

LOS ANGELES PUBLIC HEARING  
EPA/NHTSA PROPOSAL  
STANDARDS FOR GREENHOUSE GASES AND FUEL ECONOMY

OCTOBER 27, 2009  
LOS ANGELES, CALIFORNIA

REPORTED BY:  
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TRANSCRIPT OF THE LOS ANGELES PUBLIC HEARING,  
EPA/NHTSA PROPOSAL, STANDARDS FOR GREENHOUSE GASES  
AND FUEL ECONOMY HEARING, held at the Renaissance  
Los Angeles Airport Hotel, 9620 Airport Boulevard,  
Los Angeles, California, commencing at 9:05 a.m. on  
October 27, 2009, heard before the Government Panel  
of EPA/NHTSA, reported by Deborah L. Stough,  
Shorthand Reporter No. 8925, RPR, for the State of  
California.

EPA PANEL MEMBERS:

Chet France

Bill Charmley

NHTSA PANEL MEMBERS:

Stephen Kratzke

Stephen Wood

Rebecca Yoon

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LOS ANGELES, CALIFORNIA; TUESDAY, OCTOBER 27, 2009

9:05 a.m. - 3:20 p.m.

P R O C E E D I N G S

MR. FRANCE: Good morning, everybody.

Welcome to all of you today here in Los Angeles. This is our last of three hearings that we've held. Detroit was the first, New York was the second, and now we're finishing up here in Los Angeles.

My name is Chet France, and I'm the Director of the Assessment and Standards Division of the EPA's office of Transportation and Air Quality. I and my colleague here, Steve Kratzke from the National Highway Traffic Safety Administration, will be presiding over today's hearing.

EPA and NHTSA will be hearing testimony today on the joint notice of Proposed Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy announced by Administrator Jackson and Secretary LaHood last month on September 15th.

This joint rule was published in the Federal Register on September 28th. Our two

agencies are proposing these provisions under our respective statutes.

I will briefly describe EPA's proposed action under the Clean Air Act, and my colleague, Steve Kratzke, will review the statutes that apply to the proposed CAFE standards.

On May 19th of this year, President Obama announced the development of a national program for improving fuel efficiency and reducing greenhouse gas emissions from light-duty vehicles.

On that same day, Administrator Jackson and Secretary LaHood signed a joint notice of Intent to Propose Coordinated National Standards to Reduce Greenhouse Gas Emissions and Increase Fuel Economy for Passenger Cars and Light Trucks. The proposal we are taking comment on today is the result of that joint initiative.

Our agencies have been working closely together to develop this national program. The proposed national program will achieve very substantial reductions in fuel consumption and greenhouse gas emissions from light-duty vehicles.

The program will also allow all companies to build a single national fleet that satisfies all requirements under EPA's and NHTSA's programs and

would address the greenhouse gas reduction goals of California and other states for those vehicles for model years 2012 through 2016.

In addition to today's hearing, there's also the opportunity to send EPA and NHTSA written comments. The written comment period closes November 27th. The two agencies plan to take final action on this proposal by the end of March 2010.

Representing EPA on the panel with me are Bill Charmley, Deputy Director of the Assessment and Standards Division, and Ari --

MR. KAHAN: Kahan.

MR. FRANCE: -- Kahan. Sorry, Ari. I do know him.

Today's hearing will meet the requirements of Section 307(d)(5) of the amended Clean Air Act which requires EPA to provide interested parties an opportunity for oral presentation in addition to written submissions. The official record of this hearing will be kept open for 30 days to provide for submission of rebuttal and supplemental testimony.

We are going to conduct this hearing informally, and formal rules of evidence will not apply; however, we may strike statements from the record which are deemed irrelevant and needlessly

repetitious and to enforce reasonable limits on duration of the statement of any witness.

Due to the large number of people testifying today, we request that each person keep their verbal testimony to no more than ten minutes. To expedite the testimony process, we are asking people to testify as part of panels. We have provided the list of preregistered testifiers or panels in the order of the testimony with the agenda at the reception table.

I'd ask the witnesses to state their name and affiliation prior to making their statement. When the witnesses on the panel have finished their presentations, the government panel will have an opportunity to ask questions related to that testimony. Witnesses are reminded that any false statement or false responses to questions may be a violation of law.

We are making use of a court reporter today so it's very important for you to speak slowly and clearly so they can record these proceedings accurately; also to allow them a respite type of plan, to give them one or two breaks throughout the day.

If any members of the audience wish to

testify and have not already signed up, please submit your name at the reception table. We will be here as long as it takes to allow everyone a chance to testify. I would ask everyone attending to sign the register whether or not you plan to testify.

At this time I'd like to introduce my colleague from NHTSA, Mr. Steve Kratzke.

MR. KRATZKE: Thanks, Chet, and good morning, everyone.

My name is Steve Kratzke, and I am the Associate Administrator for Rulemaking at the National Highway Traffic Safety Administration. I'd like to add just a few things to what Chet has said.

Although our proposals produce similar types of benefits, each agency is issuing its own proposal because each has its own separate statutory obligations. NHTSA is required to establish fuel economy standards by the Energy Policy and Conservation Act as amended by the Energy Independence and Security Act of 2007.

If EPA makes the appropriate endangerment and cause or contribution findings, the Clean Air Act authorizes EPA to issue standards applicable to greenhouse gas emissions. So because of these two laws, we have to both proceed separately but

harmonize.

While the elements of our proposals are similar in many respects, there are some important differences that arise from differences in the two laws. Of particular note are some of the flexibilities proposed by EPA.

I also want to emphasize that in carrying out this rulemaking, our agencies are committed to providing complete transparency and using the best science.

All of the two agencies' methodologies, analyses, and modeling work, including complete source codes, input files, and information on accessing and using fully operational versions of the models themselves are fully available in our public dockets.

We look forward to hearing from you as we update our analyses and develop the final rule.

I'd also like to alert you that our purpose today is to listen to your thoughts on our proposals. We anticipate asking questions only to clarify your statement or to ensure that we have a full and accurate record of your views.

We have put forward our thoughts and tentative conclusions in the proposal that was

published September 28th. So this is our chance to listen to you.

Lastly, our agency will take action on these proposals next spring. NHTSA is statutorily required to issue its model year 2012 standards by the end of March, start of April 2010.

So from the time the comment period closes November 27th until the final rule is issued is four months, so it's going to be very fast. We would appreciate comments that are helpful and concise.

With me on the panel from NHTSA are Stephen Wood, our Assistant Chief Counsel for Rulemaking, and Rebecca Yoon, an attorney in our Chief Counsel's office. All of us on this panel are looking forward to hearing your thoughts on our proposal.

So with that, we'd like to call the first panel up to the table.

If the panelists wouldn't mind, would you please make a name tag. We have markers in front of you. This will help the court reporter and us.

THE REPORTER: It would help if they sit in the order on the list also.

MR. KRATZKE: All right. We'd like to begin with Senator Pavley.

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FRAN PAVLEY  
CALIFORNIA STATE SENATOR

SENATOR PAVLEY: Correct. Good morning, and thank you very much for hosting this third series of hearings right here in Los Angeles.

My state senate district, although not directly here, is close by stretching from West Hollywood through Beverly Hills, Santa Monica, Malibu, Ventura County, a large part of the San Fernando Valley. And I was the author of AB 1493, the Clean Car Law, as well as AB 32, Global Warming Solutions Act, and this part of it is an integral piece on how we reduce our greenhouse gas emissions in California.

I will submit a more formal testimony in writing prior to your deadline, but I wanted to offer you some comments today.

In May of this year, I had the honor of being present in the Rose Garden with President Obama, Governor Schwarzenegger, Speaker Pelosi, several cabinet members and members of Congress, along with CEOs from the major automobile companies, EPA, and California officials and advocates for the announcement of this comprehensive federal program

to reduce greenhouse gas emissions from passenger automobiles and light-duty trucks.

It was seven years ago, back in 2002, that California's Clean Car Law AB 1493 was signed by then-Governor Gray Davis. And in 2004 the California Air Resources Board unanimously adopted the regulations in a hotel just a few blocks from here.

The standards to reduce greenhouse gas emissions by 30 percent by 2016 were based, back in 2004, by off-the-shelf, readily available cost-effective technologies. Expert engineers were able to quantify greenhouse gas emission reductions based on a package of technology that could be used in different classes of vehicles allowing for consumer choice.

Independent public opinion polls conducted and published each July from 2002 up through this year by the nonpartisan organization called the Public Policy Institute of California shows that across geographic, demographic, and political parties Californians continue to strongly support these regulations.

Back in 2004 when the rates were adopted, gas was nearly a dollar less per gallon and global

conflicts were less threatening to our economic security.

In addition, in 2004 we did not include alternate fuel vehicles such as hybrids that are on the market today. We certainly didn't consider the public's growing interest as well as the competitive race among the automobile companies to build electric cars and plug-in hybrids as shown just in the L.A. Times Sunday edition, a whole section on electric cars.

I am confident that automakers' top-notch engineers will be able to design cleaner cars to meet these standards not just for California but for the rest of the country.

Rising gas prices, a growing public concern about the dependence of importing oil and how that affects our security, the health impacts of air pollution as well as the visible and growing impact of global warming have increased the public's demand for cleaner, more fuel-efficient cars.

In California and many other western states, we are in our record third year of drought, one of the characteristics of a warmer climate. We have documented evidence of an earlier melt of our Sierra snowpack with more rain than snow at higher

elevations causing an unreliable water supply during our shorter springs and long hot summers which is jeopardizing water availability to our agricultural economy and urban water users.

Sea-level rise along our coasts as well as in states like Florida are a growing concern. From salt-water intrusion into our water supply or the inability of property owners to get insurance along low-lying coastal properties as well as in our dry and parched hillsides and the potential to seriously impact our state coastal-dependent tourism economy, we are very concerned about the real cost of doing nothing that addresses the impact of global warming.

There is a compelling link between global warming and air pollution, warmer temperatures, increased ozone, and other smog-forming pollutants. Growing respiratory and asthma rates occur among our youth and elderly. We've experienced several intense heat waves over weeks at a time which have caused illnesses and death. Lower-income neighborhoods with lack of air conditioning are particularly at risk during these extreme heat events.

Agricultural losses, increases in vector-borne diseases, a dramatic increase in loss

of both urbanized property and wilderness and the air pollution that comes with it from the costly wildfires have become the new normal here in California.

But California is not the only state impacted by air pollution. From Denver to Chicago to Albuquerque, New Mexico, air pollution is a serious health problem.

Two years ago I testified in Santa Fe, New Mexico. It was a hearing on whether New Mexico would become the 14th state to adopt California clean car standards. Several doctors and pediatricians on their own initiative came to support the policy because of concerns of their patients' health. For many they said it was the very first time they've ever testified at a government hearing.

I want to applaud the Obama administration for forging a truly historic agreement to increase fuel economy standards and the nation's first greenhouse gas standard for new passenger cars and light-duty trucks.

The National Clean Vehicles Program, using separate but complementary fuel economy and tailpipe gas emissions standards, is set to achieve a

fleet-wide average of an equivalent 35.5 miles per gallon by model year 2016.

In addition, the State of California maintains its authority under the Clean Air Act and set its own greenhouse gas standards as part of the national program. It is vital that California will continue to have the option to set new standards once the program expires in 2016.

We are serious in California and adopted a three-legged stool strategy to deal with emissions from vehicles. We have adopted the vehicle emission standards that you're reviewing today as a possible model for the federal standards.

Number two, we've adopted a low-carbon fuel standard, and also, number three, we've developed incentives and processes to encourage low-impact development to reduce vehicle miles traveled through adoption of regulations that carry out a bill by Senate Pro Tem Darrell Steinberg.

I would like the EPA and NHTSA to develop policies to ensure that the Clean Vehicle Program meet its stated goals.

For example, after reading through some of the literature, what happens if a carmaker fails to meet your requirement and can't meet the 2016

target? What happens if consumers choose to drive more light-duty trucks than passenger vehicles that you have outlined in your assumptions?

Can we close the loophole that was created with flex-fuel vehicles counted for fuel efficiency standards even if they're not using E85? And the analysis of increased upstream emissions in the proposed advanced technology vehicle credit program deserves careful attention.

For example, a plug-in hybrid or electric vehicle may decrease use of oil but unintentionally increase the incentive for a new power plant. We are counting on you to achieve the emission reductions that we expect from this rule and fulfill the intent of President Obama's commitment.

I look forward to going to Copenhagen in December for the International Climate Summit. The National Clean Vehicles Program will show the world that the United States is ready to begin to do our fair share to reduce greenhouse gas emissions.

Finally, I want to thank the staff and managers of the Environmental Protection Agency and NHTSA for all their efforts in creating this new rule, joint rule for vehicle emissions, and I also want to take this opportunity to thank President

Obama and his environmental team for their leadership in taking this crucial step in reducing greenhouse gas emissions and dependence on foreign oil.

Thank you very much for allowing me to testify today.

MR. KRATZKE: Thank you very much, Senator.  
Mr. Cackette.

TOM CACKETTE

CALIFORNIA AIR RESOURCES BOARD

MR. CACKETTE: Good morning. My name is Tom Cackette, and I'm the Chief Deputy Executive Officer of the California Air Resources Board, and my responsibility was directing the development and promulgation of the greenhouse gas standards which -- in California for passenger vehicles which we fondly call the Pavley Standards after our great Senator here.

First let me recognize your role in the Obama administration's historic Rose Garden announcement in May of this year bringing together for the first time EPA, NHTSA, California, and the auto industry for the critical task in reducing this

country's greenhouse gas emissions and their contribution to global warming.

This NPRM is a critical step in the series of rulemaking and other actions that all of the parties have been committed to undertake and have been working cooperatively to implement.

I want to thank all of you who traveled from the East Coast or the Midwest to Southern California to take testimony on this historic federal rulemaking to reduce passenger vehicle greenhouse gas emissions.

Decades ago in this South Coast Air Basin in the greater Los Angeles area, we began a long tradition of trying to identify, study, and regulate harmful vehicle emissions. What began as a focus on smog-forming pollutants has evolved next into toxic air contaminants and now into greenhouse gas emissions.

As EPA acknowledged in granting our waiver request to regulate these greenhouse gas emissions, it is here that the ravages of global warming will most exacerbate California's existing and still the country's worst air quality problem.

So it's appropriate to be here today on behalf of the ARB to express our support for the

joint EPA/NHTSA rulemaking to substantially reduce greenhouse gas emissions in both California and nationwide.

We believe that EPA and NHTSA have provided the sound technical and economic bases for the proposed 2012 through 2016 model year standards which in 2016 will appropriately result in fleet-wide greenhouse gas emission levels that equal what ARB adopted in 2004.

The joint proposal begins with a strong technical and cost foundation that finds that the proposed fleet average greenhouse gas levels are feasible for every model year from 2012 to 2016, and they're also very cost-effective, putting money back into the pockets of the people who buy these vehicles.

The technologies deemed to be needed to comply with the proposed standards are either all in production somewhere or will soon be in production in vehicles on the marketplace today.

The estimated cost of compliance was derived from several reliable sources, including the more recent study that you performed with Ricardo and also the study that we sponsored or were involved in in 2004 with the NESCCAF study.

What's really reassuring about all this is that both the technology and cost projections have not materially changed in the past five years. So I think we were then and you are now right on target with the right numbers.

I'd now like to respond to several of your requests for information set forth in the NPRM. We'll provide more detailed written comments for filing on the 27th of November, by the 27th of November, including on other subjects in the rulemaking.

The first one I want to talk about is advanced vehicle credits. We support the idea of providing additional credit to help push electric-drive technologies such as battery electric and fuel-cell vehicles into full commercialization as California's ZEV program has done for several decades.

You asked for comments on the appropriate amount of credit. The credit multiplier approach that you propose is a good start, and the range of somewhere between one and two seems to us to be appropriate. However, we ask that you assign a national average upstream emission factor to each advanced technology rather than using the zero gram

per mile number set forth in the NPRM to calculate the credit.

To do otherwise could result in credits that are very large, in fact, large enough that they could substantially reduce the actual greenhouse gas emissions that are provided by the national program, something I'm sure that you want and we want even though we are strong advocates of electric-drive transportation.

There are numerous studies out there that can be used to estimate the national average upstream CO2 emissions for these emerging electric-drive technologies. In fact, in our 2004 rulemaking, we did just that using California-specific numbers, default numbers for the electric-drive and fuel-cell vehicles.

This is probably, I think, our most significant comment on the credit provisions and the rule.

The next comment has to do with the backstop measure, and as we've seen over decades of motor vehicle control, efficiency and emission reduction gains can be offset by changes in the fleet mix between passenger cars and light-duty trucks especially when those vehicles have, quote,

different standards applied to them.

For example, the shift from cars to SUVs increased smog-forming emissions and forced both ARB and EPA to adopt uniform emission standards for these passenger vehicles.

I believe the agencies should consider a potential backstop mechanism to preserve the projected greenhouse gas emissions over time should the fleet mix shift in the future to larger vehicles. This, of course, is a result of the footprint-type attribute which is the basis for both the fuel economy and the greenhouse gas standards.

The third area I want to bring some attention to is safety. We set our greenhouse gas standards in 2004 without considering the benefits of vehicle downweighting. In fact, we were instructed not to, and we doubt that much downweighting will be required by the EPA standards. Although there is some, it's a relatively small amount, and we don't think it's even a necessary technology to achieve these standards in the time frame given.

However, we agree with the EPA that downweighting or taking weight out of the vehicle is an effective technology for achieving greenhouse gas

emission reductions especially in the future.

So given the NPRM's somewhat inconsistent discussion of safety impacts by the two agencies and the manufacturers' stated plan to -- plan to introduce lighter-weight models that they certainly must believe to be safe, the agencies may want to consider whether enough reliable data at this time exists to take a position on the safety of weight reduction in modern vehicles, and we hope that you might invest some time in trying to advance the level of science and understanding certainly beyond studies that were created nearly a decade ago on vehicles which are nearly two decades old at this time.

In conclusion, California is pleased that the federal agencies are following California's lead to reduce harmful greenhouse gas emissions beginning with those new passenger vehicles. EPA and NHTSA have provided a solid basis for the national GHG program that builds on California's program and positions us for the next step in the evolution to lower carbon-emitting vehicles.

Thank you for your time.

MR. KRATZKE: Thank you, Mr. Cackette.

Mr. Stanton.

MIKE STANTON  
ASSOCIATION OF INTERNATIONAL  
AUTOMOBILE MANUFACTURERS

MR. STANTON: Thank you, Steve.

Good morning. I am Mike Stanton, President and CEO of the Association of International Automobile Manufacturers. We're a trade association representing 13 international motor vehicle manufacturers and several Tier 1 suppliers.

We welcome the opportunity to testify today. We see this rulemaking as a very important step in developing an integrated national approach to reducing greenhouse gas emissions and improving the fuel economy of the motor vehicle fleet. This is a long goal of AIAM, and we appreciate all of the work that is being done.

These standards, in conjunction -- excuse me. These standards, in conjunction with similar measures undertaken in other segments of our economy, will advance our efforts to address the related concerns of climate change and energy independence.

While our written comments will address many of the legal and regulatory details raised in

the proposal today, I would like to focus on some of the key policy considerations that frame this important debate.

In our view, the overwhelming issue that must be addressed now is how the necessary emission reductions and fuel economy improvements can most efficiently and effectively be achieved.

We strongly believe that a single national program to regulate greenhouse gas emissions from and improve the fuel economy of motor vehicles is the only sensible approach with EPA, NHTSA, California, and states and localities playing important complementary roles.

While the enabling statutes for the EPA greenhouse gas emissions standards and the NHTSA fuel economy requirements have significant structural differences, we are grateful that the two agencies are working together to seek to harmonize these two programs. We are reviewing the proposal carefully and may recommend in our written comments further steps to harmonize the two programs.

We remain concerned about possible inefficiencies created by differing federal and state programs. As long as the federal government is taking unified, aggressive action, varying state

requirements would impose significant costs and administrative burdens while providing little or no environmental benefit.

In the proposed rule, the agencies solicited comments on the question of whether the Clean Air Act, the Energy Policy and Conservation Act, or the Energy Independence and Security Act may need to be amended to further harmonize the programs. We are considering this important question and will make some recommendations in our written comments.

We will continue to support efforts to establish federal greenhouse gas and fuel economy standards at levels that are feasible and will also allow the nation to meet the environmental and energy security needs.

Since these needs will remain with us for many years to come, we encourage the agencies to work with industry and other stakeholders as soon as the rulemaking is completed.

And we know you guys don't want to hear this, but we really want you to begin in 2017 and beyond as soon as these are put to bed.

Lead time is a critical element of the program, and this is consistent with President

Obama's commitment for the federal government to work with all stakeholders to extend the national program beyond the time frame of the current proposal.

We appreciate the compliance flexibility in the proposal, including the fleet averaging and the substantial opportunities for earning and trading credits. Compliance flexibility is of critical importance in enabling manufacturers to make the necessary design changes to the entire fleet while continuing to meet consumer preferences and market demand.

Implementing these comprehensive changes is a difficult undertaking under any circumstances but particularly difficult in today's economic circumstances.

Based on our initial review of the agencies' proposal, we have identified certain areas of concern where we plan to make written comments.

We are concerned that the temporary lead-time standards that provide a more gradual compliance approach for manufacturers selling 400,000 or fewer vehicles in the United States are designed primarily to assist intermediate-sized manufacturers in making the transition to the new

EPA regulatory program and will not provide sufficient flexibility for the much smaller independent companies that produce specialty vehicles in the U.S. with very low volumes.

We are also concerned about the emissions certification and in-use testing provisions under the new EPA program that would impose additional burdens on manufacturers but do not offer significant environmental benefits.

In our written comments, we will identify options and recommendations for EPA to consider in addressing these issues.

Thank you very much, and I would be pleased to answer any questions.

MR. KRATZKE: We are going to do questions at the end, if there are any, so we can get the statements first.

Thank you, Mr. Stanton.

Mr. O'Brien.

MIKE O'BRIEN

TOYOTA MOTOR SALES, U.S.A.

MR. O'BRIEN: Good morning. My name is Mike O'Brien, and I am the Corporate Manager of

Powertrain Advanced Technology and Environmental  
Planning for Toyota Motor Sales, U.S.A.

It is a pleasure to be here with you today  
for this hearing on the Proposed Rulemaking to  
Establish Light-Duty Vehicle Greenhouse Gas Emission  
Standards and Corporate Average Fuel Economy  
Standards.

Last May our president, Jim Lentz, joined  
President Obama, cabinet members, governors, the  
California Air Resources Board, other CEOs and  
environmental leaders to support a commitment to  
establish a coordinated national program for fuel  
economy standards and greenhouse gas reductions from  
passenger cars and light trucks.

Toyota is committed to addressing climate  
change by increasing the fuel efficiency of our  
products, developing new markets for advanced  
technology vehicles, and reducing the greenhouse gas  
footprint of our manufacturing and distribution  
operations.

We welcome the commitment to developing a  
single coordinated fuel economy and greenhouse gas  
program. This agreement is something we've  
encouraged and sought for a long time, and it's a  
landmark achievement. Without it, we would be

subject to overlapping and, in places, conflicting regulations from two separate federal agencies and over a dozen states.

In exchange for eliminating this patchwork, we agreed to pull forward to 2016 the ambitious fuel economy targets set by Congress for 2020.

We applaud the efforts NHTSA and EPA have made to unify two programs under two quite different statutes and to establish a completely new EPA program for motor vehicles. The proposed regulations appear to capture the key elements of our historic agreement, most importantly, a range of environmentally neutral compliance flexibilities.

These flexibilities were integral to reaching a consensus among all stakeholders by providing OEMs various paths to achieving the same CO2 reduction goal.

We therefore believe the proposal sets the stage for a successful final joint rulemaking that will provide certainty to our engineers and product planners as well as significant environmental and energy benefits to our nation.

We are now examining the details of this complex proposal, and to the extent that issues need to be clarified, we will be submitting written

comments.

Without a doubt, meeting the overall fleet average of 35.5 miles per gallon by 2016 will be a serious challenge for our engineers and planners. In every respect, from technical cost and consumer standpoints, it will require every ounce of their ingenuity and creativity.

In the end, if we are going to be successful, consumers must be the true beneficiaries. A unified national program ensures American consumers will have the choice of vehicles they want and need as well as the fuel economy and low emissions they expect.

Without harmonization, consumers will contend with unnecessary limitations on their purchase options and an inconsistent vehicle lineup.

That's why the process of collaboration must continue beyond 2016 and we must continue to seek additional areas of harmonization between the two programs.

Any return to multiple standards requiring automakers to develop and distribute multiple vehicle fleets would carry the unintended consequences of diverting our engineering resources away from other advanced technology initiatives with

little to no customer benefit.

Now, I would like to step back and comment from a broader perspective. The fact that diverse groups could find common ground is a notable example of how government and industry can and should work. It illustrates one of the cornerstones of how Toyota approaches public policy by investing in long-term partnerships with government, universities, nonprofits, and other companies.

The other cornerstone is a long-standing, long-range planning for and investment in future product, evident in the millions we spend daily on advanced research and development. At Toyota we are fielding the challenges of tomorrow's transportation today. We are not waiting for government regulation.

In fact, our top societal priority is sustainable mobility, a stance that transcends our regulatory obligations. To us, sustainable mobility means building vehicles that meet customer needs and expectations while also being safe, durable, and better for the environment.

To minimize our environmental footprint, we are accelerating the roll-out of conventional hybrids across our entire lineup. In addition,

we're pursuing hydrogen fuel cells, plug-in hybrids, pure electrics, and advanced batteries beyond lithium ion, all with the goal of overcoming the barriers that currently prevent their mass deployment.

We're making good progress on the vehicle side, but when it comes to the huge task of building infrastructure and getting consumers to embrace these new and more costly technologies, OEMs and government must collaborate to turn alternatives into realities.

In conclusion, sustainable mobility defines where we are today and where we plan to be in the future.

We're the leader in fuel-efficient vehicles in the United States. We are the leader in hybrid technology, having launched our first hybrid more than a dozen years ago and now with more than two million worldwide on the road today.

We are beginning limited production of a plug-in hybrid, battery EV, and other advanced technologies in the near future to complement our hybrid dominance, and we have already cut CO2 emissions and energy use from our manufacturing plants on a per-vehicle-produced basis by 19 percent

since 2000.

And last week Toyota became the first car manufacturer to join SmartGridCity in Boulder, Colorado, the first fully functioning smart grid city in the world.

As a start, ten plug-in Prius hybrid electric vehicles will help teach us how to reduce carbon emissions and our dependence on foreign oil while at the same time not just meet but exceed customer expectations.

We believe it's important to keep in mind that the road to sustainable mobility is not one but two. One road is the path to compliance; the other is the path to market preparedness. One is constructed to meet the priorities of government regulation; the other is constructed to search out and respond to the specific needs and desires of our customers.

One of the key challenges that industry and government face is to ensure that the road called for by regulation tracks the same road called for by consumers. We need both to arrive together in the same place to realize the goal of sustainable mobility.

We look forward to working with EPA and

NHTSA in this joint rulemaking as it's finalized and in the critical period beyond 2017 when the same spirit of cooperation will even be more essential.

Thank you for this opportunity to express our views.

MR. KRATZKE: Thank you, Mr. O'Brien.

Ms. Callahan.

COLEEN CALLAHAN

AMERICAN LUNG ASSOCIATION OF CALIFORNIA

MS. CALLAHAN: Good morning. Colleen Callahan, Manager of Air Quality Policy for the American Lung Association in California. Thank you for coming out to Los Angeles for this hearing, and thank you for the opportunity to speak.

The American Lung Association in California applauds the Obama administration for this truly historic agreement to adopt rules that mirror California's clean air standards and move the nation forward toward a cleaner transportation future.

The joint proposal by EPA and NHTSA to establish greenhouse gas vehicle standards and improve fuel economy in motor vehicles across the nation is an important step in the fight against

global warming, air pollution, and the serious public health impacts of petroleum consumption.

The American Lung Association is proud of the strong leadership role that California has taken in adopting clean air standards and proud that these standards have become the model for other states and the nation.

State-led action over the last five years serves as an inspiration and a model for further progress in global warming policy. So as we move forward, the American Lung Association believes that California must continue to be a leader in fighting air pollution and global warming as allowed under the Federal Clean Air Act.

California's unique air quality problems demand the strongest possible action to fight global warming. Our home -- our state and our home is -- we have some of the worst air quality here in the nation largely due to motor vehicles, and this air pollution crisis has created a public health crisis.

The American Lung Association's 2009 annual State of the Air report again found that California dominates the list of the most polluted cities in the country, with six out of the ten most polluted ozone cities right here. The list again found that

the Los Angeles region is home to the worst ozone pollution in America.

Dirty air in California contributes to 19,000 premature deaths, tens of thousands of hospitalizations for respiratory and cardiac illnesses, hundreds of thousands of asthma attacks, and millions of lost school and workdays each year. The costs of premature deaths of air pollution related-illnesses and other health-related costs from air pollution add up to billions of dollars in costs and place huge burdens on health care providers.

In our local area, the South Coast Air Quality -- or the South Coast Air Basin, the health cost of air pollution is estimated at more than \$1,250 per person per year according to a recent study by Cal-State Fullerton economists. This study found that the health costs of pollution add up to \$22 billion to the Los Angeles regional economy.

Higher levels of death and illness from pollution exposures is experienced particularly by vulnerable individuals, including those with asthma and other respiratory and cardiac illnesses, the elderly, infants, children, teenagers, low-income communities, communities of color, and

people living near pollution hot spots like heavily trafficked roads. There are millions of individuals that are particularly vulnerable to pollution in our region.

Just as the transportation sector is the primary source of criteria pollution in California, it is also the primary source of greenhouse gases, and global warming is expected to worsen ozone pollution and its health effects.

California and the rest of the country depend on this proposed regulation as a key step to reduce this major source of global warming emissions. Without strong action, rising temperatures from global warming will likely lead to even more illness and suffering from increases in air pollution and pollen production, longer and more intense heat waves, and devastating wildfires and related smoke exposure.

Recent research conducted by UC Berkeley estimates that the public health costs to California from global warming will add an additional cost of \$3 billion to \$24 billion annually depending on our success in reducing greenhouse gases.

Scientists predict here that in Los Angeles global warming will cause the number of heat-wave

days to rise dramatically, which could lead to a 75 to 85 percent increase in the number of days with unhealthy air quality.

The American Lung Association of California urges the federal EPA to move forward to adopt the proposed clean air standard and to adopt the strengthening changes recommended by the California Air Resources Board today.

These recommendations include, one, adding an automaker-specific backstop to ensure that the expected level of greenhouse gas emission reductions are achieved; and, two, to ensure that credit calculations for electric- or hydrogen-powered vehicles include upstream emissions.

In the future, the American Lung Association would also urge EPA to adopt additional measures to tighten vehicle tailpipe standards for smog-forming pollutants.

Strong actions like the proposed standard are vital to protecting public health, air quality, and the environment from global warming impacts. We know this standard will not solve global warming alone, but it is vital to building momentum toward a dramatically cleaner, more sustainable and healthy transportation system.

So in conclusion, the American Lung Association looks forward to working with you to achieve this goal. Thank you.

MR. KRATZKE: Thank you, Ms. Callahan.

Dr. Wenzel, I'm sure you're ready to go.

TOM WENZEL

LAWRENCE BERKELEY NATIONAL LABORATORY

MR. WENZEL: I'm not a doctor, though, only Mr. Wenzel. Thank you.

My name is Tom Wenzel. I am a research scientist at Lawrence Berkeley National Laboratory, which is a U.S. Department of Energy national laboratory that's managed by the University of California.

I appreciate the opportunity to provide comments on the joint rulemaking this morning to establish greenhouse gas emission and fuel economy standards for light-duty vehicles. My comments today are directed at the choice of vehicle footprint as the attribute by which to vary the standards in the interest of protecting vehicle occupants from death or serious injury.

I've made several of these points before

when commenting on previous NHTSA rulemakings regarding CAFE standards and safety. My comments today are mine alone and do not necessarily represent the views of the U.S. DOE, the Berkeley Lab, or the University of California.

My comments this morning can be summarized as follows. I recently conducted an updated analysis of casualty risk and found that, after accounting for drivers and crash location, there's a wide range in casualty risk for vehicles with the same weight or footprint. This suggests that reducing vehicle weight or footprint will not necessarily result in increased fatalities or serious injuries.

Indeed, the recent safety record of crossover sport utility vehicles indicates that weight reduction in this class of vehicles actually resulted in a reduction in fatality risks.

Computer crash simulations can pinpoint the effect of specific design changes on vehicle safety. These analyses are preferable to regression analyses which rely on historical vehicle designs and cannot fully isolate the effect of specific design changes such as weight reduction on crash outcomes.

Finally, there's evidence that automakers

planned to build more large light trucks in response to the original footprint-based light truck CAFE standards. Such an increase in the number of large light trucks on the road may actually decrease rather than increase overall safety.

So I'm going to address each of these points in a little more detail.

First a summary of my results on casualty risk. In a recent analysis I conducted for the Department of Energy, I analyzed data on driver casualty risks in model year 2000 to 2004 vehicles by vehicle type and model using all police-reported crashes from five states.

I excluded young males and elderly drivers as well as crashes in very rural and very urban counties to limit the effect that differences in drivers and crash locations have on estimated casualty risks by vehicle type and model.

The analysis found that on average casualty risk to drivers does tend to decrease as vehicle weight or footprint increases, particularly for cars. However, there's a wide range in casualty risk for individual car models of the same type, weight, and footprint.

The worst car model can have a casualty

risk of 50 percent to two times higher than the safest car models, even after accounting for differences in the number of miles driven, driver age and gender, and crash location by vehicle model.

There also is a wide range in risk imposed on the drivers of other vehicles, for vehicles with the same weight or footprint. However, the risks imposed by light trucks on drivers of other vehicles tend to increase as light truck weight or footprint increases.

The wide range in risk among vehicle models, both to own drivers and to drivers of other vehicles, indicates that a reduction in vehicle weight or footprint would not automatically lead to additional fatalities.

There are examples of vehicles on the road today that have relatively low weight or footprint and lower than average risk. A regression model like NHTSA's only considers the average trend in the relationship between vehicle weight or footprint and risk and ignores those vehicles that do not follow that trend.

Next a brief discussion of crossover SUVs. In its regulatory impact analysis, NHTSA estimates that under a worst-case scenario reducing the weight

of vehicles even while maintaining their footprint will result in additional fatalities. This estimate is based on the results of the 2003 NHTSA regression analyses.

NHTSA does not provide a best-case scenario despite the finding of the 2005 DRI analyses which indicate that fatalities would be reduced if vehicle weight were reduced while holding footprint constant.

NHTSA states in the RIA that until there is more credible analysis than the 2005 DRI study that demonstrates that mass does not matter for safety, NHTSA concludes it should be guided by the decades' worth of studies suggesting that mass is the most important of the related factors.

Contrary to NHTSA's assertion, there is strong evidence that weight can be reduced while maintaining size and at least maintaining, if not increasing, occupant safety.

In model year 1996, only 2 percent of SUV sales were car-based crossover SUVs. By 2005, half of SUVs sold were crossovers. Crossovers with the same footprint have about 10 percent lower weight and, my analysis shows, substantially lower risk than truck-based SUVs.

Compared to truck-based SUVs, compact and midsize crossovers have 30 to 50 percent lower risk to their own drivers. Crossovers also impose 30 to 40 percent lower risk on drivers of other vehicles.

Because 1999 was the last year of data covered in the 2003 NHTSA analysis and only 10 percent of model year 1999 SUVs were crossovers, the 2003 analysis did not account for the rapid penetration of crossovers into the new vehicle market and their effect on the relationship between vehicle weight and risk.

An updated regression analysis of model year 2000 and newer vehicles would likely find that reducing SUV weight while maintaining size would reduce risk similar to DRI's findings.

Of course, it is likely that factors other than weight reduction account for the lower risks in crossover SUVs. For example, unibody construction, lower bumpers, and less rigid fronts make crossovers more compatible with cars than truck-based SUVs. And lower height and center of gravity and stronger roofs and perhaps early adoption of electronic stability controls in the crossovers may account for the lower rollover fatalities in crossover SUVs compared to the truck-based SUVs.

NHTSA should acknowledge that other vehicle attributes may be as important, if not more important, than vehicle weight or footprint in terms of occupant safety.

These results regarding crossover SUVs are supported by a recent DRI study commissioned by the Aluminum Association. DRI used computer crash engineering models to simulate the effect that changing an SUV's weight or footprint would have on crash outcomes without changing any other attributes of the SUV.

DRI found that reducing SUV weight by 20 percent slightly increased the number of serious injuries to the SUV drivers but cut in half the number of serious injuries to drivers of other vehicles.

On balance, the simulation found a net 15 percent decrease in serious injuries in all vehicles. Similarly, increasing the wheelbase of the SUV while maintaining its weight resulted in a 26 percent reduction in serious injuries in all vehicles.

These types of computer crash simulations are valuable because they allow the study of the independent effects of specific design changes

holding all other vehicle attributes constant. They are preferable to statistical regression models for two reasons.

First, regression models frequently do not and perhaps cannot fully account for all the design differences between vehicle models or their drivers that contribute to their on-road safety record.

Second, regression models are limited to the vehicle designs currently available on the market. They cannot accurately predict what effect any future large-scale changes in vehicle design would have on occupant safety.

Finally, some comments on automakers' response to standards. NHTSA based its recent CAFE standards on vehicle wheelbase and track width, in part to reduce the incentive for manufacturers to increase a vehicle's footprint in order for it to qualify for a lower CAFE fuel economy target.

Nonetheless, it appears that manufacturers planned to increase the footprint of their light trucks anyway once NHTSA announced the footprint-based standard.

I compared three sets of manufacturers' production plans submitted to NHTSA, those submitted for the proposed and the final reformed CAFE light

truck rules and those submitted for the proposed 35-mile-per-gallon CAFE rule.

The production plans show a continued increase in the portion of the largest light trucks. Trucks with a footprint greater than 58 square feet increased from a quarter of all planned production at the time of the proposed rule to 30 percent at the time of the final rule to over 40 percent at the time of the proposed 35 MPG rule.

Undoubtedly, some of this upsizing of light trucks is the result of a continued exemption of pickups between 8500 and 10,000 pounds from CAFE standards, and auto manufacturers have likely revised these production plans in the face of their current financial situation, volatile gas prices, and the economic downturn.

However, the analysis indicates that the announcement of the footprint-based standards did not necessarily discourage manufacturers from producing more light trucks with larger footprint. Because these large trucks are particularly dangerous to drivers of cars, the footprint-based standards may result in a net decrease in overall safety.

In conclusion, I've shown that reducing

vehicle weight or footprint will not necessarily result in increased fatalities or serious injuries. Indeed, the recent safety record of the crossover SUVs indicates that overall safety increased when the weight of these vehicles was reduced.

Statistical regression analyses are imperfect tools to predict the effect of changes in vehicle design on occupant safety. Computer crash simulations can better pinpoint the effect of specific design changes while holding other vehicle attributes fixed.

Finally, I've presented evidence that automakers planned to build more large light trucks in response to the footprint-based light truck CAFE standards. A single stringent fuel economy standard would eliminate this type of gaming, discourage the continued use of light trucks with low fuel economy as essentially substitutes for cars, and encourage greater use of lighter, smaller, and safer vehicles.

Details of vehicle design can be improved through direct safety regulations. Improvements in safety regulations will have a greater effect on occupant safety than fuel economy standards that are structured to maintain but in reality may increase vehicle size.

Thank you again for allowing me the opportunity to present my comments, and I'd be happy to answer any questions.

MR. KRATZKE: Thank you.

I believe, Mr. Wenzel, that we have gotten a copy of your most recent analysis in our docket. That's important.

For all of the witnesses, it would be helpful if you referred to some impacts of this to, if you can, give us a source for that so that when we're moving through the rule, we can make sure that we can quantify and give appropriate credibility to the points that you've made.

Any questions? If not, thank you very much.

MR. FRANCE: If the next panel could come up.

Bob Babik from General Motors, Paul Wuebben from the South Coast Air Quality Management District, Jill Weiner, Erica Fick from the EDF, Chris Hosford from Hyundai, Al Sattler, Martha Dina Arguello, and David Patterson from Mitsubishi.

And, again, if you would be kind enough to write your names on the name tags for the court reporter, we'd appreciate it.

Mr. Babik, if you're ready, go ahead.

BOB BABIK

GENERAL MOTORS CORPORATION

MR. BABIK: Good morning. My name is Robert Babik. I'm Director of Vehicle Emissions Issues for General Motors Corporation. I'd like to say thank you for asking me here today to share with you GM's comments on this important proposed rulemaking.

As many have stated, on May 19 President Obama announced the administration's intentions to adopt a national program to address vehicle greenhouse gas emissions and fuel economy. GM's president and CEO, Fritz Henderson, proudly joined the President and others in the Rose Garden that day because we recognized the significance of that moment.

The administration, governors, environmental groups, and automakers all came together because we agreed a new approach was needed. Our working together in a common direction, on a single national approach, could accomplish so much more to address the nation's energy and

environmental priorities.

We only knew the framework of the proposed regulations at that time, but we made clear that we were prepared to work with EPA and NHTSA, and we continue to be committed in that light. In this regard, I appreciate the opportunity to testify today to reaffirm our commitment from May and to comment briefly on the proposed rules of the two agencies.

First, let me underscore that GM supports the joint proposal from EPA and NHTSA to address the 2012 to 2016 model year vehicles. We commend the technical staffs of both the agencies for working together on this highly complex issue to produce what appears to be a very harmonized approach for the two federal programs that will regulate vehicle fuel economy and greenhouse gas emissions.

We also want to thank the agencies for the leadership that the federal government is showing in trying to minimize the disruptive impacts of having multiple programs at both the federal and state levels. We are especially pleased that we are able to testify today in support of the approach that is being proposed rather than saying no to a patchwork of state programs.

On this note, I'd also like to take the time to commend the California Air Resources Board for their collaboration and leadership in working towards this national standard. We also welcome the opportunity to work with the agencies as they finalize the proposed regulations.

Among the highlights of the proposal are, one, the coordinated attribute-based approach of the two programs; and, two, the recognition of the need for mechanisms that provide for compliance flexibility in the face of uncertainty over future technology developments and costs, customer acceptance of these technologies, and the price of fuels that consumers may see in the marketplace.

All these factors make it critical that automakers have some ability to cope with changes or unexpected outcomes, and we believe that the proposed rules do provide such flexibility.

Now, the proposed standards are not easy, but I will say we are up to the challenge. The success of our current new offerings in the market, like the Chevy Malibu, the Chevy Equinox, and the enthusiasm we are seeing over some of our soon-to-be-released products, such as the Chevy Cruze, convince us that we will be able to do our

part.

And even before this rule becomes effective, we're proud to say that we will have introduced the Chevrolet Volt, which is scheduled to start production in late 2010 as a 2011 model year and will be GM's first extended-range electric vehicle in the marketplace.

It is our view that this rule represents a dramatic opportunity to advance all of our mutual goals of CO2 reduction and increased energy diversity while respecting consumer choice.

And I'm going to reiterate what you've heard from many, that even after this rule is completed, more work will remain on the policy front, and we urge both EPA and NHTSA to bring all the stakeholders to the table and work with us on that next phase of ongoing, strong national program. And I am here to say today, GM is ready and able to start that process.

All the voices as reflected in the May Rose Garden event are essential for this to happen. So the states, the automakers, the environmental organizations, and the energy providers all need to get together. Ultimately, we will need strong leadership at the federal level, which we have seen,

with an integrated approach that addresses infrastructure, vehicles, fuels, and consumer behavior as well as all the other sectors of the economy.

This proposal is a positive first step and a good foundation on which we can all build, and GM intends to provide some detailed technical written comments to enhance the clarity and harmonization of this joint effort and program. And as we have from the start, we just would like to reiterate our commitment to working with the agencies, the states, and other interested parties to make this a success.

So I'd like to thank you for both your time and attention. Thank you.

MR. FRANCE: Thank you.

Paul Wuebben.

PAUL WUEBBEN

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MR. WUEBBEN: Good morning. I am Paul Wuebben, the Clean Fuels Officer of the South Coast Air Quality Management District. The South Coast AQMD is the nation's largest regional air pollution district, and we appreciate this opportunity to

testify on this joint rulemaking.

The AQMD staff strongly support the proposed greenhouse gas emission standards and timeline. The proposed emission standards and companion fuel economy standards will result in a significant reduction in greenhouse gas emissions as well as provide crucially important co-benefits in reducing criteria emissions in support of attainment of federal and state air quality standards for ozone and fine particulates.

Given the strong correlation of rising temperature and increased ozone levels, it is especially germane that this hearing is being held in one of the nation's most polluted air basins.

Over 25 percent of the nation's exposure to the eight-hour ozone standard occurs here in the South Coast Air Basin, while over 50 percent of the nation's 24-hour PM -- two-and-a-half PM standard exposure occurs here.

There are over ten million registered light-duty vehicles in the South Coast Air Basin. Reductions in fuel use associated with the standards proposed will therefore have a direct and tangible benefit in terms of public health and welfare in our region.

We are also very pleased to see that the proposed standards have been carefully coordinated with the California Air Resources Board. The proposed standards are well crafted to ensure that the nature of the ARB's existing greenhouse gas program is maintained.

History has shown time and time again that California standards can play a very significant role in accelerating innovation which can then be leveraged across the nation.

This was true with the early imposition of low sulfur fuel standards which started here in Southern California. The first deployment of advanced three-way emission catalysts occurred due to California's more stringent tailpipe standards for NOx emissions.

And, of course, most recently, the adoption of the greenhouse gas emission standards in California served to trigger enormous innovation related to hybrid and plug-in hybrid vehicles.

By accommodating the continuation of the California greenhouse gas program and standards, EPA and DOT have taken a crucial national step which will help to further accelerate low-emission technology in the most cost-effective manner.

We would also like to urge that EPA and DOT continue to support and strongly coordinate with ARB in the development of new emission standards known in California as Pavley II.

Clearly, 2016 is only one of several milestones which need to be set for achieving the lowest greenhouse gas potential from the on-road and off-road vehicle fleet.

The Air Resources Board has shown its sensitivity in addressing this issue while carefully balancing social and industry needs to minimize cost and maximize consumer choice while maximizing overall benefits.

Central to this determination is the imperative to improve public health. We are especially pleased, therefore, that the ARB's program is fashioned around the value that there can be no tradeoff between greenhouse gas emissions and criteria emissions.

Relative to the Pavley II process, ARB is expected to take advantage of further synergies between engine downsizing, transmission optimization, integration with state-of-the-art batteries and controllers coupled with the option of plug-in vehicle architectures supported by extensive

infrastructure deployment.

California's parallel efforts to deploy Smart Grid technology -- for example, to enhance the use of renewable electricity and off-peak charging -- is another example of the importance of retaining a strong greenhouse gas program centered in California in parallel with this important national program.

In effect, California's program is a national asset with benefits accruing well across state boundaries, and thus we believe that Pavley II should be viewed as a key means of ensuring a backstop against any delays or potential reduced efficacy of the federal program over time.

We would like to take this opportunity then to just comment on three specific areas.

First, early credits under the federal program for 2012 to 2016 vehicles may be used in such a way as to possibly reduce the stringency of the ARB program. This would be a negative unintended consequence which should be avoided wherever possible.

EPA should consider establishing a cap on the number of early credits to ensure that California's greenhouse gas standards are not

undermined. At a minimum, the South Coast AQMD staff recommend that there be a full public accounting of these early compliance earned and traded credits to ensure the greatest transparency in public disclosure.

Such disclosure may itself serve as a constraint on excessive credit reliance given the possible negative publicity associated with compliance via imported credit use.

Second, the South Coast AQMD staff view the EPA credits for electric vehicles as overly permissive. Under ARB's strict accounting of electric vehicle credits for its greenhouse gas standards, electric vehicles are credited with greenhouse gas emissions of 130 grams per mile calculated based on the average upstream emissions of the California grid.

The California grid is heavily dominated by natural gas and renewable power sources. On a per capita basis, the California grid is 50 percent lower in greenhouse gas emissions than the national grid.

Even with these life-cycle emission advantages for electric vehicles used in California, ARB insists that the upstream emissions be fully

reflected in the well-to-wheel carbon accounting.

In stark contrast, the EPA credits national electric vehicles with zero greenhouse gas emissions per mile thereby ignoring the upstream emissions entirely. This assumption risks damaging the credibility of the overall EPA greenhouse gas emissions standards program as it employs inappropriate carbon accounting practices.

The nation's average electricity grid as you well know is over 50 percent dependent on coal generation. While differences do complicate the picture at the national level, the South Coast AQMD staff recommends that some effort be taken to reflect the actual life-cycle emissions for EVs rather than applying an assumption of zero greenhouse gas emissions.

In addition, EPA is proposing a multiplier of up to two to one, which amplifies the impact of this lax EV credit criterion. As a result, 13 gasoline cars could effectively be exempted for every single electric vehicle credited under the EPA program.

This dilution in program effectiveness should be minimized as much as possible. At a minimum, the AQMD staff recommend that EPA put a

limit on the number of vehicles which would qualify for the zero gram EV credit and that any credits be aligned ultimately with ARB's life-cycle credit methodology which suggests a credit value closer to 200 grams nationally rather than zero.

Third, the South Coast AQMD staff shares the concern that the attribute basis of the EPA program may provide certain incentives to upweight vehicles.

For example, the EPA's program may result in auto manufacturer compliance strategies which involve upweighting of vehicles from two-wheel drive to four-wheel drive SUV configurations. For this reason, the South Coast AQMD staff recommend that EPA consider establishing some form of backstop mechanism to ensure that the vehicle fleet is not dramatically distorted by perverse incentives occurring by selecting different vehicle weight categories.

In conclusion, the AQMD staff certainly appreciate this opportunity to provide comment. We compliment the EPA and NHTSA and DOT staffs for their diligent analysis. The standards proposed by both of your organizations will significantly reduce greenhouse gas emissions as well as criteria

pollutants. We are very pleased to stand here and strongly endorse the standards as they will provide meaningful national benefits for decades to come.

We will provide more specific comments on this important rulemaking, and I'll certainly be glad to answer questions at the conclusion. Thank you very much.

MR. FRANCE: Thank you very much.

Next testifier, Chris Hosford from Hyundai.

CHRIS HOSFORD

HYUNDAI MOTOR AMERICA

MR. HOSFORD: Good morning. I'm Chris Hosford, the Executive Director for Government Affairs and Corporate Communications at Hyundai Motor America.

First I want to clearly state that the improvement of fuel economy and the control of greenhouse gases are very important issues for Hyundai, and we appreciate the opportunity to testify here today.

In 2008 our company recognized California for beginning a critical national debate on fuel economy and greenhouse gas policy. Moreover, we

supported early implementation of NHTSA's then-2020 fuel economy target under the 2007 Energy Independence and Security Act.

That same year, we became the first automaker in America to pledge that we would meet the then 35-mile-per-gallon rule by 2015, not 2020. The fuel economy regulations have now changed, but our goal remains the same. We've become the industry's fuel economy leader propelled by our Hyundai Blue Drive initiative.

We plan to achieve this goal with literally hundreds of small but vitally important steps. These we have already begun not just to plan but also to engineer.

Areas such as gasoline direct injection, six- and eight-speed transmissions, improved lubrication, lower engine friction, reduced rolling resistance, improved aerodynamics, and focus on weight efficiency are just some of the examples of what we are already engineering into our vehicles.

Hyundai will be introducing our first hybrid next year with the industry's first application of a third-generation lithium polymer battery which offers some significant advantages to the consumer and to the environment.

Hyundai applauds this joint NHTSA-EPA rulemaking exercise here. It represents unprecedented regulatory cooperation. It seeks a national solution for reducing greenhouse gas emissions and improving fuel economy of motor vehicles, and it works toward a global solution for addressing climate change.

A unified program allows manufacturers to develop a concerted and cost-effective way to work in the development of advanced technologies. We believe that a single national program is the most efficient and practical approach now and in the future. This is a global and a national problem and should be addressed on a national basis.

We strongly encourage dialogue between EPA, NHTSA, and California on the creation of the post-2016 model year national standards and look forward to participating in this discussion.

Moving on to some of the specifics of the proposal, I would like to address the subject of the proposed temporary lead-time allowance alternative standards.

While the California GHG regulations provide Hyundai with relief from the regulations as an intermediate volume manufacturer, this same

relief is not afforded in the EPA proposal. Despite this, we support the EPA proposal as it is consistent with our Hyundai Blue Drive initiative and our overall corporate responsibility to address fuel efficiency, energy security, and the environment.

Hyundai is pleased that the EPA had the foresight to include the mechanisms for various forms of compliance flexibility outlined in the joint proposal, including credit transfers and trading and credits for advanced technologies. These are critical to providing a cost-effective means of achieving the standards.

More specifically, we support the proposed credit carry-forward and carry-back time periods under both EPA and NHTSA programs.

In addition, we would support expanding the carry-forward provisions under the GHG program to include a phase-out or discounting of credits after the five-year period. This practice was permitted under the California regulations and would provide even further compliance flexibility.

We support EPA's regulatory plan to begin verification of the actual use of alternative fuels, such as E85, starting with model year 2016. We

believe there should be a correlation between real-world alternate fuel use and available credits.

We also believe that the CAFE flexible fuel credit calculation overstates the current real-world use of alternative fuels. However, we understand that this is a calculation prescribed by statute.

Finally, Hyundai supports a pragmatic government role in accelerating market demand for fuel-efficient vehicles. Consumer incentives can have the ability to stimulate advanced technologies even beyond what the CAFE/GHG regulations will require.

While not under the purview of EPA or NHTSA at this time, we do support tax incentives or rebates for the purchase of fuel-efficient vehicles. Alternately, a flexible gasoline tax that maintains a more stable pricing structure has the potential to ease uncertainties about fuel price and would also stimulate the sales of fuel-efficient vehicles.

In addition to our verbal comments today, our Hyundai will submit -- our company will submit written comments addressing details discussed in the proposal.

Thank you for providing Hyundai with this opportunity to voice its position on this important

rulemaking opportunity. Thank you.

MR. FRANCE: Thank you very much.

The next testifier, Erica Fick from EDF.

ERICA FICK

ENVIRONMENTAL DEFENSE FUND

MS. FICK: Good morning. Erica Fick, Policy Specialist with Environmental Defense Fund here in Los Angeles.

On behalf of EDF and our more than 700,000 members nationwide, I thank you for the opportunity to be here today.

On May 19th, President Obama forged an accord on cleaner cars to begin breaking our nation's addiction to foreign oil, to encourage clean energy technologies that will lead the way in the 21st century global marketplace, and to start reducing the global warming pollution that imperils our planet.

We sincerely thank the President and those who worked with him to chart this path forward including the United Auto Workers, the Alliance of Automobile Manufacturers, and the extraordinary leadership of state officials here in California.

When finalized and carried out, the proposed standards will have important societal benefits. The program --

MR. FRANCE: Can you please speak into the microphone? The court reporter can't hear you.

MS. FICK: Is that better?

THE REPORTER: Yes. Thank you.

MS. FICK: The program will strengthen our national security.

The vehicles subject to this proposal are responsible for about 40 percent of all U.S. oil consumption. The proposed standards would reduce our consumption of oil by 1.8 billion barrels while achieving a 5 percent annual improvement in fuel efficiency for the nation's passenger vehicle fleet.

The proposal would also reduce global warming pollution from a major sector of emissions. The vehicles covered account for 60 percent of heat-trapping emissions from the transportation sector and about 20 percent of all greenhouse gases nationwide.

These emissions have steadily increased by more than one percent annually. The Environmental Protection Agency estimates the proposal would cut carbon dioxide pollution from passenger vehicles

approximately 21 percent by 2030, reducing emissions by 950 million tons.

The proposal would also provide dividends in fuel savings at the pump for America's families. The estimated overall cost savings over the life of the vehicle are more than \$3,000.

As Californians, we have a strong stake in this proposal. Home to one in seven Americans, California is the most populous state in the nation. We have over 30 million registered vehicles exceeding the number registered in any other state by a margin of almost two to one.

These millions of vehicles are a major contributor to global warming pollution in California, and we are profoundly vulnerable to global warming. Global warming is a clear and present danger to our health, the economy, and the well-being of Californians.

California's coastline spans more than 1,000 miles, and 70 percent of California's population lives within 60 miles of the coast. Sea level here is inexorably rising. Recent analysis predicts a 1.4 meter rise in sea level by 2100 putting 480,000 people at risk. California's coasts, its people, its coastal infrastructure and

coastal ecological systems are profoundly vulnerable to sea-level rise.

Fresh water is already in short supply in California, and global warming is likely to make water management even more difficult, contentious, and expensive. Global warming is predicted to disrupt the mountain precipitation and snowmelt patterns that provide drinking water for over 20 million Californians as well as irrigation water for much of California's \$30 billion agricultural industry.

Heat waves are projected to become longer, hotter, and more frequent with serious implications for heat-related deaths. Rising temperatures will exact a heavy toll on our elderly, the poor, and other vulnerable populations who have limited means to manage extreme heat events.

More hot, dry weather also are the conditions that lead to harmful wildfires which threaten lives and property.

Californians continue to suffer from some of the worst air quality in the country. Millions of Californians live in communities where the air pollution concentrations violate federal health standards for ozone smog and particulate pollution.

The challenge of reducing dangerous smog levels in California's cities and rural areas alike will become harder with higher temperatures from global warming that worsen local air pollution.

There is good reason for hope. The proposal for cleaner cars at issue today represents an important step forward in addressing the grim impacts of a changing climate, but to secure these critical benefits, the final standards must be rigorous and well designed. We examine some elements of the proposal that warrant close attention.

Accounting for the societal benefits of protective action. To maximize the benefits of the final standards, it is essential to fully account for the extraordinary and far-reaching protections that result from reducing heat-trapping emissions.

Accordingly, the full range of environmental, social, and economic impacts of greenhouse gas emissions should be taken into account when calculating the societal costs of carbon. Where impacts cannot be quantified, federal policy makers should present a transparent qualitative analysis along with a recognition that monetized benefits are likely to be underestimates.

The co-benefits of the proposed standards, such as the health benefits from the reductions in smog-forming air pollutants, must also be incorporated into the economic analysis. And the analysis must not rely on flawed economic assumptions that diminish the value of protecting future generations.

Indeed, we have a solemn duty to provide a secure future for my generation and those that follow. The final rule must reflect this responsibility through appropriate economic assumptions while also relying on ethical considerations beyond the scope of economic analysis alone.

Fleet mix assumptions. The reductions to be realized by these proposed standards are highly dependent on assumptions about fleet composition in model years 2012 through 2016. We urge federal policy makers to find smart ways to ensure the assumptions about fleet mix reflect the fleet composition in the real world.

Properly accounting for electric vehicle pollution. Similarly, the EPA's proposal to assign a zero greenhouse gas emission rate for the electric portion of plug-in electrical vehicles seriously

misses the mark. EPA must ensure that the pollution associated with upstream electricity generation that powers plug-in vehicles is fully accounted for in the emissions assigned to these vehicles.

Begin preparing for 2017 and beyond. The current standards apply to model years 2012 through 2016. We urge EPA to begin work as soon as possible to prepare the next generation of standards for model year 2017 and beyond.

California's people, its economy, and its natural environment are extraordinarily vulnerable to global warming. It is not surprising that California has likewise provided extraordinary and far-reaching policy leadership in the nation's and the world's fight against the climate crisis.

The proposed national standards that are the subject of this public hearing largely apply to California's landmark clean car program on a nationwide basis ensuring that California will receive the multiple benefits of greenhouse emission reductions from passenger vehicles in California and other states.

The fundamental promise of the Presidential accord and the bedrock responsibility of the Environmental Protection Agency and Department of

Transportation in finalizing the proposed standards is to achieve profound and lasting progress in national security, climate stability, and economic opportunity.

We respectfully request that federal policy makers finalize rigorous and protective standards to ensure the promise of the President's compact is realized.

Thank you, and we will also be submitting formal comments.

MR. FRANCE: Thank you very much for your testimony.

The next testifier is Martha Dina Arguello.

MARTHA DINA ARGUELLO

PHYSICIANS FOR SOCIAL RESPONSIBILITY, LOS ANGELES

MS. ARGUELLO: Good morning. My name is Martha Dina Arguello. I am the Executive Director of Physicians for Social Responsibility, Los Angeles.

We are the largest chapter of the National Organization of Physicians for Social Responsibility, and as an organization, we are made up of health professionals -- doctors, nurses,

mental health professionals -- and we recognize that in order to protect the health of individual patients and of communities --

MR. FRANCE: Martha --

THE REPORTER: Can you slow down a little bit, please?

MS. ARGUELLO: Sure.

THE REPORTER: Thank you.

MS. ARGUELLO: Our members include physicians, doctors, nurses, mental health professionals, and we fully recognize that in order to protect the health of patients, we must step out of our traditional clinical role in the clinic and in the hospital. And then we need a partnership, and we need a partnership with you to establish good public policy that seeks to protect human health and the environment.

Our organization believes this is a first good step, but it's just the beginning, and stronger action is needed to truly protect public health and create a fleet of vehicles that we need for a greener, healthier future.

When we adopted the standards in 2004, we knew the automakers could make clean cars and consumers wanted them. Now after five years, we are

confident that we will devise ways to make even cleaner cars in the future, and we hope that protecting the economic and public health of the nation and California is made a priority and that the health of future generations can trump entrenched interests and resistance to change.

To make sure -- we must make sure that we do not undervalue the consequences of global warming. For too long we in the public health community have lamented that most of our environmental laws allow polluters to significantly internalize the cost of pollution. We cannot continue to allow the public health and public health infrastructure to absorb these costs.

In California we face devastating budget cuts and the destruction of our public health infrastructure and safety net. These social costs will become larger if we do not act quickly.

The social cost of carbon is intended to measure the monetary value society places on the impacts of greenhouse gases. Unfortunately, it is very difficult to often fully understand and quantify the full health impacts of climate change and of air pollution.

This proposal needs to be strengthened and

make sure that we account for the entire life cycle of energy production. The more we learn about environmental pollution, the more we understand there are traditional ways of thinking of waste, and externalizing the cost does not fully protect public health. So a full life-cycle analysis of where that energy is coming from is important to ensure that we have adequate protections.

California has led the world with policies that advance the development of electric-driven vehicles because of their criteria and greenhouse gas emission benefits. While we support incentives for electric vehicles, upstream emissions from electricity or hydrogen generation must be accounted for in the standard.

EPA should re-think its proposed carbon value of zero and assign a value based on the latest grid analysis.

Additionally, EPA should reconsider its credit multiplier of two proposed for these vehicles as proposed. A manufacturer could accrue significant credits with electric vehicles but then do little to improve the rest of its fleet. This is not adequate to protect public health.

Global warming is an economic disaster with

significant public health consequences for California and the nation. The public health sector faces 3.8 billion to 24 billion in additional costs associated with climate change impacts.

The risk of water-borne disease, the threats to our food supply, the threats of displacement, and for those of you who live in Los Angeles today, the winds will be blowing, and much of the ash from the recent fires will be in the air so we can expect more air pollution.

At a time again when our local public health systems are under attack, we're finding it challenging to find ways to support community health centers in developing adequate adaptation strategies for climate change.

We already know that in Los Angeles the cooling centers are not in low-income communities or in communities of color. They are not in areas where we actually need to be, and that's a serious impact that needs to be addressed.

Also when we focus on the health impacts of these tailpipe emissions and air pollution, for many years we have spoken, and rightly so, on the issues of asthma and respiratory disease. We must remember that air pollution poses a significant threat to the

health of women who live in high-traffic areas.

Over the last decade, a large number of studies have investigated the possible adverse effects of ambient air pollution on birth outcomes. A number of key studies have been done in Los Angeles.

The work of Dr. Beate Ritz, the doctor who worked with Dr. Tracy Woodruff, have shown that -- and both published in Environmental Health Perspectives -- have shown that there is a significant implication of air pollution in adverse birth outcomes, low birth weight, changes to the health of damaged heart valve development.

And also we've not really studied the full mental health impacts of climate change.

So not to scare us more, but for those of us who live in California, the fear and anxiety of fires, of not being able to reach a cooling center, of living in isolated communities, we fear to leave the house and may not have air conditioning and don't feel safe going to the local cooling center tells us that this is a serious environmental health issue.

These increased levels of uncertainty and risk brought about by climate change will impose new

costs that we cannot begin to perceive on the health care industry.

Here in Los Angeles where we have some of the worst air pollution in the country, we have to do everything we can to mitigate this. We cannot create healthy and safe communities if we are not helped by national policies.

Thank you.

MR. FRANCE: Thank you very much.

David Patterson of Mitsubishi Motors.

DAVID PATTERSON

MINITUBISHI MOTORS R & D OF AMERICA

MR. PATTERSON: Good morning. My name is Dave Patterson. I'm Chief Engineer of Mitsubishi Motors R & D of America. I appreciate the opportunity to present testimony on behalf of Mitsubishi Motors.

Mitsubishi Motors supports the efficient and practical approach to achieving true greenhouse gas reductions and fuel economy improvements, a single national standard.

This joint rulemaking by EPA and NHTSA is an important step of establishing a cohesive

national program to reduce greenhouse gases and improve fuel economy. This unified program should allow manufacturers to develop cost-effective processes in meeting these standards and deploying advanced technology vehicles.

Intermediate volume manufacturers like Mitsubishi face additional challenges in attaining these standards. Smaller companies have less financial resources and fewer vehicle lines to implement cost-effective major changes. This makes the credit flexibilities outlined in the NPRM very important, easing the transition to these new standards.

I remind you that this is especially important considering that Mitsubishi Motors was not subject to California AB 1493 regulations until the 2016 time frame. Therefore, one of the important methods to ease this transition is the temporary lead-time allowance EPA is proposing to help smaller manufacturers adapt to these new regulations.

Another opportunity for technological and environmental progress is the advanced technology vehicle credits, both the zero grams per mile emissions rate and the multiplier. These measures will make the near-term advanced technology vehicles

more cost-effective and promote these technologies in the U.S. market.

Also, please remember advanced technology vehicles will only be successful with the construction of their fueling infrastructure.

Again, these proposed -- this proposed regulation is difficult and will require large changes in the automotive industry. As always, Mitsubishi Motors will work closely with EPA and NHTSA and encourages EPA and NHTSA to work closely with all stakeholders to refine the technical framework of this program.

Thank you very much. Mitsubishi Motors will submit detailed written comments, and I am available for questions.

MR. FRANCE: Thank you very much.

Any questions from the panel? I guess not. Thank you very much for your testimony today.

Right before we take a break, we have one more testifier, Jill Weiner and her son.

JILL WEINER

CITIZEN

MS. WEINER: First of all, thank you very

much for accommodating us so that I can testify here.

My name is Jill Weiner, and I'm a stay-at-home mom here in Los Angeles. This is my son.

MR. FRANCE: This is your son?

MS. WEINER: This is Max. He's two. And I'm here today to voice my support for the new fuel economy and greenhouse gas standards.

I was born in Southern California, and I've lived here all my life. And it's really a beautiful place to grow up, the beaches, the mountains, the weather. I spent so much of my childhood enjoying the outdoors, and I want my son to have the same chance.

But the threat of global warming is particularly acute in California, and we're already seeing longer fire seasons, water shortages, and loss of habitat for some species. Many Californians are concerned about global warming, which is why we passed the Pavley standards to start addressing the problem now.

Additionally, the increased fuel economy standard will reduce air pollution and dependence on foreign oil and the pressure to drill in

environmentally sensitive areas.

Just a moment.

I am happy that the Pavley standards are the basis for a new national standard, and I want to applaud the administration and the auto industry for working together to reach an agreement.

I'm excited to see how the automakers will apply existing and new technologies to meet these standards, and I'm looking forward to replacing my 1998 model with a cleaner, more efficient car in the near future.

That being said, I urge you to make sure that the details of the program are such that we do, in fact, meet the goals, both in terms of emission reductions and oil savings. Please do not allow loopholes or excessive credits to dilute the program's results.

For electric vehicles, the EPA needs to consider the source of electricity and accurately account for how that power is generated just as the Pavley standards do.

Once again, I want to thank you for proposing these standards. I truly believe that they will help ensure a better future for all of us. Thank you very much.

MR. FRANCE: Thank you for taking the time to come here and testify.

We're going to take a ten-minute break. Exactly ten minutes, let's come back again, and we'll start a clear panel.

(At 10:45 a.m., a recess was taken.)

(At 11:00 a.m., the proceedings resumed.)

MR. KRATZKE: I also wanted to alert all of you that we are going to break for lunch after this panel. We'll take about an hour and then reconvene 60 minutes later.

And with that, I'd like to begin our third panel with Mr. Bob Holycross from Ford.

BOB HOLYCROSS

FORD MOTOR COMPANY

MR. HOLYCROSS: Good morning. I'm Bob Holycross, Manager, Environmental and Energy Planning for Ford Motor Company. It is a pleasure to be here today to provide our perspective on this very important rulemaking.

We commend the efforts of both agencies in this difficult task to develop harmonized greenhouse gas emissions and CAFE standards for passenger cars and light-duty trucks, and we are committed to working with you to finalize these regulations.

Before I talk about the proposed rulemaking, I would like to spend a moment telling you about the progress that Ford is making in executing our long-term sustainability plan. All of the investment that we are putting into our plan is contributing to improving the fuel economy and reducing the greenhouse gas emissions of our fleet.

This includes converting three truck and SUV plants to build small cars, retooling our powertrain facilities to manufacture EcoBoost engines and more advanced six-speed transmissions, leveraging our global platforms, increasing our hybrid offerings, and moving forward with an aggressive electrification strategy.

While there are significant costs in making this transformation, it is the right thing to do for our customers. You will continue to see us offer more great products with advanced, innovative technologies to improve the fuel efficiencies of our vehicles and to deliver outstanding quality and

features that our customers desire.

Turning now to the proposed rulemaking, Ford supports the manner in which the agencies have proposed to harmonize the greenhouse gas emissions and CAFE regulatory framework which is a broader program compared to what was outlined in the 2007 Energy Independence and Security Act.

It brings together a range of compliance mechanisms such as improvements to vehicle fuel economy, improvements in air-conditioning systems designed to minimize refrigerant leakage, another potential source of greenhouse gas emissions, and advanced technology vehicles that can run on biofuels and electricity.

It also maintains separate car and truck footprint-based targets which Ford and the industry have supported given that cars and trucks have different functional characteristics whether they have the same footprint or not.

Taken together, the broader elements of this one national program provide a more efficient compliance framework compared to individual state programs or potentially overlapping federal and state programs.

As we continue to move towards an

integrated approach that considers the vehicle, the fuel, and the consumer, it is worth highlighting other policies that could do more to reduce greenhouse gas emissions from actual in-use operation of motor vehicles compared to some of the additional requirements that EPA is proposing under this rulemaking.

For example, EPA is proposing full useful life standards for CH<sub>4</sub>, methane, and N<sub>2</sub>O, nitrous oxide, in addition to the fleet average CO<sub>2</sub> requirements. The relative contribution of methane and nitrous oxide to a vehicle's overall greenhouse gas emissions is small compared to CO<sub>2</sub>, on the order of 1 to 3 percent and 0.3 to 0.4 percent respectively.

The benefit of expanding the existing criteria pollutant emissions durability requirements to include these greenhouse gases is minimal relative to other potential measures that could have a much more significant impact on actual in-use greenhouse gas emissions. Such measures would go beyond the vehicle's design.

For example, significant additional greenhouse gas emissions reductions could be achieved by reducing the carbon intensity of the

nation's overall fuel supply through the introduction of alternative low-carbon fuels.

In addition, further reductions could also be achieved through more efficient transportation control measures designed to manage increased travel demand. These could include congestion mitigation initiatives, eco-driving education and awareness programs, and other incentives to encourage consumers to drive more efficiently.

We do not believe EPA is compelled to establish full useful life standards for N<sub>2</sub>O and CH<sub>4</sub>, and our written comments will address this in more detail.

To the extent that EPA desires to pursue these issues nonetheless, the regulations could continue to allow manufacturers to make an engineering judgment attestation in lieu of a formal compliance testing beyond just the first couple of years as proposed.

Alternatively, EPA could establish generic emissions factors for N<sub>2</sub>O and CH<sub>4</sub> and roll these into the proposed CO<sub>2</sub> standard.

Ultimately, Ford recognizes that reducing overall greenhouse gas emissions from cars and trucks will be an important factor of any energy

security and climate change policy. However, it will take all sectors of the economy to effectively and most efficiently reduce the greenhouse gas emissions in the atmosphere.

In the meantime, while these broader policies continue to develop, Ford strongly believes that measures need to be put in place to ensure that the national program approach outlined in this rulemaking continues beyond 2016.

We were pleased when the President brought us all together to agree on a roadmap for harmonizing greenhouse gas emissions and CAFE standards. The EPA and NHTSA proposal gives us greater clarity, certainty, and flexibility to achieve the aggressive greenhouse gas emissions reduction goals that we all share.

Most importantly, it avoids the patchwork and overlapping requirements that we would have faced under the status quo. Nonetheless, it is only a first step. We need to take the next step now for 2017 and beyond. This needs to involve all of the same stakeholders including the State of California.

Ford recognizes and commends the role that CARB has played in the process that brought us here today, and we look forward to working together to

ultimately preserve the efficiency of this national program for the future.

Once again, we appreciate the opportunity to provide our testimony on this important rulemaking. We are continuing to review all of the different aspects of the proposal, and we plan to provide detailed written comments aimed at achieving and finalizing regulations consistent with the commitment that all parties have made to this national program.

Thank you.

MR. KRATZKE: Thank you, Mr. Holycross.

Mr. Bienenfeld.

ROBERT BIENENFELD

AMERICAN HONDA MOTOR COMPANY

MR. BIENENFELD: Good morning. I'm Robert Bienenfeld, Senior Manager of Environment and Energy Strategy in the Product Regulatory Office for American Honda Motor Company. I appreciate the opportunity to share with you Honda's thoughts on the joint EPA and NHTSA proposal for national greenhouse gas and fuel economy standards for light vehicles.

This NPRM represents a significant, positive step forward, and we appreciate the efforts of everyone involved to create more harmonized national standards. Honda has long advocated for higher fuel economy standards and, by inference, lower greenhouse gas emissions as well as a single national standard.

Until the White House agreement, the automobile industry was facing fragmented, conflicting, and burdensome regulation of fuel economy and greenhouse gases. The regulations in California and adopted by 12 states and the District of Columbia compared to NHTSA's CAFE regulations differed in terms of testing requirements, vehicle category definitions, and stringency.

With the looming addition of new EPA greenhouse gas regulations, we were headed for additional complexity, cost, conflicts, and duplication. In short, we were on our way towards a regulatory mess.

Additionally, it must be noted that greenhouse gases and fuel economy are issues that are national in scope. No individual state nor loose affiliation of states are more suitable to regulate these issues than the federal government.

The White House agreement, in Honda's view, represents a great step forward in the much needed regulation of greenhouse gases. The agreements signal wide consensus that the interests of the country are best served by starting a greenhouse gas regulation and by a national implementation of that regulation.

And while the industry is still obligated to meet the requirements of two distinct programs, a great deal of effort has been made to harmonize the design, implementation, and management of these programs under federal government leadership, and those efforts are greatly appreciated and should be reflected in more reasonable compliance costs.

A single national standard is no less imperative for the post-2016 period, and we urge the federal government to engage with the states and industry as soon as possible as anticipated in the White House agreement.

And while we applaud the national program to manage fuel economy and greenhouse gases, there are several areas where EPA and NHTSA solicited public comment from industry. I would now like to address several of these issues.

First, the zero-grams-per-mile CO2 for

electric vehicles. EPA proposes to set the CO2 value for the electric portion of plug-in electric vehicles and battery electric vehicles to zero, and EPA further proposes to set the CO2 value for fuel cell electric vehicles to zero as well.

Honda believes that this policy is misguided and creates significant incorrect perceptions about the relative merits of various vehicle technologies. Honda has worked on alternative fuel vehicle technologies and their social benefits for more than two decades, but the social benefits of any technology must be understood and measured on a well-to-wheel basis.

It is clear that there are no special virtues to be associated with zero tailpipe greenhouse gas emissions if the well-to-tank portion is very high.

Additionally, without a comprehensive well-to-wheel assessment of greenhouse gases, EPA and others who rely upon EPA's assessments will improperly favor or signal preferred technologies. If the agencies want to promote electric vehicles, it can do so through Super Credits as we discuss below.

We think the solution to quantify

well-to-wheel greenhouse gas emissions is already within the federal government's grasp. The Department of Energy uses a respected, widely accepted model called GREET. Many NGOs, academics, and the federal government itself use GREET to model policy choices when considering light-duty vehicles and their impact on greenhouse gas emissions.

We believe it makes sense for EPA to adopt DOE's GREET model in order to evaluate the well-to-wheel impact of various technologies, and to be absolutely clear, Honda supports using the GREET model for evaluating all fuels and technologies including hybrids, gasoline ICEs, and diesel vehicles as long as the standards are adjusted accordingly.

Super Credits. We understand and support EPA's effort to encourage the introduction of plug-in hybrid electric vehicles, battery electric vehicles, and fuel cell electric vehicles. However, these technologies do not necessarily warrant the same credit multiplier solely because they qualify as one of these technologies.

There's a great deal of difference between a 50-mile battery electric vehicle and a 100-mile battery electric vehicle for example. And fuel cell

electric vehicles represent significantly more challenging technology sets.

In order to achieve our long-term social goals, it is important to recognize and reward more advanced and sophisticated technology. We are ready to work with EPA on developing an appropriate performance-based metric that will more accurately differentiate advanced technologies.

Safety and downsizing. Much has been written and researched about the impact of size, weight, and fuel economy regulation on safety.

As we have previously testified, Honda believes that size is a much better attribute than weight, and we believe that the argument over the safety differences between a size-based attribute and a weight-based attribute misses a larger point. The larger issue, it seems to us, is the need to downsize the fleet.

The size-based attribute introduced as an option in 2008 and mandatory from 2011 essentially reduces incentives to downsize from the current fleet mix. This means that the only way to improve fuel economy is through the application of technology and, therefore, higher costs.

In the previous regulation, consumers could

downsize their vehicles and save money. Downsizing the fleet with an intelligent approach to safety has the salutary effect of greatly lowering the cost of greenhouse gas reductions. We believe that, as the fleet size and weight trend down, safety can be improved on a fleet-wide basis and efficiency can be improved at a lower overall cost to consumers.

Towards that end, the cap on passenger car requirements below 41 square feet, roughly the smallest 10 percent of the market, is an important step in the right direction. We recommend that a similar cap be set on the smallest 10 percent of the truck market as well.

Overall consideration should be given towards encouraging more fleet downsizing in order to promote safety and lower the cost of greenhouse gas reductions.

We have other concerns with the proposed regulation including the overall framework for a greenhouse gas emissions warranty, which is qualitatively different from the warranty of certain other criteria pollutants, the appropriate treatment of N<sub>2</sub>O and CH<sub>4</sub> pollutants as well as important considerations for air-conditioning testing.

We look forward to further discussions with

staff on these more technical issues as well as the opportunity to provide written comments that can address these concerns in a more thorough manner.

I appreciate the opportunity to present Honda's thoughts regarding this important rulemaking, and I look forward to your questions.

MR. KRATZKE: Thank you.

Mr. Kalb.

DAN KALB

UNION OF CONCERNED SCIENTISTS

MR. KALB: Thank you. Greetings. My name is Dan Kalb, California Policy Manager for the Union of Concerned Scientists. We thank EPA and NHTSA staff for their hard work on this rulemaking and appreciate the opportunity to testify.

I am supplementing remarks delivered last week in New York by Brendan Bell, one of our senior advocates in Washington. The focus of my remarks is on the importance of preserving state authority to continue to set more aggressive standards into the future and the need to ensure that the federal program delivers emissions reductions at least equivalent to California's.

As you know, the Federal Clean Air Act gives California the unique ability to set stricter than federal standards for vehicles. The state only needs to receive a waiver.

Also as you know, California adopted the nation's first greenhouse gas standards for vehicles requiring a 30 percent reduction in global warming pollution of new vehicles by 2016. Thirteen other states representing over 40 percent of the new car market followed California's leadership and adopted those same standards.

California is also relying on these actual vehicle standards to help meet the requirements of the state's landmark Global Warming Solutions Law, AB 32. This law requires the state to reduce global warming pollution down to 1990 levels by the year 2020, a reduction of about 25 percent compared to estimated business as usual.

The Schwarzenegger administration requested a waiver of preemption from the EPA in December of 2005 in order to implement the vehicle greenhouse gas standards. Unfortunately, the previous administration in Washington rejected California's waiver and failed to fulfill the requirements of the Clean Air Act thereby undermining state authority to

address these problems.

The Obama administration and Congress are charting a new course on climate. In a historic agreement brokered by the Obama administration, the federal government, the State of California, and the auto industry have all agreed on the need to implement federal standards equivalent to California's program.

We applaud the current administration for putting science first and politics aside by recognizing that California should receive a waiver to implement our vehicle greenhouse gas standards.

As embodied in this notice of proposed rulemaking, President Obama's commitment represents the largest improvement in fuel economy in over 20 years. UCS strongly supports this effort and is committed to making the President's goals become a reality.

According to UCS analysis, the standards proposed in the NPRM will reduce oil consumption from light-duty vehicles by approximately 1.3 million barrels per day in the year 2020. This translates into a savings of nearly 20 billion gallons of gasoline in just one year.

By reducing oil consumption, consumers will

also save money at the gas pump. If prices stay at approximately \$2.50 per gallon -- I don't know where it's 2.50 a gallon these days -- American consumers will save \$32 billion in 2020.

UCS calculates these savings on a net basis accounting not only for fuel savings, but for the additional cost of fuel-saving technology. If prices return to higher levels, such as \$4.00 per gallon, the savings would nearly double to approximately \$61 billion.

In addition, UCS estimates that these standards will reduce greenhouse gas emissions from cars and light trucks by 215 million metric tons of CO2 equivalent in 2020, the equivalent of taking approximately 32 million vehicles off the road in that year. Of course, the benefits will only grow into the future as the fleet turns over.

UCS's calculations of benefits are based on California data that assumes that the fleet achieves the 250-grams-per-mile standard in model year 200 -- excuse me -- 2016, a level equivalent to approximately 35.5 miles per gallon, but this level will only be achieved if EPA and NHTSA ensure that the final regulations eliminate any potential loopholes or opportunities for gaming. I will

highlight four critical issues in this regard.

First, a backstop is necessary to meet California's standards. By 2016, new cars under the California program are expected to emit an average of 250 grams per mile of global warming pollution.

To meet this level of emissions, the NPRM projects that in model year 2016 the fleet will consist of approximately two-thirds passenger cars and one-third light trucks. But in today's new vehicle fleet, nearly half of the vehicles sold in the U.S. are light trucks.

While there has been a recent market trend away from light trucks towards cars, it is questionable whether market pressure alone will achieve such an overall notable shift by 2016. Additionally, automakers might strategically redesign vehicles in some classes so they might meet higher emissions limits.

EPA and NHTSA should include a backstop in the final regulations to ensure that the fleet-wide standards are achieved in each model year and that by 2016 the fleet average is indeed 250 grams per mile.

UCS will propose a variety of mechanisms in our technical comments submitted in writing that can

preserve compliance flexibility while ensuring overall progress.

Second, compliance credits should be based on real-world performance. UCS is concerned that the NPRM includes credits for advanced vehicles that could erode the benefits of the program and give automakers credit for actions undertaken to meet California's Zero Emission Vehicle program.

California's ZEV program requires automakers to manufacture and sell zero emission vehicles. By 2014, the current California program could result in close to 60,000 plug-in hybrid electric vehicles as well as 7,500 pure battery electric or fuel-cell vehicles on the road.

California is planning on updating its ZEV program soon to presumably strengthen the standards to ensure progress in commercializing advanced and low-carbon technologies.

The goal of California's ZEV program is to create a pathway for commercializing advanced vehicle technology that can provide the deep emissions reductions needed to achieve the state's long-term goal of reducing emissions by 80 percent by the year 2050.

The proposed federal program would allow

manufacturers to accrue credits for vehicles that incorporate advanced zero emission technologies. This credit would provide automakers with a credit multiplier in the range as proposed of 1.2 to 2.0 for advanced vehicles. In essence, this allows advanced vehicles such as plug-ins, electric, and fuel-cell vehicles to count as more than one vehicle in a manufacturer's fleet average.

Compounding this is EPA's proposal to use an emissions factor of zero grams per mile for electric vehicles and the electric portion of plug-ins.

While UCS supports flexibility in compliance mechanisms, credits should be based on real and verifiable emissions reductions. This means that credits for electric drive should be based upon average life-cycle emissions from electricity, including upstream emissions from power generation.

The assumption that all electric vehicles have zero emissions will erode the benefits of the federal program and could delay widespread adoption of cost-effective technologies available today to reduce emissions.

Plus, automakers already producing ZEVs to

meet California's ZEV mandate will also get credit under a federal program, credit that might far exceed their actual life-cycle emissions.

Therefore, UCS recommends that in this rule no advanced vehicle credits be offered before model year 2012 or after model year 2016 and that the use of a zero-grams-per-mile emission factor be abandoned and that an emission factor reflective of actual in-use emissions consistent with current research be adopted.

And we recommend a multiplier of no higher than 1.2 be used; to abandon the 2.0, start with 1.2, and then decline to .05 per year, going to just the 1.0 in 2016 for these advanced vehicles. And the credits should expire once a manufacturer surpasses a certain volume threshold, such as 200,000 advanced vehicles sold.

The idea is this is supposed to spur new technologies and make them commercial. Once we've achieved that commercialization, you no longer should have a multiplier.

Third, early credits for overcompliance must reflect real surplus emissions. EPA proposes an opportunity for manufacturers to accrue early credits in model years 2009 through 2011 by

overcompliance with a given baseline standard.

However, since CAFE is actually more stringent than California standards in 2009 and 2010, automakers merely minimally complying with federal fuel economy standards can accumulate credits, extra credits, for emission standards.

To ensure that the credits accrued are based on actual surplus, surplus emissions reductions, it is essential that the baseline for each model year not be defined as merely equivalent to California standards for those early years but, rather, as the more stringent -- in any given year, the more stringent of CAFE or the California standard for that year.

Further, it also appears that, based on the proposed rule, manufacturers may be able to acquire credits simply by shuffling cleaner vehicles into California or other Section 177 states.

While we are generally supportive of flexibility mechanisms, we recommend that the agency modify its proposal to close those early credit loopholes.

Finally, flex-fuel vehicle credits must be terminated. Currently EPA standards allow automakers to use flex-fuel vehicle credits to

achieve compliance in the early years of the program. Historically automakers have used FFV credits to lower their fuel economy obligations despite the fact that very few of the vehicles were ever run on these alternative fuels, such as E85.

California's program requires manufacturers to demonstrate the use of alternative fuels, like E85, in order to take credit for any emissions benefits. This is common sense.

Beginning in model year 2016, EPA proposes that any FFV credits accrued under its program be based on actual E85 use as opposed to just vehicle capability. This change would close the FFV loophole and finally make the federal program consistent with California's.

This loophole created by these credits has eroded oil savings and pollution reductions for decades. It is critical that the EPA follow through with its modification of these credits, FFV credits, in 2016. If the FFV program were to continue in its current state, it would erode the 2016 proposed fleet standard.

In conclusion, UCS applauds the Obama administration, EPA, and NHTSA for joining California and other states in tackling the twin

problems of global climate change and energy security through standards to reduce pollution from America's new cars and trucks.

The proposed National Clean Vehicles Program would achieve a dramatic reduction in U.S. oil consumption saving Americans money at the gas pump and reducing tailpipe greenhouse gas emissions.

UCS urges EPA and NHTSA to include provisions in the final standards that guarantee fleet-wide improvements, prevent gaming and loopholes, and preserve state authority to set stricter standards into the future.

Thank you again for the opportunity to testify and for your hard work in cleaning up America's fleet of cars and light trucks.

MR. KRATZKE: Thank you, Mr. Kalb.

Ms. Speers.

ALEXANDRA SPEERS

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

MS. SPEERS: Good morning, and thank you for the opportunity to comment on the proposed rule.

My name is Alexandra Speers, and I represent a vehicle working group consisting of

students and faculty from the Bren School of Environmental Science and Management and the Economics Department at the University of California at Santa Barbara.

I am assisted here today by Professor Charles Kolstad, who served on an earlier National Academy of Science Committee to review possible changes to the CAFE regulations. Of course, our opinions are not necessarily those of the University of California.

This proposed rule presents an opportunity for the United States to stand as a global leader in combating climate change. But just as importantly, this provides a real opportunity to strengthen our domestic economy in many dimensions, including reducing dependence on foreign oil.

We have reviewed the proposed rule in depth and would like to comment on the following five topics: The social cost of carbon, target stringency, standards for greenhouse gas emissions other than carbon dioxide, additions to current emissions testing protocols, and vehicle classification.

Our comments today are preliminary, and we will be finalizing our opinions in written comments

which will be submitted prior to the expiration of the 60-day comment period.

We would first like to address the social cost of carbon. The discussion associated with the proposed rule argues that the social cost of carbon for U.S. rulemaking should appropriately be the monetization of the damage from carbon wherever it may occur, within the U.S. or elsewhere. We firmly believe this is the correct way to view this problem. These are global problems and must be viewed and treated with a global lens.

Key to the determination that the social cost of carbon is approximately \$20 per ton is the assumption that there's a 50/50 chance that the true discount rate is 3 percent versus 5 percent. We are concerned with this assumption.

Our review of the literature suggests that the prevalent discount rate in peer-reviewed literature is approximately 3 percent with outliers as frequently below 3 percent as above. This can make a big difference.

Assuming 3 percent as the central tendency results in a social cost of carbon of \$34 per ton using data provided by EPA and NHTSA. At minimum, we recommend a more nuanced treatment of a wider set

of possible discount rates, including those below 3 percent.

An additional issue concerns the specific values for the social cost of carbon taken from the literature. In many cases, the literature --

MR. KRATZKE: Excuse me, Ms. Speers. Could you slow down just a little?

MS. SPEERS: Absolutely. I'm sorry.

In many cases, the literature does not report one number for the social cost of carbon. As my colleague from the Environmental Defense Fund mentioned earlier, it is difficult for us to reproduce the results presented by the EPA and NHTSA.

In fact, one of the central references in this literature by Anthoff, et al., 2009 reports a wide range of values. At minimum, we urge a much more clearly articulated rationale for the figures chosen.

Our second set of comments relates to the stringency of the proposed emission or efficiency targets. These comments related both to the level of the targets in different years between now and 2016 but also the shape of the functional relationship between vehicle footprint and targeted

fuel efficiency.

Before moving to our specific comments, we have a general comment that there is insufficient description of the methodology the NHTSA and EPA used to translate data on individual emission levels into the functional relationship.

We attempted to redo the regression analysis to generate the proposed rule and could not replicate the reported results. This is probably because the government's procedure is inadequately documented. There may also be an error. We urge more complete documentation of this work.

With regard to stringency of the target, based on the 2011 vehicle sales projections from the NHTSA, our analysis found that the passenger car fleet fuel economy target for 2011 is 2 to 3 percent lower than what our current vehicles are expected to achieve.

Since we cannot reproduce the base curve as just discussed, we question whether the targets for subsequent years 2012 through 2016 also fail to raise the bar above what is comfortably achievable.

A subtler point concerns the shape of the footprint-target relationship. One of the main reasons for switching from a simple fleet efficiency

target to one that depends on the footprint of the vehicles in the fleet is to discourage downsizing as a way of meeting the fuel efficiency target. Discouraging downsizing is a way of moderating the changes in our vehicle fleet.

But downsizing our largest vehicles is a legitimate way of reducing energy use and greenhouse gas emissions. In our view, the difference between the efficiency targets for large vehicles and small vehicles should be gradually reduced as time goes by. Thus, rather than have the 2016 curve simply be a vertically shifted version of the 2011 curve, the curve should get gradually flatter.

Our third point concerns standards for non-CO2 GHGs. We support the EPA's proposition to cap methane and nitrogen dioxide at current levels due to their respective multiplicative global warming potential of 21 and 310 times greater than CO2 according to the IPCC.

We agree that the cap on methane and nitrogen dioxide is more effective than using CO2 equivalency measures as such measures dilute the primary goal of reducing CO2.

However, we ask that the EPA remain flexible with regard to possible future technologies

that might reduce the level of carbon dioxide while increasing methane and nitrogen dioxide or vice versa but result in a net reduction in global warming potential. However, total CO2 emissions must remain below the approved CAFE standards for the proposed year.

Given the potency of methane and nitrogen dioxide in contributing to climate change, we also request the inclusion of incentives, such as a credit system, for reducing nitrogen dioxide and methane emissions below the proposed cap as a means to motivate innovation in clean technologies.

Our fourth point concerns current emissions testing protocols. We appreciate the EPA's efforts in developing tests to provide a more accurate method for anticipating fuel economy achieved in real-world driving.

We ask the EPA to go a step further to require that vehicles continue to perform within a reasonable margin of the CAFE standards that they originally had to meet.

Testing conducted after vehicles have been driven under real-world conditions provides feedback in two critical areas: One, whether testing procedures are adequate; and, two, whether

implemented technologies continue to perform as they age.

It would be easy to stipulate procedures the manufacturers should follow to assure continued vehicle performance, including adapting the in-use vehicle program currently in place. Sampling the on-road fleet would probably also work.

For instance, we urge the EPA and NHTSA to require manufacturers to provide statistical or other evidence that the fuel economy of their fleet of vehicles has not declined more than 10 percent after three years from when it originally tested.

If the efficiency declines more than 10 percent, manufacturers shall pay the same penalty that would have been incurred if the original fleet had not met the standard.

Our fifth comment concerns vehicle classification. Vehicles categorized as light trucks only by the fact of their having three rows of seating that can be removed or flattened should be reclassified as cars. They do not provide the utility of trucks, and they are not off-road capable except in their four-wheel drive versions.

At the very least, as in the 2011 final rule, the NHTSA should compare the resulting fleet

fuel economy targets by recategorizing these vehicles.

We hope that these comments will be useful in generating a more effective rule for regulating greenhouse gas emissions to move toward creating a sustainable economy and to combat climate change. As I indicated, we plan to also submit written comments.

I'm happy to answer any questions you have, and thank you very much.

MR. KRATZKE: Thank you, Ms. Speers.

And, finally, Mr. Collantes.

GUSTAVO COLLANTES

WASHINGTON STATE DEPARTMENT OF COMMERCE

MR. COLLANTES: Thank you. I'm Gustavo Collantes. I am here representing the Office of Energy Policy of the Department of Commerce in Washington.

And I am going to try to speak very slowly especially for the lady here so she can understand me, but I will send you my comments separately as well.

THE REPORTER: Thank you.

MR. COLLANTES: The Washington State Department of Commerce is really happy with EPA and NHTSA working together toward a national plan.

Almost half of the greenhouse gas emissions in the State of Washington come from transportation. Therefore, we view efficiency as a key tool for the mitigation of these emissions. We are therefore very supportive of the development of the national plan, and we look forward to working with you on improving the proposed rule.

The State of Washington also recognizes the work that the car industry will make to meet the new standards. We believe that states also have a role in helping the success of this program by incentivizing the adoption of cleaner vehicles and partnering with industry to help on the deployment of advanced technology vehicles.

Setting vehicle performance standards is one important step toward achieving our fuel economy and greenhouse gas emission goals. However, our information says that this will not be enough to address the problems of greenhouse gas emissions from road transportation.

To support this statement, I would reference to the detailed studies done at Harvard

University by Dr. Kelly Gallagher, myself, and others. The urgency to act to avoid the greatest impacts from climate change requires us to be mindful of limits on total emissions.

We believe it's imperative to broaden the scope of government leadership to address reductions in vehicle miles traveled, VMT. The State of Washington and other states are actively working on this area.

While VMT is not the focus of this rulemaking, we encourage the EPA and NHTSA to clearly communicate to policy makers and the public that vehicle standards are an important but insufficient step in the fight to mitigate the effects of climate change.

EPA is structuring their regulation -- standards, cost-benefit analysis, et cetera -- on the basis of GHG emitted directly from the vehicle. We urge EPA to explore the areas in the regulation where the use of life-cycle GHG emission would not be prevented by statute.

We believe a life-cycle approach would be particularly important and helpful to provide the right incentives, A, to different vehicle technologies at a given point in time; and, B, to a

given vehicle technology over time.

A life-cycle approach could help EPA better determine the credits for flex-fuel vehicles and for vehicles that use electricity. It can also help EPA account for the time variation in climate impacts as increasing shares of petroleum fuels are made from heavier oils or as increasing shares of electricity, the fuels -- I'm sorry -- electric vehicles is produced from lower carbon sources. I'm sorry about that.

Next I will provide a couple comments on specific parts of the proposed rule.

The impact of the increased standards on driving is comparable to the impact of a decrease in price of fuel. We support the inclusion of costs resulting from increased congestion, the number of accidents, and highway noise.

We urge, however, EPA and NHTSA to include two additional costs related to the reduction in driving costs brought about by increased standards: A, the increase in per-mile fuel consumption resulting from driving in heavier traffic conditions, which is partly a consequence of the rebound effect; and, B, the increase in urban sprawl by incentivizing low-density urbanization, partly a

root of the rebound effect.

The latter is particularly important as it counters efforts to reduce VMT and may contribute to the carbon impacts of land-use change from new urban developments.

We strongly support the agencies' consideration of vehicle safety on setting standards. However, we would like to express some concern about the way in which vehicle safety is accounted for in the proposed regulations.

It is well documented that while there is a correlation between vehicle weight and passenger safety, vehicle weight and size are inversely correlated with pedestrian safety. Also safety is affected by the size and weight differential across vehicles involved in a collision.

We encourage NHTSA and EPA to consider the safety of everyone, not just that of passengers, when setting standards. We would like to see vehicle safety addressed through adequate vehicle safety standards.

Vehicle weight should be a legitimate tool for the automakers to meet fuel economy and carbon emission standards insofar as vehicle safety standards set by NHTSA are met.

We suggest that if an automaker can reduce vehicle weight to the point of making the vehicle unsafe, then the pertinent vehicle safety standards may need revision.

We support allowing for reasonable credits for flex-fuel vehicles only based on demonstration that these vehicles are running on alternative fuel. We intend to submit separate documentation with some ideas on how this demonstration could be achieved.

Again, thank you for your hard work on these regulations, and we look forward to working with you.

MR. KRATZKE: Thank you, Mr. Collantes.

We have a panelist who was scheduled to be on the fourth panel who needs to leave. We'd like to give her the opportunity to --

MS. WEBB: I'm taking Ms. Green's place, I believe. It was someone else.

MR. KRATZKE: All right.

ALYSHA WEBB

CITIZEN

MS. WEBB: I'm Alysha Webb. Thank you for giving me the opportunity to testify today, and

thanks for letting me take an earlier place because I have to be somewhere.

I worked for Detroit-based Automotive News for the China bureau chief for seven years. I returned to the U.S. last year in May.

One reason I care about this legislation is because I've seen firsthand how quickly China's automotive ownership is growing, and I really fear the impact that could have on climate change.

Also, because I lived in a country where citizens weren't allowed to comment on policy for so many years, I thought I should take advantage of that opportunity now that I'm back in the U.S.

And finally, although certainly not lastly -- or maybe lastly but not finally, one reason I wanted to live in California when I came back is because this is such a beautiful state, and I want future generations to be able to enjoy it as well. I fear that if we don't take some action on climate change that may not be possible.

The Chinese government does recognize that China could have a huge impact on world climate. It set fuel efficiency standards at 36.7 miles per gallon in urban areas, and, of course, implementation might be a different matter, but

China has recognized that problem.

China is also taking other steps to reduce its carbon footprint. In fact, the Washington Post quoted David Sandalow, Assistant Secretary of Policy and International Affairs at the Energy Department, as saying that China is invested in 21st century technology while the U.S. is investing in 20th century technologies.

Now, gratefully, that's not necessarily true on the automotive side. Automakers have the technology to meet these new standards, and now here in California and in the U.S., we're happily going to implement new tougher standards for greenhouse gas emissions. So that's a positive thing, but we can't let those standards be watered down.

For example, as a number of people have pointed out in much greater detail, we need to make sure -- we need to come up with a system that assesses the impact of generating electricity that's used to recharge the electric vehicles. We can't simply assume they're a zero emission vehicle.

Also there's been a lot of chatter lately -- and I've been reading a lot of stories -- about cooling. There's a cooling rather than a warming trend. The Associated Press asked a group

of statisticians to do a blind analysis of the temperature data however, and they found that there's clearly a warming trend.

Still a recent poll by the Pew Research Center found only 57 percent of Americans now believe there's strong scientific evidence for global warming, and that's compared to 77 percent in 2006. So that's a little bit of a disturbing trend, and, of course, a lot of people thought the earth was flat too.

And as I mentioned before, automakers have the technology to achieve these standards. We've heard from a number of automakers here. They don't oppose them, but they need some certainty. So I think these standards are very important because they're going to give the automotive industry some certainty.

So, again, I thank you for supporting the greenhouse gas standards, but I urge you not to emasculate them by granting too many tax credits or too many credits or making implementation too flexible.

There are a lot of areas in which I wish China would emulate U.S. policy more closely, but where greenhouse gas emission standards are

concerned, thankfully the U.S. is in some ways following China.

But, most importantly, I urge you to continue to follow California's example in this as you consider policies for the future.

Thank you.

MR. KRATZKE: Thank you, Ms. Webb.

MR. CHARMLEY: It just so happens that the folks from Ford and Honda are sitting next to other, and I think you both mentioned the issue of methane and N2O. So this question is for Mr. Holycross and Mr. Bienenfeld.

I wanted to know -- and, Robert, you didn't say specifically what your comments were on methane and N2O but that they would be in your written comment.

But as we are keeping it in the proposal and as Ms. Speers mentioned, what we proposed were caps for N2O and methane. And there are examples of vehicles like Honda's CNG vehicle which are -- Honda does a very good job in catalyst selectivity to control methane quite well. What we see over time is that it can be very sensitive to things like catalyst formulation.

So we're worried about potential increases

in methane from vehicles. And the same thing on the N2O side for lean-burn technology and diesel technology.

So my question for both Ford and for Honda -- I understand that you might have some specific comments on how EPA might address N2O and methane. My simple question is do you think the EPA should or should not be concerned about potential increases in the future for methane and N2O, especially for a potential increase in CNG vehicles or diesel vehicle technologies?

MR. HOLYCROSS: From my perspective -- and I think it's an issue of whether there should be the cap as it's been set or proposed in the rule -- it's more a matter of the type of data requirements that we have to submit and the testing that we would have to do.

So by kind of piggybacking them onto the existing criteria pollution compliance requirements, that was more where our concern was because the same vehicles that we use to test for durability and emissions for the criteria pollution requirements would have to undergo this additional testing.

And given the time to get a vehicle through the full realm of testing, we felt this was going to

add additional complexity to that process.

So it wasn't so much about whether the cap was set at the appropriate level; it was more a matter of what the compliance demonstration requirements would be around.

MR. BIENENFELD: From Honda's viewpoint, this issue is connected with several other issues, including the warranty provision, in use testing, measuring N20 and CH4, and whether or not we should have caps. So those four items are all interrelated.

And I think specifically on the N20 and CH4 point that I mentioned, our concern is that setting a cap right now could reduce flexibility with respect to other technologies, new technologies that might be available in the future that have an overall greenhouse gas benefit but then have a very restrictive cap on N20 or CH4.

If you have time, I can go into a little bit more of the warranty issue or the in-use vehicle concerns, but I think that addresses your question.

MR. CHARMLEY: My next question is should the agency be concerned about potential increases in the future if we didn't address them, and you're saying, yes, we should, but you want to give us

comments on how?

MR. BIENENFELD: Right.

MR. CHARMLEY: Okay. Thank you.

MR. KRATZKE: All right. Thank you to this panel.

And we are now going to take approximately a one-hour break for lunch, and we will start again about five minutes before 1:00.

Thank you.

(At 11:52 a.m., the lunch recess was taken.)

LOS ANGELES, CALIFORNIA; TUESDAY, OCTOBER 27, 2009

1:10 p.m.

MR. FRANCE: Okay. We can reconvene. I'm going to call the next panel.

The Coalition for Clean Air; Stephen Allison; Lance Tunick, Vehicle Services Consulting, Incorporated; Kathy Seal; Dr. Scott Dewey, UCLA School of Law; Marcy Winograd; and Rudy Vietmeier.

If you'd be kind enough to put your names on the name tags.

And, Luis Cabrales, we're ready when you are.

TESTIMONY OF LUIS CABRALES

COALITION FOR CLEAN AIR

MR. CABRALES: Thank you very much. Good afternoon -- and this is off. Okay.

My name is Luis Cabrales. I am the Senior Campaign and Outreach Associate at Coalition for Clean Air.

Several years ago when Senator Pavley first introduced the Clean Cars Bill, I translated to Spanish all the information that was available back

then about the bill.

The purpose was our effort to educate Spanish-speaking voters, consumers, and drivers about the importance of reducing our global warming footprint. At that time global warming was not considered an important issue even among Latino environmental justice advocates, much less Latino consumers themselves.

However, those of us who joined Senator Pavley in this historic law understood the long-time impacts of global warming and working in environmental justice communities specifically here in Southern California.

Since then, we have seen how more of our environmental justice communities are being especially impacted by global warming through financial and economic loss and through increases in respiratory and other health problems.

That is why today we applaud the Obama administration for forging a historic agreement with industry to adopt rules that mirror California's groundbreaking Clean Cars Law.

When we adopted our standards in 2004, we knew that automakers could make clean cars that consumers want and need. We are confident that they

will devise ways to make even cleaner cars in the future.

Here essentially we face a climate penalty. No matter what we do to reduce greenhouse gases, the climate threat is so severe that temperatures will rise creating a heat-island effect that will produce smog and exacerbate public health.

And we see that each summer, especially in those communities most polluted by these emissions. Other weather events such as heat waves, drought, and floods already impact those communities.

For instance, African-Americans living in Los Angeles have a projected heat-wave mortality rate that is nearly twice that of all of Los Angeles residents.

Also, Latino communities which are the most affected by air pollution are further impacted by increases in water temperature exacerbating health problems.

Just a moment, please.

This is why we are also asking you to allow California to continue to lead on global warming policy.

As stated, when the Clean Cars Bill was first introduced, automobile manufacturers will meet

the EPA and DOT joint proposal by utilizing technologies that will reduce vehicle global warming, greenhouse gas emissions, and improve fuel economy.

So given California's dire need to continue improving our air quality, we cannot take our chances and assume that after President Obama's administration or administrations, we will have other administrations who agree with us in the need to reduce global warming gases specifically here in California.

And having said that, we cannot rely on others out of the state to protect our residence, our children, our families, and our workers.

Thank you very much.

MR. FRANCE: Thank you very much.

The next testifier, Stephen Allison.

TESTIMONY OF STEPHEN ALLISON

SIERRA CLUB

MR. ALLISON: Hi. My name is Stephen Allison, and I am here on behalf of the Sierra Club.

I would like to applaud the EPA and DOT on the new vehicle standards that will benefit

consumers by allowing us to fill up less at the pump, that will benefit our nation by reducing our dependence on foreign oil, and will benefit the world by reducing pollutants that contribute to global warming.

On this last point, I would like to tell a story that was in the news earlier this month.

On October 17th, the cabinet of the island nation of Maldives held a meeting to sign a document calling on all nations to cut down their carbon emissions. To make the message strong and clear, this meeting was held 20 feet underwater, and all communications were done by hand signals and whiteboard.

The Maldives stand an average of seven feet above sea level, and if current global warming trends continue, the entire elevation will be completely submerged by 2100.

One result of this disaster would be the displacement of 350,000 people who call the Maldives their home. The Maldives president, Mohamed Nasheed, has promised to make his nation carbon-neutral, the world's first carbon-neutral nation, within a decade and urges other nations to follow his lead.

The EPA and DOT's new vehicle standards are a big step in the right direction. They promote exactly what the world needs right now, real progress towards living without dirty, unlimited energy. Our reliance on polluting fuels now can only lead to disaster in the future.

Once again, I would like to thank the EPA and DOT on their efforts towards creating a brighter but not necessarily a warmer future.

Thank you.

MR. FRANCE: Thank you very much.

Next testifier, Kathy -- I'm sorry. Lance Tunick.

TESTIMONY OF LANCE TUNICK

VEHICLE SERVICES CONSULTING, INC.

MR. TUNICK: Good afternoon. My name is Lance Tunick, and my company is Vehicle Services Consulting.

I assist numerous small-volume vehicle manufacturers, which I'll refer to as SVMs, with U.S. certification matters. Some of the SVMs I work with include Aston Martin, Lotus, McLaren, Morgan, Spyker, Koenigsegg, and Pagani.

I will briefly address today the GHG proposal from the points of view of SVMs, and I will specifically focus on the EPA proposal.

As an initial matter, when I use the term "SVM," I mean the definition of SVM as currently found in EPA's regulations, that is, a company with fewer than 15,000 U.S. sales per year calculated in accordance with EPA's 10 percent related-company aggregation rule.

I would also like to start off by saying that I fully support a GHG standard that makes SVMs do their fair share and that does not give them a free ride.

Such an approach is already taken by both NHTSA in its CAFE program as well as by the European Union where, in both cases, an SVM can obtain an alternative standard determined on a case-by-case basis and based on feasibility.

The EPA proposal, however, does not have any SVM provision and endangers the ability of certain SVMs from selling into the U.S. market.

I will now identify five SVM-related issues as regards the EPA proposal.

First, EPA's usual policy is to allow SVMs to defer compliance with a new requirement until the

end of phase-in. In my opinion, under the proposed EPA rule, the period 2012 through 2015 is analogous to a phase-in, and, accordingly, EPA should defer SVM compliance until after this period, that is, until 2016. That is what California is doing in its GHG rule.

But, again, EPA failed to include any such deferral. Instead, EPA only proposed a temporary lead-time allowance for manufacturers with vehicle sales below 400,000. This 400,000-unit-per-year proposal, however, is certainly not an SVM proposal.

Once again, we urge that the final rule defer SVM compliance until 2016 as California did in its rule.

And, in fact, EPA has acknowledged the potential need for this deferral. In the preamble, EPA recognized that some manufacturers are niche firms with sales volumes well below 10,000 vehicles per year worldwide. And, in fact, EPA gave the example of Aston Martin.

EPA correctly anticipated that a number of SVMs will face greater challenges in meeting the proposed standards due to their limited product lines and limited with no ability to average.

EPA therefore requested comment on whether

the proposed 400,000-unit-per-year program provided sufficient lead time for these SVMs in order for them to incorporate technology needed to comply with the proposed standards.

In my opinion, the answer to this question is no. The 400,000-unit-per-year program is inadequate to meet the needs of SVMs.

My second point is that aside from an SVM start-date deferral, what the final EPA rule needs is a true SVM standard provision. Again, that is what California did in its GHG regulation.

I repeat, we support the SVM approach that is set forth in the California GHG rule.

Very briefly, California gave SVM several alternatives, and the CARB staff report accompanying the rule clearly explained the need for such a provision.

The California type of section that I am urging would require SVMs to meet, beginning in 2016, the average CO2 equivalent emissions of all 2012-comparable vehicles produced by the major vehicle manufacturers.

And as California explained, in determining the group of comparable vehicles, EPA would consider weight and horsepower-to-weight ratio.

My third point today is that the SVM provision that EPA did include in its proposal concerns certain limited SVM exemptions, but the exemptions are only for SVMs that meet the Small Business Administration criteria contained in 13 CFR.

With this limitation, the proposed exemptions appear to apply only to American companies. This U.S.A.-only limitation may very well run afoul of the World Trade Organization requirements.

Fourth, the credit provisions in EPA's proposal do not offer a solution for SVMs during the period 2012 to 2015. It is difficult to understand how credits will be available to SVMs in the short term, that is, during this 2012 to 2015 period.

It is certainly risky at best for an SVM to plan its compliance strategy around the possibility of such credits being available.

My fifth and last point is that the proposed EPA enforcement mechanism would render illegal SVM vehicles that did not comply with the CO2 standard. This is a very harsh penalty as compared, for example, to the CAFE enforcement program that has monetary fines.

But EPA has explained that the structure of the Clean Air Act mandates the enforcement scheme that EPA has proposed. Assuming this to be the case, the equitable solution is to adopt a reasonable GHG standard for SVMs.

In sum, again, I fully support an SVM GHG standard that makes SVMs do their fair share, but flexibility for these companies must be adopted in the EPA final rule.

Given that the total, total U.S. sales of independent SVMs is well below 10,000 vehicles per year all together, all of them, an SVM provision's effect on the environment would truly be de minimis.

I will be filing a written comment that expands on these points, and I thank you.

MR. FRANCE: Thank you very much,  
Mr. Tunick.

The next testifier, Kathy Seal.

TESTIMONY OF KATHY SEAL

SIERRA CLUB

MS. SEAL: Hi. My name is Kathy Seal. I'm a member of the Global Warming Committee of the Sierra Club here in Los Angeles.

I find global warming very scary. The Arctic ice cap is melting. Every day we hear about a new problem it's causing. Today it was aspens disappearing in Colorado. Species are disappearing at a breathtaking rate.

Here in California we've had drought for a couple of years now. The snowpack -- the Sierra snowpack, as you've already heard, is way, way down, and this is where we get our drinking water as well as water for crops. So it's very frightening to think that we will be lacking water in the near future.

This is awful for California, and yet the things that could happen, as Stephen said before, in Asia and Africa and already happening in Australia are even more horrendous or certainly equally horrendous. We're facing environmental catastrophe that while it may not be hurting us here today sitting in this hotel, it will certainly be facing our children, our grandchildren.

So why are there not thousands and millions of people today here at this hearing? Why are people not out in the streets clamoring to do something about this problem?

Well, there's probably a simple

psychological solution, which is denial. We need to have denial in order to live. We can't be thinking every day how we're going to die in the end, and certainly if everybody spent all day long worrying about this impending catastrophe, life would -- everything would come to a standstill.

There's another problem with hordes and hordes of people doing something about global warming, and that's the feeling of helplessness felt by the average citizen. What can I do about the melting of the Arctic snowcap?

I think that's why many people really hooked onto the slogan of the Obama campaign which was, "Yes, we can." And, indeed, the Obama administration, as your presence here today shows, has been able to do something.

It did give us the waiver that we waited for so long here in California, and also it's making this proposal through the EPA and NHTSA for the vehicle emission standards we're talking about here today. So this is something very hopeful.

The slogan, "Yes, we can," you may also know that that's an English translation of "Si se puede," which was the farmworkers' slogan for years here when they were organizing in California, which

points to the fact that California often leads the way. It led the way in vehicle emission standards.

And so I would urge you here today to please keep following California in this leadership in vehicle emission standards which has proven so foresighted and so valuable in the past. Please keep it going.

And even if our State Air Resources Board leads the nation, if we do lead the nation in pushing vehicle standards, vehicle emission standards, if that's the way it comes down, please follow California's lead in the future.

So I wanted to thank you for giving us some hope, for contemplating and proposing these standards, in the future for implementing them.

I'm very happy that they will reduce greenhouse gas emissions equivalent to the shutting down of 200 more coal plants per year. I'm really thrilled about these standards that are being proposed. At the same time, I urge you to make them be implemented very, very strongly without loopholes, without watering them down.

Too often we see that because of what industry demands that things that sounded really terrific are watered down so much that they have no

force whatsoever.

I urge you to stand up and to work for what's ultimately good for all of us, including what's ultimately good for industry to survive because it could be totally tragic if these loopholes -- if there are loopholes in these regulations.

So, for example, please make sure that the electric vehicles greenhouse gas emissions from generating electricity to charge the vehicles are counted as greenhouse gas emissions. Don't let them slip through.

Second of all, please minimize the credits that automakers are allowed to receive for vehicles that were sold before new standards take effect in 2012. Please don't give them these windfall credits that have been talked about.

Please consider also the backstop measures to ensure that industry stays on track, the backstop measures that I believe other people have already described today on the panels.

In general, please do not -- flexibility, yes, but not so much flexibility that these standards are so watered down that, in fact, in the end they have little effect. We've seen that happen

too often, and I urge you and beg you to not let that happen today.

Thanks so much for proposing standards that will cut global warming emissions. Hopefully they're laying the groundwork for even stronger state and national standards in the future so we will avert climate catastrophe.

Thank you for the opportunity to speak to you.

MR. FRANCE: Thank you very much.

The next testifier, Dr. Scott Dewey.

#### TESTIMONY OF SCOTT DEWEY

#### CITIZEN

MR. DEWEY: Hi. First, I should emphasize I'm here on my own behalf, not speaking for the UCLA Law School where I work. So if any of my statements are blunt or ill-considered, don't hold it against the School of Law.

And also if I were speaking for the School of Law, I would have come better dressed than I am. I'm just here as a citizen.

First, I want to thank you all for your work on this important problem reducing greenhouse

gas emissions. I have read almost the entire notice of proposed rulemaking, and it shows a great deal of time, energy, and reflection by your agencies on this complex and crucial issue.

I also want to thank you for coming to visit us here in Los Angeles, which, for more than 60 years, has been the front line in really the global war against air pollution, especially motor vehicle emissions. And as other witnesses have pointed out, California has long been a crucial trailblazer not just for the nation but for the world.

It would be hard to overemphasize the importance of this issue for our nation and the world. Our survival as a species may actually depend on it, getting global warming under control.

Unfortunately, for various political reasons, we are about 20 years late in developing policies to confront global warming. The problem has grown larger in the meantime, meaning it's particularly critical that we now act swiftly and effectively to confront this problem. It really is urgent.

By reducing oil consumption and importation, by reducing greenhouse gas emissions,

and by reducing motorists' fuel costs, the President's national program will enhance national security, energy independence, and economic stability, making us less vulnerable to energy price shocks and supply disruption while also helping to control the number one global environmental threat. It's the proverbial win-win. It's not the total answer to the whole complicated problem, but it's a good start.

I do have some worries about the proposed rulemaking, in particular about some of the proposed transition credits becoming possible loopholes to avoid compliance.

And, frankly, Mr. Kalb of the Union of Concerned Scientists from the preceding session addressed these issues better than I can. I'll just sort of sign on to his argument and add that I understand that it might be most economically efficient, even necessary, to allow automakers some leeway and flexibility in compliance over a period of years to adjust into the new regulatory regime.

I just want to emphasize that I hope to see these -- the system of credits, the whole system of flexibility be strictly temporary, that is, time limited, sort of automatically self-extinguishing,

not turn into something permanent like a vested interest or a de facto right not to comply as is always a possible worry with credit trading programs and such.

And there should be a self-reporting requirement -- or I'm sorry -- a reporting requirement so that the public can readily access information about automakers' compliance records and their credit accounts.

It was a loophole in the federal law, the light truck exception to the original federal CAFE standards from the 1970s, that produced what I perceive to be a whole horrible, unnecessary, and imminently preventable SUV revolution that changed half the nation's motor vehicle fleet to heavier, less efficient, more polluting light trucks from the 1970s through the 1990s.

That loophole and the SUV culture that it produced was an environmental disaster that accounts for a substantial portion of the total fund of greenhouse gases we have in circulation today that we must deal with as well as the United States hoping to export that SUV culture to other nations of the world unfortunately, even now China.

Having urban dwellers, urban consumers

driving around in trucks designed to haul heavy loads or to go off-road was a wrong turn in policy, and we can't afford any more ill-considered loopholes like that or must fill them immediately if certain source of flexibility wind up turning into larger loopholes than anticipated.

Now, a few historical reflections, and let me be a little blunt. But back in the 1960s and 1970s, the American auto industry made big, stupid, unreliable cars and were totally unprepared for the energy crisis of the 1970s which left all of them badly battered and Chrysler, of course, on the verge of bankruptcy.

Then the price of oil went down in the 1980s, and the Big Three kind of went to big and stupid again, this time with oversized, overweight SUVs. They massively marketed their pickups and SUVs, helped people get accustomed to them, and then said they had no choice but to build them. That was what the market wanted. That is, more or less, they created the market, they shaped and guided the market with their SUVs, and then said they were prisoners of the market; couldn't help but build more of them.

Now, they made good profits per unit on

their big vehicles and mostly ignored research into more efficient vehicles or alternative vehicles through those years, and where did it get them? Well, bankruptcy or the verge of it during another oil price shock and we American taxpayers left to bail out, well, two of them anyway.

Now, my worry is that -- notwithstanding that there is, frankly, encouraging, progressive, and commendable statements heard from many industry representatives here today, my worry is that the industry would do it all over again if they were given the chance, that is, go big and stupid and then be surprised all over again by the next sharp oil price shock which will probably come sooner than the last one because, as we know, oil stocks are being depleted.

I recognize that there has been historically sort of a perverse logic in the auto market toward big and stupid, and that goes way back, way back to the post-Second World War period anyway.

It's my feeling that we as a nation and you as our nation's regulators, frankly, will have to keep the market from heading in that direction, keep the vehicle fleet from drifting back toward bigger

and less efficient as need be and not allow ourselves to say, well, we're prisoners of the market, and that's what people want to buy. We have to stop that trend by regulation as necessary.

We need to get urban and suburban dwellers into more appropriate cars for urban and suburban dwelling, that is, smaller, lighter cars that make sense for hauling around one or two or a few people, not having pickups and SUVs that are appropriate for hauling heavy loads and going off-road and basically not much else.

And I know that NHTSA in particular needs to balance other concerns, such as safety, with fuel efficiency, but the Honda Civic, among other products, has shown that small cars can be very safe and crash-proof, and, of course, earlier testimony from various witnesses this morning has addressed that it doesn't necessarily have to be big and heavy to be safe and vice versa. I sign on to their reasoning.

Now, besides getting people out of inappropriate vehicles like SUVs, we also need to get more of them out of cars altogether. Rail transportation remains the most energy efficient and low greenhouse gas way of moving large numbers of

people around other than, of course, walking and bicycling.

Now, whether or not such matters are directly within your agency's jurisdiction -- and I know it's not the specific point of today's rulemaking hearing either -- to the extent that you participate in other interagency or federal-state coordination to combat global warming down the road as I suspect your agencies will probably sooner rather than later, please remain open to the possibilities of more light rail, more bike trails, and other nonautomotive modalities to help reduce greenhouse gas emissions along with improved, more efficient automobiles and alternative vehicles, which I strongly support, I should emphasize.

I was born and raised in L.A., and I've lived here most of my life. And I've been horrified to see the traffic get worse and worse year after year, decade after decade, so that now it's suffocatingly awful for many hours of each day, including weekend days, through much of the metro area.

I mean, effectively the L.A. metro area is strangling on its own traffic, and most of the major arteries, all the major freeways turn into

20-mile-long parking lots for much of the day. And the rush hours are not just an hour; they're more like four hours morning and evening. This system isn't working.

And history of L.A. air pollution control is one of huge achievements in making individual vehicles cleaner, often being undone all or in part by cumulative impact of too many more new vehicles driving too many more miles to far-flung suburbs.

The L.A. metro area is now roughly 200 miles by 200 miles all the way from the Nevada border and all the way from San Diego up to Santa Barbara. Too many people driving far too many miles.

We will not be able to get vehicular greenhouse gas emissions under control unless we not only get cleaner cars, hugely important, but also drive them shorter distances and sometimes don't drive them at all.

And one last brief point. I'm a motorcyclist. I ride a little Honda Rebel 250, the very bottom of the line, but it gets more than 80 miles per gallon. So it's greenhouse gas performance is really pretty good. Its Clean Air Act criteria pollutant performance is frankly

disappointing, and I'm a little embarrassed by that.

Anyway, I would love to see cleaner, greener motorcycles and motor scooters which, along with other sort of nontraditional vehicles below the level of our standard powerful, full-fledged cars, could potentially be a huge help in simplifying urban transportation -- that is, getting people around relatively short distances many of them have to go in a city environment -- and reducing global warming.

Motorcycles, especially in recent years, have shown the same tendency toward big and stupid that cars and SUVs have shown, and most motorcycles get less than 50 miles per gallon. As far as I'm concerned, there's no excuse for that, and no motorcycle getting less than 50 miles per gallon should even be sold.

I regret that motorcycles were never properly covered under the Clean Air Act years ago and still are not and still haven't been cleaned up as much as they could be.

Back when I worked for the EPA Office of General Counsel in the summer of 2002, some of the motor vehicle people told me that actually manufacturers were ready to clean up. I strongly

encourage you to continue moving in that direction.

I think I've gone on too long, but, again, thank you all for being here and hearing our testimony.

MR. FRANCE: Thank you very much.

The next testifier, Marcy Winograd.

TESTIMONY OF MARCY WINOGRAD

CITIZEN

MS. WINOGRAD: Yes. My name is Marcy Winograd, and I'm a Congressional candidate in the 36th District just to the south and a little bit north of here. I am also the founder of the Progressive Democrats of America's Los Angeles Chapter.

Thank you for coming to Los Angeles, a place that has often been described as a series of suburbs in search of a city; the point being, as the doctor ahead of me said, we have a lot of cars here that have to somehow find the center of this place.

In an ideal environment, a sustainable world would have a rapid transit system that surpasses that of New York City, of Chicago, of Paris, France to get us where we need to go. We're

a long way from that. So instead we are relying on our cars often.

If I want to leave my home in Marina del Rey and go visit a friend in Pasadena, I'm not going to get on four or five buses nor ride my bicycle. So I applaud the fact that you are here to look at exercising regulatory powers to increase gas mileage.

I support the Obama administration's new cleaner vehicles proposal modeled after our own state lawmaker Fran Pavley's landmark greenhouse gas emissions bill. The Obama proposal requiring automakers to produce cars and light trucks that average 35 miles per gallon would significantly reduce carbon dioxide emissions on roads and highways, an important step in the worldwide efforts to reverse global warming.

I am particularly reminded of this need following a weekend in which organizers of 350 dot org -- 350 being the parts per million of carbon that constitute the safe ceiling for emissions -- organized events throughout the world to draw attention to the urgent nature of this environmental challenge.

We saw tree planters in Thailand, scuba

divers in Australia. We saw a thousand people gathered down south in Manhattan Beach at the pier to raise awareness about the urgency of this challenge.

Should we not heed the President's call today, should we turn our backs on the role in reducing greenhouse gas emissions, we risk losing not only our aspens, which we will all miss, but also our coastline and worldwide upheaval, rising sea levels, submerged towns, displaced populations, exile, and famine.

From a national security perspective, it is imperative that we stop relying on unstable oil-producing foreign governments to meet our energy needs.

Reliance on other governments can lead, as we have seen in the Middle East, to unnecessary military invasions and occupations that not only cost millions of lives and rob our youth of their prime, but cost our country trillions of dollars that could be much better spent on providing universal single-payer health care, quality public education, and career-path jobs in the new green economy, an economy propelled by a badly needed second stimulus program to invest in both public and

private sector in renewables.

I say this as a Congressional candidate, someone who's committed to working towards this in Washington. I say this as a leader of the Progressive Caucus -- or one of the leaders of the Progressive Caucus and the California Democratic party.

President Obama's proposed standards to require automakers to produce vehicles that get at least 35 miles per gallon would do the following: Reduce oil consumption by 1.3 million barrels per day, reduce greenhouse gas emissions by 217 million metric tons, and save drivers \$25 billion per year at the pump.

In testifying today, I heed the call of public citizens. I heed the call of Progressive Democrats of America. I urge the EPA and the NHTSA to disallow loopholes in the proposed standards. Those loopholes setting up multiple mechanisms for automakers to earn credits would undermine the administration's plan to reduce greenhouse gas emissions by establishing a single rule for gas mileage.

In anticipation of the global climate conference in Copenhagen, I applaud the Obama

administration for pressing ahead. I applaud all of you here today for working so hard to implement new gas mileage standards that will demonstrate or at least help demonstrate to the world that we are serious about stopping global warming.

Thank you so much.

MR. FRANCE: Thank you.

The next testifier, Rudy Vietmeier.

RUDY VIETMEIER

SIERRA CLUB

MR. VIETMEIER: Good afternoon. I'm Rudy Vietmeier. I'm a volunteer activist and member of the Sierra Club.

I am here today to applaud the EPA and the Department of Transportation and encourage you to work vigorously and meaningfully to achieve significant reductions in global warming pollution.

I take pride in the role California has played in setting the national standard for vehicle fuel efficiency and the role the Sierra Club has played in supporting Fran Pavley.

Mandating fuel-efficient cars is not only good for the environment, it is good for the

consuming public.

I have driven a Prius for seven years, and I can tell you it is the most trouble-free car I've ever had. I do my own routine maintenance, and aside from the gas mileage, which is very good, after 82,000 miles I have never replaced a battery, and I have never replaced the brakes.

The regeneration feature shuts off the engine and slows the car down by charging the battery so that there is very little wear on the brakes. This is but one example of how new technology can save energy and save money.

While I am greatly encouraged by the proposed standards, we must be on guard to weed out the devil in the details that inevitably surface in situations like these.

While some of us are honestly committed to addressing serious problems and paving the way for the future, there are others who have large investments in the present and are more concerned with perpetuating the status quo. We must not allow them to game the system.

The adage "necessity is the mother of invention" could not be more relevant than in our time. The need for invention has never been

greater. The dismal state of the air quality cries out for it. The status quo is not only unacceptable, it is unsustainable.

The human activity of burning fossil fuels may be worse than we thought. A recent study of polar ice samples suggest that the position of the earth in its 22,000 year precession cycle should result in an increase in polar ice, not the decrease that we are seeing. If this is so, the need to act is even greater.

Innovative technology is the best chance we have of meeting this challenge. The United States should be out in front of new technology. Unfortunately, it is not.

Recall the energy crisis of the 1970s -- Dr. Dewey has already alluded to that -- brought on by the OPEC oil embargo. Then as now, there was much discussion about ending our dependence on foreign oil. Efficiencies and new technology were seen as the way out.

President Jimmy Carter went on national television and delivered his famous "sweater speech" imploring people to turn down the thermostat of their house to save energy even if it meant wearing a sweater.

He even had solar panels installed on the White House. Industries were encouraged through government subsidies to develop solar energy, more efficient cars, and renewable forms of energy. Those initiatives must have worked because OPEC rolled back their prices.

Then came a new administration and an old mind-set. Prices were down so the crisis was seen to be over. Efforts of conservation and new technologies were abandoned, the solar panels were taken off the White House, and gas-guzzling tanks are again in vogue.

I've often wondered where we would be today if we continued with the effort initiated by President Carter. It may have succeeded by now. America would be out in front of new technology where it should have been and where it should be.

Thank you for listening.

MR. FRANCE: Thank you very much.

I have a question for Mr. Tunick just for a couple of clarification questions.

Are you in the capacity of representing the companies that you listed? What relationship are you to them?

MR. TUNICK: They're my clients, and they

know that I came here to deliver the statement that I delivered.

MR. FRANCE: And you're representing their views?

MR. TUNICK: Yes.

MR. FRANCE: Okay. I have a clarification question.

I think you mentioned in your testimony they were willing to do their fair share. I was curious that at some point in time they come into full compliance?

MR. TUNICK: Well, I think their fair share is indicated by the approach that California took in its greenhouse gas regulation which said that starting in 2016 the standard applicable to major manufacturers in 2012 would become applicable to the small volume people.

The small volume people tend to be, almost to a company, producers of one line of vehicles, and they're oftentimes sports cars. And there's just so much that can be done with one line of vehicles as far as what efficiency that can be achieved.

If there's no fleet with which to average and there's no credits to purchase, then the company is left without alternative.

MR. FRANCE: I understand your point.

What happens in between with this concept:  
What would the requirements be between 2012 and 2016  
to those vehicles?

MR. TUNICK: Just the same as what  
California proposed, which is that that is  
considered the phase-in period. Like is often the  
case with small volume manufacturers, there wouldn't  
be a requirement during that period.

MR. FRANCE: Okay. Thanks.

Rest of the panel?

Okay. Thank you, everybody. We appreciate  
your testimony, and we'll move on to the next panel.

MR. KRATZKE: Thank you. I'd like to call  
the fifth panel, please.

Let's see. We have three people here from  
this. Are there people from the sixth panel?  
Jennifer Epps, Darrell Clarke, Meghan Sahli Wells,  
or Robert Lehrer? Would you please.

All right. And Mr. Bruce Campbell has  
signed up. So if you're available, we'd appreciate  
you coming up as well.

I would like to begin then with Mr. Buhrke  
from Kia.

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TESTIMONY OF TORSTEN BUHRKE

KIA MOTORS

MR. BUHRKE: All right. Good afternoon. I'm Torsten Buhrke from Kia Motors, and I'm the Director of Corporate Planning there.

Support of a national policy to control greenhouse gases which scientists have identified contribute to climate change --

MR. KRATZKE: Mr. Buhrke, is the microphone on?

MR. BUHRKE: Yes.

MR. KRATZKE: Could you move closer to it for the reporter?

MR. BUHRKE: Yes.

Support of a national policy to control greenhouse gases which scientists have identified contribute to climate change and the improvement of fuel economy to support sustainable mobility are important issues to Kia. I appreciate the opportunity to testify about that issue today.

In 2008 our company applauded California and other states for beginning a national debate on fuel economy and greenhouse gas policy. Moreover,

we supported early implementation of NHTSA's then-2020 fleet fuel economy target under the 2007 Energy and Independence Security Act. Currently Kia is one of the industry leaders in fuel economy standards.

In order to further develop efficient fuel use, Kia will reduce vehicle fuel consumption through a variety of the new technologies and engineering and is making a broad-based effort toward sustainability and lower greenhouse gas emissions. We will do this while considering our specific customer economics.

To support this national policy, Kia will offer lower-displacement engines and a range of new technologies such as engine auto stop-start, and on all Kia models, we will implement direct gasoline injection and six-speed automatic transmissions. Beyond this, Kia will introduce multiple hybrid-powered vehicles with production beginning in 2010.

The joint EPA/NHTSA proposal is also important to Kia because it works towards the only meaningful resolution of these issues, which is a global solution of addressing climate change and energy security.

Kia strongly believes that a single national program to regulate greenhouse gas emissions and improve the fuel economy of motor vehicles is the most efficient way and practical approach now and in the future.

We strongly encourage dialogue between California, EPA, and NHTSA on the creation of post-2016 model year national standards and look forward to participating in such discussions.

In addition to supporting an overall goal of a national program, we also support the various compliance flexibilities outlined in the joint proposal, including credit transfers and trading, credit for advanced technologies, and early credits.

These mechanisms are important to provide a cost-effective means of achieving the standards. This is of particular importance to Kia due to our specific customer need for affordable quality vehicles with long-term warranties.

Kia brings used vehicle buyers into new, more efficient vehicles, and Kia would like to maintain this value proposition and through it avoid the potential unintended consequences of keeping less efficient vehicles on the road.

We are pleased that EPA has followed the

intent of EISA in consideration of credit carry-forward and carry-back time periods. EISA was an important step as a precursor to the national debate on greenhouse gases adopting fuel economy policy to ensure energy security.

While we fully support the five-year carry-forward period for credits under both the greenhouse gas and fuel economy programs, we would also support the addition of a phase-out or discounting of credits under the greenhouse gas program after the five-year carry-forward period.

On the subject of alternative standards, Kia does not expect to be eligible for the temporary lead-time allowance alternative standards as proposed in the EPA regulations. Although this does not provide us with the same relief afforded to us under the CARB regulations, we support the EPA proposal.

However, we do believe that early credit generation should be based on the standards to which each manufacturer was subject under the California regulations. An additional early credit option based on overcompliance with CAFE standards in 50 states should be considered.

In addition to our verbal comments today,

our company will submit written comments addressing details discussed in the NHTSA/EPA proposal.

I appreciate the opportunity to speak on this important rulemaking and would be pleased to respond to any questions. Thank you.

MR. KRATZKE: Thank you, Mr. Buhrke.

Mr. Brylawski.

MICHAEL BRYLAWSKI

BRIGHT AUTOMOTIVE

MR. BRYLAWSKI: Yes. Thank you very much.

I'm Michael Brylawski. I'm Vice President of Corporate Strategy of Bright Automotive, and I appreciate the opportunity to talk today.

Bright Automotive, briefly, is a newer automotive company that represents a new generation of OEMs that are arising across America.

We are based in central Indiana. We're based there because of the legacy of U.S. advanced technology and electrification beginning with GM EV1, which was largely developed there. Some people call it the end of the Silicon Valley of the Midwest vehicle electrification.

Our company is developing a light truck

with a footprint approximately 63 square feet. We're aiming for quarter-one production in 2013 for 50,000 units a year targeting fleets which are 20 percent of the U.S. vehicle population.

Our vehicle focused initially on delivery utility fleets is going to -- by our best estimates on the EPA federal test procedure combined and adjusted to be significantly at 100 miles per gallon. So the 2016 regulation which is a 27 we're going to exceed by four-fold.

However, one of the issues is we don't believe that's an accurate assessment of real fuel economy, which is one of the selling propositions of our vehicle. So we use alternatively the L.A. 92 cycle, and we report it that way because miles driven will vary with our customers.

We're reporting a plug-in hybrid 40-mile all electric range and a 36-mile-per-gallon charge sustaining range which gives you real-world miles per gallon anywhere from 50s to 80s depending on how long our customers are going to drive.

And to achieve that, we, as the gentleman from Kia talked about, are applying a variety of technologies and approaches including advanced aerodynamics, lightweighting, downsized powertrains,

and electrification.

We're not saying it's over a million vehicles a year in the U.S., and the vehicles we're displacing were highly inefficient real-world -- not EPA but real-world numbers, getting between 12 and 15 miles per gallon, particularly on the lower end if they're laden, which for our projected production of 50,000 units a year would save about a million tons of carbon and two million barrels of oil.

And what's significant is up to that -- in a seven-year production run, we would displace, just our little company, about a day's worth of oil imports.

So we're here to support this and say that there are innovators in this country ready to meet this challenge, and so we fully support the joint and harmonized regulations. I'm not here to comment on whether it's sufficient, but it's definitely necessary.

Another thing we'd like to say is we also believe in the business model that is proposed in the regulation, that this will actually save significantly more money than it will cost.

I do not want to downplay the extreme engineering and technical challenges to create

efficient vehicles because it's not simple or easy. However, the business model that saved fuel is going to be greater than the cost of buying the fuel is a whole new value stream that we can realize in this country with vehicles that are going to comply with these regulations.

I'd like to also applaud the footprint standard because, again, we do not want to force a single solution into downsized vehicles. We want to be able to allow our customers and Americans to drive vehicles in the size they want.

That being said, lightweighting is an extremely important driver for electrification in meeting these standards and importantly for the safety concerns as well. There is a strong correlation between weight and size for safety, but there's even -- I'm sorry. Weight and safety. There's a stronger correlation between size and safety.

So if you can decouple weight and size, what you can get are vehicles that are large like our 63-square-foot light truck that are safe and not just safe to the occupants but safe to other drivers and pedestrians.

To conclude, I'd like to talk about five

different issues on the proposed legislation we'd like to look at.

One is there is a loophole in this legislation in the regulation on medium-duty vans. There is an inclusion of passenger medium-duty vans but an exclusion of cargo vans, and, frankly, that artificial exclusion -- our vehicle is aimed at cargo that could easily be converted to passenger.

You see today in the "Chicken Tax" -- reported two weeks ago what Ford does to import, quote, unquote, its passenger vans to sell them as cargo vans. So that's an artificial distinction we would recommend be removed.

Number two is the trading component of this could be a significant incentive or driver, particularly if trading is harmonized. There's one series of product to be traded, not one for NHTSA and not one for EPA, to be able to decide and meet the overall oil and carbon production objectives at the least cost so a company like Bright Automotive would be able to receive credits to incentivize more production of our vehicles and accelerate their development.

On the third part, we need to connect the dots in terms of other government programs with this

regulation because I think we hear from a lot of people the technology is there, the capabilities are there. Right now in this economic environment, the capital is not there.

There is an important legislation previously we talked about, the advanced technology, vehicle manufacturing incentive programs, \$2500 retooling.

We continue to state this program is being unnecessarily delayed in its grants. It's still given less than 30 percent of its funding. We're bordering on a year to when this program started and Bright Automotive submitted our application.

The number one restraint in our time line for our vehicle is this program and its delay. So the sooner we can get that program and the capital flowing into companies like Bright and others that are developing vehicles to meet the standards, the more aggressive we're going to meet these standards.

And the last one is we also believe to include that these are very important and necessary supply standards, but particularly in the markets, there's going to be a distortion if you're forcing manufacturers to create efficient vehicles so there's not similar programs on the demand side.

For our case, we focus on total cost under business model because most of our customers lease. So we're able to bundle in the fuel appreciation and fully cycle the cost of the vehicle to actually create a vehicle that's cheaper to own and operate than a gasoline vehicle. However, for the consumer side, that's significantly more difficult.

So along with this, absent a gas tax or oil policy like that, things like rebates are important to consider to bundle in. Rebates essentially allow you to control policies that give consumers a rebate up front so they can try, over the lifetime of fuel savings, more efficient vehicles by taxing less efficient vehicles.

So, again, thank you for allowing us to testify, and we are excited to be a part of America solving these problems.

MR. KRATZKE: Thank you, Mr. Brylawski.

Mr. Magavern.

BILL MAGAVERN

SIERRA CLUB CALIFORNIA

MR. MAGAVERN: Thanks. Good afternoon. My name is Bill Magavern. I'm the Director of Sierra

Club California, and thanks for having this hearing here.

It's great to be at a discussion of how we're going to move forward with reducing emissions and increasing fuel economy in our light-duty vehicle fleet instead of continuing the argument about whether we're going to be moving forward.

So I see this as being a huge step forward for our country as we grapple with global warming and decreasing our energy dependence. And I say this as someone who has been involved in this issue for over 20 years now.

In the '90s, I was part of the group having persuaded Congress to increase the CAFE standards, and over the last ten years here in California, Sierra Club California was one of the sponsors of AB 1493, Fran Pavley's Clean Cars Bill.

We were involved in supporting the standards to implement that law at the Air Resources Board in 2004. We have intervened in litigation on the state's side and very successfully so far I'm happy to say, and I expect that success will continue since there are some who haven't given up on paying their lawyers to try to stop our progress here.

So we really thank President Obama for taking the bold action he did earlier this year in basically aligning national standards with California standards, recognizing California's leadership, bringing the automakers into the tent, and moving forward on this very important regulation.

I'm very impressed in your analysis that you're showing a benefit-to-cost ratio of over four to one from this rule, which is very impressive, and we actually think it could be higher because we think that your analysis understates the social cost of carbon. We do urge you to do another assessment because we think you're underestimating the social cost of carbon.

The Stern Review in 2006 said that the cost could be as high as \$85 a ton. We think we should consider all of the social and economic costs of carbon emissions, including our dependence on foreign oil, which, of course, when we're talking about carbon emissions from light-duty vehicles, it's mostly coming from oil.

We should figure in the military cost of that, energy security cost, and we think the benefit-to-cost ratio then would be even higher when

we're reducing our emissions and reducing our dependence on oil.

Now, aside from oil, of course, we're hoping to move into an era when more of our vehicles will be powered by electricity. And you've heard a lot about this already today.

I want to emphasize that we at Sierra Club California are big supporters of electrification of the light-duty vehicle fleet. A lot of our members are people who would love to buy either a full battery EV or a plug-in hybrid when those are for sale at reasonable prices, which we hope happens soon.

But we also are big believers in life-cycle analysis of emissions, and we really think that this rule has a big loophole by not considering those emissions. We think they can be easily fixed by using a national average upstream emissions factor and that you could follow the lead of the California Air Resources Board.

Even though the grid in California, the electricity grid, is relatively clean, we're trying to make it cleaner. But compared to the rest of the country, we are definitely lower carbon.

Still in California the Air Board has

rightly assessed some of the emissions that will be generated by electric vehicles through the electricity mix.

My 14-year-old son, just the other day without any prompting from me, asked me the question of which would have cleaner emissions, your average gasoline vehicle or an electric vehicle that was powered entirely by coal? And so I think if a high school freshman understands that you need to factor in those upstream emissions, then the Government of the United States really should.

I had to explain to him that the U.S. Government is pretending that there would be no emissions from that coal-powered electric vehicle, but fortunately the Government of California is showing the way here.

We also support those who have called for a backstop measure in this rule. There are a lot of credits, and also you've got the size-class accounting.

And we want to make sure that we do not have any perverse incentive for going to bigger vehicles or keeping the size class frozen as less efficient classes of vehicles than we need to have. So let's make sure that we actually hit the

President's very important targets here and that we don't have any backsliding from that.

As I've indicated, California has been a leader using our special rule under the Clean Air Act, and 15 other states have followed us. We need to keep the emissions going down after 2016, and, again, it may be very important to let California lead.

We've heard today from many auto industry witnesses talking about how we should only have a national standard, and that, I think, ignores the history, which is really it was California seven years ago that showed the country that we could have a standard for reducing greenhouse gas emissions from motor vehicles.

I think that, in large part, is why we're here today finally talking about a national standard for reducing greenhouse gas emissions from motor vehicles.

So California has played an essential role in partnership with other states that have followed under the Clean Air Act, and we can't ignore that. We should encourage that.

I strongly encourage EPA and NHTSA to work with the California Air Resources Board -- I know

that that relationship improved a lot this year -- and that there should be no effort to squelch or silence California's role when we get into the next round of post-2016.

There's a superficially appealing argument that, well, we can't have a patchwork of 50 different standards in this country. That argument is bogus because there never was any chance that we would have a patchwork of 50 different standards. The most we have is two.

As you know, under the Clean Air Act, California can set a standard stronger than the federal standard, and the other 49 states only have two choices. They can stick with the federal standard, or they can adopt California's stronger standard.

So it's no patchwork. It's just two. It's been working in vehicle emissions for a long time. We need to let it keep working.

Finally, I just want to note that we understand -- and I know you do too -- that improving vehicle technologies, while it's essential, is far from the sole answer to our problem of greenhouse gas emissions from the light-duty sector.

In addition to improving vehicle technologies as the proposed rule we're talking about today would do, we need to change our fuels, to go to cleaner fuels again accounted for on a life-cycle basis, and we also need to reduce vehicle miles traveled through better land-use patterns that encourage people and give them options to have other ways of getting around besides motor vehicles, to allow for more access to pedestrian opportunities, biking opportunities, and particularly for a better public transit.

And we appreciate the Obama administration's commitment to high-speed rail. We think California can be the first state in the country to actually build high-speed rail, which has already been done in a number of other countries.

So there's a whole mix of policies that we need to address, and this is a great start here today. Thank you.

MR. KRATZKE: Thank you, Mr. Magavern.

Mr. Clarke.

DARRELL CLARKE

SIERRA CLUB

MR. CLARKE: Thank you. I have a handout here. Take one and pass it down.

Since I don't have a big screen, we'll have a little screen paper version. And one for the reporter if she would like one.

First of all, thank you again, as others have said, for being here today in Los Angeles. I'm Darrell Clarke. I am the Chair since January of the Sierra Club's Angeles Chapter representing over 40,000 members in Los Angeles and Orange County. It's the largest chapter in the National Sierra Club.

I'm also Co-Chair of our local Global Warming and Energy Committee. I'm a member of the Sierra Club California Executive Committee for which we are -- I'm trying to come up with the right word -- thrilled, honored to have Bill Magavern leading our lobbying efforts in Sacramento and bringing the experience he does to the table.

And I'm also a member of our statewide Energy Climate Committee where we have conference calls, and we really focus on working very closely with our staff. I'm on the volunteer side.

I was also a contributor to the Sierra Club's national 2006 Energy Resources Policy and

have a couple of other hats.

In the past, I was a member of our local metropolitan planning organization. The acronym is SCAG, Southern California Association of Governments. It's all six Southern California counties except for San Diego County. Set up an energy working group to try to bring the energy future of the region into SCAG's regional plan. It's great to talk about planning and transportation, but how are we going to do that? It was chaired by Debbie Cook.

I was a planning commissioner for the City of Santa Monica for years, chaired it for two years. I know what it's like to be on your side of the table where people are before me and I have to ask the right questions and come to a decision. So I appreciate that much more you being here.

I'm just going to say for starters this is only the most important step for us to take as a nation about global warming and oil dependence. To put it rather succinctly, I'll point to some charts.

On the global warming side, if you go to the right -- that's slide two -- reconstruction of temperatures for the last 2,000 years, it's the warmest it's been in 2,000 years and rising.

These are slides that I have put together for presentations I give in different groups trying to give a basis of what about global warming, what about energy, and what about solutions that can work because I think we have to be focused on what can work.

We know about glaciers are melting, polar ice. The scientific consensus is there. I attended the governor's Global Climate Summit in Century City here a couple of weeks ago and was very impressed to see representatives of many government and intergovernmental agencies.

They're not arguing about whether there's a problem. They're focused on what to do about it as you are. And that's very reassuring compared to what you see in the popular press and all that kind of stuff.

Next photo there, that big smoke cloud. Back in August, the better part of our Angeles National Forest up above Los Angeles burned, and that's the giant smoke cloud behind downtown Los Angeles. It went on for over a week.

And that's an example of our future here in California with the impacts of drought creating wildfires. We've already heard about the reduced

snowpack, the impact on our water supply, sea-level rise.

We've got a lot of coastline. We have a shoreline. We have the Sacramento Delta which currently is fresh water, but if you have an increase in sea level, what does that do to your fresh water delta, which is, by the way, where our Southern California water supply comes from.

So enough on the problem.

California, we all know, took the lead between Fran Pavley's bill and then AB 32 as a first step to reduce California's emissions to 1990 levels by 2020.

And I'm really proud. Fran Pavley was my assemblywoman. She's now my state senator. I live in Santa Monica. Henry Waxman is my Congressman. I can't do better than that in terms of elected representatives who are really trying to do something about the problem. It was great seeing Fran here earlier this morning.

And I certainly second what folks have said about California's leading role, and let us continue to take that role after 2016.

Okay. The lower right there, the greenhouse gas emissions. I put that together --

the big circle is based on what the California Air Resources Board put out, but I thought I'd illustrate it.

It's so vivid. The largest slice of the pie of greenhouse gas emissions in California is passenger vehicles. That's why we're here talking about this. Over a quarter of the total.

That circle on the upper right of the aircraft, that's a problem, but that's not part of their mission. But it says, okay. We're talking about the sector that creates over a quarter of the greenhouse gas emissions nationally.

And in the lower right there -- and it consumes nearly half of the oil used in the United States. Again, a heck of a reason to be paying attention to this.

Now, the next page there, the breakdown of where does the oil come from, about a third comes from the United States.

The second largest slice at 15 percent there is from -- I don't know how stable they are -- our immediate neighbor north of the United States, Canada. You don't think of them as an oil exporter, but then you get into countries like Saudi Arabia, Mexico, Venezuela, Nigeria, a whole host of others,

but it really shows, again, our dependence on imported oil.

In the upper right there, this is very important to pay attention to. When you have some distinguished petroleum geologists saying look at the way oil fields are found, developed, they deplete. We're running ever faster just trying to stay even to keep up oil supply, and we're projecting that the world will peak in the near future and go into permanent decline in oil production.

So now we have three reasons to be paying a whole lot of attention to this, greenhouse gas emissions, dependence on foreign oil, and flat-out availability of oil. And what you're doing now with vehicle efficiency addresses all of those things on a proactive basis that, if you do it ahead, then it's not, oh, my god, you know, it's too late to do anything because we all know there's a lead time to address all these things.

Of course, the United States peaked in its oil production in 1970, and even after Alaska came onstream after 1970, we still never exceeded that 1970 peak.

And it also says -- I don't know what price

you're using in your benefit-cost ratios about the cost of gasoline in the future, but I bet it's not \$3.00 a gallon. At least one would want a range of assumptions about what that price is going to be in the future.

Okay. Middle left there. I love that cartoon. That came out, of course, during the last price spike.

Proud to say that that little car on the left, that's my car, 2005 Prius. We now have 75,000 miles on it including the 10,000 miles we drove across the country and back. We average between 40 and 45 miles a gallon.

I call it a great family car. It's a good hauler. It seats five people. And in Santa Monica where I live -- probably not the same experience in Detroit -- it seems like every fifth car on the road is a Prius. There's one. There's one. There's one.

And part of my reason for bringing this up is this is existing technology. This is widely adopted. It gets over 40 miles a gallon. We don't need new technology, something exotic. How are we ever going to achieve this? Hello. It's all out there now and achieving a better standard than

what's projected as the average into the future.

And as I put in the heading on there, if every vehicle got the mileage just of today's Prius, we would use half as much gasoline in the United States; we would use a quarter less oil. Existing technology.

And I want to echo what Bill Magavern said about not having perverse incentives where weight categories distort the process. I mean, my Prius seats five. It doesn't have to be a huge vehicle.

Middle right, you like my corncob sticking out of the SUV there? Prepared hard for that picture.

But that does again show the importance of the well-to-wheels analysis; that generally reported, corn ethanol takes about as much fossil fuel energy to make as you get back from the ethanol. We're not really gaining anything by having people running on corn ethanol.

There are significant questions about the return on cellulosic ethanol or its scalability, how much can you really produce over time, and we need to have those in mind when we think about things, alternative fuels.

And, of course, the issue about flex-fuel

vehicles. Gee, I bought a flex-fuel Ford, but do I ever actually put ethanol in it. But they got credit for it.

But that takes me to my lower-left picture which -- the renewable energy that does have clearly a very strong future when solar, geothermal is electricity, and battery electric vehicles and plug-in hybrids, the technology exists. It needs to continue to be refined.

This is one of the early conversions. You can see the cord dangling out of the left rear corner there of an early Prius conversion out at our South Coast Quality Management District that was on display a couple years ago. That is a direction that can work.

So the two key things to get us off of oil, number one, much more efficiency, and, number two, switch to electric vehicles as rapidly as possible.

I'll say emphatically, my wife and I will not buy another car until we can buy a plug-in, period. And I hope the automakers are listening.

There was an article in the L.A. Times quoting a Toyota representative at the government's Global Climate Summit saying that they would have a plug-in Prius available in 2012. That was in

response to my question.

I asked when can I get one? Every time I buttonholed a Toyota representative, I said when can I get one? I represent demand, but they keep being uncertain about whether there is any out there. No. I won't buy one until I can get it.

And also there's a category of vehicles -- there's some folks organized in Santa Monica -- they call them medium-speed electric vehicles. Right now we seem to have two categories of electric vehicles. We've got the full-blown thing that can go down the highway at 65 miles an hour, and then you've got the little golf cart with the vinyl sides, and you can't go over 25 miles an hour.

And their argument, there's definitely a role for a medium-speed vehicle. You can take it on the boulevard 35, 40 miles an hour as an electric vehicle, but what about that niche where people would find that a useful vehicle, not freeway speed, but not golf cart, something to consider as an in-between?

And, again, to recognize that third thing about reducing VMT through the various things, I know that's not within the jurisdiction of what you're saying.

And my final slide on the lower right, reemphasizing even with the current grid, my understanding is we have greater energy efficiency using electric vehicles, and that says nothing about growing renewable electricity as we absolutely must and the role that electric vehicles can play as storage in a smart grid for smoothing, matching demand to supply. Again, these are not new concepts. I just want to reinforce them.

So thank you again for being here. Thank you for listening. Thank you for the absolutely critical role you're playing in the U.S. and in leading the world reducing our greenhouse gas emissions and reducing our oil demands.

MR. KRATZKE: Thank you, Mr. Clarke.

And our last speaker on this panel, Mr. Campbell.

BRUCE CAMPBELL

CITIZEN

MR. CAMPBELL: Thank you, esteemed panel. Nice of you to come here for this hearing.

I read a news report recently that Japanese automakers are moving heavily towards hybrids and

electric vehicles. The world is clearly moving toward the more efficient auto direction, and the U.S. can either join the pack or even attempt to get out front, but we must not continue to be toward the back of the pack or much of the U.S. auto industry will further collapse and taking with them associated industries in the Midwest and beyond.

You, of course, are aware of increasing problems related to global climate change. Unfortunately, it looks like Congress may be incapable of passing bills to truly address global climate change due to all the pull of the lobbyists often seeking subsidies and loan guarantees for energy technologies with long lead times such as nuclear reactors.

And I've heard that the head of Duke Energy, who supports all of the energy sources his company's involved in -- but he admitted that carbon sequestration related to coal is at least 15 years off.

So basically under -- the George W. administration did virtually nothing on global climate change for 8 years, and then if we wait another 10 or 15 regarding -- and that's not -- they're the wrong answers anyway.

Nuclear has the most -- has the highest carbon footprint of any nonfossil fuel, and so-called clean coal is basically -- talk to the tooth fairy about that one.

Anyway, so that's -- setting a pretty good regulation of about 35 miles a gallon for cars and light trucks is quite sensible.

I even hear about vehicles even in the development stage now even getting a few hundred miles a gallon. I guess one of them was shaped like a trike or something, but there's definitely -- 35 isn't exactly the most visionary you can get, but it's obviously a huge step for the U.S.A.

Private companies must not be allowed to damage life-support systems of our planet, and, however, currently the Big Three U.S. auto companies are not exactly just private because the federal taxpayers own a lot of it, which is even more reason why we should insist on better gas mileage.

And I support the Obama, EPA, NHTSA call for considerably better gas mileage. And I urge that you get as clean a rule as possible without complicated carbon credit loopholes and moving-the-problem-around type thing.

As far as what kind of fuels, Mr. Clarke

mentioned that as much fossil fuel energy goes into creating ethanol as you get out from ethanol. Well, actually, I guess, maybe that would save -- or that would be as much as making it as if you burned gasoline instead.

MR. CLARKE: Uh-huh.

MR. CAMPBELL: And I'm particularly concerned about the permanent genetic contamination related to genetically engineered corn, which genetically engineered cotton was the only major genetically engineered crop in California until the push for ethanol in the last few years and got -- that's been permanently genetically contaminating our breadbasket, but, of course, it's nothing compared to the Midwestern situation as far as genetic contamination.

I'm also concerned -- while I applaud L.A. City looking toward cleaner vehicles and getting into larger vehicles relating to ports, however, they seem to be emphasizing liquefied natural gas which has about as large a global carbon footprint as coal and tar sands.

And so even though I'd as soon be behind a Santa Monica Blue Bus spurting NG than a diesel spewer, however, due to the global carbon footprint,

I don't think that's a wise energy source to move into.

I also hear that -- I guess this isn't quite the way vehicles that would -- to regulate Hummers. I personally got hit below the knees by a Hummer, and, believe me, it's not advised. And I think they should be outright banned.

And even though I'm not into sending Americans over to war-torn areas in the Middle East, I'd be willing to make an exception for Hummer drivers.

So please proceed with as clean as possible around 35 miles per gallon and then improve from there.

Thanks for your time.

MR. KRATZKE: Thank you, Mr. Campbell.

Any questions? No questions. Thank you.

MR. FRANCE: Is there anybody else in the audience who has not testified and wants to?

Would you please come up.

Would you be kind enough to write your name for the court reporter.

MARK GLASSER

CITIZEN

MR. GLASSER: Hi. Mark, M-A-R-K; Glasser,  
G-L-A-S-S-E-R.

I have three grandkids, almost 2, 7, and 5,  
and I've noticed as -- they live in West  
Los Angeles, and I'm very aware of their lung  
capacity. When playing when the air is bad, they  
have trouble breathing. They can't run as long.  
When we go up north or into other states, there's a  
real visible difference in their ability to play and  
run longer.

Now, these are very healthy kids, so I  
don't know that it would be that noticeable, but it  
clearly is to me when the air quality is bad here or  
when it's really hot. And so that's a concern of  
mine.

My wife and I have a Prius and a Highlander  
hybrid. We're very happy with them. They perform  
very well. It feels good to drive them, and when  
I'm driving them with the kids in either of the  
cars, I put on the grids and show them the electric  
power and how the battery is helping to operate the  
cars.

And the oldest boy, you know, says, "Well,  
but that's coming from somewhere, right, Poppy?"

That electricity is coming from somewhere.

Something is moving this car. It's not as much gas as daddy's car."

And so I say, "Yeah. Sure. We have to get the electricity from someplace."

And, finally, when we just had the Station Fire in the San Gabriel Mountains, it was amazing to me. I was speaking with friends in Boulder, Colorado, and they were getting the smoke from the Station Fire and the ash. And that just indicated to me how interconnected this global situation is with global warming and the warming of our environment.

Part of the reason for the Station Fire, my understanding is that the air was so dry it just crackled. Once the fire started, there was nothing to hold it back. And if there is a normal level of moisture in the air, the fire wouldn't have been that big, it wouldn't have lasted that long, and maybe it wouldn't have blown all the way to Colorado.

I thought it was an amazing thing to hear from my friends, and they were -- you know, they knew. They were told that it was from this fire. There was ash on their cars.

And so I bring these personal things up just to note the importance of what you're doing and the wonderful job that has been started here, and I do thank you guys for coming here and for listening to all of us.

And my major concern with these credits, these carbon credits, that these are not allowed to so dilute the real meaning of what you're doing here and what we're doing here because electric cars do -- just like Lucas picked up, they have a carbon imprint, and that needs to be adjusted to, you know, automakers that are coming out with wonderful electric vehicles. But to have them say that there's no imprint, I think, is really going to dilute the power of the bill and -- or the legislation that you're doing.

And to me, the most important thing is that we don't let those credits really become a way to easily avoid the intent of what you are trying to do and what we all need to be done.

And I would think that -- you know, let's say you built a fleet of a million electric cars and somehow you did that before 2012 and you get the advanced credits and the credits for having the electric car, and then so all of a sudden, you can

put out, you know, 750 gas guzzlers that are just going to dilute the whole purpose of what we're doing.

So thank you for listening, thank you for your time, and it was a pleasure to meet you.

MR. FRANCE: Thank you very much. Thank you for joining us.

Is there anyone else in the audience that wants to testify?

Okay. We will take a break here and reconvene if there's additional testifiers; otherwise, we're done for the day.

(A recess was taken at 2:50 p.m.)

(At 3:15 p.m. the proceedings resumed in the presence of panel members Bill Charmley, Chet France, and Ari Kahan.)

MR. CHARMLEY: Come on up.

JENNIFER EPPS

CITIZEN

MS. EPPS: Jennifer with a J, Epps, which is spelled E-P-P-S.

Okay. So I'm a writer in Los Angeles and a voter, and I drive a hybrid. And I strongly support the President's goal of 34.1 miles per gallon by 2016.

I think we desperately need clean, fuel-efficient vehicles, and I think we deserve them. Taxpayers fund the construction of roads and highways. We fund the maintenance of those roads and highways. We fund the administration of them through the DMV. We fund the policing of them.

And automakers would not actually be able to do their business without taxpayers funding the basic requirement for them to sell autos and for people to use them, which is all those things that I just said that we fund.

And that's not even to mention the bail-out money that was given recently and tax breaks that auto manufacturers enjoy. So I believe that we, the voters, have every right to demand fuel-efficient cars. The technology is already in existence, and in some cases I believe that it is being suppressed.

For example, the electric car was in existence many years ago and was pulled off the road despite the protests of a number of people who had leased the car and really loved it, and I believe

that was probably because GM thought it would endanger the other cars in their line.

So I think it's high time; we've waited long enough. Automakers have been dragging their feet for about 25 years, and these new proposals would be the first serious improvements to fuel economy in two decades.

If automakers had made more efficient cars and trucks before now, we would not have had to pay the high gasoline prices we did last year, but these new proposed standards could save drivers at least \$26 billion a year in gas, and we could also reduce greenhouse gas emissions by 217 million metric tons.

So I think it's really important, I think it's going to be effective, I strongly support the President's goal, and thank you for listening.

MR. CHARMLEY: Thank you.

MR. FRANCE: Thanks for coming.

MS. EPPS: Thank you.

(The proceedings concluded at 3:20 p.m.)

CERTIFICATE OF REPORTER

I, DEBORAH L. STOUGH, CSR No. 8925,  
RPR, a Certified Shorthand Reporter in the State of  
California, do hereby certify:

That said proceedings were taken at the  
time and place therein stated; that said proceedings  
were reported by me, a Certified Shorthand Reporter  
and disinterested person, and thereafter transcribed  
into typewriting under my direction.

IN WITNESS WHEREOF, I have hereunto set  
my hand this 8th day of November, 2009.

---

Deborah L. Stough  
CSR No. 8925, RPR