cut points.

BOARD MEMBER SPERLING: To 100 -- moving to --

CHAIRPERSON NICHOLS: -- to 100.

MS. ANDREONI: Dr. Balmes?

BOARD MEMBER BALMES: Yes.

MS. ANDREONI: Ms. D'Adamo?

BOARD MEMBER D'ADAMO: No.

MS. ANDREONI: Mrs. Riordan?

BOARD MEMBER RIORDAN: No.

MS. ANDREONI: Supervisor Roberts?

BOARD MEMBER ROBERTS: No.

MS. ANDREONI: Professor Sperling?

BOARD MEMBER SPERLING: Yes.

MS. ANDREONI: Dr. Telles?

BOARD MEMBER TELLES: Yes.

MS. ANDREONI: Supervisor Yeager?

BOARD MEMBER YEAGER: Yes.

MS. ANDREONI: And Chairman Nichols?

CHAIRPERSON NICHOLS: No.

MS. ANDREONI: We have a split vote.

(Laughter.)

CHAIRPERSON NICHOLS: The amendment fails.

All right. We now move to the main proposal, unless anyone wants to offer another amendment.

BOARD MEMBER ROBERTS: I'm going to try a slightly different. With the Tier 1 going up to 50 and then the Tier 2 from 50 to 100. And then after that I think it -- I think I sense what --

CHAIRPERSON NICHOLS: It sends a signal that the Board is supportive of nurturing this industry and giving them a little more opportunity to make some money.

BOARD MEMBER ROBERTS: But I think we maintain three tiers, but just change the break between 1 and 2 to from 10 to 50.

CHAIRPERSON NICHOLS: I think that might be worth

discussing.

BOARD MEMBER ROBERTS: I'd like to put that as an -- offer that as amendment.

BOARD MEMBER D'ADAMO: Second.

CHAIRPERSON NICHOLS: Okay. Discussion?

BOARD MEMBER TELLES: Discussion about the amendments.

There was two amendments. Is the first amendment voted down too then? Not voted down. But it was basically --

EXECUTIVE OFFICER GOLDSTENE: No, we haven't gotten to that.

BOARD MEMBER ROBERTS: The first amendment failed.

EXECUTIVE OFFICER GOLDSTENE: The first amendment failed. But the first motion, you mean?

BOARD MEMBER TELLES: No, there was -- Mrs. Riordan made an amendment and I made it a --

BOARD MEMBER ROBERTS: No, she made a motion.

CHAIRPERSON NICHOLS: You haven't gotten to her motion yet.

BOARD MEMBER RIORDAN: My motion included the warranty consideration.

BOARD MEMBER TELLES: Okay.

BOARD MEMBER RIORDAN: But I did not accept the

other amendment.

BOARD MEMBER ROBERTS: Your motion is still on the floor. But you need to --

CHAIRPERSON NICHOLS: Yes. We're offering another amendment.

BOARD MEMBER ROBERTS: -- we need to vote on the amendments first.

CHAIRPERSON NICHOLS: And there's been an amendment offered with a second, which would now give Tier 1 up to 50 vehicles; Tier 2, 51 to 100; Tier 3 as previously proposed.

All right. Let's try a roll call vote on this one.

MS. ANDREONI: Okay. Dr. Balmes?

BOARD MEMBER BALMES: Yes.

MS. ANDREONI: Ms. D'Adamo?

BOARD MEMBER D'ADAMO: Aye.

MS. ANDREONI: Mrs. Riordan?

BOARD MEMBER RIORDAN: No.

MS. ANDREONI: Supervisor Roberts?

BOARD MEMBER ROBERTS: Yes.

MS. ANDREONI: Professor Sperling?

BOARD MEMBER SPERLING: Yes.

MS. ANDREONI: Dr. Telles?

BOARD MEMBER TELLES: Yes.

MS. ANDREONI: Supervisor Yeager?

BOARD MEMBER YEAGER: Yes.

MS. ANDREONI: And Chairman Nichols?

CHAIRPERSON NICHOLS: No.

MS. ANDREONI: Motion passes 6 to 2.

CHAIRPERSON NICHOLS: Okay. So now on the amended motion -- on the amended initial motion, as per Mrs. Riordan, we'll do another -- and we don't have to do a roll call vote.

All in favor please say aye?

(Ayes.)

CHAIRPERSON NICHOLS: Any opposed?

None. It carries.

All right. We have a procedure.

Thanks, everybody. Good work.

Okay. We will now -- do you need a break, a five or ten minute break, or should we -- yeah, okay.

We'll take a ten-minute break, and then we'll come back and do the report on the money, the good stuff.

(Thereupon a recess was taken.)

CHAIRPERSON NICHOLS: We're down to the last item on our agenda for today.

This is to consider an update on the existing grant agreements for the Proposition 1B Goods Movement Emission Reductions Program and the Lower Emissions School

Bus Program.

Mr. Goldstene, are you prepared to introduce this item?

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

Last year, the Board awarded over $246 million in first-year bond funding to reduce diesel emissions from freight movement in the State's trade corridors for the Goods Movement Program and over $191 million to air districts for the School Bus Program.

The grants provided incentive funding for cleaner trucks, school buses, locomotives, ships at berth, and harbor craft consistent with the program guidelines.

In 2008, local agencies began implementing the projects. However, in December of 2008 the California Department of Finance issued a budget letter to all State agencies having control and oversight over general obligation bond funds, effectively freezing these programs. This funding suspension led to project delays that have impacted all of the grant agreements.

We have recently had a bit of good news, that a portion of our first year bond funds is finally coming our way. Today, we'll hear the latest on available bond funding and staff's recommendations for amending the program requirements and grant agreements so that we may

proceed with the implementation of program funding as soon as possible.

These grant agreement changes and the resumed partial funding will enable California to continue expanding the use of cleaner technologies to meet multiple air quality goals: To reduce health risk from diesel particulate, to meet air quality standards, and to reduce greenhouse gas emissions.

I appreciate the efforts by our local agency partners who began implementing their grant agreements last summer and fall.

As always, we want to move as quickly as possible to see the benefits of these available funds move into California communities.

Now, I'd like to introduce Matthew Botill of the Planning and Technical Support Division to provide the staff presentation.

Matthew.

(Thereupon an overhead presentation was Presented as follows.)

MR. BOTILL: Thank you, Mr. Goldstene.

Good afternoon. I'm here today to provide an update on ARB's Proposition 1B incentives for goods movement in school buses. The purpose of this item is to seek your support for changes to those programs to help

implement incentive projects as bond funds become available.

The Board has already awarded funding to air districts and seaports. We need to update the terms and conditions of those awards.

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MR. BOTILL: I'll begin with a brief report on progress, followed by an update on available funding, and then conclude by describing the changes needed to existing guidelines and grant agreements for each program.

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MR. BOTILL: Under the Goods Movement Emission Reduction Program, ARB awards bond funds to local agencies that then offer competitive grants to reduce emissions from trucks, locomotives, ships at dock, harbor craft, and cargo equipment used to move goods.

In February 2008, the Board adopted the Program Guidelines which provide direction to ARB staff and local agencies on implementing the program. At that meeting, and at a subsequent hearing in May 2008, the Board awarded over 246 million in first year grants for 21 local agencies -- local projects. Excuse me.

These air districts and seaports quickly began recruiting applicants. They received more than 9,500 applications, nearly all for trucks. To date, truck

owners have replaced or retrofitted over 300 trucks, primarily under the early grants administered by the South Coast and San Joaquin Valley districts.

On December 18th, 2008, the State Department of Finance issued a budget letter requiring agencies slated to receive general obligation bond funding to suspend action on these programs. As directed, ARB then instructed local agencies administering Prop 1B grants to stop signing new equipment project contracts or expending funds for existing contracts until sufficient bond funds become available.

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MR. BOTILL: Under the Lower Emission School Bus Program, ARB partners with local air districts to offer grant funding for new safer school buses and to put air pollution control equipment on buses that are already on the road.

In March 2008, the Board adopted the program guidelines for the School Bus Program. At that meeting, the Board also approved an allocation of over 191 million in funds to 35 air districts, according to the formula prescribed in State law.

Local districts actively implemented the program in the second half of 2008. By December, school bus owners had requested over 240 million in project funds by

submitting applications for more than 1,200 school bus replacements and 4,000 retrofits.

Following the order from the Department of Finance, we also instructed air districts running the Prop 1B School Bus Program to stop signing new equipment project contracts or expending funds for existing contracts.

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MR. BOTILL: In April 2009, we received the first installment of cash from bond sales to reimburse ARB for expenditures previously made for both programs before the December funding freeze.

This 33 million reimbursed ARB for early grant truck projects already funded in the South Coast and Central Valley, as well as school bus upgrades funded throughout the State.

Some local agencies also requested and received initial funding to cover their administrative expenses.

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MR. BOTILL: Earlier this month, ARB received a second installment of cash from California's sale of Build America Bonds that were subsidized by the federal stimulus package. Ninety million is available for goods movement and 71 million for school bus.

Consistent with the priorities previously

established by the Board, ARB staff identified the subset of Goods Movement and School Bus grants that can restart with this second installment of money.

Under federal law, these funds can only be spent on cleaner equipment. They cannot be used to reimburse local agencies or ARB for staffing and administrative expenses. We informed each local agency of this limitation to find out if they wished to accept bond money with this condition. Only the Sacramento Air District chose to decline the grant funds until administrative funds are available.

For Goods Movement, the priorities for the 90 million include a shore power project for ships in the Bay Area and projects for port trucks in coastal areas and to other trucks in the San Joaquin and Imperial Valley.

For School Bus, this means 71 million to replace all pre-1977 school buses statewide, plus funds to upgrade other buses in the South Coast and Central Valley.

Your handout shows the complete list of projects for both programs and the funding level currently available for each.

We'll be sending letters to the local agencies shortly to formally authorize restart of the selected projects. Then we will amend the grant agreements with those agencies according to the direction you provide at

this meeting.

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MR. BOTILL: We still need approximately 250 million in bond monies for both the Goods Movement and School Bus programs to cover the funds obligated in grants to local agencies during the first year of these programs.

We will continue to work within the administration to seek priority funding for ARB's Prop 1B programs when the State is able to raise more cash from bond sales.

We hope to request new proposals from local agencies for the next round of goods movement funding this fall, following Board consideration of comprehensive updates to the program guidelines.

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MR. BOTILL: We're here today to discuss specific changes to modifying existing program guidelines and amend the first year grant agreements. While some of these things are within the Executive Officer's discretion to implement, others require Board approval to amend guidelines. We will describe the key changes today.

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MR. BOTILL: ARB staff has identified a few areas where changes to program guidelines are necessary to reflect the current uncertainty in the timing for full

funding of the existing grant agreements or to support effective implementation.

The delay of bond funding means that local agencies will require additional time to complete projects under the existing grant agreements.

ARB staff is also proposing to modify year one projects to better align the recently adopted statewide truck and bus regulation. Local agencies have also requested to change their existing funding awards or conditions. We support the request discussed in this presentation that can be implemented according to the existing guidelines.

Some local agencies and industries have suggested broad scale changes to the fundamental structure of the Goods Movement Program. These proposals should be discussed when the Board hears the comprehensive update to the guidelines anticipated in fall 2009.

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MR. BOTILL: In the remaining slides, I will highlight the areas where staff is seeking Board approval to change limited provisions of the existing guidelines to resolve implementation issues. The majority of the grant agreement amendments we are discussing are within the Executive Officer's current authority to implement under the program guidelines adopted by the Board.

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MR. BOTILL: The existing grant agreements provide that local agencies can request and receive funding from ARB when they demonstrate they have met the performance milestones in the guidelines. We need to add a provision to each agreement that ARB's obligation to disburse funding is dependent on obtaining State bond funds to make those payments.

The timing and amount of funding for this program in each bond sale are uncertain. ARB will notify local agencies in writing with authorization to restart projects up to a specified funding amount, as additional monies become available.

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MR. BOTILL: The existing grant agreements establish the timeframes for local agencies to sign contracts with equipment owners, and additional time to liquidate funds for completed projects.

With the delay in bond funding and uncertainty about the next installments, ARB staff proposes to extend the deadlines. The extension will typically cover the amount of time that bond funding for the grant was suspended, plus a short restart period.

This general concept will enable ARB staff to look at the individual situation, including when bond

funds are made available, to determine the appropriate deadlines in consultation with the local agency.

Since the implementing statutes define an absolute maximum time to contract and liquidate funds under both programs, the extension must fit within that period or the funds revert to the legislatively controlled program account.

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MR. BOTILL: When the Board adopted the Goods Movement Program guidelines, the corresponding resolution delegated to the Executive Officer the ability to make interim changes to the guidelines and to bring those changes back to the Board during the hearing on the next comprehensive update.

With the adoption of the School Bus Guidelines and corresponding resolution, the Board delegated to the Executive Officer the ability to make limited adjustments to the program guidelines.

To allow both programs to be more responsive to issues and new developments, we propose that the Board expand the Executive Officer's authority to include making changes to the program guidelines and grant agreements that are consistent with the statutes and the goals established by the Board, if needed to enable effective implementation.

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MR. BOTILL: The Goods Movement Guidelines currently require that bond-funded truck retrofits with particulate matter filters be completed at least six months prior to the regulatory requirements. With the January 1st, 2010, compliance deadline in ARB's drayage truck rule, the guidelines require bond-funded retrofits for trucks serving ports and intermodal rail yards to be completed by June 30th, 2009, one month from now.

With the delay in funding, it is no longer possible to meet that deadline. However, when the Board adopted the drayage rule, we expected that substantial bond funds would be available for early compliance, with retrofits as the top funding priority.

In light of the extraordinary circumstances, we recommend that the Board reduce the early period for installation of PM retrofits on trucks serving ports and intermodal rail yards, such that projects completed by December 31st, 2009, are eligible for bond funding. Staff believes that this represents the earliest feasible deadline in this unique situation.

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MR. BOTILL: The Goods Movement Guidelines require that truck replacements be operational at least three years prior to the technology deadlines and

applicable rules. Under the statewide Truck and Bus Rule, the relevant deadline is January 1st, 2013. This would require new trucks to be funded and operational by the end of this year.

Because of the funding delay, we recommend that the Board reduce the early period for the limited population of other trucks in the 1998 to 1999 model year range. Shifting the early period from three to two years would allow these trucks to be replaced with bond funding through 2010. This change would be consistent with the existing two-year early period for 1997 and older trucks.

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MR. BOTILL: The current Goods Movement Guidelines also require that trucks be under contract for specified project life and subject to program conditions, including hundred percent California operation. With the Board's subsequent adoption of the statewide Truck and Bus Rule, there is now additional assurance that clean trucks stay in operation in California.

We believe it is appropriate to shorten the length of time that each truck would need to remain under contract. Specifically, we are proposing to shorten the product life from eight years to five years for truck replacements and repowers and decrease the life from four years to two years for truck retrofits. These changes

would apply to all truck contracts funded under the existing grant agreements.

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MR. BOTILL: The grant agreements allow local agencies with truck grants to shift funds allocated for truck retrofits to truck replacements if there is the lack of demand for retrofit funding. To do so, the agencies must submit a formal request and receive written approval from ARB. Since the demand for retrofit projects is significantly less than anticipated, all of the agencies administering retrofit projects are in the same situation.

We are proposing to eliminate the exchange of letters, but retain the requirement that local agencies document their efforts to seek retrofit projects. Consistent with the grant agreements, eligible retrofits would still need to be sought and funded first. And your remaining funds could then be quickly applied to replacement projects.

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MR. BOTILL: The Bay Area Air Quality Management District has requested that ARB transfer the 4.3 million awarded for harbor craft projects to the District's existing port truck grant. This request is based on a lack of demand for harbor craft funding and the need for additional port truck funding prior to the upcoming

January 2010 compliance deadline. ARB staff supports this request.

Similarly, ARB has awarded first year funding for shore power projects to two agencies based on the expected participation of shipping companies. And one of those agencies, the Port of San Diego, has not enlisted any participants under the terms of the grant.

The Port reports that Dole is partnering in an application for federal DERA funds to retrofit two ships to accept shore-based electrical power. With or without the DERA grant, it is not yet clear if Dole will commit to participate in the longer term Prop 1B funded project that would cover part of the landside costs only. If the Port cannot secure a participant shipper by July 2009, staff proposes to transfer the 2.5 million in shore power funds to truck projects in the same San Diego/Border Corridor.

This option to transfer funds may be necessary to ensure that the monies can be used within the timeframes allowed by statute to avoid reversion back to the legislatively controlled program account.

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MR. BOTILL: In 2008, ARB awarded a 98 million grant jointly to the ports of Los Angeles and Long Beach to replace nearly 2,000 old diesel trucks. There is a key issue with the ports' ability to implement this grant - a

port gate fee imposed on new diesel trucks that received Prop 1B funding from the ports. These fees are used to subsidize the ports' additional incentives for natural gas trucks. The ports have also expressed a desire to focus the State funds on natural gas trucks.

To explain the gate fee issue, let me share an example:

In exchange for a $50,000 Prop 1B grant from the ports, the owner pays gate fees on his new diesel truck. These gate fees could be upwards of a hundred thousand dollars over the first five years of service. The ports will use the gate fees from the new diesel truck to subsidize purchase of natural gas trucks. This trucker can't get any business because the cargo owners won't hire drivers subject to the fee. If the trucker received the same 50,000 for a new natural gas truck or a grant administered by another agency, that truck would not be subject to the fee.

For truck owners who do not or cannot choose a natural gas path, they are left without meaningful access to the 98 million in Prop 1B funds administered by the ports.

We've identified two options to resolve gate fee problem and ensure that Prop 1B funds can be quickly deployed this summer. The ports can amend the existing

gate fees to remove the penalty on new diesel trucks receiving only Prop 1B funding. Or, alternatively, ARB could reassign this grant to a Board-approved back-up project run by the South Coast. The South Coast would then run the program consistent with the guidelines, and all new trucks funded would be exempt from gate fees.

On the national gas issue, we understand that the harbor commissions for both ports have adopted policy goals to convert their trucking fleets to natural gas, electric, and other alternative fuels. As staff, we support the ability of local agencies to provide additional subsidies from their own monies to accomplish their policy goals.

ARB's guidelines call for open, fair access to state funding, with trucks competing based on the calculated air quality benefits of replacing a specific old truck with a specific new truck, regardless of whether the new truck is diesel, natural gas, hybrid, or electric. Under this system, trucks certified to the cleanest 2010 emission standards have a competitive advantage over trucks just meeting the 2007 standards. Right now only natural gas engines meet that 2010 standard.

The South Coast District has confirmed its ability to take over administration of this grant, and we are in discussions with the ports about the next steps.

Whether the project is run by the ports or the district, we expect recipients of the Prop 1B funds to administer the open, competitive program required by the guidelines.

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MR. BOTILL: Following signature of the grant agreement, the San Diego District requested the ability to implement one of the defined project alternatives that would allow the district to require that trucks receiving funding travel at least ten percent of their annual miles in the San Diego/Border Corridor. We support this administrative request.

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MR. BOTILL: Staff believes these changes to the existing Prop 1B grants and guidelines are needed to quickly and effectively restart both programs. Staff proposes that the Board adopt both the Goods Movement and School Bus resolutions.

Thank you.

CHAIRPERSON NICHOLS: All right. We have nine witnesses. And this is an item where we're going to have to take Board action. So I'm going to move us through the agenda.

Are there any initial questions that Board members need to ask before we get through the witnesses?

Yes.

BOARD MEMBER D'ADAMO: Just a question on the port trucks.

I want to make sure I understand. If South Coast takes over that grant, it would go -- the recipients of the funds would be the same population, it would basically be port trucks?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Absolutely. It would be the same terms and conditions, just a different administrator.

I'm Cynthia Marvin.

CHAIRPERSON NICHOLS: All right. Jonathon Burke, followed by Ryan Wiggins and Todd Campbell.

MR. BURKE: Chairman Nichols, members of the Board, staff. My name is Jonathon Burke. I'm with Westport Innovations. We are a supplier of alternative fuel engine systems that allow Class A transport trucks to run on natural gas. And also we have a joint venture with Cummins, whereby we supply brand new factory-built engines for a variety of applications, including buses, drayage trucks, et cetera.

We're very supportive of Prop 1B and what it does for goods movement in a number of different regions in the state of California. And we know that its goals are to establish new clean trucks on the roads of California and specifically moving goods at the ports of Los Angeles,

Long Beach, Oakland, et cetera.

We're also supportive of any amendments that the staff would put forward that speed up the application process. There's been a lot of false starts because of funding issues that staff mentioned. Staff also mentioned that the goals of the program are to improve air quality, improve health consequences from port drayage activities, and also to reduce greenhouse gas emissions.

My challenge here today is that the staff is saying that gate fees, as set forth by the two ports, are the impediment to the adoption of natural gas vehicles and the impediment to the Prop 1B funds being spent appropriately. We would contend, however, that that is not the case. And, in fact, the case is that our company and a number of our partners - Kenworth Trucks, Peterbilt Trucks, Freightliner Trucks - have made significant efforts to make a wide range of vehicles available. And we've also spent a lot of money to prepare for this particular program.

Instead, we understand that the scrappage requirement may have been one of the barriers that has prevented the adoption of this program effectively.

And we feel strongly that the South Coast Air Quality Management District needs a voice at the table with regards to the amendments that are being

contemplated; and that these amendments as contemplated to remove the gate fees from the exemption around the natural gas trucks would put us back where we were before Prop 1B, which was an unlevel playing field where diesel had a considerable advantage as the incumbent technology over natural gas.

We feel that in order to introduce an industry, you have this common chicken and egg situation where infrastructure is not yet well established, the vehicles are not yet readily available, there's a barrier on the part of truckers to adopt new technology, and this is preventing the adoption.

However, we do know that there are considerable numbers of natural gas trucks plying the roads of southern California moving containers and that there is considerable interest in purchasing natural gas trucks for the movement of goods, and this technology is being proven out every day on the streets of California.

So I would ask that the Board consider this and hear our comments.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

We're having -- I think I'd better just do this here on the record. We're having a quorum problem because of scheduling. And the Board members who have left have

all indicated their support for the motions that are going to be coming before us, but they won't have been here to hear all the testimony and they will not be able to vote.

So the question is, what can we do? Because we can't lock the doors here. Those of us who are able to stay will stay of course and listen to the testimony. If it's possible to have the others review the record and have a special meeting, if necessary. Or obviously the simplest would be to simply wait until the next meeting. But if it's not possible to carry it over for a vote and you really need the decision today, then we're going to have to -- I mean, soon we'll have to do some sort of a special meeting and do it by telephone or something -- hold the meeting open and hold the vote by phone.

CHIEF COUNSEL PETER: We could do that. We'd have to re-notice it. But we could continue the vote after the testimony. And we'd have the Board members -- unless they're going to be able to call in and listen to the testimony now, they could review the transcript.

CHAIRPERSON NICHOLS: They'd have to review the transcript. So that would take -- presumably it will take a little while to get the transcript.

CHIEF COUNSEL PETER: We can get the transcript -- this part of the transcript and we can do a 48-hour turnaround time, I assume, if we're just doing the

last part. So I'm looking at the court reporter.

Yes, that's correct.

CHAIRPERSON NICHOLS: All right. Then we're going to need the Board -- the Board's going to have to convene -- we have to find a time when we can get everybody together for a noticed session simply to vote on the resolutions. And that will be the way we'll do it.

EXECUTIVE OFFICER GOLDSTENE: We have six now, right?

CHAIRPERSON NICHOLS: We're about to lose Dr. Sperling.

BOARD MEMBER D'ADAMO. Can I make a suggestion?

BOARD MEMBER SPERLING: Unless somebody can give me a ride to Berkeley as soon as it ends.

(Laughter.)

BOARD MEMBER SPERLING: Any offers?

CHAIRPERSON NICHOLS: Any offers for a ride to Berkeley?

CHIEF COUNSEL PETER: We can arrange that. So we'll find a staff person or something.

No, seriously.

CHAIRPERSON NICHOLS: We could get you a ride to Berkeley.

EXECUTIVE OFFICER GOLDSTENE: That would be a lot easier than --

CHIEF COUNSEL PETER: That would be easier than doing a Board meeting, frankly.

(Laughter.)

CHAIRPERSON NICHOLS: We should certainly reduce the time for people to testify anyhow, I think, under the circumstances. I don't think, given the nature -- this is not a regulatory proceeding. I think people could tell us, you know, what they're for or against and what changes they need in two minutes, or even less, if possible.

Just be quick. Okay.

MR. WIGGINS: My name is Ryan Wiggins. I'm here on behalf of Communities for Clean Ports. We're a member of the Coalition for Clean and Safe Ports down in the South Coast.

The alternative fuel component of the Clean Trucks Program has been a priority of our organizations. There's over 40 organizations - environmental, public health, and labor organizations - in the coalition. And it's also well supported by the public.

We've worked toward this goal, because these trucks represent a reduction in multiple different types of emissions, especially greenhouse gas emissions.

The proposal the Board is considering -- money on diesel trucks that do not need to be subsidized and sabotage the public's desire for a clean alternative to

diesel fuel.

The ports do not need this money to replace old diesel trucks. In the last year, over 2,000 -- 2,007 compliant diesel trucks have been introduced to the ports by the private sector and have received absolutely no subsidies of any kind. No container fees are currently charged on privately diesel-funded trucks, and both ports estimate that if no action is taken this year, the entire port drayage fleet will be almost completely diesel.

Currently, the container fees of both ports incentivize alt fuel trucks and place the responsibility of subsidizing those trucks on the shoulders of beneficial cargo owners. As a result, applications for LNG trucks are being submitted at a rapid pace and both ports are beginning to award grants with prior -- to focus on those that achieve 2010 emission standards.

If the ports eliminate their fees on port-funded trucks to utilize Prop 1B money or if CARB redirects its money to AQMD, the taxpayers will pay for diesel trucks that would be available for port service anyways.

Furthermore, the Board meeting notice cites a lack of application for bond funding despite the impending CARB port regulation. What it fails to recognize is the role of the scrapping provisions and the lull of applications. It has been difficult for the ports to

locate these trucks, as they have a higher resale value in the open market and many of them have left the state.

The key to incentivizing alternative fuels, reducing the marginal cost of these trucks -- of alt fuel trucks, and the proposal to divert money to AQMD will make diesel trucks significantly cheaper than available LNG trucks.

The ports have frequently reiterated in public their desire and the need to use Prop 1B funds to incentivize alt fuel trucks. So there's overwhelming support for alt fuel trucks in the public and among the organizations that have fought for the Clean Trucks Program.

In this, the most critical year for deploying a significant number of alt fuel trucks, we ask that the Board work with the ports, AQMD, and our organizations to achieve this goal. This money could incentivize almost 1,000 alt fuel trucks rather than subsidize diesel trucks when there's no need. We'd rather this money be used for saving teachers' jobs, addressing the budget deficit than going to diesel trucks that don't need to be subsidized.

Thank you very much.

CHAIRPERSON NICHOLS: That's a pretty extreme view.

All right. Thank you.

Todd Campbell, and then Pete Price.

MR. CAMPBELL: Thank you, Madam Chair. Todd Campbell, Clean Energy.

And I would say it may seem like an extreme view, Madam Chair, but the reality is is that the ports will require brand new trucks to be purchased by the end of this year. So whether the trucks are funded by this program or not, that will be the end result. And unfortunately the way that this proposal's been drafted -- it is not a technical change, by the way. It's a very significant change in this program. It's not an easy vote. This very issue has to deal with not fuel neutrality, but in some ways actually encourages emissions neutrality. If you look at the changes and modifications of what's being produced --

CHAIRPERSON NICHOLS: Excuse me. But we were going to have a two-minute time limit and you're still giving people three minutes. So you can have your three, but that's the end.

MR. CAMPBELL: Okay. Great, great.

Well, it's really important for us to understand here.

For instance, the staff proposal is trading I think, in my view falsely, the speed up of efficiency under the provision for the regional effects down at the

ports. And it's not, because the real problem is truck scrappage. We cannot get the trucks -- the number of trucks scrapped fast enough. And there needs to be more coordination there. If that was fixed, if that problem was handled - and which I would strongly encourage in the fall to be addressed - we would have a lot more alternative fuel trucks and we'd even possibly have a lot more -- and I'm not just talking about natural gas trucks. I'm talking about electric trucks.

The issue here is you have poor communities that have been screaming for change. They want change. They've directed and pushed both these ports to do policies that support cleaner vehicles. And now the staff is worried about spending this money in enough time. But unfortunately it's sacrificing what the communities want. And that's the issue I have.

It's the issues -- when we went through the low carbon fuel standard, we looked at the emissions benefits of well to wheels. And we're throwing out not just the benefits of greenhouse gas reductions that will occur from these -- from pushing a potential of a thousand alternative fuel trucks to enter the ports down in San Pedro, but we're also challenging ourselves in believing this false belief that this fix, this supposed technical fix will change something.

And I'm telling you something. We work with the truck sales teams. This is not going to fix it. And I urge you, from the bottom of my heart, to not move forward with this one fix, to delay this for a summit with the Air Quality Management District and the stakeholders, and come up with a better solution in the fall, because that's what staff is, you know, ultimately going to propose, more changes in the fall. There is no rush for this. And I urge you please reconsider.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Pete Price.

MR. PRICE: Madam Chair, members. Pete Price with the California Natural Gas Vehicle Coalition.

We understand the problem you face. Believing me, no one wants to see new trucks moving through the ports, whether we do. We do believe that the solution that's been proposed is off the mark and, at a minimum, deserves some more discussion. And it's for that reason -- and I also agree with Mr. Campbell. It's not a technical change. It's quite substantive, the change, and we think it merits being rolled over to the discussion in the fall.

Since time's brief, let me go right to one point that Todd made. You have two sets of drivers in the

ports - independent truck owners and fleet owners. The independent truck owners, by and large, have the trucks that you want to get to. They drive the oldest, dirtiest trucks. There are a variety of reasons why it's very difficult to get independent truck owners into this program even with a subsidy. They have costs that they oftentimes can't bear. How do you get to those drivers?

At the same time you have fleet owners who -- well, the ones you seem to be pursuing, who have five to seven year old trucks with lots of life left on them, that are relatively much cleaner than the trucks driven by the independent owners. And we're asking those fleet owners in order to participate in this program to agree to scrap that quite valuable truck that has lots of life left on it. We believe that's the main reason they're not participating.

There is language in statute related to the Moyer program. This problem is known I think by staff. What we need to do is find a way to get the fleet owner to come to the program, get that five to seven year old truck, get it in the hands of the independent truck owner, and then scrap that twenty year old truck or that independent owner's truck. That's the dirty truck you want to get at. We think that's the real solution to this program. We don't think it will be solved with the proposal you've got

now. And that's why we'd ask that you put this over until the fall where we can discuss this in a much more substantive way and really get to the nut of the problem.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Tim Carmichael and then Chung Liu.

MR. CARMICHAEL: Chairman Nichols. Tim Carmichael, Coalition for Clean Air.

We're strongly opposed to paragraph eight or section eight of the staff proposal on this item. This is the one that we've been talking about relative to the ports of L.A. and Long Beach.

We fought -- I'm also speaking on this item on behalf of the Natural Resources Defense Council.

Our organizations fought hard with the local communities to get the ports to adopt incentives and restrictions for -- pro-alternative fuel against diesel, because they're not the same. They're not the same when it comes to criteria pollutants. They're not the same when it comes to GHG emissions. And they're not the same when it comes to petroleum reduction goals. This agency needs to do more on all three of those fronts.

And here you've got the ports of L.A. and Long Beach out in front with a pretty strong requirement with this fee -- a gate fee. And the ARB staff is recommending

that you pull back funding or redirect funding, because the ports are, in fact, taking a pretty hard line on pro-alternative fuels. That runs completely counter to the mission and goals of this agency, as far as I understand them. And we believe that this funding is important. If it goes to the South Coast, it very likely means it goes to diesel trucks. It does not mean that it goes to natural gas trucks. If it stays in play, we believe, you know, consistent with the comments that were previously made, the real issue for the lack of participation is the scrappage requirement as is currently constructed. That's where we need to focus our attention. And this funding should remain in play. The ports should be able to continue to maintain their gate fee. And we will see many more natural gas and alternative fuel trucks roll out in those ports. And that's exactly what we need.

More diesel is the status quo.

CHAIRPERSON NICHOLS: Tim, do you hear yourself saying that both the South Coast and the Air Resources Board are going to promote diesels because we don't care about air quality, and only the ports care about air quality? That's what you just said. You said if the money goes to the South Coast, they're going to give it all to diesel, because obviously they don't care about people's health or air quality. And certainly ARB doesn't

either. What are you talking about? This does not make sense.

MR. CARMICHAEL: Okay. Well --

CHAIRPERSON NICHOLS: I mean, I --

MR. CARMICHAEL: They're different issues. With the South Coast, they're unfortunately under the constraint of having lost some legal battles recently. So they are going to have great difficulty giving any sort of favoritism or incentive towards alternative fuels because of the litigation that they've been in with ATA and others. That's a big issue there from our perspective.

With the ARB, this agency for a long time has been under the, you know, auspices of fuel neutrality, trying to keep a level playing field. We believe that's flawed. We don't think you should have a fuel-neutral approach. We feel that you should have strong favoritism towards alternative fuels, especially where it can be shown that, in addition to a petroleum reduction benefit, there's a clear greenhouse gas benefit and there's a clear criteria pollutant benefit. And we think all of those -- all three of those points are true when we're talking about port trucks moving to natural gas as opposed to moving to new diesel.

CHAIRPERSON NICHOLS: Okay. Thank you.

Chung Liu, followed by John Holmes, Thomas

Jelenic.

MR. LIU: Chung Liu from the South Coast District. I have to make a correction on Tim's statements. The South Coast is not favoring diesel. And at this juncture, I think South Coast together with the two ports actually want you to really reconsider your guidelines and -- in the award agreement to really start to have LNG preference the programs. And I'm not going to spend too much time because -- the time comes from here. But we want to make one request here. I'm just going to read this brief paragraph.

The South Coast AQMD would like to request a meeting at board level with ARB, the Port of Los Angeles, Port of Long Beach, with participation by appropriate key staff members, to review and reconsider the elements of the current Proposition 1B grant language pertaining to the replacement of drayage trucks at the ports. We want to make that request. I think this is a very important issue. As you can hear later on from the two ports also, those three local agencies really want to meet with you at board levels.

And another minor issue, which it may be minor to the State, but it's pretty big to us, is somehow the language, in the interpretation basically, suddenly there's no cause for the local district to administrate

the program, yet we have to administrate the program. To the South Coast AQMD, to administrate the school bus program and also if we have to take on the port truck programs, we only have to store $3.5 million. And just the -- we really appreciate that your Executive Officer, Jim Goldstene, is going to meet with other CAPCOA members on this matter and we're going to discuss that. Hopefully, we can find some solutions there.

Thank you.

CHAIRPERSON NICHOLS: Okay. Thank you.

We'll respond to all these comments later.

Thanks.

MR. HOLMES: Yes, good afternoon. My name is Captain John Holmes. And I'm the Director of Operations at the Port of Los Angeles. And I would just like to commend you and your staff. One thing that we have found in putting together a truck program and trying to administer it and run it, both the ports of L.A. and the ports of Long Beach, is that, you know, the one thing that you have to do is be willing to make adjustments to the program over a period of time.

So although I'm not going to speak on specific elements of the program, we've had the opportunity to talk to your staff, and I feel confident that if we sit down together and also with our colleagues from AQMD, we can --

you know, we can work this situation out; so that we do encourage alternative fuel vehicles, which is certainly a goal of both the ports and we can put the money that is available to good use in getting more trucks on the road.

Both of the ports have made significant financial commitments. We've been very successful in getting 2007-compliant trucks on the road. We have at the present time about 4,500 2007-compliant trucks now going in and out of the ports. We do need to move to alternative fuel. We do need to move to electric, biodiesel and other things. But I don't think what we're trying to do is mutually exclusive. And again, you know, we've had the opportunity to work with your staff and we're very encouraged by the fact that, you know, we've had meetings and we've worked together. And I think we can continue to do so and put together a program that not only, you know, effectively and efficiently gets more alternative fuel trucks on the road, but gets them on the road this year, so that we continue to make the dramatic reductions in emissions that we've already had.

I fully understand the points of the gentlemen before me and certainly my colleagues from AQMD. But I would just, you know, say thank you very much. This is something that we need to work together on. And we are more than happy and ready to do so with you.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Tom Jelenic and then Michelle White, and that's the end of my list.

MR. JELENIC: Good afternoon. Thank you for the opportunity to comment. My name's Thomas Jelenic with the Port of Long Beach.

We believe that -- we appreciate the opportunity that your staff has given us to address the issues they have. We believe, to reiterate what Captain Holmes has said, that with further discussions we'll resolve any remaining issues. We believe that we can meet the concerns of your staff and meet the desires of our respective boards to get LNG trucks on the road. We believe there is significant demand. And we'll work through these issues in the next few weeks and address the scrappage issue as well. We believe there are clever ways to address that.

So thank you. And if you have any questions on the status of the program, I'd be happy to answer them.

CHAIRPERSON NICHOLS: Thank you.

Ms. White.

MS. WHITE: Good afternoon, Chair Nichols and members of the Board. My name is Michelle White. I'm with the Port of San Diego and am here to speak on behalf

of the port's shore power project and the Proposition 1B funding that we were awarded.

I just wanted -- just to be brief, wanted to make a clarification on the staff report. The staff report states that there is a lack of interest on the part of our project partner. And currently right now, we do have a commitment from Dole. This shore power project would be for our refrigerated container ships. So we do have a commitment from Dole to participate in our shore power project through the close of their lease option period, which is in 2014. We're currently working with them to ensure that this project goes through.

We understand the need to have flexibility in the reallocation of funds so that if this project does not go through, the funds don't revert back to the General Fund. However, we are just requesting that ARB staff be flexible in executing the option to transfer funds from our shore power project. Our conversations with ARB staff thus far have been very supportive and we really appreciate their understanding and their feedback on this project. This is a large capital development project for us, and the availability of Proposition 1B funding is an important component of this project.

So I wanted to just thank you for the opportunity to speak here today.

CHAIRPERSON NICHOLS: Thank you.

BOARD MEMBER ROBERTS: Quick question.

CHAIRPERSON NICHOLS: Yes, a question from the Supervisor.

BOARD MEMBER ROBERTS: Are you in agreement with the staff recommendation that these funds would be basically reassigned to trucking as opposed to the original proposal?

MS. WHITE: We would like these funds to stay for our shore power project. But we understand staff's position that if we cannot come to an agreement with Dole for the life of this project, that the funds be diverted to trucks within our region.

BOARD MEMBER ROBERTS: So you're in agreement with the staff position then?

MS. WHITE: Yes. We are just asking that staff be -- that we're able to work with staff to do everything we can to keep that money in our shore power project.

CHAIRPERSON NICHOLS: Is that acceptable to the staff? Is that what the staff would do?

BOARD MEMBER ROBERTS: Well, I don't -- do everything we can. I think the staff is saying there's a deadline. And if that deadline's not met, as I understand it, then the switch is going to be made. Is that --

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT

CHIEF MARVIN: We very much want this project to work -- the Dole project actually. And we just want to make sure that we don't wait so long for a slightly reluctant participant that we end up losing access to those funds for the San Diego corridor.

BOARD MEMBER ROBERTS: And I understand that you've set a timeframe on that.

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Correct.

BOARD MEMBER ROBERTS: I mean, it sounds like they're trying to get stimulus dollars. If they don't get stimulus dollars, we don't know if their interest is deep enough to want to put other dollars --

CHAIRPERSON NICHOLS: And sometimes setting a deadline helps clarify things.

BOARD MEMBER ROBERTS: So if there's a deadline -- and that deadline is not going to be changed if we approve this, as I understand it.

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: What we're suggesting is that we look at July for a commitment from Dole. The answer to whether or not they will receive a federal grant we will have in the beginning of June, next week. So they'll have that answer and can go forward with the port.

BOARD MEMBER ROBERTS: So if they don't receive

the grant, then they have to sign up in no uncertain terms; and if they don't, then the switch would be made?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Right. There still would be an opportunity to work that out over the next two months. We just wanted to make sure that if that doesn't materialize, that we're able to move forward. We all want this project to work.

BOARD MEMBER ROBERTS: Okay.

CHAIRPERSON NICHOLS: Thank you very much.

That concludes the list of witnesses that I had. And so -- I should say that we do still have a quorum and are going to be able to take a vote. Supervisor Yeager had to look at something in the backroom, but he is listening to the testimony. And so when we're ready to vote, he will be able to come out and do that.

But this is a time to have some discussion or questions on the part of the Board.

So I'd like to start, because the bulk of this testimony really was about the Port of L.A. and Long Beach and natural gas and what's going to make the programs that the ports want to do work or not, and if the ARB is in some way penalizing or through its policies disfavoring the policy that obviously the natural gas groups and the community groups want to see advanced, which is a transfer to not just cleaner trucks, but to specific types of

cleaner trucks, which is alt fuel vehicles trucks.

And although the issue of our Board guidelines was not on the table for this meeting, so I don't consider it an ex parte meeting in that sense, I did have a meeting what, about a week ago -- two weeks ago, along with Mr. Goldstene and Ms. Marvin, with staff of the two ports and commissioners of the two ports. Well, I guess the former President of the L.A. Port Commission, who's now the deputy mayor, convened a meeting in his office which I attended.

And we had a discussion about this very issue. And I was under the clear understanding when we left that the two ports were going to get back to us with a revised proposal and that we were essentially in agreement about how to make the State's money and the ports' money work together to get what everybody wanted.

I mean the one thing that I want to say on the record here is that Prop 1B is not a greenhouse gas measure. It's not an alt fuels measure. It's not a petroleum reduction measure. It was an air quality bond. And we do feel obligated to use the money -- I think we not only feel obligated -- we are legally obligated - I'm sorry to be a lawyer again - you know, to spend our money as quickly as possible to alleviate what we all agree is a very serious health problem in and around the ports as a

result of those localized trucks. So we were trying to find a way to come together and make that happen.

I was under the impression that we were going to be able to do that and this whole issue of transferring funds was probably moot or at least, you know, might be a threat that would be out there, but wasn't something that was actually likely to happen. Can I get an update on this from staff?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Of course. We received a written proposal from the two ports yesterday in response to the meeting that we had on May 15th. And we need to have some follow-up discussions with them. I believe we can work through it, as the two ports testified. I believe what we can end up with is a situation where, whether the ports or the South Coast, whichever agency administers this grant, that both folks who want to replace their old truck with diesel and folks who want to replace their old truck with natural gas would be able to apply for funding, compete on the basis of the emission reductions that would be achieved. And that no truck that is funded with these Prop 1B monies alone would be subject to gate fees. That's --

CHAIRPERSON NICHOLS: And that was what the issue was, was the double charging, in effect, on the Prop 1B?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Yes, you get 50,000, you'd pay more than a hundred thousand.

After discussions with the ports this morning, I suspect that the outcome of the follow-up negotiations may be that the ports want to transfer the administrative responsibility to South Coast. So we really don't see it so much an issue of which agency is administering the program, as it is making sure that the premise in the guidelines that the trucks are able to compete for the defined amount of money based on those emission reduction characteristics, that that's really the overall, you know, profile and policy that's implemented.

CHAIRPERSON NICHOLS: And as I understand it, it is -- again, it's true that for the newer trucks or for the trucks that are out there now, the natural gas vehicles do have a competitive advantage, so that the likelihood is that, you know, given a choice, people are going to choose a natural gas truck.

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: If two people come in with the same old truck and one is going to replace it with a natural gas that meets the cleanest 2010 standards, one is going to replace it with a diesel just meeting the '07 standards, then the person who wants to replace it with that natural

gas cleaner truck will have the competitive advantage in the program, because it's really focused on those emission reductions. To the extent that we get hybrids and electric trucks that become available as well, those will be even more competitive in the process.

CHAIRPERSON NICHOLS: Well, eventually, of course, we're going to have more money to spend and new rounds of funding, applications and all of that.

Okay. And then the one other issue that was raised was this administrative fees issue. Do you want to talk about that?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Yes, thank you.

ARB's guidelines allow local agencies to seek and be reimbursed for administrative funds. And we totally support that. The issue here is that we were offered proceeds from the sale of the Build America bonds on Earth Day. Those are federally supported bonds, and the Feds wrote the rules about what the money could be spent on. Those proceeds must go to capital equipment. They cannot go to administer projects. And so ARB had the option of accepting the funds, understanding that condition, or not accepting funds. Of course we said, "Yes, we'll take the money. We understand it has to be spent on projects." So it is ARB staff's intention that we will continue to seek

bond funds from other sources that don't have those strings, so that the local agencies are able to --

CHAIRPERSON NICHOLS: So this is money that we're using to keep the pipeline moving. It doesn't supplant the authorization that was in Prop 1B. Eventually the State will be selling more bonds, and the bonds that the State sells are subject to our rules about funding administrative costs. It's just this chunk of money that is the federal money that we can't give people administrative funding for. Is that also right?

PLANNING AND TECHNICAL SUPPORT DIVISION ASSISTANT CHIEF MARVIN: Absolutely. And if it makes the local agencies feel any better, I can tell you that ARB has yet to receive a single dollar of reimbursement for our staff and administrative expenses as well. So we're fighting for our own admin funds as well as for the local agency funds when the next bonds --

CHAIRPERSON NICHOLS: We're all in this together. Well, that's at least a helpful explanation.

Other questions from Board members about this program?

We have two resolutions in front of us, the one on the school bus and the one on the guidelines. A great deal of this is giving more flexibility to our staff to actually make this program work.

I want to say one thing, having spent some time with Mr. Goldstene and Ms. Marvin on this very issue, and apropos of our conversation earlier today with the Energy Commission about how they're going to be dealing with all the money that they're managing, it is really hard work giving away money well.

(Laughter.)

CHAIRPERSON NICHOLS: And I think our staff has really done an incredible job of continually meeting with all the grant applicants, shuffling the money that's out there, you know, making people aware of what the requirements are. I don't think they're doing this in a heavy-handed way at all. I think, in fact, they're really doing their best to bend over backwards to try to meet the desires of the local agencies that they're working with. And so I think we should do everything we can to keep this program moving forward. That's my statement.

Okay. Do we have a motion for the two resolutions?

Yes.

BOARD MEMBER ROBERTS: I'd move the two resolutions that are before us.

CHAIRPERSON NICHOLS: Thank you, sir.

Do I have a second?

BOARD MEMBER TELLES: Second.

CHAIRPERSON NICHOLS: A second from Dr. Telles.

All right. All in favor please say aye?

(Ayes.)

CHAIRPERSON NICHOLS: Opposed?

Good. Thank you very much.

And I think -- oh, we have public comments. Sorry. We do have two people who've signed up for the public comment period. This is an open mike for people who want to testify on an item that's not on our agenda.

Both of these individuals want to talk about refrigerated units. I believe Mr. Schrap from California Trucking and Mr. Shuemaker from Central Valley trailer Repair.

So if the two of you can come down, we would be happy to hear from you.

MR. SCHRAP: Thank you very much, Ms. Nichols. Will we be going back to three minutes? I hope that I won't --

CHAIRPERSON NICHOLS: We'll give you your full three minutes.

MR. SCHRAP: I have a tendency to ramble on. So I would hate to get cut off. So I appreciate that.

But thank you, ladies and gentlemen of the Board, for another opportunity to present before this distinguished body. My name is Matthew Schrap. I'm

Director of Environmental Affairs at the California Trucking Association. And as several of you are aware, or a few at this point at least, our association's been actively working towards a sustainable resolution on the transport refrigerated unit regulation. This was passed by the Board in 2004, and it's slated to go into effect this coming July 17th.

Our Refrigerated Carriers Conference of the CTA has been following this issue since initial promulgation. And I'm here before you today to kind of update the Board on the status of our efforts and inform you that as of yesterday our group met with staff, per Board member direction, and came away with a renewed encouragement for potential relief in light of the current economic climate and in relation to our petition request.

While we're still waiting for a final solution, we look forward to an active dialogue to formulate a sustainable strategy to encourage a fully enforceable registration standard on our implementation date of July 17th. We respectfully request that the Board remain actively involved to help expedite the process and ensure timely responses and efficient communication between CTA and ARB staff.

We have renewed assurances that staff will be providing us with weekly updates on when we can expect

some further dialogue. In the meantime, we would like to demonstrate our appreciation on moving forward and the renewed staff encouragement, I guess you could say, in finding a collective solution to this.

So, again, we wanted to thank staff for meeting with us yesterday and also remind the Board that this issue is still very alive and we appreciate your continued direction.

CHAIRPERSON NICHOLS: We understand there's a deadline that's coming up quickly.

MR. SCHRAP: Very soon, correct.

CHAIRPERSON NICHOLS: And so we're going to need to address this very promptly. I've not personally had a chance to get briefed. I was a little busy working on auto emissions issues for the last couple of weeks. But now that that's behind me, I'm looking forward to getting up to speed also.

MR. SCHRAP: And we have the same issues. And we just kind of take those one at a time as they slowly come into effect here.

So thank you, Madam Chairperson and Board members.

CHAIRPERSON NICHOLS: Okay. Mr. Shuemaker.

MR. SHUEMAKER: Madam Chair, Board members, staff. I'm Mike Shuemaker. I'm Chair of the Refrigerated

Carriers Conference for CTA and President of Central Valley Trailer Repair. And I just want to back up what Matt just said.

We really appreciate staff coming back and talking to us and sitting down and trying to resolve this issue. This issue is a result of the delay in the EPA waiver being granted, as well as the current economic conditions within the trucking industry and California's in general.

And, you know, it's encouraging to see that staff is understanding the problem. It's just that we need to just reinforce that sense of urgency. July 17th is coming down the pike really quick. There's a lot of members of the Carrier Conference that are already in compliance. There's others that are trying to get compliant as quickly as possible, but they've got to make decisions to use technology that has just been approved and not necessarily been tested by their own fleets. So they're making economic decisions that may not make sense from the long run, but they make sense in order to get in compliance. And I don't know that that's good for California and I don't know that that's good for the industry.

So I appreciate your time today. And it's been a very long day. Thank you.

CHAIRPERSON NICHOLS: Thank you for coming in.

And we appreciate the fact that you were able to meet with staff and at least begin to make some progress. I look forward to making more and getting on top of this issue before it becomes a confrontation. Thanks.

All right. Any other items of business?

EXECUTIVE OFFICER GOLDSTENE: That's all the business we have today.

BOARD MEMBER TELLES: Before we -- I mean, we talked about this a little bit earlier, but you're going to update us on this issue. And when would that update be coming, on the TRU?

EXECUTIVE OFFICER GOLDSTENE: In the June Board meeting we could provide an update to the Board.

BOARD MEMBER TELLES: Okay.

CHAIRPERSON NICHOLS: And if you have any correspondence before that time, would you -- I think we know that Dr. Telles and Ms. D'Adamo are both particularly hearing from constituents on these issues. And why don't you make sure to keep them updated as well.

EXECUTIVE OFFICER GOLDSTENE: We will.

CHAIRPERSON NICHOLS: Thank you.

All right. In that case, we are adjourned.

Thanks everybody.

(Thereupon the California Air Resources Board meeting adjourned at 4:35 p.m.)

CERTIFICATE OF REPORTER

I, JAMES F. PETERS, 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 California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California,

That the said proceedings was taken before me, in shorthand writing, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of June, 2009.

JAMES F. PETERS, CSR, RPR
Certified Shorthand Reporter
License No. 10063