

BEFORE THE  
UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

In the Matter of )  
 )  
CALIFORNIA STATE MOTOR ) Docket No.  
VEHICLE POLLUTION CONTROL ) EPA-HQ-OAR-2006-0173  
STANDARDS; REQUEST FOR )  
WAIVER OF FEDERAL PREEMPTION. )  
 )  
 )

PUBLIC HEARING

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BYRON SHER AUDITORIUM - SECOND FLOOR  
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Tim Carmichael, Coalition for Clean Air

Patricia Monahan, Union of Concerned Scientists

Roland Hwang, Natural Resources Defense Council

Derek Walker, Environmental Defense

Michael Brune, Rainforest Action Network

Bonnie Holmes-Gen, American Lung Association of California

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Bob Roberts, California Ski Industry Association

Carl Zichella, Sierra Club

Jason Barbose, Environment California Research & Policy Center

Christopher B. Busch, PhD, Union of Concerned Scientists

Mike Somers, Arizona PIRG Education Fund

Buddy Burke, Republicans for Environmental Protection

Matt Vander Sluis, Planning and Conservation League

Thomas Cackette, Chief Deputy Executive Officer, California Air Resources Board

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PROCEEDINGS

ASSOCIATE DIRECTOR ZIMPFER: Good morning. My name is Amy Zimpfer, I am an associate director of the US EPA's office in San Francisco, the Region 9 Southwestern US EPA, and that covers Arizona, California, Nevada, Hawaii and the Pacific Islands.

It is my honor today to welcome you all to the hearing and to welcome our colleagues from our headquarters Office of Transportation and Air Quality.

Before we get started I do want to say thank you very much to the Air Resources Board and to Cal/EPA for providing the hearing room today and all of the tremendous logistical support. It certainly makes our job easier to have the support of our state colleagues.

So without further adieu I would like to introduce Christopher Grundler. He is the Deputy Director of the Office of Transportation and Air Quality, he works out of Ann Arbor. And with him today are a number of folks from our headquarters office in Washington DC. And we are very much looking forward to all the testimony and we will be taking it all into consideration as we deliberate on the waiver request. Chris.

PRESIDING OFFICER GRUNDLER: Let me add my welcome to all of you to this public hearing on the California Air Resources Board's request for a waiver of preemption for its

1 greenhouse gas emissions regulations.

2 As Amy mentioned I am Chris Grundler, I will be  
3 the presiding officer for today's hearing.

4 I want to just express at the outset how much we  
5 appreciate very much all of you taking the time out of your  
6 days to present testimony today. I know many of you have  
7 traveled many miles to participate today. My staff and I  
8 certainly recognize the significance of this request for the  
9 state of California. In fact it has been many, many years  
10 since we have actually convened a waiver hearing in the  
11 state of California and that speaks to the significance that  
12 we attach to this request.

13 We also recognize the importance of this  
14 proceeding and this request by other states, by the general  
15 public, by the environmental community, by the industry.  
16 This is certainly a very serious undertaking and so I am  
17 very pleased that we have such a wide representation from  
18 the public today.

19 Joining me on the panel today are to my right,  
20 Karl Simon. He is our Executive Division Director of the  
21 organization that will be evaluating all the information  
22 that we are gathering through these proceedings. To my left  
23 is David Dickinson, an Attorney-Advisor in Karl's division,  
24 and Michael Horowitz from our Office of General Counsel.

25 Today's hearing allows for interested parties to

1 provide comments in person. However, there is also an  
2 opportunity for anyone to send in additional written  
3 comments. The written comment period will close on June 15.  
4 Although I do want to add that we have a request for an  
5 extension of this comment period and that extension is  
6 currently still under review.

7 We have a list of people who have signed up  
8 previously to provide testimony today. That list is outside  
9 at the table. If any other members of the audience who have  
10 not signed up and do wish to provide testimony, I urge you  
11 to go and add your name to that list. We are prepared to  
12 stay here as long as it takes so that everyone has an  
13 opportunity to provide testimony.

14 Let me just describe how we will hold today's  
15 hearing. As noted in our April 30, 2007 and May 10, 2007  
16 Federal Register Notices announcing this hearing we are  
17 being guided by Section 209(b) of the Clean Air Act and we  
18 are seeking comments on the questions raised in the April 30,  
19 2007 Notice.

20 We are conducting this hearing informally and on  
21 the record. As presiding officer I am authorized to strike  
22 from the record statements which are deemed to be irrelevant  
23 or repetitious and to enforce reasonable limits on the  
24 duration of statements of any witnesses.

25 Witnesses must state their name and affiliation

1 prior to making their statement. And when a witness has  
2 finished his or her presentation, if you are using slides or  
3 other materials, please provide them to our court reporter  
4 here today. And witnesses are reminded that any false  
5 statements or false responses to questions may be a  
6 violation of law.

7 Finally, a court reporter is recording these  
8 proceedings. If you would like a transcript of today's  
9 public hearing please see the court reporter to make those  
10 arrangements. We will place a copy of the transcript from  
11 today's hearing in the docket for the rulemaking. Also  
12 California is webcasting today's proceedings and I'll be  
13 reminding everyone periodically of that.

14 With that I would like to introduce our first  
15 panel of witnesses. From the State of California they are  
16 Susan Kennedy, Chief of Staff to Governor Schwarzenegger;  
17 Attorney General Jerry Brown; the Honorable Fabian Nuñez,  
18 Speaker from the California Assembly; Former Assembly Member  
19 Fran Pavley; and representatives from the California Air  
20 Resources Board, Dr. Bob Sawyer, the Chair, and Catherine  
21 Witherspoon, Executive Officer.

22 Welcome, everybody. Ms. Kennedy, please proceed.

23 CHIEF OF STAFF KENNEDY: Thank you very much. On  
24 behalf of Governor Schwarzenegger I want to thank you for  
25 coming to California to conduct this hearing today.

1           We believe the EPA is legally obligated to grant  
2 our request under the Clean Air Act and the agency must take  
3 action without further delay. It's the right thing to do,  
4 it's urgent and it's the law.

5           EPA's obligation to approve California's waiver is  
6 unambiguous and specified in the Clean Air Act itself.

7           From the inception of the Clean Air Act  
8 congressional authors recognized California's pioneering  
9 leadership on environmental issues. In fact, Congress  
10 specifically anticipated that California's standards would  
11 be more stringent than federal standards.

12           When Congress adopted the 1977 amendments it  
13 expressly ratified and strengthened California's waiver  
14 provision, affirming the underlying intent of that provision  
15 which was, and I quote, to afford California the broadest  
16 possible discretion in selecting the best means to protect  
17 the health of its citizens and the public welfare.

18           This provision of one of our nation's most  
19 environmental protection laws sets in stone the central  
20 tenet of our constitutional system, that when the federal  
21 government fails to act the right of states to lead is  
22 unequivocal.

23           Twelve states, including California, have already  
24 adopted tailpipe emissions standards that would cut  
25 greenhouse gas emissions from cars, light trucks and sport

1 utility vehicles by almost 400 million metric tons by the  
2 year 2020, the equivalent of taking 74 million cars off the  
3 road for an entire year.

4           Seven other states have already committed or are  
5 considering to enacting the same standards upon approval of  
6 California's waiver by the EPA.

7           That represents 143 million American citizens, or  
8 nearly half of the US population, taking matters into their  
9 own hands.

10           Yet for 16 months the EPA has failed to act on our  
11 waiver.

12           With all due respect: The federal government has  
13 failed to lead. For the past 16 months it has refused to  
14 follow and it is time now to get out of the way.

15           The Governor, the Legislature and the people of  
16 California recognize the profound importance of addressing  
17 climate change and the growing threat that it poses to our  
18 environment and our economy.

19           The threat to our public health and safety from  
20 climate change is now omnipresent: Scientists predict  
21 California will lose up to 40 percent of its snowpack over  
22 the next few decades, some say much higher, the primary  
23 source of drinking water for two-thirds of Californians.  
24 This is not theoretical science, it is already happening.

25           Higher snow lines and early runoff are causing

1 flood flows in our rivers earlier in the year that are now  
2 beginning to collide with more powerful winter storms,  
3 threatening our levees and flood barriers that were never  
4 designed for this level of battering.

5           The heat wave last year that killed 150 people is  
6 predicted to be just the beginning of the hottest and driest  
7 years on record in the Western United States.

8           Continued drought in the West threatens not only  
9 our water supply but our energy supplies from  
10 hydroelectricity.

11           Warmer temperatures lead to concentrations of  
12 ground level ozone, increasing smog and pollution that cause  
13 asthma and heart disease. For which, I might add, the  
14 federal government is threatening to cut off federal  
15 transportation dollars for failing to meet air quality  
16 improvement goals.

17           There is no question that the need to address  
18 climate change is compelling and extraordinary.

19           That is why the Governor signed historic  
20 legislation authored by Assembly Speaker Fabian Núñez to cap  
21 carbon emissions and roll back California's greenhouse gas  
22 emissions to 1990 levels by 2020 and another 80 percent  
23 below 1990 levels by 2050.

24           But with 40 percent of greenhouse gas emissions  
25 coming from the transportation sector, the only way to meet

1 these targets is to address auto emissions. And to do so  
2 requires the EPA to approve our request for a waiver that is  
3 the subject of today's hearing.

4 More than 40 similar waivers have been approved  
5 over the past three decades.

6 In delaying this latest request as long as it has  
7 the federal government is blocking the will of 100 million  
8 Americans who are not willing to wait any longer for the  
9 federal government to act.

10 California supports a strong federal program that  
11 aggressively reduces greenhouse gas emissions from motor  
12 vehicles, and we will work with the EPA when it takes on  
13 this task and the tasks announced by the White House. But  
14 the EPA must grant California's waiver. There is simply no  
15 legal justification to do anything else. Thank you very  
16 much.

17 PRESIDING OFFICER GRUNDLER: Thank you,  
18 Ms. Kennedy.

19 Mr. Attorney General.

20 ATTORNEY GENERAL BROWN: Thank you. I want to  
21 address just a couple of very specific points. First of all  
22 the automobile companies and the opponents of what we are  
23 trying to do here are saying that EPCA, the Energy Policy  
24 Conservation Act, preempts California from this waiver  
25 request. I want to address myself to that.

1           That is completely false and has no justification  
2 in the law. EPCA includes by it's very terms the provision  
3 that says in setting fuel efficiency standards, the CAFE  
4 standards, the Secretary of Transportation must consider  
5 other standards of government. Other standards of  
6 government. If a waiver is granted by EPA a standard of  
7 government is the emission standard that we are asking to be  
8 validated in this proceeding.

9           So it is very clear that EPCA envisioned the  
10 actions under the Clean Air Act. The Clean Air Act  
11 envisions California taking their own separate program and  
12 putting it under effect. The argument that EPCA preempts  
13 California cannot be true because, number one, the language  
14 envisions a consideration of the California standard, any  
15 government standard, and preemption destroys the standard,  
16 eliminates it, it becomes a nullity. So just by the text  
17 alone that argument has to fail.

18           Secondly, in the case of Massachusetts v. EPA the  
19 Supreme Court expressly held that the two statutes, the  
20 Clean Air Act and EPCA, need to be harmonized. You  
21 harmonize them not by destroying one but by giving both  
22 their full operation.

23           The Clean Air Act aims at reducing pollutants,  
24 emissions of substances that cause harm. That cannot be  
25 stopped by EPCA. The fact that fuel efficiency is a

1 byproduct or a consequence does not negate the authority  
2 under the Clean Air Act.

3 Under EPCA there is a balancing and EPCA can be  
4 fully realized and implemented by weighing and balancing  
5 many factors, one of which is the Clean Air Act standards  
6 themselves. So the Supreme Court itself and the text both  
7 call for a harmonization and giving full effect to the Clean  
8 Air Act. And in this case California has its own piece of  
9 that Clean Air Act under the law.

10 Now the second point I want to talk about is the  
11 waiver itself. Expressly in legislative history the word is  
12 narrow grounds for EPA to deny the waiver. It has to be  
13 very extraordinary. There has been talk about, are there  
14 really compelling and extraordinary conditions. The auto  
15 companies want to say, well, California is no different than  
16 the rest of the country, of the world. That issue has  
17 already been decided. The fact that similar conditions  
18 exist elsewhere does not negate California's authority under  
19 the law.

20 If you go back to the legislative history I think  
21 it's pretty interesting. Right in the legislative history  
22 itself it made this quote: "Senator Murphy convinced the  
23 committee that California's unique problems and pioneering  
24 efforts justified a waiver." Now Senator Murphy was the  
25 California senator. He got into a legislative battle with

1 John Dingell. Dingell was trying to restrict the ability of  
2 EPA to grant a waiver. Senator Murphy wanted the broadest  
3 interpretation to make it as easy as possible for California  
4 to get a waiver. He won. It says so right here.

5 Two points have to be, should be acknowledged.  
6 One is the unique conditions in California, compelling  
7 conditions. The geography, the topology, the mountain  
8 ranges in Los Angeles that build up smog, the concentration  
9 of vehicles, the number of vehicles. All those conditions  
10 exist today.

11 The other aspect, number two because there's two  
12 prongs here, pioneering efforts. California is the pioneer,  
13 was and is. Legislative history talks about California  
14 leading the way, setting the pace and thereby helping the  
15 rest of the nation. To me it is impossible to conclude that  
16 a waiver can be denied under the legislative history, the  
17 Supreme Court rulings and EPA's own decisions.

18 I want to make one final point. It's kind of a  
19 subtle one, I've had a bit of trouble grasping it myself.  
20 The compelling and extraordinary condition does not refer to  
21 the particular standard. It doesn't refer to California's  
22 emission greenhouse gas standards that are at issue in this  
23 waiver.

24 In the key decision in 1984 on diesel particulates  
25 Ruckelshaus, the administrator, said very clearly what is

1 required to be compelling and unique are the conditions in  
2 California that once found justify the program that is  
3 different and separate and more stringent. So it is not --

4           The findings here are not about the specific  
5 greenhouse gas standards, it's rather, does California  
6 continue in the state of its unique topology, its number of  
7 cars, their concentration. Is that true? And it certainly  
8 is true. Is California still in the pioneering, the  
9 extraordinary role of pioneering new standards? Yes. If  
10 you say yes to both of those then you've satisfied the  
11 compelling and extraordinary circumstance. And of course  
12 the idea that this affects other people doesn't in any way  
13 negate or undermine that it's affecting California.

14           One final point in support of this. In 1977, two  
15 years after EPCA was passed, Congress added the provision  
16 that other states could follow California's law,  
17 California's standard. Once you grant that waiver because  
18 of the continuing, compelling and extraordinary circumstance  
19 then not only California can impose the regulation but all  
20 the other states. Which in this case are already 11 signed  
21 up. Those 11 states don't have to show you any  
22 extraordinary, any compelling need. They don't have to show  
23 you anything, it's automatic.

24           And that really goes to the point that what is at  
25 issue in the law here is the unique historic situation in

1 California. Which once established continues to justify the  
2 waiver unless there is some radical change in circumstances,  
3 which hasn't happened. It's just continuing exacerbation of  
4 the problem. And even to get specific, global warming will  
5 make worse all the criteria of pollutants. So on every  
6 ground California is justified. And as Susan Kennedy has  
7 said, this is a legally required waiver.

8           And I would just end by general statement. We  
9 have been told in the press that the national government  
10 will stand alone and reject all the other nations, the G8  
11 countries, all the major developed countries of the world  
12 gathered in Germany next week. America will stand alone  
13 fighting any timetable or target.

14           I think in that context it is particularly  
15 compelling, if not extraordinary, for the EPA following the  
16 law, not the politics, not the person who appoints the  
17 administrator, but rather the law serving the people, to  
18 allow California and the 11 other states and many more to  
19 follow actually to join the other nations of the G8  
20 countries and take a stand for timetables and targets.

21           It's well thought out, it's scientifically and  
22 technologically based. This is a great opportunity for the  
23 EPA to reinvigorate its role as a champion in the protection  
24 of our environment. Thank you.

25           PANELIST DICKINSON: Attorney General Jerry Brown,

1 appreciate your testimony today. You did take part of it to  
2 discuss the EPCA statute and I invite you or your Air  
3 Resources Board colleagues to, in your written comments  
4 perhaps to provide a clarification as to whether you think  
5 EPCA is relevant to EPA's waiver review or not. And then if  
6 it were relevant how that would play out.

7 ATTORNEY GENERAL BROWN: Well I have to say,  
8 again, that it is not relevant. Number one because that is  
9 a judicial decision. And by the precedence of EPA you are  
10 not allowed to consider issues like preemption from another  
11 statute. You can only consider your precedence.

12 Number two, in fact it is not preempted because  
13 EPCA itself envisions taking into account regulations that  
14 are standards of the government. If you grant the waiver  
15 then these are standards of the government. Therefore by  
16 the very language of the 1975 EPCA Act you have to take it  
17 into consideration, not ignore it, which preemption would  
18 require.

19 I'll be glad to commit that to writing but to me  
20 it's crystal clear.

21 PANELIST DICKINSON: Thank you.

22 PRESIDING OFFICER GRUNDLER: Thank you for your  
23 testimony, Mr. Brown.

24 Mr. Speaker, welcome.

25 ASSEMBLY SPEAKER NUÑEZ: Thank you very much,

1 Mr. Grundler and ladies and gentlemen of the committee. We  
2 want to thank you first of all for making the pilgrimage to  
3 Sacramento to consider this waiver.

4 As you know climate change that has been brought  
5 upon by manmade emissions of greenhouse gases has become the  
6 environmental crisis of our time. Climate change is a very  
7 serious threat to our sustainability. And as you know, here  
8 in California you have the opportunity to help make our  
9 state take a vital step in showing this crisis and  
10 combatting this crisis by granting us a waiver that would  
11 allow for tailpipe emission standards of global warming  
12 causing greenhouse gases to be stopped.

13 A little background on this issue. In 2002  
14 Assembly Member Fran Pavley, who sits to my right, authored  
15 Assembly Bill 1493. Landmark legislation that requires  
16 tailpipe emission standards to reduce greenhouse gas  
17 emissions.

18 Last year I joined Ms. Pavley in authoring  
19 Assembly Bill 32, the Global Warming Solutions Act of 2006.  
20 Yet another California first, which requires California to  
21 reduce greenhouse gas emissions by 25 percent by the year  
22 2020. With the transportation sector as California's  
23 largest emitter of greenhouse gases reductions in this  
24 sector are absolutely critical. AB 32 will not succeed  
25 without major reductions from the transportation sector.

1           The regulations being considered here at today's  
2 hearing will achieve about 17 percent of the reductions we  
3 want to achieve through Assembly Bill 32. In order to meet  
4 our goal and address the leading environmental issue facing  
5 our state and our country today California needs to be  
6 granted a waiver by the United States Environmental  
7 Protection Agency. A waiver, I might add, that was  
8 requested 18 months ago. We think that it's time for the  
9 Environmental Protection Agency to act to allow California  
10 to move forward.

11           I know that the Environmental Protection Agency  
12 has granted many requests. In fact in California alone we  
13 have seen over 50 requests that have been granted in the  
14 last four decades. Each time the EPA has found that  
15 California has met the requirements under the Clean Air Act.  
16 We believe there is no basis for the EPA to treat this  
17 request any differently.

18           The standards we are proposing are workable with  
19 technology already in the market, which will save vehicle  
20 owners in lower maintenance and operating costs over the  
21 lifetime of the vehicle. The standards give auto makers the  
22 flexibility to apply any technology they choose to reduce  
23 the vehicles' emissions of greenhouse gases, including  
24 production of vehicles that use lower carbon fuels. The  
25 standards were developed over four years. Four years

1 through careful and measured technical review, and I might  
2 add, vast public input.

3 We here in California are working very hard to  
4 protect our children from a changing environment. The Bush  
5 Administration has a choice. Will it support that right  
6 that the Clean Air Act gives us or will it continue to slow  
7 or stop any real action to global warming.

8 On December 1, 2005 the Air Resources Board  
9 officially requested this waiver. It is now 18 months  
10 almost to the day. The later -- We are finally getting our  
11 chance here today to show the Board the national base of  
12 support that we have for California's waiver. And we would  
13 respectfully ask you on behalf, not only of California, but  
14 the mission of the Environmental Protection Agency, which in  
15 its very core by its own definition is to protect the  
16 environment. We want to ask for your help to help us here  
17 in California protect our environment. Thank you very much.

18 PRESIDING OFFICER GRUNDLER: Thank you,  
19 Mr. Speaker.

20 Ms. Pavley, welcome.

21 FORMER ASSEMBLY MEMBER PAVLEY: Good morning.  
22 Thank you very much for coming to California. A few of you  
23 I saw just last week in Washington DC. It's a pleasure for  
24 me to be here today as the author of this bill and sitting  
25 alongside Speaker Nuñez as the author of AB 32 because this

1 is a very important component in our broader, more  
2 comprehensive policy to do our fair share here in California  
3 to reduce greenhouse gas emissions.

4 Forty-one percent of California's greenhouse gas  
5 emissions come from automobiles and light duty trucks. We  
6 have 25 million cars and light duty trucks on the road in  
7 California today. It's important that we attack this very  
8 critical problem.

9 The Clean Air Act, as you know, allows California  
10 to adopt more stringent air emissions standards and over the  
11 last three to four decades, as Speaker Nunez said, the EPA  
12 has approved nearly 50 waivers in a row, none denied.

13 The arguments I heard last week in Washington DC  
14 and just a little while ago at a press conference in the  
15 room adjacent to this by the automobile manufacturers  
16 sounded vaguely familiar to me, not only through our hearing  
17 processes here in California but the same arguments that  
18 came up when California passed laws relating to unleaded gas  
19 that the EPA approved, laws relating to catalytic  
20 converters, which the EPA approved through the waiver  
21 process, and most recently a law I authored which allowed  
22 single occupant hybrid drivers to access HOV lanes, also  
23 opposed in California by the automobile manufacturing  
24 associations.

25 The recent Supreme Court decision said that the

1 Environmental Protection Agency indeed has the authority  
2 under the Clean Air Act to regulate greenhouse gas emissions  
3 as air pollutants.

4 We have demonstrated unequivocally, compelling and  
5 extraordinary reasons for this waiver. Our topography,  
6 dwindling snowpack, the availability and supply to our  
7 agricultural and urban water users.

8 In particular I am very concerned about air  
9 quality impacts. Warmer temperatures will make ozone levels  
10 worse, a prime ingredient of smog. We have asthma and  
11 respiratory problems in the LA area and a growing number in  
12 our Central Valley with children.

13 We're having continuous problems now with weather  
14 extremes, particularly in relation to wildfires. Where our  
15 wildfire season is not just September and October anymore  
16 but is year-round and that has health implications in  
17 particulate matter affecting respiratory problems, fire  
18 fighters as well as our citizens here in California.

19 There is a long list of compelling and  
20 extraordinary reasons to grant this, also in regards to our  
21 1100 miles of coastline and sea level rise. And one of our  
22 largest insurance carriers, Allstate, is talking about not  
23 granting any more new homeowner policies because of weather  
24 extremes, weather patterns and rising costs associated with  
25 climate change.

1           One of the arguments made by the automobile  
2 manufacturers last week in Washington DC is, what's the  
3 point, California is just one state, one state out of 50.  
4 Well they brought that argument to our attention when we  
5 passed the bill back in 2001 and 2002.

6           Now as you know California under the Clean Air Act  
7 can pass more stringent air emission standards and other  
8 states have two options and only two options only. Adopt  
9 California standards or federal government standards.  
10 California standards only if they are more stringent than  
11 the federal government standards. Well that's not really a  
12 patchwork quilt, that's two choices.

13           Well 11 other states have now adopted California  
14 clean car standards. The governors of New Mexico and  
15 Arizona have indicated through executive order they will  
16 also add to this. We know, like in the case of unleaded gas  
17 or catalytic convertors that other states across the country  
18 will soon become places where cleaner, more efficient cars  
19 will be sold. That's the pattern that's been demonstrated  
20 time and time again.

21           And I have also seen on a firsthand level that  
22 when California sets a standard, whether it is unleaded gas  
23 or catalytic converters, it is not just limited here, it  
24 spreads to other states and indeed other countries.

25           Several years ago I went to Canada and they have

1 adopted a voluntary memorandum of understanding with the  
2 Canadian automobile manufacturers. Interestingly enough the  
3 same automobile manufacturers that are represented here in  
4 this room, Ford, GM and Chrysler, et cetera, and the  
5 international alliance. They adopted a voluntary MOU  
6 standard to reduce tailpipe emissions through almost the  
7 identical strategies that our Air Resources Board envisioned  
8 when they adopted the regulations required in 1493.

9 That's cost-effective, maximum feasible,  
10 technologies that are readily available on cars today.  
11 Canada has done that. They just issued and they sent to me  
12 just yesterday a regulatory framework for air emissions and  
13 they talk about there's currently a memorandum of  
14 understanding between the auto industry and the government  
15 with a target of 5.3 megatons of greenhouse gas emission  
16 reductions by 2010.

17 We're talking about the automobile market in the  
18 United States now with the 11 states plus Arizona and New  
19 Mexico plus Canada. We're tipping over 40 percent of all  
20 the automobiles sold. That is not a patchwork quilt, that  
21 is responsible legislation in response to the most  
22 threatening global and economic problem of the 21st century.  
23 I ask for your waiver. Thank you.

24 PRESIDING OFFICER GRUNDLER: Thank you very much,  
25 Ms. Pavley.

1           Dr. Sawyer from the Air Resources Board, nice to  
2 see you again.

3           AIR RESOURCES BOARD CHAIR SAWYER: Thank you.

4           PRESIDING OFFICER GRUNDLER: Please proceed.

5           AIR RESOURCES BOARD CHAIR SAWYER: Thank you and  
6 welcome to California.

7           PRESIDING OFFICER GRUNDLER: It's great to be  
8 here.

9           AIR RESOURCES BOARD CHAIR SAWYER: Our  
10 presentation will be much shorter than last week's in  
11 Washington DC. We will focus on issues that were of  
12 interest to last week's hearing panel. We will also attempt  
13 to bring some clarity to the rather vague issues raised by  
14 the single automotive manufacturer representative who last  
15 week presented industry concerns to the panel and audience.

16           This week Catherine Witherspoon, the Air Resources  
17 Board Executive Officer will make the primary presentation.  
18 She is joined by Tom Cackette, Chief Deputy Executive  
19 Officer, Steve Albu and Paul Hughes of our Mobile Source  
20 Control Division, Bart Croes, chief of our Research  
21 Division, Reza Mahdavi of our Economics Branch, and Tom  
22 Jennings and Aron Livingston of our Legal Office.  
23 Catherine.

24           AIR RESOURCES BOARD EXECUTIVE OFFICER WITHERSPOON:  
25 Thank you Dr. Sawyer, and good morning.

1           I am going to start with a very brief review of  
2 the motor vehicle greenhouse gas emission standards that are  
3 the subject of this proceeding. While you may hear again  
4 today from manufacturers that this is a CO2-only regulation,  
5 the simple fact is that the regulations control all of the  
6 pollutants shown here and provide substantial credit to  
7 those manufacturers reducing highly potent refrigerant  
8 emissions and to those introducing alternatively-fueled  
9 vehicles.

10           As in our EPA-approved LEV II regulations, the  
11 greenhouse gas regulations establish two categories, one for  
12 passenger cars and smaller light trucks, another for larger  
13 trucks, SUVs and medium-duty vehicles. Pure commercial work  
14 trucks are exempt.

15           We used the results of a technical study initiated  
16 by the Northeast States Center for a Clean Air Future and  
17 applied staff's expertise and engineering judgment to arrive  
18 at packages of potential technologies that could be applied  
19 in the 2009 to 2016 time period. The standards flowed from  
20 that projection, setting increasingly stringent fleet-  
21 average greenhouse gas emissions standards in grams per  
22 mile.

23           As you can see the near-term standards start with  
24 the 2009 model year and achieve a 22 percent reduction in  
25 2012. The mid-term standards start with the 2013 model year

1 and will achieve a 30 percent reduction in 2016.

2 The regulation also provides flexibility,  
3 including a delay of regulatory requirements until 2016 for  
4 small and intermediate volume manufacturers.

5 Now just to remind everyone of the three key  
6 principles in waiver proceedings. The first is that EPA's  
7 review is limited in scope to three issues: protectiveness,  
8 California conditions justifying our motor vehicle emissions  
9 standards, and consistency with the technological  
10 feasibility and lead time provisions in the Clean Air Act.

11 Second, and contrary to what the manufacturers'  
12 representative asserted last week, the burden is on waiver  
13 opponents to demonstrate why California's waiver should not  
14 be granted; the regulations come to you with a presumption  
15 of regularity. This burden will be difficult indeed, and we  
16 think insurmountable, though to date in this proceeding we  
17 and the public have had little opportunity to evaluate the  
18 waiver opponents' arguments and evidence, despite the burden  
19 that they have. Finally, waiver law and history counsels  
20 EPA to give substantial deference to California's judgments.

21 This slide covers the finding regarding the  
22 protectiveness determination the Board made in its September  
23 2004 Resolution approving these regulations. The Board  
24 reached its determination in a public process, and easily  
25 found that the standards were more protective in the

1 aggregate than federal standards because our program remains  
2 more protective for other pollutants and also addresses  
3 greenhouse gases.

4           Last week the auto manufacturers' representative  
5 hinted that California was obligated to do more. That is,  
6 to compare our greenhouse gas standards to other federal  
7 standards not adopted by EPA. The text of Section 209(b) is  
8 not amenable to such contortions. It states that we must  
9 determine that our standards will be, in the aggregate, at  
10 least as protective of public health and welfare as  
11 applicable federal standards. Clearly this simple language  
12 is no license for EPA to look beyond its own, and in this  
13 case non-existent, standards.

14           EPA has never required California to compare its  
15 standards to any other standard other than EPA's own, and  
16 for good reason. The repetition of the phrase applicable  
17 standards in Section 209(b) clearly applies in each case to  
18 just one set of federal standards, EPA's. One reason for  
19 the protectiveness requirement is that once the waiver is  
20 granted, compliance with California's standards is treated  
21 as compliance with EPA's standards, something that would be  
22 inappropriate if EPA standards were more protective. Any  
23 vehicle standards of other federal agencies will apply  
24 alongside California's.

25           Even if EPA unwisely chooses to go beyond the text

1 of 209(b) to consider standards like those under EPCA or  
2 CAFE, it's clear that our standards were more protective at  
3 adoption and remain so today. As Mr. Doniger pointed out  
4 last week, it is likely our standards will remain more  
5 protective into the future given potential federal  
6 rulemaking timetables.

7           Obviously, if our standards weren't more  
8 protective and required lower greenhouse gas emissions than  
9 under EPCA/CAFE, the manufacturers would not have hired a  
10 legion of lawyers to challenge them across this country.  
11 Plaintiffs in those actions have taken great pains to argue  
12 how much more difficult it will be as a technological matter  
13 to meet our standards than to meet EPCA/CAFE. In effect  
14 they have demonstrated for us the greater protectiveness of  
15 California's standards.

16           The second issue before EPA is whether California  
17 needs its state motor vehicle standards to address  
18 extraordinary and compelling conditions in our state. As  
19 you heard last week, California easily meets this test. In  
20 fact, the only question for EPA to address is whether the  
21 conditions in California are such that we still need our  
22 motor vehicle program as a whole to address air pollution in  
23 our state.

24           Again this slide shows how nothing has changed in  
25 these conditions. California continues to truly stand alone

1 in its ozone problem. That is the end of the story as a  
2 legal matter.

3 But last week we heard questions that sounded like  
4 EPA was considering rejecting established waiver law and  
5 history on this point. Should EPA choose this path it would  
6 still arrive at the same destination, as California clearly  
7 does need our greenhouse gas standards to meet extraordinary  
8 and compelling conditions. This was demonstrated by the  
9 overwhelming evidence presented by Dr. Schneider, ARB, and  
10 others last week. I will briefly recap that evidence here.

11 It is beyond question that California continues to  
12 need ozone reduction strategies to address extraordinary and  
13 compelling conditions in our state. This chart shows how  
14 higher temperatures that we can expect from global warming  
15 will increase ozone concentrations.

16 Even at the low to mid-range projections for  
17 global warming temperature increases California faces dozens  
18 of extra unhealthy days conducive to ozone formation, shown  
19 here for the South Coast and San Joaquin Valley. Since  
20 greenhouse gas emissions indirectly exacerbate ozone  
21 concentrations, California's need to regulate emissions of  
22 hydrocarbons and oxides of nitrogen in order to address  
23 ozone concentrations also applies here to regulating  
24 greenhouse gases.

25 We also spoke last week about the current higher

1 wildfire incidence and the projections as shown here.  
2 Again, if increased wildfires weren't an extraordinary  
3 condition in their own right, particulates and other  
4 emissions from increasing wildfires will further exacerbate  
5 the health impacts from increased smog projected from higher  
6 temperatures.

7           We also mentioned these projected impacts from  
8 global warming that should likewise be considered  
9 extraordinary and compelling conditions. We identified  
10 eight experts whose reports on the particular effects of  
11 global warming in California will be entered in the record.  
12 Some of those we listed are here today to speak on separate  
13 panels and will be joined by other experts in their  
14 respective fields.

15           Last week a question was raised as to whether  
16 California must show a temperature impact in California  
17 resulting solely from its greenhouse gas reduction  
18 regulations. The answer is no, for three reasons. First,  
19 EPA cannot second-guess California's judgment on the  
20 effectiveness or need for any particular California  
21 standard.

22           Administrator Train addressed this point when he  
23 stated that neither costly controls nor marginal  
24 improvements in air quality were pertinent to his decision.  
25 EPA has accepted this principle numerous times since. So

1 the manufacturers' argument last week that ARB cannot prove  
2 a temperature change and air quality benefit from these  
3 regulations is not pertinent to this proceeding. It is  
4 enough that such standards address the problem in some way.

5           Second, the manufacturers' argument that we must  
6 show modeled temperature decreases proves too much. As we  
7 pointed out in our December 2005 waiver submittal, an  
8 appropriate analogy here is to ozone attainment  
9 demonstrations. We cannot demonstrate that a particular  
10 emission standard requiring small ozone precursor emission  
11 reductions directly causes a specific parts per million  
12 ambient ozone reduction in a particular air basin. Yet EPA  
13 has in the past approved waiver requests for marginal  
14 adjustments to our motor vehicle emission standards even  
15 though we presented no modeling demonstrating a measurable  
16 reduction in ozone.

17           Similarly, no regional climate change models can  
18 show a temperature impact in a particular area from measures  
19 of this magnitude. In fact, it takes the accumulation of  
20 several countries' emission reductions to show a change in  
21 temperature, or a temperature change avoided. For global  
22 climate change, the relevant modeling exercise is the IPCC  
23 scenarios.

24           Yet as Dr. James Hansen's expert report in the  
25 Central Valley case makes clear, and as Dr. Schneider

1 pointed out last week, there is a direct relationship  
2 between incremental reductions in greenhouse gas emissions  
3 and reduced radiative forcing. The Hansen report is one of  
4 the reports we will be submitting for the record.

5 Last week Mr. Tripp described the measures that  
6 automobile manufacturers and others are taking to rein in  
7 their greenhouse gas emissions. GM is to be commended for  
8 recently joining the United States Climate Action  
9 Partnership, but EPA should not countenance its trade  
10 group's attempts to minimize those emission reductions or  
11 these --

12 Finally, this argument runs counter to the  
13 rationale the Supreme Court gave in rejecting one of EPA's  
14 reasons not to regulate. That is, that regulating won't  
15 make much difference given other sectors' and nations'  
16 emissions. In fact, that is precisely why both California  
17 and EPA must regulate, because global warming must be  
18 attacked incrementally, with many measures. The  
19 Massachusetts decision counsels us not to cower in despair  
20 as worldwide emissions continue to go up but to attack that  
21 increase in every possible way.

22 The third reason we need not show a temperature  
23 impact is because the manufacturers' argument misreads the  
24 text of 209(b)(1)(B). The statute asks only whether  
25 California needs such state standards to meet extraordinary

1 and compelling conditions in California. The answer is  
2 clearly yes. We need these standards. We need other  
3 standards to be established under our AB 32, the Global  
4 Warming Solutions Act.

5 We need the federal government to act. We need  
6 other nations to act. Because we need all these things to  
7 occur to even have a chance at avoiding some of the worst  
8 extraordinary and compelling impacts that have been  
9 identified. Each particular regulation in isolation is by  
10 definition needed.

11 To further illustrate, as Dr. Schneider conveyed  
12 last week, the difference between the potentially  
13 devastating high or medium-high scenarios and the lower  
14 emissions scenario pictured here will reflect a combination  
15 of many greenhouse gas reduction measures. In the context  
16 of all these measures our AB 1493 motor vehicle standards  
17 will undoubtedly be among the more important. What kind of  
18 signal would EPA be sending if it concludes that California  
19 does not need these major greenhouse gas emission standards  
20 to meet extraordinary and compelling conditions?

21 Due to rapid global warming over the past 30 years  
22 the earth's temperature is reaching levels not experienced  
23 in 10,000 years. An increase in just one degree centigrade  
24 will lead to temperatures not seen in a million years. And  
25 if emissions of CO2 continue with the business as usual

1 scenario, increasing by two percent per year, we can expect  
2 an additional warming of two to three degrees centigrade  
3 this century. If that happens we and our children and  
4 grandchildren will all be living on a different planet.

5           Research conducted by Hansen, et al, has estimated  
6 that to avoid this two degree centigrade increase, heat  
7 trapping gases need to be stabilized so that their net  
8 climate change effect is less than 450 parts per million CO2  
9 equivalent.

10           If the United States and other industrial nations  
11 would cut current emissions by 60 to 80 percent this goal  
12 would be achievable. Governor Schwarzenegger's Executive  
13 Order S-3-05 calls for an 80 percent reduction of greenhouse  
14 gas emissions from 1990 levels by 2050. If the  
15 industrialized world were to follow in California's  
16 footsteps the most severe climate change impacts could be  
17 avoided.

18           Again, showing projected end of century  
19 temperature increases it matters whether California takes  
20 this step, with others, towards reining in greenhouse gas  
21 emissions.

22           The groundbreaking report by Pacala and Socolow in  
23 2004 showed how incremental emissions reductions matter.  
24 This slide graphically demonstrates how actions in a variety  
25 of sectors can in combination have a profound effect. The

1 US can immediately begin to make very significant reductions  
2 in carbon emissions with the implementation of existing  
3 technologies and strategies such as end-use efficiency,  
4 passenger vehicle efficiency, renewable resources, and  
5 carbon capture and storage.

6           This green wedge shown here represents the  
7 cumulative reductions needed from the US transportation  
8 sector to stabilize atmospheric greenhouse gas  
9 concentrations below 550 parts per million. EPA estimates  
10 that a cumulative 21,500 million metric tons of CO2  
11 equivalent gases is needed from light-duty vehicles to  
12 achieve this goal. Greenhouse gas reductions from  
13 California and the 177 states that have adopted our  
14 standards achieves 3800 million metric tons, 18 percent of  
15 the estimated reductions needed from light-duty vehicles.

16           It's clear that we have only begun to address  
17 reducing greenhouse gas emissions from motor vehicles if we  
18 are to avoid the consequences of global warming.

19           This slide shows why it is critical to achieve the  
20 wedges from the previous slide as soon as possible and not  
21 wait for a federal solution to reducing motor vehicle  
22 greenhouse gases. Heat-trapping emissions are cumulative  
23 and have a very long lifetime in the atmosphere. The  
24 emissions already in the atmosphere mean that the world will  
25 continue to see increased warming over the next century. We

1 need to take strong and immediate action to prevent that  
2 warming from becoming catastrophic. Delaying the decision  
3 to reduce emissions will only make the task of solving it  
4 that much more difficult.

5           As the blue curve in this graph shows, if national  
6 emission reductions start soon we can stay on the  
7 stabilizing heat-trapping gases path at 450 parts per  
8 million with an annual emission reduction rate that  
9 gradually ramps to 3.2 percent per year. But if we delay a  
10 serious start and allow continued emissions growth at nearly  
11 the business as usual rate, the annual mission reduction  
12 rate required to stay on the path jumps to 8.2 percent per  
13 year, as shown on the red curve.

14           Finally, we have heard arguments that the impacts  
15 to California from global warming must be worse or unique in  
16 order for California to address them. This becomes relevant  
17 only if EPA repudiates the principle it has followed for the  
18 last 23 years that the pertinent question is California's  
19 need for its own motor vehicle emissions program, not for  
20 the specific standards under review.

21           But focusing on greenhouse gases alone, if  
22 Congress in 1967 had known what we know now about the  
23 potentially catastrophic impacts of global warming, would it  
24 have said that the compelling and extraordinary threat to  
25 California only justifies California standards if the threat

1 is more compelling and extraordinary in California than in  
2 any other state? We think not. At the existence of Clean  
3 Air Act Section 177, allowing other states to adopt  
4 California's standards as their own, shows that conditions  
5 in more than just our state may justify the California  
6 standards we adopt.

7           Although our impacts may not be unique or more  
8 severe, impacts in California are arguably unique and more  
9 severe. We are uniquely positioned to feel the brunt of  
10 global warming's exacerbation of existing ozone problems.  
11 We are uniquely positioned for wildfire impacts to make air  
12 quality impacts even worse. Our dependence on the Sierra  
13 snowpack to provide year-round water in the nation's most  
14 populous state, seasonal irrigation in the nation's number  
15 one agricultural production area, and to mitigate the  
16 dangers of flooding is unique.

17           Global warming could cause this snowpack to shrink  
18 as much as 80 percent. As Dr. Schneider put it, we are not  
19 happy to be in this vulnerable position but the fact is that  
20 we are. Again, you will hear more about the severity of  
21 these impacts vis-...-vis other states later today from  
22 science panelists.

23           And now to briefly discuss the technological  
24 feasibility of our regulations -- Excuse me, a little script  
25 correction.

1           The third issue before EPA is the consistency of  
2 the standards with Clean Air Act Section 202(a). Previous  
3 waiver decisions make it clear that this issue primarily  
4 relates to whether the standards are feasible in the lead  
5 time provided, giving appropriate consideration to the cost  
6 of compliance in that time period. We have demonstrated the  
7 technologies that can be used to comply with our greenhouse  
8 gas standards, and most are commercially available right  
9 now. For those that are not, ample lead time is provided.

10           In addition, the state and federal test procedures  
11 need to be sufficiently consistent that one set of tests can  
12 be used to determine compliance with both the state and  
13 federal standards. We don't expect this to be an issue  
14 since there can be no conflict with non-existent EPA  
15 greenhouse gas test procedures.

16           We made a comprehensive demonstration of the  
17 technological feasibility of our standards at the May 22  
18 hearing in Washington DC so I will only touch on a few  
19 elements here.

20           This is a list of the technology packages ARB  
21 selected to set the near-term greenhouse gas emission  
22 standards, which requires an overall 22 percent reduction in  
23 greenhouse gases by 2012. All of the technologies listed  
24 here have already been commercialized by one or more vehicle  
25 manufacturers. Note we did not consider diesels or hybrids

1 in setting the near-term greenhouse gas standards, even  
2 though these technologies will be sold in California during  
3 the near-term standard phase-in.

4           It's important to note here that the greenhouse  
5 gas emissions standards are performance standards that do  
6 not require manufacturers to use these particular  
7 technologies or packages so long as they ultimately meet the  
8 requirements on a fleet-wide basis. Clearly we were, as any  
9 agency would be, constrained in evaluating all possible  
10 technology combinations available to the manufacturers. The  
11 manufacturers have demonstrated innovative approaches to  
12 meeting the requirements of the LEV program. We expect them  
13 to do the same in meeting the greenhouse gas requirements.

14           The mid-term technology packages include three  
15 emerging technologies. The integrated starter/generator has  
16 already been commercialized. Homogenous charge compression  
17 ignition, HCCI, is now close to commercialization, and  
18 camless valve actuation, which one supplier has said will be  
19 in vehicles by 2009 or, excuse me, 2010.

20           What you don't see in either the near-term and  
21 mid-term packages are hybrid electric vehicles or HEVs.  
22 There is a growing market for HEVs and manufacturers have  
23 announced plans to introduce HEV technology across all  
24 vehicle classes. To the extent that manufacturers include  
25 hybrids in their vehicle mix, then the burden of compliance

1 with the standards will be less.

2 This slide presents our conclusions on  
3 technological feasibility. The technologies we projected  
4 would be available to meet the near-term standards are being  
5 used by more manufacturers. Other technologies, such as  
6 E85, are also being introduced in greater numbers. Today  
7 the technology choices to reduce greenhouse gas emissions  
8 are greater than they were in 2004.

9 The industry's criticism of our modeling is  
10 rapidly becoming irrelevant as the technologies they raise  
11 doubt about are used in cars being sold today. Our cost  
12 estimates remain sound. Lead time is adequate and the  
13 safety issues industry raises remain specious.

14 We conclude with great certainty that the  
15 regulations remain feasible, cost-effective and are  
16 necessary to address global warming.

17 Before I conclude I want to further address one of  
18 the three supplemental questions raised in the Notice, the  
19 question of whether the Energy Policy and Conservation Act,  
20 or EPCA, fuel economy provisions are relevant to EPA's  
21 consideration of this petition or to CARB's authority to  
22 implement its vehicle greenhouse gas regulations.

23 Regarding whether the EPCA/CAFE provisions are  
24 relevant to our authority, as we explained last week, those  
25 provisions do not preempt our standards. Emission controls

1 and fuel efficiency have always overlapped but emissions  
2 standards come first, as NHTSA decisions, EPCA itself, and  
3 now the Supreme Court have all determined. EPCA/CAFE is no  
4 barrier to California exercising Clean Air Act authority.

5           Is the potential effect of the EPCA/CAFE fuel  
6 economy provisions on California's authority at least  
7 relevant to EPA's consideration of the California waiver  
8 request? The answer is clearly, no. The effect of  
9 EPCA/CAFE on California's authority, like constitutional and  
10 other statutory questions not identified in Section 209(b),  
11 is not relevant to EPA's waiver decision. The waiver  
12 decision must be made solely on criteria in Section 209(b),  
13 as reinforced by the Massachusetts decision. The authority  
14 issue is relevant to this proceeding only in the sense that  
15 EPA asked the question and ARB has accordingly responded.

16           The EPCA/CAFE fuel economy provisions can,  
17 however, be relevant to the question of technological  
18 feasibility since it is one of the issues identified in  
19 Section 209(b). We believe that compliance with the  
20 President's proposed annual four percent fuel economy  
21 improvement would make compliance with California's  
22 greenhouse gas emissions standards, which come first,  
23 relatively simple.

24           In conclusion, AB 1493 vehicles will look, cost  
25 and perform like today's vehicles. California's request

1 meets the three permissible prongs of EPA's waiver analysis.  
2 Neither the Supplemental Issues EPA noticed nor  
3 Constitutional concerns change that analysis. The  
4 Massachusetts v. EPA decision strengthens California's  
5 position and provides no excuse for EPA to delay acting on  
6 this request. Waiver law and policy require more, not less,  
7 defence to California to regulate vehicle climate change  
8 emissions. Therefore, US EPA must grant California's  
9 request, and must do so by October 25, 2007.

10           One final note. In separate letters the Alliance  
11 requested both a 30 day extension of the written comment  
12 deadline and afterwards a second 45 day period to respond to  
13 comments submitted. ARB wrote opposing these extensions for  
14 numerous reasons, most notably that the opponents, who have  
15 the burden of proof in this proceeding, are not entitled to  
16 hide the ball as they did in our 2004 rulemaking and await  
17 others' comments. The supporting materials ARB is relying  
18 on in this proceeding are for the most part publicly  
19 available, and like waiver opponents, ARB is not precluded  
20 from entering new information into the docket by the June  
21 20, excuse me, June 15 deadline.

22           We are happy to answer the panel's questions at  
23 this time and at any time throughout the day, and we welcome  
24 the opportunity later today to briefly address principal  
25 opposition arguments you may hear. Thank you.

1           PRESIDING OFFICER GRUNDLER: Thank you,  
2 Ms. Witherspoon, and thank you for addressing some of the  
3 questions that came up at our first hearing.

4           Any further questions from the panel? Thank you  
5 again for your time.

6           Our next panel is comprised of public officials  
7 from the state of California and the state of Utah. Senator  
8 Christine Kehoe from California, Assembly Member Ira Ruskin  
9 from the state of California, Mayor Heather Fargo from  
10 Sacramento and Mayor Rocky Anderson from Salt Lake City. I  
11 would also like to invite or ask if there are any other  
12 public officials in the audience who would like to present  
13 testimony at this time? If so please join the panel.

14           Thank you very much. Senator Kehoe, please  
15 proceed.

16           SENATOR KEHOE: Good morning. Good morning. Is  
17 that better? Thank you for the opportunity to testify  
18 today. I am Christine Kehoe. I represent most of the city  
19 of San Diego and I chair the Senate Energy Utilities and  
20 Communication Committee.

21           And I'm here to express my strong support for  
22 California's request for a waiver of the federal Clean Air  
23 Act preemption provisions so that California can implement  
24 and enforce its greenhouse gas tailpipe standards for new  
25 cars and light duty trucks.

1           Even with the cleanest cars and the toughest clean  
2 air standards in the country, California still suffers from  
3 some of the worst air pollution and largest greenhouse gas  
4 emissions of any state.

5           Over 41 percent of the climate emissions produced  
6 in the state come from transportation sources such as cars  
7 and trucks. California wants to exercise its option under  
8 the Clean Air Act to adopt its own motor vehicle greenhouse  
9 gas emission standards. As the largest state in the country  
10 by population and vehicle fleet, California has a vital  
11 interest in reducing global warming emissions from vehicles  
12 and other sources.

13           To put the extent of the emissions problem in  
14 perspective, there are over 36 million people living in  
15 California. Los Angeles County, with some of the worst air  
16 quality in the nation, has a population of at least 10  
17 million people. Compared to the rest of the nation, there  
18 are about 40 other states with less population than one  
19 county here in California, that is Los Angeles.

20           Our Governor, the State Legislature and the  
21 citizens stand united in their commitment to reduce  
22 greenhouse gas emissions from the largest single source of  
23 those emissions, automobiles.

24           The need for action is no longer in dispute. Both  
25 the world's scientific community, and now the US Supreme

1 Court, have confirmed the perils caused by global warming  
2 and the legal authority of the US EPA to act to reduce  
3 greenhouse gases.

4 The request has been pending for over 17 months.  
5 It was originally filed on December 21, 2005 along with a  
6 solid demonstration that the state's greenhouse gas emission  
7 standards meet relevant criteria, waiver criteria.

8 Therefore, in addition to supporting California's  
9 waiver request I strongly support the Air Resources Board's  
10 recent letter notifying the US EPA of its intent to file an  
11 unreasonable delay lawsuit if US EPA fails to take final  
12 agency action during that time period.

13 I hope that the agency will see that the law,  
14 science and sound environmental policy all argue strongly  
15 for the immediate adoption of this waiver, and urge your  
16 agency to do so as soon as possible.

17 Thank you very much for the opportunity to testify  
18 this morning.

19 PRESIDING OFFICER GRUNDLER: Thank you, Senator.

20 Assembly Member Ruskin, please.

21 ASSEMBLY MEMBER RUSKIN: Thank you. Thank you to  
22 all for being here and the opportunity to testify on this  
23 critical issue. I represent in the California State  
24 Assembly a portion of Silicon Valley and I am Chair of the  
25 Budget Subcommittee on Natural Resources.

1           AB 1493 is landmark legislation and has been held  
2 up for much too long.

3           Today you will hear from some people that these  
4 regulations, for example, are too expensive. The auto  
5 industry says they can't meet these standards because they  
6 don't have the technology or because the technology is cost  
7 prohibitive. They do have the technology. And existing  
8 research clearly indicates that technology which can reduce  
9 vehicular emissions is available and is cost-effective.

10           Opponents say these regulations shouldn't be  
11 implemented because they are federally preempted by CAFE  
12 standards under the Energy Policy and Conservation Act. But  
13 AB 1493 states clearly that fuel standards are not an option  
14 available to the California Air Resources Board in order to  
15 meet the requirements of the bill. These regulations and  
16 the spirit of the law are not in conflict with the concept  
17 of CAFE.

18           Some may say it is unwise to have a California-  
19 only standard. But in fact 12 other states are waiting to  
20 adopt these standards. We are at a critical juncture, as I  
21 think you will be able to sense from all of the testimony  
22 requesting the waiver today. And every year implementation  
23 is delayed is a year that we lose the chance to reduce  
24 emissions. The regulations are supported by research that  
25 is feasible to implement.

1           Much is in your hands. Your decision is quite  
2 vital to us and to the nation and I urge the EPA to give us  
3 this opportunity. I believe that it is fair and within the  
4 law and a vital necessity to our constituents. Thank you  
5 for the opportunity to meet with you today.

6           PRESIDING OFFICER GRUNDLER: Thank you,  
7 Mr. Ruskin.

8           Mayor Fargo. Your Honor, welcome.

9           MAYOR FARGO: Thank you and good morning and  
10 welcome to you. Welcome to Sacramento as well as to  
11 California.

12           We have a very simple request for you today and  
13 that is that we are asking for a waiver and you are the  
14 people who can grant it. We are asking for the waiver  
15 because we in California would like to do more. We are  
16 willing to pay for it, we are willing to do it, we are  
17 willing to make it happen.

18           There is no disagreement in this state about  
19 global warming and about our need to step up and deal with  
20 the emissions from vehicles. It is very clear in our state  
21 that that is one of the major causes not only of greenhouse  
22 gas emissions but of air quality. In Sacramento we are in  
23 the top ten in the nation for bad air quality. It is not  
24 the kind of list we want to be on and it is not the kind of  
25 list we want to stay on.

1           People in my city take this very seriously. They  
2 would like the state to do more and they would like the  
3 federal government to do more. We as a city are joined by  
4 many other cities around California and around the nation in  
5 taking global warming seriously, in developing our  
6 sustainability plans, in changing our fleets and doing  
7 anything that we can do to be better environmental stewards.

8           But dealing with the emissions from vehicles is  
9 not something that cities can do. We might be doing it if  
10 we could. But we are -- That is not one of our jobs, it's  
11 one of your jobs. And we in California have a long history  
12 of asking and receiving waivers such as this so that we can  
13 step up and do more, not only for ourselves but for the rest  
14 of the nation. After all our air flows across the rest of  
15 the nation after we're done with it. So we think there is a  
16 compelling reason for the waiver to be granted.

17           We are joined by many other cities, as I say,  
18 throughout California and throughout the nation. Last year  
19 for the first time ever we had to open up warming centers  
20 during our winter because we had such a long stretch of  
21 below-freezing weather here in Sacramento. And last summer  
22 we had to open up cooling centers because we had over a two  
23 week stretch of temperatures that didn't drop below 85  
24 degrees at night. So it is very real to us and it is very  
25 compelling to us and it is very urgent to us.

1           So what we are asking you to do is to allow us to  
2 help ourselves to do more, to clean up our air, to reduce  
3 our flood risks, to improve the health of our communities.  
4 We have an inordinate number of asthma cases and people who  
5 are dealing with respiratory problems, not only in  
6 Sacramento and the rest of the Valley but throughout  
7 California.

8           So I am joined by the US Conference of Mayors,  
9 which is very involved in climate change and in a number of  
10 efforts to try to reduce greenhouse gas emissions and slow  
11 global warming and by the California League of Cities as  
12 well as the National League of Cities as we try to step  
13 forward and do what we can do as mayors and as cities. And  
14 people are willing to do that. And you will hear from Rocky  
15 Anderson next about all that they are doing.

16           But we need the federal government to give us this  
17 waiver. And that is what the request is really all about  
18 today, it's really very simple. And if you could agree  
19 sooner in the day than later we could probably all stop  
20 talking at you. But we really urge you to take this request  
21 seriously.

22           And I hope that you get a break at some point  
23 during the day. Kitty-corner across the street is Cesar  
24 Chavez Plaza. Every Wednesday we have Farmers Market in the  
25 Plaza and today is Wednesday and you're welcome to join us

1 there. I hope you go and look at the fresh fruits and  
2 vegetables that are grown in this region that are at risk  
3 because of global warming.

4 But thank you for coming to Sacramento and for  
5 taking this issue seriously and I urge you to grant the  
6 waiver that the Air Resources Board has requested. Thank  
7 you.

8 PRESIDING OFFICER GRUNDLER: Thank you, Mayor.

9 Mayor Anderson, proceed.

10 MAYOR ANDERSON: Thank you. It's a pleasure to be  
11 with you today.

12 As a nation we face serious challenges from the  
13 alarming warming of our planet, due in large part to the  
14 burning of fossil fuels. Droughts, heat waves, hurricanes,  
15 floods and other extreme weather events are projected, in  
16 fact virtually certain, to become more frequent and severe  
17 due to global warming. Rising sea levels will threaten  
18 major coastal populations around the world, creating  
19 millions of environmental refugees.

20 Sir Nicholas Stern, the former chief economist at  
21 the World Bank, concluded in a 2006 report that inaction on  
22 climate change would lead to a 20 percent reduction in  
23 global gross domestic product. According to a 2004 Pentagon  
24 report, abrupt climate change will exacerbate tensions  
25 between nations as supplies of food and water dwindle. And

1 refusing to enhance fuel-efficiency standards will deepen  
2 our nation's abject reliance on dangerous, authoritarian  
3 petro-states and subject our economy to continued de-  
4 stabilizing fuel price fluctuations.

5           Continuing our present level of fossil fuel  
6 dependence and failing to combat the effects of global  
7 warming will engender economic and social de-stabilization  
8 on a colossal scale, in the United States and especially in  
9 many poorer countries throughout the world that are far less  
10 able to adapt to changing climate patterns. The challenges  
11 we face compel us to take rapid, decisive action, at all  
12 levels of government, in the private sector and in our  
13 individual lives to enhance efficiencies and curb global  
14 warming pollution. Efforts to reduce global warming  
15 pollution are particularly compelled in the US  
16 transportation sector, which by itself is responsible for  
17 more greenhouse gas emissions than the entire economies of  
18 all other nations except China.

19           Unfortunately, Americans have learned that we  
20 cannot fully depend on federal regulation to meet our  
21 pressing energy and sustainability needs. Fuel economy  
22 standards for cars have not risen since 1990, and the  
23 average fuel economy for new passenger vehicles is lower  
24 today than it was in 1987, 20 years ago.

25           Although we know that many on the EPA staff,

1 especially long-time staff members, recognize how vital it  
2 is that we act urgently and effectively to combat global  
3 warming, as evidenced by the fact that I was honored a few  
4 years ago to receive the EPA climate protection award, to  
5 even have the EPA consider regulation of global warming  
6 pollution now required a lengthy legal battle and a ruling  
7 by the United States Supreme Court.

8           Efforts by California and 11 other states, and I  
9 suspect there would be more on board if the EPA took the  
10 correct action that's requested today, these efforts by  
11 these states to regulate global warming pollution to a  
12 stricter standard than those required now by the federal  
13 government deserve praise and celebration. Not, as has been  
14 the case, obstruction, condemnation, and more legal action.

15           The 12 states attempting to implement the standard  
16 under the Clean Cars Program collectively represent 40  
17 percent of the United States automobile market. The EPA  
18 should allow these states to improve sustainability, air  
19 quality and reduce global warming pollution within their  
20 borders, which will have a salutary effect on fuel  
21 efficiency standards nationwide and help our nation meet the  
22 tremendous challenges posed by global warming.

23           We have heard before about supposed deleterious  
24 effects projected to occur in implementing stricter  
25 regulations on auto emissions. History has judged these

1 claims as unfounded. When the catalytic converter was  
2 introduced in the late 1970s, many in the auto industry  
3 predicted that mandating the inclusion of a catalytic  
4 converter would significantly reduce the performance and  
5 increase the price of automobiles. Today, every car sold in  
6 the United States has a catalytic converter, reducing  
7 nitrogen dioxide and carbon monoxide emissions by more than  
8 half per vehicle mile traveled. Meanwhile, vehicle  
9 performance has increased.

10 States and cities serve as important laboratories  
11 for innovation. In Salt Lake City we have turned the  
12 challenges of global warming and sustainability into  
13 enormous opportunities. In 2002 I committed Salt Lake City,  
14 in its municipal operations, to abide by at least the Kyoto  
15 goals in reducing carbon dioxide emissions by at least 21  
16 percent below our 2001 baseline by 2012. By 2005, three  
17 years later, we had far surpassed that goal, reducing global  
18 warming pollution by 31 percent several years before the  
19 2012 target date, with significant cost savings to  
20 taxpayers.

21 There are hundreds of mayors across this country  
22 in large cities and small alike, tremendous geographic  
23 diversity, that have joined together in working with  
24 organizations like ICLEI, the International Council for  
25 Local Environmental Initiatives, the US Conference of

1 Mayors. Mayor Fargo came and joined us. In two years we  
2 have had about 70 mayors from around the country join us at  
3 Sundance Summit to learn the science, learn best practices,  
4 take the kind of measures we can at a local level. We know  
5 what an enormous difference can be made if local and state  
6 officials are given the freedom to enact these effective  
7 measures.

8 Utah Governor Jon Huntsman, Jr., has also  
9 recognized the importance of and opportunities attendant  
10 upon combatting global warming. The State of Utah recently  
11 became a charter member of the Climate Registry, a multi-  
12 state and tribe collaboration designed to establish a common  
13 greenhouse gas emissions reporting system.

14 Utah also just over a week ago signed on with the  
15 Western Regional Climate Action Initiative with six other  
16 states including California, and much of this is due  
17 certainly to Governor Schwarzenegger's leadership and  
18 leadership of the Legislature here in California, to develop  
19 a regional market-based program to achieve significant  
20 reductions in global warming pollution. But to meet these  
21 goals we need to be able to implement these standards that  
22 are being sought today.

23 Salt Lake City and the State of Utah recognize the  
24 need for proactive efforts to achieve significant reductions  
25 in global warming pollution, including the regulation of

1 emissions from automobiles, which are responsible for 50  
2 percent of our local air pollution.

3           In the next 100 years, average temperatures in  
4 Utah could increase by three to four degrees Fahrenheit in  
5 summer and five to six degrees Fahrenheit in winter.  
6 Precipitation in summer is projected to decrease by ten  
7 percent. Since 90 percent of water use in our region comes  
8 from surface water, 75 percent of which is produced by  
9 melting snow, reduced snow pack resulting from higher  
10 temperatures will lower stream flows and lake levels,  
11 effects we are already beginning to observe. The ski  
12 industry, which contributes enormously to the economy of our  
13 state, would also be dramatically impacted as ski seasons  
14 are shortened and base villages are cut off from ski runs.

15           To avoid the disastrous consequences projected to  
16 occur from global warming, and to protect the health and  
17 welfare of their citizens, Utah, California and other states  
18 must be allowed to pursue the effective standards on  
19 greenhouse gas emissions laid out in the Clean Car Program.  
20 Fostering local and state efforts to meet our sustainability  
21 and energy challenges will improve quality of life, have  
22 tremendous economic benefits, and pave the way to a much  
23 brighter energy future. Thank you.

24           PRESIDING OFFICER GRUNDLER: Thank you, Mayor.  
25 And thank you for traveling all the way here to present your

1 views.

2           MAYOR ANDERSON: My pleasure, thank you.

3           PRESIDING OFFICER GRUNDLER: Sir, could you  
4 present your name and your constituency.

5           MAYOR CABALDON: I'm Christopher Cabaldon, I am  
6 the Mayor of the City of West Sacramento. I wanted to join  
7 my big city colleagues. We have been much in the news  
8 because we were just visited by two humpback whales who were  
9 scouting future territory in the Central Valley in areas  
10 where they know, with sea level rise, there will be  
11 additional habitat opening up which today is occupied by  
12 people and infrastructure in California's great valley.

13           You know, I am from a small town, not a big city,  
14 but I do know that the impacts are going to be extraordinary  
15 on our little town. Whether it's more severe and  
16 extraordinary than it will be in Boise, I don't know. I do  
17 know that our levees are not designed to withstand the  
18 changes in the variability of the snowpack and that we would  
19 be under 20 feet of water if those levees were to fail.

20           We are, along with Sacramento, the most endangered  
21 region in the country in our levee system. And all of the  
22 effects, the combined effects of sea level rise and the  
23 snowpack change, make that an impossible situation for us to  
24 manage. No amount of levee investment can protect us from  
25 the combined effects of sea level rise and snowpack

1 variation. So the effects here are going to be severe and  
2 extraordinary and we will feel them directly.

3 And I can tell my constituents that we can  
4 regulate leaf blowers for PM10 and for PM2.5 but we cannot  
5 protect them against the greatest potential catastrophe that  
6 could wipe out our entire community.

7 I'm from an ag county, not from the big coastal  
8 regions or from the giant metropolis here across the river.  
9 But all we're asking is if you can't help get the heck out  
10 of the way and let us do our part, do what we can to protect  
11 the lives and livelihood of the people of our communities  
12 and this state. Thank you.

13 PRESIDING OFFICER GRUNDLER: Thank you. I'm glad  
14 to see your visitors have found their way back to the bay at  
15 least. Thank you, ladies and gentlemen for your testimony  
16 and your time today.

17 I would like to invite Panel number 3 up,  
18 representatives from the Alliance of Automobile  
19 Manufacturers, Sempra Energy, Pacific Gas and Electric and  
20 Energy and Transportation Technologies.

21 Also Mr. Bob Epstein from Environmental Enterprise  
22 from Panel 10 can join this panel so you can catch your  
23 flight. Environmental Entrepreneurs.

24 Mr. Douglas, when you're ready.

25 MR. DOUGLAS: Okay, thank you. I'm Steven

1 Douglas, I am with the Alliance of Automobile Manufacturers.  
2 And we had a PowerPoint presentation, I think they are  
3 trying to put that up now. But let me get started just with  
4 a brief introduction. There it is.

5           Again, I am Steven Douglas, I am the Director of  
6 Environmental Affairs for the Alliance of Automobile  
7 Manufacturers. The Alliance is a trade association  
8 representing BMW, DaimlerChrysler, Ford, General Motors,  
9 Mazda, Mitsubishi, Porsche, Toyota and Volkswagen.

10           And I'd like to thank you for the opportunity to  
11 testify again today. Last week I talked about the advances  
12 that manufacturers have made both in emissions and in fuel  
13 efficiency and we stated our support for improving fuel  
14 efficiency to the maximum feasible level.

15           Today I'd like to just take a couple of minutes to  
16 point out some of the technologies that manufacturers are  
17 developing and investigating. These are more than just  
18 concepts too. These technologies are in the dealerships and  
19 they're on the roads. In, in fact, 10.5 million of these  
20 vehicles to be exact.

21           Turning now -- Just to be clear, there is really  
22 no organization on the planet, not the state of California,  
23 not even the federal government, who is pursuing  
24 alternatives to the gasoline internal combustion engine with  
25 more zeal, more enthusiasm or more resources than the

1 automobile manufacturers.

2 Just looking at the technologies briefly.

3 Hydrogen. Manufacturers see great promise in a hydrogen  
4 future. Some manufacturers are working on hydrogen fuel  
5 cell vehicles, others are working on the hydrogen internal  
6 combustion engines that are virtually zero emitting. And  
7 still others are working on both.

8 Biofuels. Again, most manufacturers are pursuing  
9 some form of renewable biofuel and they see a lot of promise  
10 in that. All vehicles today operate on E10 and many models  
11 are available that operate on both E85 and gasoline or on  
12 biodiesel.

13 Turning to hybrids. Many large manufacturers, in  
14 fact most of them, have introduced hybrid technology and  
15 some are developing plug-in hybrid vehicles and electric  
16 vehicles that pull energy from the electric grid.

17 And finally manufacturers will introduce a number  
18 of light duty, highly efficient clean diesel vehicles this  
19 coming year or this year.

20 In every single case manufacturers, and each  
21 manufacturer, is working on a diverse array of technologies.  
22 They're working on more than just one of these. However,  
23 the fundamental change to personal transportation is going  
24 to require more than just auto makers, it requires a  
25 partnership. A partnership between auto makers, government,

1 energy suppliers, and most importantly, consumers.

2 As I said last week, a patchwork quilt of state  
3 regulations, as California is now proposing, is entirely  
4 inappropriate and it is patently counterproductive.

5 With that I would like to turn now to California's  
6 waiver request. Our position last week and our position  
7 today is that EPA should deny the waiver. In at least two  
8 critical areas California has failed to meet its obligations  
9 under the Clean Air Act. And specifically California has  
10 failed to demonstrate that one, its standards in the  
11 aggregate are as protective of human health as the federal  
12 standard. In fact, California hasn't even submitted or  
13 analyzed, to my knowledge, let alone demonstrated whether  
14 their standards in the aggregate are as protective of human  
15 health as the federal standards.

16 Two, they have failed to demonstrate that it needs  
17 these standards to meet compelling and extraordinary  
18 conditions. In fact, these regulations have no impact on  
19 any of the conditions that have been identified by the Air  
20 Resources Board or that have been identified today.

21 So I'll talk briefly about the protectiveness  
22 claim and I'll ask my colleague, Andrew Clubok, to address  
23 the extraordinary and compelling issue.

24 California's program, its vehicle emission program  
25 can be divided into three categories. Those being the

1 emissions, these are the LEV II standards, the ZEV mandate.  
2 These two combine to effect smog or ozone. And then the  
3 last one is the CO2 or the fuel economy standards. And I'll  
4 just quickly look at each one of these in turn.

5           Looking first at the emission standard and  
6 comparing federal with California. The federal program was  
7 adopted in 2000, it's the Tier 2 program, and the California  
8 program was adopted in 1998, the LEV II program. They both  
9 apply the same standards to cars and to trucks, they began  
10 in 2004, they're both fully implemented at around 2007.  
11 They both rely on a fleet average to reduce overall  
12 emissions. Where the federal uses a NOx the California  
13 standard uses a hydrocarbon average.

14           And finally the federal program and the California  
15 program have different emission certification categories.  
16 The federal has nine and the California has four. The  
17 actual standards and the emission reductions associated with  
18 each are about the same. And I'll show you -- this next  
19 slide shows the emission reductions associated with the  
20 federal program and the California program. And as you can  
21 see there is very little difference between the two  
22 programs. And this is if California implemented the federal  
23 program beginning in 2009.

24           Turning now to the ZEV mandate. The ZEV mandate  
25 provides minimal air quality benefit. It does so at an

1 extraordinary cost. The values you see show a range of  
2 costs associated with each one of the ZEV mandate  
3 technologies, PZEVs, which are partial zero emission  
4 vehicles, advanced technology PZEVs, and then finally LEV.  
5 I've used the latest information from the ARB's expert panel  
6 report on that and this is generally with high volume  
7 production.

8           Finally there is the CO2 element. The CO2  
9 requirements, they don't even have a theoretical health-  
10 based benefit. And to be fair, they are not intended to  
11 have any smog/ozone health-based benefit. However, again  
12 this regulation comes at a great cost.

13           So just to summarize each of the programs in  
14 California. You have the emissions, similar benefit,  
15 similar cost to the federal and California. The ZEV  
16 mandate, it has very high cost and small and negligible  
17 benefits. And then the CO2 mandate, which has extraordinary  
18 costs and no benefits.

19           So what does all this mean? There are really two  
20 problems with California's program. The first is what we  
21 termed the jalopy effect and that's that as you increase the  
22 cost, as you continue to pile costly regulation on top of  
23 costly regulation you increase the cost of vehicles and it  
24 causes people to keep their vehicles longer. And these are  
25 older, higher emitting vehicles.

1           Second, the CO2 mandate aims to, in part at least,  
2 to reduce the cost of driving. And that will result in  
3 consumers driving more and this is something that the Air  
4 Resources Board has acknowledged as well. But since the  
5 emissions are on a per mile basis more driving means more  
6 pollution. The result, the combination of these is that the  
7 California program results in higher, not lower, emissions.

8           Just to conclude, we do not believe that  
9 California has even analyzed, let alone demonstrated that  
10 their program in the aggregate is more protective of human  
11 health. And on that basis EPA should deny the waiver.

12           With that I would like to turn it over to my  
13 colleague, Andrew Clubok. Thank you.

14           MR. CLUBOK: Thank you. My name is Andrew Clubok  
15 and I am also here on behalf of the Alliance of Automobile  
16 Manufacturers. And we do appreciate the opportunity to  
17 present evidence in this proceeding.

18           Now some of the participants in these hearings,  
19 both here in Sacramento and in Washington, including the  
20 representatives of the State of California, have claimed  
21 that the EPA should simply approve this waiver request  
22 without allowing enough time for public comment. They have  
23 also claimed that the scope of the EPA's waiver -- I'm  
24 sorry, the scope of the EPA's review of the waiver request  
25 should be extremely narrow.

1           Because time is limited here today I am going to  
2 focus our presentation on evidence we have gathered that  
3 goes right to the heart of what even the Air Resources Board  
4 acknowledges must be considered under Section 209(b) and  
5 therefore is indisputably at issue here and that is whether  
6 or not the proposed regulation is needed to meet compelling  
7 and extraordinary conditions of this state.

8           If we focus on that question, and even if we  
9 consider the potential impact of this regulation if adopted  
10 nationwide or worldwide, what we quickly find is that this  
11 regulation will never have any measurable impact whatsoever  
12 on global climate change. Let me repeat that so I am clear.  
13 This regulation will never have any measurable impact  
14 whatsoever on global climate change, even if adopted  
15 nationwide or worldwide, thus it cannot possibly be  
16 necessary to meet compelling and extraordinary conditions of  
17 the state.

18           Now what is very important about what I just said  
19 is that the basis for that factual statement does not come  
20 from the automobile industry but rather it comes from the  
21 sworn testimony of the regulators themselves who devised  
22 this regulation and the experts they hired or retained.

23           When the regulators and their experts testified  
24 under oath in the ongoing federal court proceedings they  
25 admitted that they do not predict the regulation will have

1 any measurable impact whatsoever on global warming or on any  
2 consequence of global warming such as increased sea level,  
3 reduced snowpack, delayed spring blooms, et cetera.

4           They admitted that they have not identified any  
5 such effect even if this regulation were adopted nationwide  
6 or worldwide, even if it were adopted tomorrow, and even if  
7 the effects were measured through the year 2100. I daresay  
8 this is different from any other regulation that has  
9 probably ever been presented to the EPA. That even if  
10 adopted nationwide and ultimately worldwide, projecting 100  
11 years into the future it will never have a measurable  
12 impact.

13           Now contrary to those facts one of California's  
14 representatives at last week's hearing before the EPA in  
15 Arlington, Virginia stated as follows, quote:

16                       "Although opponents may argue that  
17                       California cannot show a temperature  
18                       decrease in California due to these  
19                       regulations, waiver opponents are unable  
20                       to produce any evidence that these  
21                       regulations are not one of the many  
22                       measures nationwide and worldwide that  
23                       are needed to meet extraordinary and  
24                       compelling conditions global warming  
25                       poses for California."

1 That was the EPA transcript at page 70, lines 10 through 16.

2 Now first of all it's important to note that this  
3 statement effectively concedes that California cannot show  
4 that its regulations will cause any temperature decrease  
5 within its own state. But more importantly what it shows is  
6 that, and what we will show today, is that California  
7 regulators and their experts themselves have conceded  
8 elsewhere that the regulations will never have any  
9 measurable impact even if adopted nationwide or worldwide.

10 As you listen to the regulators' own words on the  
11 subject, and I'm hopeful that the technology we have here  
12 will allow that, we have video clips from the sworn  
13 testimony of the regulators who testified under oath. When  
14 you listen to their own words on the subject it is important  
15 to listen not only to the explanation of what they did but  
16 perhaps more importantly what they did not do in connection  
17 with this regulation. That is, they did not even try to  
18 identify any positive environmental benefit that flows from  
19 this regulation, again, even if adopted nationwide or  
20 worldwide.

21 Their top experts, they did bring in top experts  
22 and they do have top experts who talk about negative  
23 consequences from global warming, things you've heard about  
24 like the snowpack and sea level et cetera.

25 And one of those experts I believe referred to

1 earlier today, Dr. James Hansen, he said that it would be  
2 relatively easy to calculate the impact of this particular  
3 regulation, even if adopted nationwide or worldwide. And  
4 when he was required to do so during his deposition he was  
5 able to do it in about ten minutes, sort of a back of the  
6 envelope calculation, that confirmed the regulation will  
7 never have any meaningful impact. Basically in his words,  
8 it was so low that it could never be measured without use of  
9 a microscope.

10 But he said that he has never performed the formal  
11 analysis that would confirm this result, even though he says  
12 he has one of the best computer models in the world and he  
13 could do so fairly easily. What he says, and you'll see his  
14 words in a moment, is that it wasn't worth his computer time  
15 to even bother to model the impact of this regulation even  
16 if adopted on a nationwide or worldwide scale. Now think  
17 about that and put that into context. The regulation is not  
18 worth a couple hours of his computer time because the  
19 impacts are so, predicted to be so low.

20 Now this answer that is readily apparent to anyone  
21 who considers the regulation with the models available for a  
22 short period of time, that probably explains why the state  
23 regulators here have not engaged in this exercise either.  
24 Because to do so, to actually calculate the projected impact  
25 of this regulation, would prove what, if we're honest,

1 everyone already knows.

2           And that is that this regulation, unfortunately,  
3 will never have any beneficial impact on any living organism  
4 on this planet, whether human, plant or animal, even if  
5 adopted nationwide or worldwide. Again, those are not my  
6 words. You will hear those are the words of the staff of  
7 the Air Resources Board who were asked to testify about it  
8 under oath.

9           What is perhaps even more important, however, is  
10 not just that this regulation will have no beneficial impact  
11 on global warming. But in fact it will certainly have a  
12 negative impact on health-based pollution. That is, smog-  
13 forming pollution will increase as a direct result of this  
14 regulation due to the predicted increase in vehicle miles  
15 traveled and the slower rate of fleet turnover.

16           Now ironically the regulators have dismissed those  
17 health-based pollution increases as being relatively small.  
18 A few percentage points they say. But regardless of how  
19 small those health-based pollution increases may be, that  
20 predicted increase in smog-forming pollution will dwarf the  
21 immeasurably microscopic predicted of this regulation on  
22 global warming.

23           As a result California is turning on its head its  
24 appropriate and traditional mission under the Clean Air Act,  
25 which is to regulate motor vehicle emissions as needed to

1 address compelling and extraordinary conditions of this  
2 state. To fulfill that mission California has been  
3 entrusted with a special role in regulating air quality.  
4 And as you will see from the testimony, they have now  
5 sacrificed that mission and that trust in favor of a purely  
6 symbolic gesture, unfortunately with no regard for the  
7 harmful consequences.

8 Now I'd like to just turn to, as I said, and  
9 hopefully we'll see if this technology works, the words of  
10 the regulators that we asked under oath whether or not there  
11 would be any impact of this regulation, even if adopted  
12 worldwide.

13 (A video clip of Thomas Cackette was  
14 played.)

15 MR. CLUBOK: We have the text of Mr. Cackette's  
16 comments also here, they just repeat what he just said.

17 We asked other regulators from other states who  
18 have adopted the regulation, for example the chief regulator  
19 responsible for Vermont's adoption of the AB 1493 regulation  
20 if he had any different information. This is what he said:

21 (A video clip of Thomas Moyer was  
22 played.)

23 MR. CLUBOK: That was Thomas Moyer from the Vermont  
24 ANR.

25 We asked the same question to the regulator from

1 New York. Let's see. Well, we'll get a few technical  
2 glitches here. Mr. Flint from New York said essentially the  
3 same thing, no estimate of any measurable impact on the  
4 temperature even if adopted, even if all the states that  
5 adopted it were measured.

6 By the way, we also asked the NRDC, the Sierra  
7 Club and the Environmental Defense, all who have intervened  
8 into the litigation that's pending. We asked them under a  
9 process called Request for Admission, in which you are  
10 obligated to respond truthfully if possible. In response to  
11 one of the requests the environmental organizations said, or  
12 admitted that, quote:

13 "Defendants are not aware of any  
14 credible scientific evidence to support  
15 the theory that CO2 emissions reductions  
16 resulting from the adoption of the  
17 Regulation in all 50 states in the  
18 United States would change average  
19 ambient temperatures in any place by a  
20 measurable amount."

21 That was in response to RFA 111 in the pending matter in  
22 federal court in Vermont.

23 One thing you could say is, well gee, they just  
24 haven't done the work yet, they haven't done the studies.  
25 Maybe if they did the work the studies would show something

1 different. So again we turned to Dr. Hansen who testified  
2 that he had one of the best computer models in the world  
3 that could do this analysis. So we asked him:

4 "Q Have you modeled the CO2 emission  
5 savings that would result if Vermont and  
6 New York --"

7 They were the two defendants in that particular matter.

8 "-- were to implement the AB 1493  
9 regulation?"

10 "A I haven't modeled that. It would  
11 not be difficult to do it."

12 So we said, well why didn't you do it then? And he said:

13 "Well, I wouldn't run a model with  
14 such a very small change, because then  
15 you're wasting computer time, because  
16 you do have the problem of finding a  
17 signal when compared to the natural  
18 variability of the climate."

19 In other words, the effect is so small it can't even be  
20 detected from the normal fluctuations day to day of the  
21 temperature.

22 We said to Dr. Hansen, well okay.

23 "Let's move past Vermont and New  
24 York. Let's say that it's all 11  
25 states. Have you modeled that? Have

1           you found the computer time or the time  
2           to model the total CO2 emission savings  
3           in all the states that adopted the  
4           regulation --"

5 This was actually trial testimony. That's why we don't have  
6 a video, because this is Dr. Hansen's testimony in federal  
7 court. He said:

8                        "No. Because we try to do useful  
9           things."

10           We talked a little bit further and he explained,  
11 well, the difference in temperature between 2.8 degrees,  
12 which is the current prediction of the United Nations, the  
13 IPCC, the best estimate of the temperature increase by the  
14 year 2100, as contrasted with their previous estimate of 3  
15 degrees. He said, well that difference is insignificant.  
16 In other words, two-tenths of a degree change is  
17 insignificant.

18           He said: "The uncertainties are larger than .2."  
19 In other words, on a day to day basis fluctuations of two-  
20 or three- or four-tenths of degree make trying to measure  
21 even two-tenths of a degree over 100 years really fruitless  
22 because the uncertainties are larger. Now keep in mind  
23 that's two-tenths of a degree that Dr. Hansen said would be  
24 insignificant and not worth even measuring.

25           This is the predicted impact of the regulation

1 when you actually run the computer model. It only took a  
2 couple of hours I think of computer time to do it. Our  
3 expert did it instead of theirs but everyone agreed. He  
4 used the Wigley equation, the common tool that's used by the  
5 United Nations, the IPCC. And using the commonly accepted  
6 method he concluded, or it was concluded, that the effect of  
7 the temperature --

8           If you assume that motor vehicles continue to  
9 operate for 100 years and you assume this regulation were  
10 adopted in the entire country tomorrow, and you assumed that  
11 all of the effects possible of potential benefits from this  
12 regulation, which of course assumes we keep driving the  
13 kinds of vehicles we drive today with just better fuel  
14 economy, the predicted impact of the regulation by the year  
15 2100 would be about one-hundredth of a degree. This was  
16 about the same amount that Dr. Hansen got with his back of  
17 the envelope calculation that he performed in deposition.

18           Now to put that in context, this chart here shows  
19 the current, quote, best estimate of the predicted increase  
20 in temperature due to global warming as set forth by the  
21 IPCC in their 2007 recent publication. This is the so-  
22 called A1B scenario, one of the business-as-usual scenarios.  
23 And the best estimate is that the temperature is going to  
24 increase by 2.8 degrees absent some very drastic change. So  
25 the question is, what should the change be?

1           And the issue is, well, this particular  
2 regulation, if this were to go into effect and it were just  
3 to be, if we were focusing just on California, this is the  
4 difference. This is what the world looks like with the  
5 California regulation as compared with what the United  
6 Nations says is their best estimate in the absence of the  
7 regulation. Now both of those lines are on the screen at  
8 the same time. You can't see the difference because it is  
9 too small to measure. This is what Dr. Hansen said would be  
10 microscopic. The red line that you can no longer see is the  
11 world without the regulation, the orange line is the world  
12 with California's regulation.

13           Well what if we add the Northeast? We still there  
14 is still no measurable change. What if we add the whole  
15 country? Again no measurable change. The lines all  
16 basically look alike. And again, if you assume the world  
17 looks as it does today 100 years from now, which of course  
18 doesn't make much sense, there's got to be a different,  
19 better path to get onto to address global warming. It's  
20 clearly not this regulation according to their experts.

21           So we asked Dr. Hansen if he accepted these  
22 numbers and agreed. And we said well gee, if these are  
23 accurate then what does that mean about the impact of the  
24 regulation. And he said:

25                       "[The impact] would be smaller than

1           the -- than the unforced variability of  
2           the system."

3           "Q    You would need a microscope to see  
4           the impact put into that context; isn't  
5           that true, sir?

6           "A    Yes.  Put into that context, yes."

7   That's what we have to take into account when considering  
8   this regulation.  Now that's the impact on temperature.

9           You've heard both in Arlington, Virginia and a  
10   little bit today and I'm sure more today about things like  
11   -- that everyone cares about.  Everyone cares about the sea  
12   level, everyone cares about the snowpack, everyone cares  
13   about spring blooms and other issues.  How would this  
14   regulation, even if adopted worldwide, do anything to affect  
15   any of those conditions of the environment.  That's what we  
16   then asked the regulators responsible for this regulation  
17   and here is what they said:

18           (A video clip of Charles Shulock was  
19           played.)

20           MR. CLUBOK:  We tried to think of anything else we  
21   could think of.  I will admit we did not think about  
22   insurance rates.  I heard someone earlier today, maybe it  
23   was Ms. Witherspoon who said that insurance rates might be  
24   going up because California is near the coastline and  
25   certain issues.  And so one wonders, if this regulation were

1 passed, even if adopted worldwide, would that affect  
2 insurance rates in any way? That would be one way you could  
3 actually see an impact from the regulation. I daresay  
4 that's not the case. You'll see we asked about everything  
5 else we could think of and the answer was the same for each.

6 (A video clip of Charles Shulock was  
7 played.)

8 MR. CLUBOK: That was Charles Shulock, the Air  
9 Resources Board's Program Manager for Motor Vehicle  
10 Greenhouse Gas Reduction and the 30(b)(6) designated  
11 representative of the Air Resources Board on this subject.

12 We asked him if he had a personal opinion if there  
13 was going to be any real world impact and he said no.

14 But I am just going to skip forward to -- After we  
15 had asked him all these questions we said well let's try  
16 Mr. Cackette, who is the Air Resources Board's Deputy  
17 Executive Officer if there was any other information that he  
18 was aware of in any way that related to the subject and here  
19 is what he said:

20 (A video clip of Thomas Cackette was  
21 played.)

22 MR. CLUBOK: I asked a similar question to  
23 Mr. Flint.

24 (A video clip of Steven Flint was  
25 played.)

1 MR. CLUBOK: You know, those words were very  
2 carefully chosen. Mr. Flint paused a long time and thought  
3 about his answer. I had asked him, was there any  
4 environmental impact from the regulation. After thinking  
5 about it for awhile he very carefully said:

6 "We have not identified specific  
7 environmental benefits would accrue from  
8 implementation of this regulation."

9 A very candid answer.

10 And Mr. Flint had available to him and worked  
11 closely with the California regulators. They all share  
12 their information, they testified they reviewed it  
13 carefully. And even with this careful, thoughtful review  
14 they couldn't identify any benefits, any environmental  
15 benefits that would accrue from implementation of this  
16 regulation. That's a fairly extraordinary comment.

17 There is an impact, though, of the regulation it  
18 turns out and perhaps that is what Mr. Flint had in mind  
19 when he thought so carefully about his regulation.  
20 Unfortunately the impact is a negative environmental impact.  
21 The regulation, excuse me, will increase smog-forming  
22 pollution and we asked Mr. Flint also about that subject.

23 (A video clip of Steven Flint was  
24 played.)

25 MR. CLUBOK: So we know there is going to be more

1 pollution if normal course of events happen. That is, fuel  
2 economy improves so people drive more. So we asked him if  
3 he had, if anyone he was aware of had quantified that  
4 impact.

5 (A video clip of Steven Flint was  
6 played.)

7 MR. CLUBOK: Again Mr. Flint was the 30(b)(6)  
8 representative on this subject so he knows, he's the person  
9 who knows the most about it in New York after receiving all  
10 the information from California. That's an increase in  
11 pollution due to vehicle miles traveled. There is another  
12 problem with the regulation in that it's going to slow fleet  
13 turnover causing increased pollution as a result of an aging  
14 fleet, and again no effort to consider that or quantify it.

15 (A video clip of Steven Flint was  
16 played.)

17 MR. CLUBOK: There are other adverse pollution  
18 risks in this regulation, none of which were analyzed  
19 either. One in particular that came up in the discovery  
20 process in internal emails and in the testimony was an issue  
21 of whether or not the particulate matter emissions that  
22 would be permitted from diesel power engines could have an  
23 immediate and local effect on local climate change.

24 That's something that is a tradeoff potentially.  
25 With diesel fuel you get better fuel economy but you may

1 have more either health-based emissions or you may have an  
2 effect on global warming that's localized. That is an issue  
3 that the regulators chose not to even consider or analyze at  
4 all in connection with this regulation.

5 We have submitted in the rulemaking the evidence  
6 of what the emissions increase will be. This is net  
7 increase when you calculate the so-called rebound effect or  
8 the additional vehicle miles traveled if fuel economy were  
9 to go down -- I'm sorry, were to go up. The fleet turnover  
10 effect and then the reduced -- upturn in emissions because  
11 you need less fuel being delivered.

12 And this chart that we have presented here was  
13 presented in the rulemaking and it suggests that the  
14 regulation by the year 2020, that's pretty soon relatively  
15 speaking, would have the impact of approximately two million  
16 additional cars being driven. It's as two million more cars  
17 were driving around in California. That's how much  
18 additional smog-based or health-based pollution would result  
19 from the regulation.

20 Now that's not looking into 2100, which is how far  
21 you have to go to even get an insignificant impact on global  
22 warming but that's within at least a time period that is the  
23 normal time period that people analyze the effects of  
24 regulation. And you can see how quickly that negative  
25 impact ramps up.

1           Those are all of my prepared remarks. I would  
2 like to just briefly respond to one thing that we heard  
3 today. I heard it outside in the press conference and I  
4 guess we're going to keep hearing this. And that's sort of  
5 the argument that goes like this. It says, well, there they  
6 go again. The automobile industry has in the past objected  
7 to regulations and they're just doing that again.

8           Now I won't go in detail about all of the  
9 different past instances. I think much of that is being  
10 mischaracterized and we could talk about how the industry  
11 has very much been a partner in improving safety, emissions,  
12 addressing issues with regulators, et cetera. But to the  
13 extent it's even relevant to go back in time, particularly  
14 35 years to find some quotes that suggest the automobile  
15 industry has been reticent in doing its part.

16           You know, if we're going to go back in time and  
17 look at past events what is a far more relevant comparison  
18 would be just about 10 or 15 years when the Air Resources  
19 Board staff, frankly the same staff, the exact same staff  
20 members who applied their engineering judgment to determine  
21 what the costs and benefits of this regulation would be,  
22 those staff members predicted that electric vehicles by the  
23 end of the 1990s could be sold to the public at an  
24 incremental cost of something like \$1500 with the invention  
25 of new technology that wasn't yet available.

1           As Mr. Douglas' chart shows, now the Air Resources  
2 Board's best experts, they now admit that it's at least ten  
3 times that cost. Far, far greater than was predicted back  
4 then. Back then the industry went along with it and they  
5 actually said, let's try. Let's invest billions of dollars.  
6 And that's again, testimony that was presented in federal  
7 court. We asked the same staff members, isn't it true that  
8 you had predicted that the cost of the sales quota for the  
9 electric vehicle portion of the old ZEV mandate was going to  
10 be something like \$1500, they said yes. They now admit that  
11 they were off by about ten times and they admit that that  
12 mistake cost the industry billions of dollars.

13           I think this waiver proceeding needs to be judged  
14 on the facts of this waiver proceeding and this regulation  
15 needs to be analyzed under the criteria of Section 209(b)  
16 for itself. But to the extent that people want to go back  
17 in time and talk about what's happened in the past, there  
18 are many examples on both sides and we think that's not  
19 really a productive approach.

20           But otherwise we appreciate very much the  
21 opportunity to present this evidence against the evidence  
22 we've -- some of the evidence we've gathered from the staff  
23 members who worked on this regulation and we will be  
24 submitting this and responding to some other issues in our  
25 written comments.

1           PRESIDING OFFICER GRUNDLER: Thank you very much.

2           Do panel members have any questions for the  
3 Alliance representatives?

4           PANELIST SIMON: I had one. Mr. Clubok, please.  
5 I recognize you presented testimony today and evidence about  
6 what the representatives in New York and Vermont have done  
7 in their analysis. Are you implying that California did not  
8 take on those issues in terms of their record when making  
9 their records for their program?

10           MR. CLUBOK: Well, what the representatives from  
11 New York and Vermont said is that they simply took the  
12 information that they had received from California. So they  
13 said in one part they did nothing independently but all they  
14 did was collect the information from California.

15           And so to the extent that they couldn't discern  
16 any of these studies or any of these impacts from the record  
17 they had received and carefully reviewed before they adopted  
18 the regulation we think that's telling. Obviously we also  
19 had quite a bit of information from California staff members  
20 as well regarding the impact of the regulation.

21           There is some dispute, I understand, about the  
22 pollution impact of the regulation but the chart that we  
23 have up on the screen right now I think represents the best  
24 evidence of the health-based pollution impact.

25           PANELIST SIMON: Thank you.

1           PRESIDING OFFICER GRUNDLER: Related to that can  
2 you tell me or submit for the record what assumptions you  
3 made with respect to the rebound effect that generated this  
4 graph.

5           MR. CLUBOK: Yes, we will submit -- It's all in  
6 the rulemaking record. We provided all of that and it's in  
7 the record. We are happy to go into detail about that in  
8 the written comments if that would be helpful.

9           PRESIDING OFFICER GRUNDLER: The same with the so-  
10 called jalopy effect?

11          MR. CLUBOK: Yes, we will. There is also I  
12 believe some testimony by the regulators that goes to the  
13 rebound effect and we may submit that as well.

14          PRESIDING OFFICER GRUNDLER: Thank you. Karl,  
15 anything else? Thank you.

16                 Please proceed.

17          MR. MURRAY: Good morning. My name is Michael  
18 Murray and I am the Director of Corporate Environmental  
19 Policy for Sempra Energy. I want to thank you for the  
20 opportunity to come and present our testimony today.

21                 Sempra Energy strongly supports the Air Resources  
22 Board's request for a waiver of preemption to allow CARB to  
23 implement regulations to reduce greenhouse gas emissions for  
24 passenger cars, light duty trucks and medium duty passenger  
25 vehicles. We urge the EPA to grant a waiver of preemption

1 at the earliest opportunity.

2           The Clean Air Act expressly recognizes  
3 California's right to set vehicle emission standards that  
4 are stronger than the federal standards and the right of  
5 other states to adopt California standards. The  
6 Environmental Protection Agency has granted California's  
7 waiver request more than 40 times in the last three decades.  
8 Each time EPA has found that California has met the  
9 requirements under the Clean Air Act. There is no basis for  
10 EPA to treat this request differently.

11           Sempra Energy considers CARB's request  
12 particularly compelling in light of actions in California  
13 since CARB has made its request. With the signing into law  
14 of Assembly Bill 32 last year California has embarked on an  
15 aggressive program to reduce the level of greenhouse gases  
16 emitted by activities within the state. AB 32 sets a target  
17 to reduce the state's GHG emissions to 1990 levels by 2020.

18           Since mobile sources account for almost 41 percent  
19 of statewide greenhouse gas emissions it is vital for the  
20 state to be able to look at the transportation sector for a  
21 fair share of emission reductions in order to help the state  
22 achieve its goals.

23           This will increase the ability of the state to  
24 achieve reductions in the most cost-effective and equitable  
25 manner by allowing it to explore a broader range of

1 reduction options with contributions by a larger number of  
2 sectors of our economy.

3           The transportation sector has a number of options  
4 for reductions that the energy industry can help to leverage  
5 such as the use of natural gas as a fuel and the use of  
6 plug-in electric vehicles. California is already exploring  
7 these and other similar options such as the use of biofuels.

8           Sempra Energy's utilities have already taken  
9 actions in our own fleet to reduce greenhouse gas emissions.  
10 We have converted over 1200 vehicles to natural gas fuel,  
11 assisted many other fleets to make similar conversions, and  
12 provided natural gas vehicle fueling infrastructure  
13 including 16 refueling stations that are accessible to the  
14 public.

15           Likewise, as a member of the California Electric  
16 Transportation Coalition, our electric utility, San Diego  
17 Gas & Electric, is supporting the development and use of  
18 zero emission electric vehicles, hybrid electric vehicles,  
19 electric transit busses and rail.

20           By granting the waiver that CARB has requested EPA  
21 can help to facilitate these kinds of activities that can  
22 transform the transportation industry's GHG footprint.

23 Thank you very much.

24           PRESIDING OFFICER GRUNDLER: Thank you,  
25 Mr. Murray.

1 Mr. Busterud.

2 MR. BUSTERUD: Good morning. My name is John  
3 Busterud. I am director and counsel for Pacific Gas &  
4 Electric Company. PG&E is a California gas and electric  
5 utility serving 1 in 20 Americans and is a leader on climate  
6 change and clean air transportation.

7 Climate change is an urgent issue and immediate  
8 action is needed to reduce emissions. Accordingly, PG&E was  
9 among the first companies to support enactment of  
10 California's historic climate change legislation, AB 32,  
11 which is intended to achieve a 25 percent reduction in the  
12 state's greenhouse gas emissions by 2020.

13 PG&E was also one of the founding members of the  
14 United States Climate Action Partnership. Our customers  
15 have invested in a clean, electric generating portfolio so  
16 that our greenhouse gas emissions are among the lowest of  
17 any utility in the nation.

18 PG&E has a vital interest in ensuring that all  
19 sectors of our economy, including the transportation sector,  
20 contribute their fair share toward achieving greenhouse gas  
21 reductions. For that reason PG&E supports California's  
22 request for a preemption waiver so that California can  
23 implement its motor vehicle greenhouse gas emission  
24 standards.

25 According to the California Air Resources Board

1 the transportation sector is responsible for almost 41  
2 percent of California's greenhouse gas emissions.  
3 Achievement of significant greenhouse gas reductions in the  
4 transportation sector is crucial to the state's ability to  
5 meet its goals under AB 32. If motor vehicle greenhouse gas  
6 emissions cannot be reduced as expected other sectors of  
7 California's economy will have to make up the difference and  
8 will be unduly burdened by the need to reduce emissions by  
9 more than their fair share.

10 The Clean Air Act establishes specific, limited  
11 criteria for EPA action on a preemption waiver request from  
12 California. The material submitted by California with its  
13 December 21, 2005 waiver request, and in the presentation by  
14 Air Resources Board Chairman Dr. Sawyer at last week's EPA  
15 hearings clearly show that California has satisfied these  
16 criteria.

17 First, California has determined that its motor  
18 vehicle emission standards will be in the aggregate at least  
19 as protective of public health and welfare as applicable  
20 federal standards. In our view the information submitted by  
21 the ARB also shows that its protectiveness determination is  
22 not arbitrary and capricious. That California does need its  
23 own motor vehicle emission standards to address compelling  
24 and extraordinary circumstances and that the California  
25 standards are consistent with Clean Air Act section 202. On

1 that basis the Administration -- the Administrator must  
2 approve the waiver request.

3 I also want to address two of the points on which  
4 EPA specifically requested comment. First, the fact that  
5 the California standards in question relate to global  
6 climate change should not make any difference in EPA's  
7 evaluation of the waiver request. Nothing in Clean Air Act  
8 Section 209 regarding the California waiver, or elsewhere in  
9 the Act for that matter, provides any statutory basis for  
10 evaluating the waiver criteria differently for a California  
11 emission standard that regulated greenhouse gas emissions.

12 Second, the US Supreme Court's decision in  
13 Massachusetts v. EPA is relevant only because it establishes  
14 that EPA has statutory authority to regulate greenhouse gas  
15 emissions for motor vehicles. Which means that approval of  
16 a waiver for California motor vehicle greenhouse gas  
17 emission standards is also within EPA's regulatory  
18 authority. Massachusetts v. EPA does not otherwise affect  
19 EPA's evaluation of the waiver criteria.

20 For these reasons PG&E encourages EPA to promptly  
21 grant California's request for a preemption waiver so that  
22 the motor vehicle emission standards vital to reducing the  
23 state's greenhouse gas emissions can be implemented.

24 Thank you for the opportunity to testify here this  
25 morning.

1           PRESIDING OFFICER GRUNDLER: Thank you.

2           Mr. Epstein.

3           DR. EPSTEIN: Thank you very much. My name is Bob  
4 Epstein. I am here today representing Environmental  
5 Entrepreneurs; we are a national group of volunteer business  
6 people. We focus on the economic benefits of good  
7 environmental policy. And collectively our members have  
8 started more than 800 companies in the United States. I  
9 feel we have a great deal to offer at this hearing in terms  
10 of a business perspective that is not from the automotive  
11 industry or any particular industry but a general look at  
12 how these things work and how they drive innovation.

13           My message is pretty straightforward today. We  
14 request that you grant the waiver and grant it without  
15 delay.

16           E2 was the principal business organization that  
17 worked with Assembly Member Fran Pavley in 2001 and 2002 to  
18 both analyze the bill and help demonstrate the fact that it  
19 both was technically feasible and economically beneficial to  
20 California and potentially to the entire United States.

21           Nothing has changed in that method and I'd just  
22 like to comment on a few points.

23           First of all you have already seen that the  
24 consequences of not addressing climate change are severe,  
25 particularly to the state of California. But we don't hold

1 ourselves to any unique standard there, it's dangerous for  
2 everybody.

3           Secondly, the technologies that were considered  
4 were limited to those that were demonstrateable or already  
5 in production in 2002/2004 time period. This was to make it  
6 as favorable as possible for the auto industry to comply  
7 with the bill. And at that time using known technologies it  
8 was shown we could get a 30 percent reduction by 2016.

9           The third was to demonstrate doing this was a net  
10 economic benefit to the consumer. This was analyzed based  
11 on the fact that it would be lower operating costs. Now at  
12 the time this was done the assumption was gas would be \$1.78  
13 as adjusted for inflation.

14           So the analysis that you just saw earlier from the  
15 auto industry as well as previous ones would all need to be  
16 revised concerning the fact that in today's prices -- I  
17 don't know if anyone expects to ever see \$2 gas again but  
18 the higher gas prices are a mitigating factor. So that  
19 basically means that the analysis is even more favorable if  
20 it were to be redone today.

21           Now the other thing we looked at is the history of  
22 regulations and how do you estimate what is going to be the  
23 price of the vehicle and how do things work out. And this  
24 failure to not be able to predict accurately has been  
25 consistent both by the industry, by EPA, by the California

1 Air Resources Board.

2 And I just want to give you one example drawn from  
3 the 1990 federal Clean Air Act that looked at the '96 Tier 1  
4 standards. At the time the industry submitted an estimate  
5 it would cost \$432 per vehicle, your own staff at EPA  
6 estimated the cost to be \$150 per vehicle, and finally the  
7 US Bureau of Labor Statistics upon taking the data  
8 discovered the actual cost ended up being \$88.42.

9 And there is a reason why it's hard to predict  
10 this. Because until something goes into effect you can't  
11 calculate what the innovations will be. And that's our main  
12 point here is the costs are likely to be significantly lower  
13 because given the challenge and requirement to do it the  
14 innovations, just like in every other measure, will occur  
15 and they will create things that we could not have predicted  
16 in advance or it wouldn't have been prudent for a regulator  
17 to make any assumptions about.

18 Let me also talk about the reasonableness of the  
19 time frame. As you know AB 1493 was passed in 2002. The  
20 regulations were adopted in September of 2004, a full five  
21 years in advance of the model year of which they'd be  
22 required. So we feel that ample opportunity has been given  
23 to allow time to come into effect.

24 And lastly I'd like to address this question about  
25 whether this regulation makes a difference in terms of

1 climate and also in terms of health and safety. And I find  
2 no inconsistency with our request for a waiver to be granted  
3 and Mr. Clubok's demonstration that happened here a few  
4 minutes ago and let me explain why I believe that.

5 First of all, transportation accounts for 40  
6 percent of our greenhouse gases and that is a material  
7 amount. Worldwide it's probably about 30 percent, between  
8 30 and 33 percent. So that is a material part of the  
9 problem. Addressing it is a material part of the solution.

10 But no one ever said that unless you get there in  
11 one step it doesn't count. There is a requirement on the  
12 part of this regulation that the steps to be taken be  
13 technology feasible and to be a starting point. Our number  
14 one objective is to reverse the trend. This is the fastest  
15 growing segment of greenhouse gases. We have to slow it, we  
16 have to stop it and we have to reverse it.

17 So this regulation chose a starting point based on  
18 technical feasibility. One way to interpret Mr. Clubok's  
19 comments here would be to say, these are not aggressive  
20 enough. And on that point I completely agree. I believe at  
21 this point if the regulations were looked at we could be  
22 much more stringent than what's in there but that is not  
23 what is on the docket for today. It's a starting point and  
24 it is based on giving the industry ample opportunity to  
25 advance. I fully agree that going forward over time it has

1 to be more aggressive because it's one-third of the  
2 pollution. But we are asking you for a waiver today so we  
3 can get started.

4 The next point is about the cost of vehicles. As  
5 I've mentioned in the testimony just previously you can't  
6 predict that. All you know is that consistently the  
7 regulators' estimates are conservative and things come in  
8 much better than planned. Also we see rising fuel prices  
9 here and increasing pressure on that. That is only going to  
10 serve to benefit the cost-effectiveness.

11 And lastly I don't understand at all the argument  
12 that says, if we make cars too inexpensive to drive it will  
13 be bad for your health. If we look at what we can do in  
14 California a huge amount of emissions are from a relatively  
15 small number of vehicles. We can put programs in place to  
16 help buy those out, et cetera. So if your only issue is a  
17 mitigation of how you deal with the fact that we're making  
18 driving more affordable, and that's a bad thing, that can be  
19 managed through other mitigating measures.

20 So in summary I urge you to give us the waiver we  
21 need. If we look at what's happening in California, this  
22 state is determined to lead this effort on a worldwide  
23 basis. We have regular visitors from the EU, from Japan.  
24 Every week there are visitors here. This law has already  
25 had an impact worldwide. It's getting everybody focused on

1 how do we get less greenhouse gases while still allowing  
2 people to drive their vehicles. We all agree on that as the  
3 goal. I urge you to pass this waiver without undue delay.  
4 Thank you very much.

5 PRESIDING OFFICER GRUNDLER: Thank you. Any  
6 questions for the remaining witnesses?

7 Thank you all for your time and for your  
8 testimony. I'd like to invite Panel number 4 up. It's  
9 great to welcome back our former colleagues Mary Nichols.

10 MS. NICHOLS: Thank you.

11 PRESIDING OFFICER GRUNDLER: And Dr. Lloyd. I saw  
12 him earlier.

13 MS. NICHOLS: Actually Dr. Lloyd asked me to  
14 apologize. He had to catch a plane so he will not be able  
15 to join us.

16 PRESIDING OFFICER GRUNDLER: Ms. Nichols, when  
17 you're ready please proceed.

18 MS. NICHOLS: Thank you very much. I must say --

19 PRESIDING OFFICER GRUNDLER: Will you press your  
20 button so we can all hear you.

21 MS. NICHOLS: There we go, thank you. It's a  
22 pleasure to be here this morning. It's a pleasure to be  
23 with former colleagues. I can't exactly say it was a  
24 pleasure to be reminded that of the many waiver requests  
25 that EPA has handled I personally have been involved either

1 at the state level or on the federal side in quite a  
2 substantial number of them. But I hope that gives me some  
3 perspective to bring to this hearing.

4 I am here supporting the grant of the waiver. I  
5 think it's well-justified and I think the program is  
6 important. And I am not going to duplicate the points that  
7 have been made well by others but I would like to try to  
8 just focus in on a couple of the issues that I think are  
9 relevant to the waiver.

10 In preparing for the hearing today I did go back  
11 and think about whether there have been events in history in  
12 dealing with past waivers that might be particularly useful  
13 for your panel to consider in putting together your decision  
14 here. Because obviously this is a hotly contested issue and  
15 the auto industry clearly feels very strongly that the  
16 waiver shouldn't be granted or they wouldn't have mounted  
17 the kind of attack that they have shown here today.

18 Frankly I have never seen in my history of dealing  
19 with the industry the kind of ad hominem attack that was  
20 mounted here today. The out of context use of testimony  
21 from an unrelated court proceeding to me was frankly  
22 somewhat shocking. But clearly it indicates that there is  
23 something at stake here.

24 So I wondered whether some of the same issues in  
25 terms of dealing with a really quite different state program

1 might have presented themselves in the past. And I did get  
2 a copy of a document which isn't available on-line. I know  
3 it's available to you because it's in your archives. It's  
4 called the Waiver of Federal Preemption for California Low  
5 Emission Vehicle Standards and it is dated January 8 of 1993  
6 and signed by then-administrator William Riley.

7           What I think is interesting about this, about this  
8 decision, aside from the fact that it does go back to a  
9 former President Bush and a different set of political  
10 players, is that it deals with a set of California standards  
11 which were just totally different than what EPA was doing at  
12 the time but where EPA had to make a decision about the  
13 legal standard that was applicable in this matter. It's a  
14 quite lengthy and I think very well-reasoned decision, about  
15 188 pages to be exact.

16           But in talking about the standards, and again I  
17 won't repeat the legal arguments that were ably presented by  
18 the Governor's Chief of Staff or the Attorney General of the  
19 State of California, who was by the way the man who  
20 appointed me to the Air Resources Board so I think he knows  
21 what he's doing here.

22           But in terms of the deference that was to be paid  
23 to the California approach, it's laid out quite clearly that  
24 the standard that EPA is going to be looking at here is one  
25 of essentially saying that unless California is being

1 demonstrably arbitrary and capricious in its finding of a  
2 compelling need that it is not the place of EPA to step in  
3 and think differently.

4           It is also interesting that since this is the  
5 decision that originally involved the ZEV waiver, which  
6 again, you know, is a new kind of animal. It was not an  
7 emissions standard per se, it was a specific mandate to do  
8 something that related to the type of technology being used  
9 as opposed to air emissions. The administrator found that  
10 where there wasn't a specific regulation by EPA that would  
11 preempt this regulation, even if there might be a conflict  
12 with other federal statutes, and in this case it was a  
13 different federal statute, the NEPAC that was being alleged  
14 to conflict, that there was no issue of federal preemption.

15           So I would encourage you to look to this decision  
16 as at least one source of thoughtful analysis of how to deal  
17 with this kind of situation. Again, it also deals at some  
18 length with the issue of whether the standards have to be in  
19 the aggregate as protective as opposed to being more  
20 protective. And it talks both about the enforcement  
21 mechanism and the standards themselves.

22           Because at that point the auto industry, which was  
23 opposing the waiver, was making a very strong claim that  
24 because at that point California's inspection and  
25 maintenance program was less effective than the federal

1 inspection and maintenance program that in use the  
2 California cars would not actually be as clean as the  
3 federal cars.

4           Again I think that's a kind of an interesting and  
5 potentially useful avenue to pursue in looking at this  
6 argument about what the end-use effects will be if it turns  
7 out that the cars that are built under this waiver become so  
8 cheap to drive that people are driving them more and  
9 therefore creating more emissions. Actually that kind of  
10 reminded me once again of the old arguments between the auto  
11 and the oil industries about, you know, who was to bear the  
12 cost of meeting cleaner air standards in California.

13           But basically I think the message that I am here  
14 to deliver as a friend of both agencies that are dealing  
15 with the situation is that when in doubt it's best to go  
16 with the state of California, and if there is no compelling  
17 reason not to do so I think that is what Congress told you  
18 to do. Thank you very much.

19           PRESIDING OFFICER GRUNDLER: Thank you, Mary, it's  
20 great to see you again.

21           South Coast, welcome.

22           MR. HOGO: Good morning. I do have a short  
23 PowerPoint presentation if that could be brought up. And  
24 while that is being brought up I'll start my testimony.

25           Good morning. My name is Henry Hogo, Assistant

1 Deputy Executive Officer in the office of Science and  
2 Technology Advancement at the South Coast Air Quality  
3 Management District. Thank you for the opportunity to speak  
4 today and express the South Coast AQMD staff's strong  
5 support of California's request for a waiver of federal  
6 preemption of the adopted greenhouse gas emission  
7 regulations for light and medium duty passenger cars and  
8 trucks.

9 US EPA's approval of the waiver request will  
10 provide not only reduction in greenhouse gas emissions but  
11 also concurrent reductions in criteria pollutant emissions  
12 critical for the South Coast Air Basin to attain applicable  
13 federal eight-hour ozone and fine particulate air quality  
14 standards.

15 The Draft 2007 Ozone and Fine Particulate Air  
16 Quality Management Plan for the South Coast Air Basin calls  
17 for reductions from all criteria pollutants to meet  
18 applicable federal air quality standards. And note that  
19 this plan calls for over 30 percent reduction in oxides of  
20 nitrogen by 2015, and in 2023 76 percent reductions, for the  
21 region to attain the federal eight-hour ozone air quality  
22 standard by 2024. In addition, the draft plan identified  
23 control measures that could provide concurrent greenhouse  
24 gas benefits.

25 As you can see here, over 30 of these measures,

1 total measures, are mobile source measures. Mobile source  
2 contributes over 80, 85 percent of the air quality problem  
3 in the South Coast Air Basin.

4 While the principal purpose of today's hearings is  
5 on California's regulation of greenhouse gas emissions from  
6 light and medium duty vehicles we strongly believe that  
7 California's regulation will provide concurrent reductions  
8 of greenhouse gases and criteria pollutants.

9 Based on over four decades of air pollution data  
10 compiled by the South Coast AQMD one central fact must be  
11 recognized by the US EPA as it examines this issue. Peak  
12 ozone levels in Southern California are heavily influenced  
13 by rising temperatures. As a result the South Coast Air  
14 Basin faces the most serious ozone vulnerability to rising  
15 greenhouse gas emissions in the entire nation. California  
16 needs these standards to meet compelling and extraordinary  
17 air quality conditions.

18 California's regulation on light and medium duty  
19 vehicles, of which there are over 11 million registered  
20 vehicles in the South Coast Air Basin, is the first step in  
21 helping to reduce these higher temperature impacts, thus  
22 reducing the resulting ozone increase. The regulation at  
23 issue here will also directly result in fewer NOx and VOC  
24 emissions, reducing both ozone and fine particulates. In  
25 addition, many of the advanced mobile source technologies

1 such as hybrids and plug-in hybrids will lead to reduced use  
2 of petroleum based fuels and reduced criteria pollutant  
3 emissions. Automobile manufacturers will look to these  
4 advanced technologies to comply with California's  
5 regulations.

6 Lastly, improvements in vehicle efficiency would  
7 also have direct air quality benefits due to reduced  
8 emissions from refineries, fuel distribution and retail  
9 marketing.

10 The US EPA's favorable decision will have an  
11 immediate effect in reducing not only greenhouse gas  
12 emissions but also air pollution on a more local level. I  
13 would like to end my comments with the following slide.

14 And this slide shows the population exposure to  
15 ozone and PM above the federal ambient air quality  
16 standards. The pie chart on the left shows that the South  
17 Coast region has about 52 percent of the population-weighted  
18 particulate matter exposure compared to the rest of the  
19 nation. In addition, as seen in the pie chart on the right,  
20 the South Coast region has over 25 percent of the ozone  
21 exposure, and therefore the health impact burden, compared  
22 with the rest of the nation.

23 The success for the South Coast Air Basin to  
24 attain federal air quality standards relies directly on  
25 achieving the benefits of California's entire mobile source

1 control program, including their expeditious implementation  
2 of greenhouse gas emissions controls under AB 1493.

3 I am going to divert a little bit from my prepared  
4 statement to respond on the Alliance comment about increased  
5 hydrocarbon and NOx emissions due to the regulation. Our  
6 Air Quality Management Plan shows that VMT, vehicle miles  
7 traveled, will continue to increase. And despite this  
8 increase the California mobile source control program will  
9 bring those emissions down. What we believe will happen  
10 with these regulations is that it will help bring the  
11 current levels down even further. So we strongly disagree  
12 with the Alliance comment.

13 In summary, we strongly urge US EPA to approve  
14 California's request for waiver of federal preemption under  
15 Section 209(b) of the federal Clean Air Act. The South  
16 Coast AQMD legal staff has reviewed the waiver request and  
17 is in full agreement with the California Air Resources  
18 Board's response to the questions posed by US EPA in its  
19 notice.

20 Thank you for this opportunity to speak. We will  
21 provide more specific written comments on this important  
22 decision. I'll be glad to answer any questions you may  
23 have.

24 PRESIDING OFFICER GRUNDLER: Thank you very much.  
25 And if you could submit for the record your analysis of the

1 situation in the South Coast with respect to VMT and  
2 emissions with respect to this whole protectiveness dispute  
3 that would be useful to us.

4 MR. HOGO: We will.

5 PRESIDING OFFICER GRUNDLER: Thank you.

6 MR. HOGO: Thank you.

7 PRESIDING OFFICER GRUNDLER: From the Bay Area,  
8 Mr. Hilken.

9 MR. HILKEN: Good morning. I am Henry Hilken, I  
10 am the Director of Planning and Research at the Bay Area Air  
11 Quality Management District. Thank you very much for the  
12 opportunity to speak to you this morning.

13 The staff of the Bay Area Air District strongly  
14 supports ARB's waiver request and we urge EPA to grant it  
15 promptly. We believe these emission reduction regulations  
16 are very important and necessary to improve air quality and  
17 public health in California.

18 The Bay Area District was created by the State  
19 Legislature in 1955 to regulate air pollution in the Bay  
20 Area.

21 Over the past more than 50 years we have made  
22 significant progress in air quality in the Bay Area. The  
23 maximum concentrations and number of days over health-based  
24 standards have gone down dramatically. That's true for  
25 pretty much the entire state of California so it's really

1 something for us to be proud of. However, most of the state  
2 still does exceed health-based standards and so much more  
3 needs to be done.

4           These levels of air pollutants in the Bay Area and  
5 elsewhere in California do have health effects, direct  
6 health effects, on the residents of California. Asthma  
7 attacks, emphysema, bronchitis, lung damage. As you are  
8 well aware children and the elderly are the most susceptible  
9 to these effects so it is really critical to the health and  
10 welfare of our state that we move forward with these and  
11 parallel regulations.

12           We are very concerned that the increased  
13 temperatures that could result from global warming will  
14 worsen air quality conditions in California and reverse much  
15 of the progress that we have made over the years.

16           We currently in the Bay Area suffer or experience  
17 less than 20 extreme days per year. An analysis by the  
18 California Energy Commission has looked at various scenarios  
19 but predicted under various scenarios of global warming that  
20 the number of extreme heat days could increase to up to 40  
21 or as much as 130 days per year. Which would certainly  
22 increase the number of days where we would exceed or would  
23 experience high ozone levels in the Bay Area.

24           And our own preliminary analysis has shown that  
25 fairly modest temperature increases in the Bay Area will

1 significantly increase ozone concentrations in our region.  
2 So we really see this as important from the global climate  
3 change perspective but also from our public health  
4 requirements in the Bay Area.

5           And as you're well aware and I know other previous  
6 speakers have touched upon, there are many other impacts  
7 beyond air quality that climate change could and probably  
8 will have on the state, reduced snowpack, impact to our  
9 agriculture, rising sea level. That is a particular concern  
10 in the Bay Area. We have many billions of dollars of public  
11 infrastructure investments along the San Francisco Bay  
12 shoreline. That's true for much of the California  
13 coastline. And even modest increases in sea level would put  
14 those investments at risk.

15           And so it is because of these reasons that local  
16 and state and regional agencies are stepping forward and  
17 addressing climate change.

18           The Air District, the Bay Area Air District  
19 established our climate protection program two years ago,  
20 precisely for the reason that I've mentioned earlier. We  
21 were concerned that increasing temperatures could reverse a  
22 lot of the progress that we have made over the years. There  
23 are a lot of local governments and businesses and community  
24 groups in our region that are working on climate change, we  
25 are working very closely with them. We really want to make

1 the Bay Area and the entire state a leader on climate  
2 protection.

3           Similar as you know, as you're well aware,  
4 California is clearly a leader on climate protection. The  
5 Governor and the Legislature have made it abundantly clear  
6 that the state is going to move aggressively in reducing  
7 greenhouse gas emissions. The Governor has established very  
8 aggressive emission reduction targets. And the Legislature  
9 in adopting AB 32 and the Governor in signing AB 32 have  
10 made it clear that we are going to be implementing very  
11 aggressive programs to reduce greenhouse gas emissions. The  
12 emission reductions under these regulations, the 1493  
13 regulations, are critical. They are a critical component to  
14 this statewide effort.

15           As other speakers have noted, motor vehicles  
16 contribute over 40 percent of the greenhouse gas emissions  
17 in California. We have to tackle motor vehicles if we are  
18 going to have any hope of addressing climate change in  
19 California, the United States and throughout the world.

20           So this is nothing new. State and local  
21 governments have worked closely together for many years on  
22 air quality programs. I mentioned much of the progress that  
23 we have made over the years in the Bay Area in regulating  
24 maybe stationary sources. The region has spent many  
25 millions of dollars to reduce emissions from stationary

1 sources. And industry in the Bay Area is among the cleanest  
2 in the country.

3 Similarly the California Air Resources Board has  
4 taken dramatic steps in reducing air pollution. They are a  
5 world leader in air pollution control. They have -- Their  
6 ARB regulations on motor vehicles and other mobile sources  
7 set the standard, quite simply, and they have been  
8 instrumental in improving air quality in California and have  
9 been followed and had profound benefits in the rest of the  
10 United States.

11 So we need the partnership of the federal  
12 government today. We need you to work with the state and  
13 approve this waiver so that we can move forward and  
14 implement these regulations to reduce these emissions  
15 further.

16 California is the second largest emitter of CO2 in  
17 the country. The United States is by far the largest  
18 emitter of CO2 in the world.

19 As I have noted and others have noted, motor  
20 vehicles contribute a major portion to greenhouse gas  
21 emissions. We have to address motor vehicle emissions of  
22 greenhouse gases.

23 The AB 1493 regulations call for auto makers to  
24 limit CO2 emissions from new vehicles. The technology is  
25 readily available and cost-effective, it's available today.

1 We have over the years, as previous speakers have noted,  
2 there have been -- In response to federal and state  
3 regulations auto makers have been able to step up and  
4 produce the technology to achieve these standards. We are  
5 very confident that they can do so once again. This is  
6 nothing new for the auto makers, they have been doing it for  
7 years.

8           Indeed many countries -- The United States fuel  
9 efficiency lags considerably behind much of the  
10 industrialized world, Canada, Europe, Japan, Australia.  
11 Even China's new standards are more stringent than the CAFE  
12 standards or fuel economy standards in the United States.  
13 So auto makers already will have to produce vehicles that  
14 are more efficient than we see today to sell their product  
15 in other countries. So we don't see this as a leap in the  
16 United States.

17           So in conclusion we see these regulations as  
18 critical to reducing greenhouse gas emissions in California.  
19 It is extremely important for protecting the public health  
20 of Californians and we urge EPA to grant the waiver  
21 promptly.

22           PRESIDING OFFICER GRUNDLER: Thank you,  
23 Mr. Hilken. Thank you all for your testimony, appreciate  
24 your time.

25           I'd like to invite Panel 5 to come forward. Panel

1 5 is comprised of additional local air quality district  
2 representatives. We'll start off with Northern Sonoma  
3 County, Barbara Lee.

4 MS. LEE: Good morning, Panel Members. My name is  
5 Barbara Lee. I am the Air Pollution Control Officer for the  
6 Northern Sonoma County Air Pollution Control District. I  
7 appreciate this opportunity to testify before you today in  
8 support of the request by the Air Resources Board for a  
9 waiver under Section 209(b) of the Clean Air Act.

10 As you are aware and have certainly heard today,  
11 this waiver request is a very important part of California's  
12 efforts to do its part to address global climate change. It  
13 is important that California does this and it is consistent  
14 with the state's standing as a global economic and  
15 environmental leader.

16 At the same time, however, what is important to  
17 focus on is that this waiver request is part of the state's  
18 longstanding and comprehensive program to reduce emissions  
19 from motor vehicles and to achieve clean air for all  
20 Californians.

21 Congress rightly recognized the need of the state  
22 of California to set tailpipe emission standards for motor  
23 vehicles and provided this waiver process to support  
24 California's efforts. Congress further recognized that  
25 other states benefit when California does this and allowed

1 them to rely on the standards that California adopts. This  
2 waiver process allows California to advance the science to  
3 reduce pollution for motor vehicles while ensuring that  
4 engine manufacturers have a clear and consistent set of  
5 standards to meet. History shows us this process works.

6           The Air Resources Board has tremendous technical  
7 expertise and rulemaking capabilities, as you know. The  
8 staff and the Board have consistently put into place  
9 feasible and effective tailpipe emission standards that  
10 reduce emissions from motor vehicles without harming  
11 industry. In fact, over the decades ARB standards have  
12 promoted technology advancement and business growth.

13           The Clean Air Act provides clear standards for you  
14 as you review this waiver request. And after reviewing the  
15 state's extensive and robust process in setting its  
16 standards you will have to conclude, as you have in the  
17 past, that California has not acted capriciously, that it  
18 does need to maintain a separate vehicle emissions program,  
19 and that this program is consistent with the requirements of  
20 the Act.

21           On the points that you had specifically comment:  
22 First, the Clean Air Act allows the waiver for tailpipe  
23 emission standards, which this is. The pollutant basis is  
24 not limited and a comparison to the CAFE standards is not  
25 required. Second, the recent Supreme Court decision

1 confirms that this waiver request is squarely within your  
2 purview.

3           The request before you today is if historical  
4 importance in the battle to protect our climate and our  
5 environment. But you should recognize that it comes to you  
6 as part of a longstanding, feasible and effective program  
7 regulating tailpipe emissions for motor vehicles.

8           This waiver request, like so many before that you  
9 have approved, will advance technology and clean air in  
10 California and ultimately throughout the nation. Its costs  
11 and benefits have been carefully balanced by the Air  
12 Resources Board as they have historically done with all of  
13 their emissions standards.

14           I urge you to stand up for clean air, for fair and  
15 effective government process, and most importantly for the  
16 future of our climate and our world. Please grant the  
17 waiver request and do so expeditiously. Thank you.

18           PRESIDING OFFICER GRUNDLER: Thank you. Next I'd  
19 like to call on Mel Zeldin representing the California Air  
20 Pollution Control Officers Association. Mel.

21           MR. ZELDIN: Thank you and good morning. I am Mel  
22 Zeldin, Executive Director of CAPCOA, the California Air  
23 Pollution Control Officers Association, which is a nonprofit  
24 organization representing the air pollution control officers  
25 from all 35 local air districts in California.

1           I am pleased to be here today to express our  
2 association's strong support for the state's waiver request  
3 on motor vehicle greenhouse gas emissions. The state has  
4 presented EPA with very compelling and convincing evidence  
5 and rationale that climate change is occurring and that  
6 granting California a waiver is absolutely necessary. We  
7 fully support the ARB's statements.

8           I would also like to add that there is currently  
9 an increasing groundswell of concern about climate change at  
10 the local level. Each of our 35 members has its own air  
11 pollution control board, all of which include locally  
12 elected officials. In many of our air districts these  
13 officials are asking staff for guidance on what can be done  
14 at the local level to contribute to the efforts in combating  
15 global climate change.

16           What is remarkable is that the actions and  
17 solutions to a global problem are being initiated at the  
18 grassroots local level. Incrementally every action to  
19 reduce the manmade carbon footprint, however seemingly small  
20 or insignificant in the context of a global scale, when  
21 accumulated over many such small actions adds up to  
22 something that will make a difference.

23           Nonetheless substantive programs to reduce  
24 greenhouse gases must be implemented at the state and  
25 national level to effectively address a problem of this

1 magnitude. Federal, state and local agencies as well as the  
2 private sector all need to do their part. California has  
3 exhibited remarkable leadership in moving forward in this  
4 arena and it is imperative that EPA not stand in the way of  
5 this vital progress.

6 In closing, we have only one planet to sustain  
7 human life as we know it and we have an obligation to do all  
8 we can to preserve it. EPA stands for Environmental  
9 Protection Agency and I can't think of a more important time  
10 or issue than this for you to uphold the mission embodied in  
11 your name. We urge you to grant the waiver and let  
12 California do its part to protect our planet for our  
13 children, grandchildren and many generations to follow.  
14 Thank you for the opportunity to speak.

15 PRESIDING OFFICER GRUNDLER: Thank you. And now  
16 from the City and County of San Francisco.

17 MS. BALI: Good morning, almost afternoon. My  
18 name is Vandana Bali and I am speaking on behalf of the  
19 Department of the Environment at the City and County of San  
20 Francisco. I thank you for the opportunity to testify  
21 today.

22 We strongly support the California Air Resources  
23 Board's request for a waiver in order to implement  
24 California's Clean Cars Law. Granting this waiver is  
25 essential to promote improved air quality and public health

1 in California.

2 As everyone has stated already earlier before  
3 today, California has the dirtiest air in the nation. Motor  
4 vehicles continue to be a major source of emissions that  
5 cause air pollution, accounting for 40 percent of  
6 California's total global warming emissions. In San  
7 Francisco motor vehicle emissions account for 51 percent of  
8 the total greenhouse gas emissions. San Francisco holds  
9 itself accountable for its contribution for global warming  
10 and we issued a Climate Action Plan in 2004, committing  
11 ourselves to dramatically reduce our overall greenhouse gas  
12 emissions to 20 percent below 1990 levels by 2012.

13 The Clean Cars Law provides a feasible, cost-  
14 effective pathway to substantially reduce emissions from  
15 vehicle technologies that are proven and readily available  
16 today. Without this law vehicle greenhouse gases, as well  
17 as ozone and particle pollution, will continue to rise as  
18 more cars travel more miles on the road today.

19 Research has demonstrated that bad air can lead to  
20 premature death, aggravate respiratory health, and it  
21 disproportionately impacts vulnerable populations like  
22 children, people with compromised immune systems and the  
23 elderly.

24 The impacts from global warming and climate change  
25 present serious threats to local governments. Local

1 governments are the first line of defense against global  
2 warming. Police, fire and emergency responders, hospitals,  
3 senior centers, emergency shelters, water and local utility  
4 districts, all will bear the immediate brunt of responding  
5 to calls for help in crises linked to global warming.

6 San Francisco as you know is a coastal city  
7 surrounded on three sides by water and it is extremely  
8 vulnerable to climate change. We are further at risk  
9 because we depend on the Sierra snowpack for our water  
10 supply and for hydroelectric generation that supplies power  
11 for our public transit systems, among other municipal needs.

12 According to a joint study by the Union of  
13 Concerned Scientists and Ecological Society of America, some  
14 of the possible effects of climate change on San Francisco  
15 include: Rising sea levels that could potentially be  
16 devastating. Low lying areas such as San Francisco  
17 International Airport, which is built on a wetland, Treasure  
18 Island, AT&T baseball park, portions of our financial  
19 district, our marina and harbor facilities could be  
20 threatened. Increased storm activity could increase beach  
21 erosion and cliff undercutting. Warmer temperatures and  
22 more frequent storms due to El Niño will bring more rain  
23 instead of snow to the Sierras, reducing our water supply.

24 Such dramatic changes to San Francisco's physical  
25 landscape and ecosystem will be accompanied by financial and

1 social impacts. Tourism, San Francisco's fishing industry,  
2 and the regional agricultural industry could suffer. Food  
3 costs could rise, property damage could be more prevalent,  
4 and insurance rates could increase. The city's roads,  
5 pipelines, transportation, underground cables and sewage  
6 systems could be severely stressed or overwhelmed if rare  
7 instances of flooding or storm damage become more commonly  
8 -- occur more commonly.

9           The environment plays a large role in some  
10 diseases carried by insects as well. Warming could make  
11 tick-borne Lyme Disease more prevalent and could expand the  
12 range of mosquito-borne diseases such as West Nile Virus.  
13 Another threat to the health of San Francisco residents is  
14 the air pollution caused by higher temperatures and  
15 increased ozone levels. Neighborhoods in the southeast  
16 portion of the city where asthma and respiratory illnesses  
17 are already at high levels would be especially at risk.

18           So in conclusion, the longer we delay the more  
19 emissions we spew. It is critical that we reduce vehicle  
20 emissions in order to decrease pollution and greenhouse gas  
21 emissions and thereby improve public health. Local  
22 governments cannot bear the cost burden of increased local  
23 government services due to increases in air pollution and  
24 global warming emissions

25           We strongly urge the US EPA to grant this waiver.

1 Thank you.

2 PRESIDING OFFICER GRUNDLER: Thank you. Feel free  
3 to submit your button for the record.

4 Next we hear from the City of Fresno.

5 FRESNO CITY COUNCIL PRESIDENT PEREA: Thank you.  
6 First let me thank you for being here today. I have sat in  
7 your positions many times so I know what you are going  
8 through in having to listen to a lot of testimony and you  
9 only have seven more panels to go. Because I know what  
10 you're going through and since we're getting close to lunch  
11 I'll be brief.

12 First let me start again by thanking you for being  
13 here in California. We appreciate having the opportunity to  
14 comment today on this very important issue for many of us in  
15 the state, but especially for us in the Central Valley.

16 I come to you today wearing two hats. One as the  
17 Council President for the City of Fresno, with a population  
18 of over a half-million people, and a governing board member  
19 of the San Joaquin Valley Air Pollution Control District.

20 Now what I can tell you about the San Joaquin  
21 Valley is that the issue of air pollution and global warming  
22 is at the center of a very hot debate at the local level.  
23 It is an issue that is in the hearts and minds of every  
24 constituent throughout the San Joaquin Valley. And every  
25 study and poll that is done by, whether it's newspapers,

1 universities or public policy institutes, will tell you  
2 that's true.

3           And because it is such a big issue in our  
4 community local elected officials are responding to that in  
5 many different capacities. At the local level what I can  
6 tell you, what we're doing at the City of Fresno and many  
7 other cities throughout the valley is that we are rapidly  
8 converting our fleets to alternative fuels. We are adopting  
9 strict, green building standards and we are also using more  
10 solar energy.

11           In fact just two weeks ago the City of Fresno  
12 decided to move forward on the largest municipal airport  
13 solar installation in the country. And we are continuing to  
14 do so at a rapid pace because of the issues and the concerns  
15 that are being raised by many of our constituents throughout  
16 the San Joaquin Valley.

17           Now let me take off my City of Fresno hat and put  
18 on my Governing Board Member hat for the Air District. What  
19 I can tell you as far as the Air District is we are doing  
20 our best and working hard to make great strides on a more  
21 regional level.

22           Just a few examples of some of the things that  
23 we're doing in the San Joaquin Valley is we are beginning to  
24 regulate farmers in a much more strict way. Depending on  
25 who you talk to some say it's not strict enough but we think

1 we're moving along in a very meaningful way. We are  
2 requiring -- prohibiting people to burn their fireplaces on  
3 certain days when the ozone and the air pollution is  
4 specifically bad. And we also have adopted the Independent  
5 Source Rule, which is the first of its kind in the nation  
6 that applies to home builders and holds them accountable for  
7 the air pollution that their land developments create  
8 throughout our community.

9           But the one thing we recognize is that much more  
10 needs to be done. The challenge that we face in the San  
11 Joaquin Valley, like many other communities, is that over 60  
12 percent of our pollution is caused by mobile sources. Now  
13 of course as you know this is a source that we have no  
14 direct control over. We are doing our best to be creative  
15 and that is where the ISR rule came in, to try to mitigate  
16 some of the pollutants and CO2s that emit from mobile  
17 sources, but we don't have that direct jurisdiction.

18           So we need your help. We really need your help so  
19 that California can then set its own standards so that local  
20 agencies like mine can then do its share to make sure that  
21 we are holding ourselves accountable for the pollution that  
22 we create through local decisions that we're making, whether  
23 it's through land use, whether it's through, you know,  
24 different rules or regulations that we adopt as Governing  
25 Board Members. By granting this waiver you give us, you

1 empower local residents to do more at the local level.

2 I just want to leave, end with just a couple of  
3 statistics that I hope you'll keep in the back of your mind  
4 when you're making this decision, because it's a big  
5 decision, and these are statistics given to us by the  
6 American Lung Association. That is that Kern, Fresno,  
7 Tulare and Merced Counties are among the top ten counties in  
8 the nation for the number of at-risk people exposed to  
9 dangerously high levels of ozone pollution. Five of the  
10 valley's eight counties are on the 2005 top 25 worst  
11 polluted counties list.

12 Children in the Central Valley are more than 35  
13 percent likely to have asthma than their national  
14 counterparts. And as a consequence one-third of children  
15 with asthma in the valley miss one or two days of school  
16 every month, leading to more than 800,000 absences a year  
17 and a loss of \$26 million per year in valley schools. In  
18 addition nearly 12,000 people in the San Joaquin Valley Air  
19 District are hospitalized each year for asthma, including  
20 more than 5,000 children.

21 My request again is simple. Just give us the  
22 opportunity, give us the tools to manage and change our own  
23 destiny. Our district is in the process and we have a  
24 request in to the EPA to go into an extreme attainment  
25 designation. Our problems here are serious, they are

1 critical, and it is the biggest public health concern in the  
2 Central San Joaquin Valley. Please help us help ourselves.  
3 Thank you.

4 PRESIDING OFFICER GRUNDLER: Thank you very much,  
5 Mr. Perea.

6 Now from the Sacramento Air District, Brigette  
7 Tollstrup.

8 MS. TOLLSTRUP: Thank you. Thank you for the  
9 opportunity to speak today on this critical topic. My name  
10 is Brigette Tollstrup, Program Coordination Division Chief  
11 at the Sacramento Metropolitan Air Quality Management  
12 District. Our district is one of 35 local air districts in  
13 California and our area of coverage is Sacramento County,  
14 with a population of nearly 1.4 million residents.

15 The Sacramento Air District is the lead district  
16 in the Sacramento Region for efforts towards attainment of  
17 the National Ambient Air Quality Standards. Over the years  
18 we have made great strides in reducing air pollution. Our  
19 nearly 100 employees are in the trenches every day  
20 continuing to make progress. Our federal eight-hour ozone  
21 plan will require even more programs and we are developing  
22 strategies to help Sacramento meet the 2006 PM2.5 standards.

23 While we have a dedicated and effective staff  
24 working toward meeting current criteria pollutant standards  
25 we now face a new and more daunting challenge, dealing with

1 greenhouse gas emissions. We have been tracking this issue  
2 for years through our membership in the National Association  
3 of Clean Air Agencies and through the leadership on the  
4 issue shown by the State of California.

5           In 2006 our Board of Directors adopted a forward-  
6 looking policy outlining steps to begin to address this new  
7 challenge. Global warming will work against our previous  
8 ozone attainment efforts and these negative impacts on air  
9 quality are one of many reasons to take every step possible  
10 to reduce emissions. Projections show that even under the  
11 most optimistic scenarios local average temperatures and the  
12 length of high temperature episodes will both increase,  
13 resulting in more exceedences of state and federal ozone  
14 standards. We simply cannot stand quietly by and allow our  
15 hard-won successes to be undermined by this new challenge.

16           I would like to outline for you the serious  
17 initiatives that the district and our partners in the local  
18 community have undertaken to address greenhouse gas  
19 emissions.

20           Like many districts in California we have been a  
21 focal point for local efforts to address greenhouse gas  
22 emissions. The leadership of our local elected officials  
23 are advancing greenhouse gas policies in their jurisdictions  
24 and encouraging support of others through their  
25 representative associations, including the National Mayors'

1 conference.

2           In coordination with local cities and counties and  
3 our electric utilities a local group has been meeting for  
4 nearly a year developing strategies and program that can be  
5 implemented locally to lower greenhouse gas emissions.  
6 Global warming was identified as an important regional issue  
7 on a recent 400-person lobbying trip to Washington DC  
8 sponsored by the Sacramento Metropolitan Chamber of  
9 Commerce.

10           Our air district has taken many steps to meet our  
11 own obligations. Over 70 percent of our employees carpool  
12 or take alternative transit to work, we are part of the  
13 local utility's green energy program, and all of our fleet  
14 vehicles are hybrids. We continue to evaluate new  
15 opportunities for reductions. We believe we can make a  
16 difference. But every level of government must do their  
17 share and implement aggressive greenhouse gas reduction  
18 programs and initiatives.

19           AB 1493, the California Clean Cars Law, was passed  
20 in 2002 to reduce greenhouse gas emissions from new  
21 passenger vehicles and to improve local air quality. We  
22 encourage EPA to grant the waiver authorized by the Clean  
23 Air Act, approving California's AB 1493 emission standards.  
24 This is a critical part of the state program. With your  
25 approval California will continue to lead the nation to new,

1 cost-effective solutions to reducing greenhouse gas  
2 emissions and global warming impacts on our local air  
3 quality. Thank you.

4 PRESIDING OFFICER GRUNDLER: Thank you.

5 Questions? Thank you again for all your testimony.

6 We're going to do one more panel and then break  
7 for lunch. I'd like to invite Panel 6 up.

8 We'd like to begin with Secretary Curry from the  
9 New Mexico Environment Department.

10 SECRETARY CURRY: Thank you for having me here  
11 today. My name is Ron Curry and I am Cabinet Secretary of  
12 the New Mexico Environment Department. I insist on bringing  
13 you greetings from Governor Bill Richardson today. He  
14 wishes he was here.

15 Global climate change is an extremely important  
16 issue to New Mexico and in New Mexico the lifeblood of our  
17 state is water. We simply don't have water to waste in our  
18 state and that is why Governor Richardson has taken a strong  
19 stance on all issues relating to global climate change.

20 In the summer of 2005 Governor Bill Richardson  
21 issued an Executive Order setting greenhouse gas emissions  
22 reduction targets for New Mexico. The goals are to reduce  
23 greenhouse gas emission to the year 2000 levels by the year  
24 2012, to reduce emissions tn percent below 2000 levels by  
25 2020 and 75 percent below 2000 levels by 2050. To meet this

1 2020 target we needed to reduce emissions by about 37  
2 percent in a business-as-usual scenario.

3           One of the most important things that the Governor  
4 did and the State of New Mexico did was to establish the New  
5 Mexico Climate Change Advisory Group. after a year and a  
6 half of hard work this diverse group of 40 people, and I  
7 want to emphasize that word diverse. They came from  
8 industry, environmental groups, local and tribal governments  
9 and they developed 69 greenhouse gas emissions reduction  
10 strategies.

11           And they didn't do that by all singing Kumbaya and  
12 holding hands with each other. It was a very diverse group  
13 that talked very straightforward with one another. They  
14 came up with the 69 recommendations. And what was  
15 impressive about the 69 recommendations was that 67 of them  
16 were unanimous.

17           And there were included people from industry, the  
18 oil and gas, there were car dealers there, the dairy  
19 industry. So we are very proud of the process in New Mexico  
20 that the business leaders and the environmental leaders in  
21 the state not only looked at the environmental issues but  
22 the economic issues. And we continue to press the  
23 importance of the economic issue when looking at the  
24 greenhouse gas emissions, period.

25           One of the unanimous recommendations from the

1 advisory group is the adoption of the California greenhouse  
2 gas emissions standards for vehicles. In New Mexico  
3 transportation ranks third in the production of greenhouse  
4 gas emissions. Emissions in this sector are expected to  
5 grow faster than any other if conditions continue as they  
6 are now.

7 In New Mexico the coal burning generating plants  
8 are our number one source of greenhouse gas emissions and  
9 number two in New Mexico is the oil and gas industry, which  
10 provides between a third and a half of our revenues for our  
11 state government and our public schools. So it's an  
12 interesting group of people. Again referring back to the  
13 panel of 40 diverse people that we are very proud of because  
14 they hammered these issues out.

15 The standards for the California clean standard  
16 were determined to be the most cost-effective. In addition  
17 these standards will reduce transportation-related emissions  
18 approximately 30 percent by 2016 and will keep an estimated  
19 10.5 million metric tons of carbon dioxide pollution from  
20 being released into New Mexico's air. It is evidence that  
21 if we are prohibited from adopting the California greenhouse  
22 gas emission standard we will not meet the Governor's  
23 greenhouse gas emission reduction target for New Mexico.

24 In the absence of a strong, national climate  
25 program, Governor Richardson is pushing for regional

1 solutions. On February 26, 2007 he signed a memorandum of  
2 understanding with Governor Arnold Schwarzenegger and the  
3 governors of Arizona, Washington and Oregon, creating the  
4 Western Regional Climate Action Initiative. Most recently  
5 Utah and British Columbia became members and we expect the  
6 membership to grow.

7           There is no reason for the EPA not to act quickly  
8 since California has met the criteria for receiving a waiver  
9 of federal preemption. They have determined that its motor  
10 vehicle emissions standards are at least as protective of  
11 public health and welfare as applicable federal standards.  
12 That it needs such motor vehicle emissions standards to meet  
13 compelling and extraordinary conditions and that California  
14 standards and accompanying enforcement procedures are  
15 consistent with the Clean Air Act.

16           Climate change could seriously impact public  
17 health and the environment of California; not to act on  
18 reducing emissions from the number one source of greenhouse  
19 gases in California would be arbitrary and capricious.  
20 Compelling and extraordinary conditions already exist as we  
21 are now seeing the effects of climate change globally.  
22 California's request is completely consistent with Section  
23 202(a) of the California -- of the Clean Air Act.

24           Urgent action is needed to address the largest  
25 sources of greenhouse gas emissions in the nation. Yet EPA

1 after 18 months has still made no decision on the waiver.  
2 The matter is urgent and we cannot afford to wait. The EPA  
3 and the Bush Administration, we feel, have failed to  
4 effectively address climate change. It would be  
5 reprehensible to bar the state from taking action to reduce  
6 greenhouse gas emissions. The EPA should approve the waiver  
7 so states can do their job of protecting the health and  
8 welfare of their citizens.

9 We applaud the leadership and the work of the  
10 California Air Resources Board. We went to Congress as well  
11 in the last two months to discuss our concerns and again  
12 talk about the processes that we have used in New Mexico to  
13 come up with these conclusions. So we ask you for your help  
14 so that New Mexico can also move forward on this by the end  
15 of the year.

16 We joke in New Mexico -- and I say joke. It was  
17 brought up by a member of Congress when I had the  
18 opportunity to testify there in March. He asked if our  
19 concerns about greenhouse gas emissions were such that we  
20 were worried about New Mexico having a beach someday. And I  
21 retorted that we had plenty of sand but we wanted to leave  
22 it that way. We didn't want to see the water lapping up on  
23 the shores of Albuquerque.

24 And with that I ask you very humbly and sincerely  
25 to go ahead and grant this waiver. Thank you very much.

1           PRESIDING OFFICER GRUNDLER: Thank you,  
2 Mr. Secretary.

3           Mr. Skelton from the North East States, proceed.

4           MR. SKELTON: Good afternoon. My name is Erik  
5 Skelton and I am here today representing the North East  
6 States for Coordinated Air Use Management or NESCAUM.  
7 NESCAUM is an association of state air quality agencies in  
8 Connecticut, Maine, Massachusetts, New Hampshire, New  
9 Jersey, New York, Rhode Island and Vermont.

10           California's December 21, 2005 waiver submittal  
11 provides a solid demonstration that its greenhouse gas  
12 emissions standards meet relevant criteria. NESCAUM and its  
13 member states therefore strongly support California's effort  
14 to move forward with its standards and we ask EPA to  
15 expeditiously approve the California waiver request.

16           Approximately 25 percent of total anthropogenic  
17 greenhouse gas emissions in the NESCAUM region come from  
18 passenger cars and light duty trucks. In recognition of  
19 this seven of the eight NESCAUM states have exercised their  
20 option under Section 177 of the Clean Air Act to adopt the  
21 California motor vehicle greenhouse gas emissions standards.

22           When the Northeast states implement these  
23 standards beginning with vehicle model year 2009 we project  
24 that they will reduce 27 million tons of greenhouse gases  
25 annually in 2020 and 39 million tons in 2030. This equates

1 to an 18 percent reduction in motor vehicles greenhouse gas  
2 emissions in 2020 and a 24 percent reduction in 2030 for our  
3 region.

4 The California program is a key linchpin in our  
5 regional efforts as well. In order to address greenhouse  
6 gas emissions from the region the New England governors have  
7 committed to reductions as part of the New England  
8 Governors, Eastern Canadian Premier's Climate Action Plan  
9 adopted in 2001. The goals of the plan are to stabilize  
10 greenhouse gas emissions at 1990 levels by 2010 and to  
11 achieve more significant reductions over the long term.

12 New Jersey's economy-wide greenhouse gas reduction  
13 legislation set similar goals. New York has spearheaded a  
14 regional initiative to reduce global warming emissions from  
15 large power plants. Given the transportation sectors'  
16 contribution to the greenhouse gas inventory, achieving the  
17 region's climate goals will require effective means to  
18 address the motor vehicle component.

19 The need for action is no longer in dispute, as  
20 again is confirmed recently by the world's scientists. I  
21 would refer you to the latest Intergovernmental Panel on  
22 Climate Change report on climate change impacts, adaptation  
23 and vulnerability. In terms of the specific risks of  
24 climate change for the Northeast states a study funded by  
25 the federal US Global Change Research Program noted that

1 global warming at the higher end of the projections would  
2 raise the average year-round temperature in Boston to a  
3 level currently measured in Atlanta, Georgia.

4 Associated impacts on the region could include  
5 more frequent and intense storms, increased damage in  
6 coastal areas from flooding, reduced revenue from  
7 traditional New England industries such as maple syrup and  
8 skiing as well as a variety of stresses on fishing grounds,  
9 forests and coastal ecosystems.

10 We believe that mounting evidence of the impacts  
11 of global warming necessitate immediate action to reverse  
12 the growth of greenhouse gas emissions from every sector,  
13 including transportation, as part of a comprehensive, state-  
14 led effort to combat global warming.

15 To assist the Northeast states in developing a  
16 viable strategy to reduce motor vehicle greenhouse gases  
17 NESCAUM's sister organization, NESCCF, which stands for the  
18 North East States Center for a Cleaner Future, conducted the  
19 most comprehensive study to date to assess the feasibility  
20 and costs associated with the introduction of technologies  
21 to reduce greenhouse gases from passenger cars.

22 The NESCCF study team, which included contractors  
23 that work regularly with the automobile industry, used state  
24 of the art computer modeling to evaluate 75 different  
25 technology packages on five vehicle types. The study team

1 also conducted a comprehensive cost analysis on the  
2 technologies evaluated.

3           The study found that cost-effective technologies  
4 exist to reduce motor vehicle greenhouse gas emissions for a  
5 range of reductions up to 55 percent. The study was  
6 designed to replicate a program that met the California  
7 greenhouse gas regulation requirements and restrictions.

8           The NESCCF study found that technologies currently  
9 in production such as improved air conditioning, variable  
10 valve timing and lift, six speed automatic transmissions and  
11 cylinder deactivation can be used to reduce motor vehicle  
12 greenhouse gas emissions by 25 percent. Much greater  
13 reductions up to 55 percent can be achieved through the use  
14 of more advanced technologies such as stoichiometric  
15 gasoline direct injection, hybrid electric and diesel  
16 vehicles.

17           Two-thirds of the technologies evaluated in the  
18 analysis are already in high volume production, defined as  
19 over 500,000 units manufactured per year. Examples of  
20 vehicles that are available today with these technologies  
21 include GM Tahoe, Suburban, Silverado and other models with  
22 cylinder deactivation. Honda Accord, Ridgeline, Fit and  
23 other models with variable valve timing and the turbocharged  
24 Volvo S60.

25           Recent high gasoline prices and the associated

1 high costs of operating vehicles have spurred automobile  
2 manufacturers to introduce some of these technologies at no  
3 additional cost to consumers. Other cars, SUVs and trucks  
4 are being planned that will include these and other  
5 technologies.

6           The recent supreme Court decision in Massachusetts  
7 v. EPA further supports the position in three important  
8 ways. First the Court determined that greenhouse gases fit  
9 well within the Clean Air Act's capacious definition of air  
10 pollutant. Second the court found unpersuasive EPA's  
11 argument that California's regulation of motor vehicle  
12 greenhouse gases would require it to tighten mileage  
13 standards. And third declared that EPA's steadfast refusal  
14 to regulate greenhouse gas emissions presented a risk of  
15 harm, both actual and imminent.

16           As you know on May 14 President Bush directed EPA  
17 and the Departments of Transportation, Energy and  
18 Agriculture to take first steps towards regulations to  
19 reduce gasoline consumption and greenhouse gas emissions for  
20 motor vehicles using the President's 20 in 10 plan as a  
21 starting point.

22           The President set a target date at the end of 2008  
23 for completion of this process. Under this approach the  
24 earliest the federal government is likely even to be in the  
25 proposal stage for motor vehicle greenhouse gas standards is

1 well after the 2009 model year when the first low carbon  
2 California vehicles enter the market. Clearly the  
3 California program on the way now will achieve significant  
4 public health and welfare benefits many years earlier than a  
5 prospective federal program.

6 While we are pleased that EPA has now initiated  
7 the comment period and is holding this public hearing on  
8 California's request we are mindful that California  
9 submitted its request over 15 months ago. We are now  
10 hopeful that a positive decision is finally forthcoming from  
11 EPA. However, in light of the significant time that has  
12 already passed without constructive steps taken we strongly  
13 urge EPA to take final regulatory action on the greenhouse  
14 gas waiver request for passenger vehicles. Thank you.

15 PRESIDING OFFICER GRUNDLER: Thank you.

16 Next we are going to hear from the National  
17 Association of Clean Air Agencies.

18 MR. GREENE: Good afternoon. I am Larry Greene,  
19 Executive Director of the Sacramento Air Quality Management  
20 District. I am here today on behalf of NACAA, the National  
21 Association of Clean Air Agencies, which represents the  
22 state and local air pollution control agencies in 54 states  
23 and territories and over 165 metropolitan areas across the  
24 country. I serve on the NACAA Board of Directors.

25 On behalf of our association I thank you for this

1 opportunity to testify on California's request for a waiver  
2 of federal preemption under Section 209(b) of the Clean Air  
3 Act to permit enforcement of California's new motor vehicle  
4 emission standards to control greenhouse gas emissions.  
5 NACAA is pleased to offer its strong support for full and  
6 prompt approval of California's request.

7           The state of California has traditionally led the  
8 national effort to reduce air pollution, dating back to 1963  
9 when California adopted the nation's first motor vehicle  
10 emissions standards. Congress has consistently recognized  
11 and supported California's leadership role in its design of  
12 the federal Clean Air Act, which specifically authorizes  
13 enforcement of California-developed motor vehicle emission  
14 standards in California and other states subject to  
15 relatively minor procedural constraints. This provision has  
16 benefitted greatly not only California but the entire  
17 nation, allowing states to serve as laboratories of  
18 innovation.

19           In September 2005 after extensive research,  
20 consultation with the auto industry and public comment the  
21 California Air Resources Board adopted greenhouse gas  
22 regulations. The regulations meet the challenge laid out by  
23 Assembly Bill 1493 to achieve the maximum, feasible and  
24 cost-effective reduction in greenhouse gases for motor  
25 vehicles in a way that will not harm California's economy,

1 will be cost-effective for California's drivers and will  
2 preserve the right of any citizen to drive whatever class of  
3 vehicle he or she desires.

4 In December 2005 CARB requested that the US  
5 Environmental Protection Agency grant a waiver of federal  
6 preemption under Section 209(b) of the Clean Air Act to  
7 permit enforcement of California's regulations. This  
8 request has been pending before EPA for 17 months.

9 In the Clean Air Act Congress finds that the  
10 reduction of air pollution, including that which may have an  
11 effect on climate and weather, is the primary responsibility  
12 of states and local governments. Although the Act  
13 establishes a federal program to set minimum requirements to  
14 serve as a floor for state regulation it specifically  
15 authorizes more stringent state regulation.

16 While consideration of the potential adverse  
17 impact on commerce of many different state emission  
18 standards led Congress to preempt states other than  
19 California from adopting motor vehicle emission standards  
20 Congress does in Section 177 of the Act provide that each  
21 state can decide whether to enforce the federal emission  
22 standards or the at least as stringent California standards  
23 for new motor vehicles sold in-state. The federal  
24 government has no permissive role in this decision.

25 Since CARB's adoption of the greenhouse gas

1 regulations 11 other states, Connecticut, Maine, Maryland,  
2 Massachusetts, New Jersey, New York, Oregon, Pennsylvania,  
3 Rhode Island, Vermont and Washington, home to 70 million  
4 people, have recognized the benefits of these rules and have  
5 adopted statutes or regulations that permit enforcement of  
6 California regulations in their own states.

7           However, these state programs cannot be enforced  
8 until and unless EPA grants California's request for a  
9 waiver. Thus EPA's failure to approve California's request  
10 in a time fashion vitiates states roles to protect the  
11 health and welfare of their citizens.

12           As established by Congress, and interpreted by EPA  
13 over the past 30 years, EPA's role in granting a waiver to  
14 California on a particular motor vehicle emission rule is  
15 narrow and deferential. EPA is not to substantiate its  
16 judgment for that of CARB as to whether a standard is too  
17 technically challenging or too expensive. Moreover, EPA may  
18 not base its decision on statutes other than the Clean Air  
19 Act or other policy considerations. Rather, EPA must grant  
20 California's request for a waiver unless it can demonstrate  
21 that the conditions of Section 209(b) of the Act are not  
22 met.

23           EPA must grant the waiver unless it can be shown  
24 by clear and convincing evidence that CARB acted in an  
25 arbitrary and capricious manner when it determined that the

1 addition of the greenhouse gas regulations did not render  
2 California's mobile source program considered, as a whole,  
3 less protective than the federal program.

4 Here it is difficult to imagine how regulating  
5 greenhouse gas emissions, where the federal program does not  
6 contain any parallel regulations, does anything other than  
7 make the California program even more stringent than it was  
8 before these regulations were adopted.

9 Given the fullness of the public process employed  
10 by California and the strength of the administrative record  
11 of support for California's decision there is no basis for  
12 EPA to determine that CARB's decision was arbitrary and  
13 capricious.

14 EPA must grant the waiver unless it determines  
15 that California no longer needs to maintain an independent  
16 motor vehicle emissions program. Under prior precedent the  
17 issue is not whether California needs a particular standard  
18 or whether any particular standard will significantly  
19 contribute to resolving an identified problem unique to  
20 California. EPA determined as recently as December 2006,  
21 one year after California submitted this waiver request,  
22 that there were compelling and extraordinary conditions  
23 warranting a continuing California vehicle emissions  
24 program.

25 In order to now reject California's waiver request

1 EPA would have to establish that something has occurred  
2 since that time that warrants the elimination of the  
3 California program. In this instance California has amassed  
4 an extensive record and documented its continued struggles  
5 with air pollution. With pollution from motor vehicles in  
6 particular and with global warming. There is nothing to  
7 suggest any significant change in circumstance.

8 EPA must grant the waiver unless it determines  
9 that California's motor vehicle program is not consistent  
10 with the requirements of Section 202(a) of the Act. Since  
11 California's program contains the same limitations as found  
12 in Section 202(a) the required consistency is established.

13 In its April 30, 2007 Notice of Public Hearing and  
14 Comment on California's waiver request EPA specifically  
15 solicits comment on three additional matters. NACAA will  
16 respond to each of these in our written comments as well.  
17 Our responses will offer further support for granting  
18 California's request.

19 In conclusion, California's greenhouse gas  
20 regulations and its request for a waiver are clearly in the  
21 public interest. The rules start the process of  
22 demonstrating that this country can address global warming  
23 and at the same time create jobs, enhance energy security,  
24 reduce our dependance on foreign oil and save money for the  
25 consumer.

1           The rules further provide a number of innovations  
2 that will allow California and the 11 states that have  
3 elected to opt into the requirements to continue to serve as  
4 the laboratory for development of national programs,  
5 consistent with the intent of Congress expressed in the  
6 Clean Air Act, thus providing a greater degree of robustness  
7 to the federal, multi-agency greenhouse gas decision-making  
8 process now scheduled for completion by December 2008.

9           NACAA urges EPA to respond to California's 2005  
10 request without further delay and grant complete approval of  
11 the request for a waiver of federal preemption. Thank you  
12 for this opportunity to testify.

13           PRESIDING OFFICER GRUNDLER: Thank you,  
14 Mr. Greene.

15           We will take a break now and reconvene at 1:15.  
16 And we will stay here until everyone has an opportunity to  
17 present their views.

18                           (Whereupon, the lunch recess  
19                           was taken.)

20   --oOo--

21  
22  
23  
24  
25



1 I am going to talk about two issues.

2 PRESIDING OFFICER GRUNDLER: Your parents must be  
3 very disappointed in you.

4 DR. GLEICK: Yeah. I'm going to talk about two  
5 issues and that is water and the rising seas and the impacts  
6 on California coastal communities and resources.

7 California's Legislature recognized pretty early  
8 in this waiver process, and the rulemaking record supports,  
9 both extraordinary and compelling conditions in California  
10 that make us especially vulnerable to climate change and the  
11 impacts of climate change.

12 In particular we have a very large coast, a very  
13 long coast, and coastal resources that are especially  
14 vulnerable to sea level rise and changes in storm patterns,  
15 changes in patterns of storms off the Pacific that hit the  
16 west coast. And our water resources are fundamentally tied  
17 to climate. The climate pattern in California is the  
18 hydrologic cycle and as the climate changes our water  
19 resources will change as well.

20 As noted I think in previous EPA decision the Air  
21 Resources Board has continually demonstrated the existence  
22 of compelling and extraordinary conditions. And I think the  
23 issue of climate change and the impacts on California  
24 support that.

25 In terms of the impacts of climate change, which

1 is I think going to be the focus of most of the panel here  
2 today, there is a very strong, scientific basis for  
3 understanding already what California can expect. There are  
4 over 1,000 peer reviewed scientific papers alone that  
5 address the issue of climate change on California water  
6 resources. Of course of particular interest to us.

7           The state is already beginning to think about  
8 mitigating and adapting to serious impacts on our water  
9 resources. The Governor has proposed infrastructure changes  
10 and management changes to deal with climate change and water  
11 resources. We are already thinking about how to deal with,  
12 if we can, rising seas and impacts on the coastal, on  
13 coastal communities. And I would argue that this waiver is  
14 a key part of that strategy for mitigating and adapting to  
15 climate changes that are probably going to be to some degree  
16 unavoidable.

17           But the key here I think is that there is a big  
18 difference between fast impacts and a big difference between  
19 slow impacts. And there is a big difference between large  
20 impacts and small impacts. And a key fundamental part of  
21 the state strategy to reduce greenhouse gas emissions is to  
22 change the impacts that we are going to experience from fast  
23 to slow and from large, hopefully to relatively small.

24           There are going to be thresholds, there are going  
25 to be things that don't happen for a while and then do

1 happen quickly. The degree to which reducing greenhouse gas  
2 emissions permit us to either avoid those thresholds or to  
3 put them off into the future and give us time to figure out  
4 strategies for adapting and mitigating is really critical to  
5 us.

6 I brought a few slides, I am going to show very  
7 few of them. I really just want to talk about three, I  
8 believe. Okay. Probably the best understood impact of  
9 climate change for California is going to be the loss of  
10 snowpack. You've heard a little bit about it already today.  
11 The science of how rising temperatures is going to affect  
12 California's snowpack is excellent. It is probably the best  
13 understood, highest confidence impact on water resources in  
14 the entire United States.

15 What basically the science is saying is that as it  
16 warms up in California we are going to lose more and more of  
17 our snow. What falls as precipitation is going to fall more  
18 as rain in the winter rather than snow. What does fall as  
19 snow is going to run off faster and earlier.

20 Now this slide shows two different scenarios for  
21 two different time periods. Lower emissions and higher  
22 emissions for the period from 2020 to 2049 on the left and  
23 lower and higher emission scenarios for the later period in  
24 the century, 2070 to 2099.

25 And the only thing I really want you to look at is

1 that first -- there are two points here. First of all we  
2 lose snowpack no matter what. A lot of snowpack. Which  
3 California water managers understand is going to complicate  
4 our lives enormously. But the other point to notice is that  
5 lower emission scenarios buy us both time and magnitude of  
6 impact. The emissions, the lower emission scenarios have  
7 slower loss of snowpack and less loss of snowpack.  
8 Basically this is bad news overall but it also points us to  
9 strategies for reducing emissions any way we can to reduce  
10 the impacts of these rising temperatures.

11 Similarly we worry about sea level rise. And very  
12 briefly, this is the historical record over the last 150  
13 years of sea level rise in San Francisco Bay. It has been  
14 going up, it's gone up about nine inches over the last 150  
15 years. This is that same record with the IPCC's projections  
16 over the next century, approximately. And it's a triangle.  
17 You can see there is an upper range and there is a lower  
18 range.

19 The difference between the upper range and the  
20 consequences for, for example San Francisco Bay, and the  
21 lower range, are enormous. It is the difference between  
22 unfortunately billions of dollars of impacts and perhaps  
23 hundreds of billions of dollars of impacts. Whatever we can  
24 do to get onto the lower trajectories for any of these  
25 impacts of climate change is a good thing.

1           There are going to be unavoidable impacts of  
2 climate change, we understand that. But we also understand  
3 how important it is to couple reductions in emissions with  
4 policies for adaptation and mitigation. And that is really  
5 the message. The message is, reducing emissions buys us  
6 time and it perhaps saves us lives and hundreds of billions  
7 of dollars of consequences.

8           Now the other people on the panel I'm sure will  
9 talk more about water, they'll talk about fires, about  
10 ecosystems. Let me just conclude by saying I think it is  
11 pretty clear that the law and the economics all support a  
12 granting of this waiver. I am not competent to comment on  
13 that. But I think it is also pretty clear that the science  
14 supports a granting of this waiver. And I would argue that  
15 further delay could potentially be seen not as a scientific  
16 issue or a legal issue but as a political one. And I urge  
17 you to promptly settle the review and to grant the waiver.  
18 Thank you very much.

19           PRESIDING OFFICER GRUNDLER: Thank you,  
20 Dr. Gleick.

21           Dr. Bales.

22           DR. BALES: Is this on?

23           PRESIDING OFFICER GRUNDLER: No.

24           DR. BALES: I'll just talk.

25           PRESIDING OFFICER GRUNDLER: Press the button at

1 the bottom of the base.

2 DR. BALES: I see. How about now? That must be  
3 on now. Thank you. Thank you also for receiving my  
4 testimony today. Let me also first introduce my  
5 qualifications to speak on the subject of the unique  
6 vulnerability of California's Sierra Nevada snowpack to  
7 climate change and the critical impacts.

8 I am a professor at the School of Engineering and  
9 the Sierra Nevada Research Institute at the University of  
10 California in Merced. And if you don't know where Merced is  
11 it's south of here in the Central Valley. I joined this  
12 newest and tenth campus four years ago as a founding faculty  
13 member. Before that for 19 years I was a professor of  
14 hydrology and water resources at the University of Arizona.

15 I am a fellow of the American Geophysical Union,  
16 the American Meteorological Society and the American  
17 Association for the Advancement of Science. And I have  
18 published over 100 papers on the subjects related to what I  
19 am talking about today.

20 My primary field of research is the hydrology and  
21 climate of seasonally snow-covered mountains. I have  
22 carried out research in the Sierra Nevada for over 20 years  
23 and have supervised about that many masters and PhD theses  
24 on research there. I also do research on polar, using polar  
25 ice cores.

1           Now I want to draw on material from a paper that  
2 my colleagues and I published last year that presented  
3 evidence that the Sierra Nevada water cycle is on the  
4 threshold of three important changes, and try to attach a  
5 few numbers to that, and on the dramatic effect these  
6 changes will have on the water resources of California.  
7 These changes, as Peter mentioned, are shift from rain to  
8 snow (sic), earlier snowmelt and more severe flooding.

9           I am going to talk about these three figures,  
10 which illustrate those three points.

11           The Sierra Nevada snowpack is on the threshold of  
12 change because it is a relatively warm snowpack; in contrast  
13 to say the Colorado Rockies, which are a much colder  
14 snowpack. That is, a lot of the snowfall occurs at  
15 temperatures just below freezing. So a three degree Celsius  
16 or five degree Fahrenheit increase in the average  
17 temperature, well within projections for coming decades,  
18 could shift about one-third of this precipitation from rain  
19 to snow. This is strictly based on data, historical data,  
20 not on climate model forecasts.

21           And this same temperature increase would result in  
22 about 60 fewer days with average temperatures below  
23 freezing. That means the snow will melt earlier, it won't  
24 come as early in the fall, it will melt earlier in the  
25 spring and we may have melts during the winter season too.

1 That is the winter will be about two months shorter.

2 Now the Sierra Nevada -- I'm going to switch to  
3 the next slide. There. I'll switch to this one then I'll  
4 switch back.

5 The Sierra Nevada snowpack currently stores about  
6 14 million acre-feet of water. I hope people are familiar  
7 with that term. But let's just look at the relative  
8 numbers. Thirteen-and-a-half million acre-feet in the  
9 terminal reservoir, the big foothill reservoirs in the  
10 Sacramento Valley, 11 million acre-feet. It's of comparable  
11 magnitude. Snowpack storage is not something that we can --  
12 our reservoirs -- All this change in snowpack storage is not  
13 something our reservoirs are built to handle and it is of  
14 comparable magnitude to the reservoir storage in the  
15 Sacramento or San Joaquin Valley. Now let me go back if I  
16 can. Thank you.

17 Looking at the flooding issue. One of the  
18 consequences associated with changes in snowpack, the range  
19 of snow transition, the earlier melting, will be more severe  
20 flooding. Particularly in the central and southern Sierra  
21 Nevada where historically precipitation falls largely as  
22 snow. In some of these southern Sierra basins almost over  
23 90 percent of the precipitation is snowpack.

24 With this -- Again, with this three degree  
25 increase in temperature nearly half of the larger storms in

1 the central and southern Sierra that are currently  
2 snowstorms, these big snowstorms will become rainstorms.  
3 And they could well be rain on snow storms, which is our  
4 worst type of flooding event associated with snow.

5 So California's dams and reservoirs are not  
6 designed to contain this increase in severe floods. In  
7 fact, they are already taxed by the occasional severe rain  
8 on snow storms, storms that will become more prevalent under  
9 a warmer climate.

10 Looking downstream, dams and levees that were  
11 built to contain these historical 100 year floods won't  
12 provide the same level of protection in a warmer climate,  
13 with real and severe consequences for the Sacramento-San  
14 Joaquin Delta, Central Valley cities, agriculture and the  
15 statewide economy.

16 So consequences for the reliability of  
17 California's water supply, the health of forests in a warmer  
18 and drier climate. If the water runs off earlier you get a  
19 drier climate in the summer and you get more severe fires.  
20 The sustainability of the Sierra Nevada communities subject  
21 to increased fire danger is also severe.

22 Now the geography, the geology and the engineering  
23 constraints limit California's ability to provide structural  
24 solutions to mitigate these changes in the snowpack. Our  
25 Sierra Nevada snowpack is critical but an especially

1 vulnerable resource, very sensitive to temperature  
2 increases. Thank you.

3 PRESIDING OFFICER GRUNDLER: Thank you very much.

4 Dr. Torn.

5 DR. TORN: Thank you. Is this on?

6 PRESIDING OFFICER GRUNDLER: Yes.

7 DR. TORN: Okay, thank you. My name is Margaret  
8 Torn. Thank you very much for the opportunity to speak to  
9 you today. I am a staff scientist at Lawrence Berkeley  
10 National Laboratory where I am head of the Climate Change  
11 and Carbon Management Program and I am an adjunct professor  
12 in the energy resources group at UC Berkeley.

13 I have been conducting research on climate change  
14 for about 20 years, much of it on wildfire, and I have  
15 published several scientific papers on the effect of climate  
16 change on wildfire severity in California. And I contribute  
17 to the National Interagency Climate Change Science Program  
18 as a member of the science steering group for the North  
19 American Carbon Program and as a member of the ecosystems  
20 group.

21 And I want to make three points today, they are  
22 fairly simple. One is that wildfires are one of the major  
23 natural disasters in California. Two, that wildfire  
24 severity is a function of climate and the kinds of changes  
25 that are predicted in climate will make wildfire severity

1 worse in California. Third, that the way the amount of  
2 damage, the amount of risk depends on how much climate  
3 change we have and therefore a safer future depends on  
4 reducing emissions and reducing climate change.

5           So as I said, fire is a major natural disaster  
6 regime for California. Every year we have a lot of large  
7 fires. The average total area burned in large fires is  
8 400,000 acres a year but in a bad year that can be two or  
9 three times that number so one percent of the state's area.  
10 And if you look at average annual damages and suppression,  
11 especially -- in an average year you're at something like  
12 \$800 million. One single fire like the fire in Southern  
13 California in 2003 in October had \$2 billion worth of  
14 damage.

15           And there are other losses as well of course  
16 besides property losses and suppression costs, casualties  
17 and injury. Fires are a major source of air pollutants.  
18 They lead to erosions and landslides. During periods of  
19 high fire danger, even without fire, logging and other  
20 economic activities are restricted in high fire danger  
21 areas.

22           And then fire is also a defining part of  
23 California's ecosystems. Fire is a major source of  
24 mortality but it is also a major source of regeneration. So  
25 it can be a very positive force but it helps define

1 ecosystem structure and function for the state.

2           In the last three decades wildfire frequency in  
3 the west has increased four-fold. And that was documented  
4 very nicely in a paper in Science published last year by  
5 Tony Westerling. And he looked at what this increase was  
6 attributed to and it was attributed to climate trends. He  
7 looked at other possible causes such as land use history but  
8 that does not increase this increase. What does explain the  
9 increase is warmer summers and earlier snowmelt that leads  
10 to drier conditions and more flammable forests like we heard  
11 earlier. And I would note that also as we heard, those are  
12 exactly the kind of conditions that are predicted to become  
13 more common, more prevalent in California.

14           I'll talk a little bit about severity, I mentioned  
15 that word. I just want to say what it means. We use it to  
16 mean how much area burns or how hard it is to suppress  
17 fires. How much time the state spends in a period of very  
18 high fire alert, which as I said restricts activities and  
19 costs some money in its own right. And how much property or  
20 ecosystem damage is done by fires. And those are all  
21 outcomes of great concern to California.

22           So as I said, climate has a big effect on wildfire  
23 severity. It affects the ease of fire starts, how easy it  
24 is to start a fire. Although starts in California are  
25 mainly anthropogenic. But whether a fire takes off. How

1 hot fires burn and how fast fires spread and that depends on  
2 temperature, precipitation, wind and humidity. And we look  
3 at predictions. Those are all predicted to change in most  
4 of the state in ways that will make wildfire conditions  
5 worse. And if fires start make fires spread faster and  
6 harder to suppress.

7           So it's as if we are looking at this wildfire  
8 danger sign. You have probably seen things like that so you  
9 are intuitively familiar with the importance of conditions,  
10 weather conditions for fire. Say we were in medium. We can  
11 be pushed up to the next higher level. If we would have  
12 been in -- now I can't read this anymore. But from high  
13 danger to extreme danger. And that is the risk that we face  
14 if climate change is unabated.

15           Now it is very difficult to predict the exact  
16 future fire damages because the outcome in any given year  
17 depends on when and where fires start combined with the  
18 variability of climate in any given day and place. But what  
19 we do is look at statistics and say that continued climate  
20 change is going to increase the number of days with severe  
21 fire danger and increase the length of the fire season.

22           But we can go farther than that and we have. For  
23 example in a recent analysis we actually used models of fire  
24 spread and fire suppression to look at predicted changes in  
25 climate in different regions of California. And what we see

1 is that because fires are predicted to burn hotter and  
2 spread faster they are much harder to suppress. They escape  
3 initial attack suppression. And fires that escape are the  
4 fires that can go on to become catastrophic fires. Those  
5 are the large fires that do all the damage.

6           What we found was that with continued high  
7 emissions the number of potentially catastrophic fires in  
8 California, and this was for Northern California, will  
9 double. We've redone the exercise also for Southern  
10 California and again see very high rates of increase in  
11 what's predicted to occur for escape. So those are the  
12 number of fires that could become large fires. And I will  
13 say that that increase occurs even though we let fire  
14 suppression be ramped up in those scenarios.

15           So how bad will it be? It certainly depends on  
16 how much climate changes and how fast. So as you can see  
17 from this graph, what you also saw earlier in the morning,  
18 the increase in the number of large fires depends on the  
19 emission scenarios. That yellow bar is lower warming range,  
20 the blue bar is medium warming range. And since more  
21 emissions will give more warming we can see that the higher  
22 warming or higher emissions have much higher increase in  
23 fires.

24           The other thing to notice here, it was probably  
25 already mentioned, is that the fire in the photo in the

1 background there is that Southern California fire in 2003,  
2 October, that I mentioned. Those are pollution plumes.  
3 Those are aerosols, CO, other species that help form smog in  
4 the state. And they happen to be going offshore here but  
5 you can see how big an effect wildfires can have on air  
6 quality over a very large area.

7 So this is the question, I think. In California  
8 we spend a lot of time and a lot of area of the state in  
9 very high fire danger. We have a long fire season. And the  
10 question is, where will climate change put us on this graph.  
11 Thank you.

12 PRESIDING OFFICER GRUNDLER: Thank you very much.

13 Dr. Mike Kleeman.

14 DR. KLEEMAN: Thank you for the opportunity to  
15 present testimony here today. I'll begin as others did with  
16 a quick summary of my qualifications in this matter. I'm a  
17 professor of civil and environmental engineering at the  
18 University of California at Davis where I teach  
19 undergraduate and graduate classes. I've earned a  
20 bachelor's degree in mechanical engineering and then  
21 master's and PhD in environmental engineering science from  
22 the California Institute of Technology.

23 I have published more than 40 papers on urban and  
24 regional air pollution problems with a focus on ozone and  
25 airborne particles in California. I'm a principal

1 investigator for three current projects funded by the US EPA  
2 and the California Air Resources Board dealing with climate  
3 and air quality in California and I am an expert in those  
4 areas.

5           There's two main components of photochemical smog,  
6 those being ozone and airborne particles. And the health  
7 effects I'm sure are well known to you at this point from  
8 both of those pollutants and so I won't deal with them other  
9 than to say that California routinely exceeds the accepted  
10 health-based standards for these pollutants and we have to  
11 do something to protect public health.

12           I am going to focus my comments on ozone today  
13 because I believe that the weight of scientific evidence,  
14 even at this early stage, supports robust conclusions in  
15 that matter related to climate change.

16           California has the world's sixth largest economy,  
17 depending on the year that you measure it, and all of this  
18 activity is taking place in some very confined air basins.  
19 The South Coast Air Basin labeled on this map is home to Los  
20 Angeles with a population of around 15 million people. That  
21 means that approximately 1 in every 20 people in the United  
22 States lives in Los Angeles. So it's a very significant  
23 number of people living in that air basin. It has arguably  
24 the worst air quality in the United States as well. The San  
25 Joaquin Valley, a slightly larger air basin, is home to 3

1 million people. It is one of the most rapidly growing areas  
2 in California right now.

3           And no other place in the United States has the  
4 level of economic activity, the level of population, in such  
5 confined air basins. So there's a reason that California  
6 has such severe air quality problems, because we have all  
7 this economic activity in such well-confined air basins.

8           So how will climate change affect air quality in  
9 California? Well, the confined air basins are only one part  
10 of the problem. When the weather patterns produce stable  
11 atmospheric conditions we have a very stagnant atmosphere  
12 and we trap all of those emissions close to the earth's  
13 surface where we will breathe them.

14           By definition then it means that climate change  
15 will have an effect on air quality in California. There's  
16 temperature and relative humidity effects to consider, cloud  
17 cover. All of these things related to climate change will  
18 influence the air quality system. In order to try to  
19 understand what the dominant effects are we try to use model  
20 calculations and we try to look at the historical  
21 measurement record to try to understand in which direction  
22 climate change will push those things.

23           What I am showing you here is one example of a  
24 study where we predicted ozone concentrations for Los  
25 Angeles. And this is a typical episode, a severe

1 photochemical episode in Los Angeles. We're looking at the  
2 predicted one-hour concentrations of ozone in the region.  
3 And the health-based standard, one health-based standard  
4 that one could look at would be 90 parts per billion as an  
5 acceptable level and we can see that we're almost three  
6 times that level. I show this to you to emphasize that this  
7 is a well-studied episode. It has been the focus of many  
8 publications. And we think that we understand the dynamics  
9 that produce ozone formation in this episode.

10           The question then would be, what would happen if  
11 we would increase the temperature in that episode by five  
12 degrees? What would we see? And just due to the chemical  
13 reactions speeding up and the thermal decomposition of some  
14 chemical reservoir species we get an additional 60 parts per  
15 billion of ozone in this episode due to that increased  
16 temperature.

17           Now there are other things that happen at the same  
18 time. It's not just the effect of climate on chemistry that  
19 matters, there is also an effect on increased emissions. We  
20 know that biogenic emissions from plants increase at hotter  
21 temperatures. We know that evaporative emissions from  
22 mobile sources increase at hotter temperatures. And we  
23 expect that power plant emissions of oxides of nitrogen will  
24 also increase at hotter temperatures due to increased  
25 electrical demand. And those higher emissions will

1 generally then lead to higher concentrations of ozone.

2           It's actually worse than that because the  
3 background ozone levels are also increasing over time. If  
4 we look at the record, the measured record of ozone  
5 concentrations that are blowing into California from upwind  
6 sources, just sort of background ozone concentrations, those  
7 are going up over time due to various effects, emissions  
8 worldwide. And we expect that trend to continue.

9           Any ozone that blows into California adds to the  
10 ozone that we produce locally. The majority of our ozone  
11 currently is produced locally but every increase in the  
12 background ozone concentration reduces the amount that we  
13 can afford to produce before we impact public health. And  
14 so the status quo isn't enough. We really have to address  
15 this problem, it's changing over time.

16           This is a study performed by Harley and coworkers  
17 at the University of California at Berkeley where they  
18 looked at the combined effect of these different changes  
19 that will happen in the future related to climate and  
20 emissions controls and tried to see what the dominant  
21 effects were. And I want to point out several things on  
22 this plot. The first one is the effect just of temperature,  
23 here shown in this first cluster, on the ozone  
24 concentrations in Central California for Fresno, Sacramento  
25 and the Bay Area. And we're looking at the percentage

1 change of ozone. Increased temperatures in the future are  
2 expected to increase ozone concentrations and that's  
3 consistent with what other studies have shown.

4 The emissions effect of biogenic VOCs is also  
5 present. You can see that the effect of increased  
6 temperatures in the year 2050 on emissions from plants will  
7 increase ozone concentrations. And the boundary conditions  
8 will also go up over time and that increases ozone  
9 concentrations as well.

10 California is combatting this problem with  
11 emissions controls and so you see here the fourth column  
12 shows a large negative change in the ozone concentrations  
13 and that is due to the anticipated effect of the emissions  
14 controls that California is going to apply.

15 What I want to show though, I want to contrast the  
16 magnitude of that change in the concentrations that's driven  
17 by the emissions controls to the change that climate would  
18 mitigate onto that system. And so the final cluster here  
19 shows the combined effect of simultaneous changes in  
20 emissions controls and then the climate penalty that is  
21 imposed. And what you can see is that the climate changes  
22 that we see happening in the future are of sufficient  
23 magnitude to completely offset all of the emissions benefits  
24 that we gained in the Bay Area. And to reduce significantly  
25 the benefits to ozone concentrations in the other areas, in

1 Fresno and Sacramento in Central California.

2 And so that means that California will have to  
3 work harder. California will have to implement additional  
4 emissions controls in order to offset the climate penalty  
5 that we see coming from climate change.

6 So just in conclusion, California's air basins  
7 currently exceed the health-based standards, we have to do  
8 something. Background ozone concentrations are going up  
9 over time and the status quo is not enough. The weight of  
10 scientific evidence suggests that temperature will increase  
11 in California and this will have impacts on ozone  
12 concentrations and it will impose a climate impact on  
13 California, or a climate penalty on California, where we  
14 have to reduce emissions even further in order to achieve  
15 the same level of ozone control in the state.

16 With that I'll thank you.

17 PRESIDING OFFICER GRUNDLER: Thank you for your  
18 testimony.

19 Next I'd like to invite Dr. Louise Jackson to  
20 present. Welcome.

21 DR. JACKSON: Thanks for inviting me here and  
22 thanks for the opportunity to speak. My name is Louise  
23 Jackson. I am a professor and extension specialist at the  
24 Department of Land, Air and Water Resources at University of  
25 California at Davis. I am also the Orr Chair in Plant

1 Environmental Sciences. For most of my career I have worked  
2 on ecosystem processes in agricultural and grassland systems  
3 in California and I'd like to speak today about the impacts  
4 that I believe are very serious for California agriculture.

5 Agriculture in California only produces less than  
6 eight percent of the greenhouse gas emissions at present.  
7 But agriculture will suffer a disproportionately large  
8 impact from any results of climate change. That has a big  
9 impact on the United States as a whole.

10 California has the most productive area in the  
11 United States in terms of agriculture. It produces half of  
12 the nation's fruits and vegetables, 19 percent of the dairy.  
13 And about 85 percent of California agricultural products are  
14 used within the United States.

15 We have many diverse commodities with very unique  
16 growing conditions. You can see from the top ten that many  
17 are specialty crops. Crops that have special requirements  
18 for temperature and moisture that are hard to satisfy.

19 California agriculture supports a lot of  
20 employment, especially in the Central Valley, and many  
21 farms. So if there are impacts on agriculture from climate  
22 change California will definitely feel the pinch.

23 Some people have hypothesized, well maybe higher  
24 CO2 will increase plant growth, a benefit for agriculture.  
25 In reality the new studies that are coming out are showing

1 that we won't under most actual growing conditions see more  
2 than about a five to eight percent increase in vegetative  
3 growth due to CO2 enrichment. That's because other factors  
4 such as water are limiting.

5           The other big issue, especially for specialty  
6 crops, is that crop developmental responses are much more  
7 complex than a simple increase in growth from enriched CO2.  
8 One example is fruit trees. Fruit trees have winter  
9 chilling requirements. For example, fruit trees, we count  
10 those in chill hours, the number of hours per year that are  
11 less than 45 degrees, for example.

12           Already in the last century there has been a  
13 reduction of 50 to 500 hours per year in different growing  
14 regions in California. And you can see that that's a  
15 significant proportion of the hours required by fruit trees  
16 to flower and we're already seeing events such as in 2004  
17 for peaches where low chilling requirements have prevented a  
18 good harvest of crops.

19           On the other side of the slide I've listed a  
20 number of factors that will affect California's specialty  
21 crops. For example tomatoes have reduced fruit number at  
22 temperatures of above about 100 degrees. For lettuce we  
23 might see higher growth rates in some of our cool season  
24 times of the year but bolting, which is the onset of  
25 flowering, can increase above about 70 degrees and there is

1 increased tip burn as well. So some of our coastal areas,  
2 even if they experience slight increases in climate change,  
3 may see problems for lettuce, which is one of our main crops  
4 in California.

5           For rice at higher temperatures we see reduced  
6 yields. I've already spoken a little bit about stone  
7 fruits. Chilling requirements, decreased fruit size and  
8 quality. Citrus is one of the crops that may actually  
9 benefit from climate change. What we might expect with  
10 citrus is to see the citrus production move further north  
11 because there's reduced frost losses during the winter. For  
12 grapes the speculations and models seem to suggest that we  
13 get premature ripening and reductions in quality and yield  
14 variability at higher temperatures.

15           There's a lot of unknown challenges as well. The  
16 newest research that is coming out is suggesting that water  
17 use will increase but that there is a unique response for  
18 each commodity. So even though there is some CO2 enrichment  
19 that might reduce -- that might increase water use  
20 efficiency the results of higher evaporation will increase  
21 water use.

22           As we just heard about ozone, it is likely to  
23 increase. And ozone affects not only humans but plants.  
24 Already we are seeing probably about a five to ten percent  
25 decrease in yields due to ozone as it stands today in the

1 Central Valley.

2           Crop pests are our biggest unknowns. Some  
3 diseases are likely to increase with warm, wet scenarios  
4 compared to warm, dry scenarios. For example, downy mildew  
5 in lettuce, which is a major pest. Insect pests are likely  
6 to be more likely to survive during winter but then leaf  
7 quality due to lower nitrogen, which is typical of plants  
8 growing under high CO2, might deter some of the damage.  
9 There might be some new C4 species, weeds that can grow  
10 under higher temperatures arriving in California. These are  
11 things we just don't know but have to plan for.

12           There is also in the cattle and dairy cows a  
13 likelihood of lower milk yield at higher temperatures of  
14 above 100 degrees.

15           This is an example of some modeling that was done  
16 for the Pink Bollworm in cotton showing that this insect  
17 pest, which is now just in the southern desert areas, if the  
18 winter temperatures were to rise to about 2.7 degrees  
19 Fahrenheit in the winter we'd see increased prevalence of  
20 that pest in the southern growing regions. If it increases  
21 to 4.5 degrees Fahrenheit we'll start seeing the pest in the  
22 Southern San Joaquin Valley where now it is not present due  
23 to the winter frosts that exist in the northern area.

24           So to sum up what I'd like to do is emphasize the  
25 fact that as global warming increases so do the impacts on

1 California agriculture. Agriculture is very sensitive to  
2 temperature change so that even small changes can have a big  
3 effect. Right now we are already seeing heat waves that  
4 cause crop damage, especially to specialty crops. But under  
5 high emission scenarios we'd expect to see double the heat  
6 waves that we will at lower emission scenarios. We would  
7 expect to see eventual loss of important commodities,  
8 especially at high emissions.

9 We are going to have to invest quite a bit of  
10 money into crop and livestock breeding for heat tolerance  
11 and possibly drought tolerance as well. One very likely  
12 issue is that land use will change. Specialty crops will  
13 move north and south and that is a big cost to industries  
14 that have whole production systems arranged in specific  
15 areas. And there is also some speculation that urbanization  
16 may increase if there is precariousness of different kinds  
17 of specialty crop production.

18 As we've already heard, dry scenarios are very  
19 likely to bring high economic costs in crop failure to  
20 agriculture. And the likelihood is we'll see some of our  
21 mainstay agronomic crops, such as alfalfa, cotton, rice,  
22 irrigated pasture that uses a lot of water, be replaced with  
23 either crops with lower water demand or other land uses.

24 We're going to need a lot of technological  
25 improvement for water conservation. And even more

1 expensive, as you just heard about, is the fact that there  
2 is going to be needs for levees and water storage to keep  
3 the deliveries going to California agricultural areas. Even  
4 if we have more water in the lowland areas we still need to  
5 deliver it.

6 So the conclusion that I would like to present is  
7 that when we are looking at high emission scenarios over the  
8 next 50 to 100 years for California agriculture they are  
9 likely to bring economic hardship, loss of livelihoods and  
10 instability of rural communities to California. Thank you.

11 PRESIDING OFFICER GRUNDLER: Thank you,  
12 Dr. Jackson.

13 Dr. Dale.

14 DR. DALE: Thank you. My name is Larry Dale, I  
15 work at Lawrence Berkeley National Laboratory. I have been  
16 Associate Director at the California Climate Change Center  
17 for the last couple of years. And I'll report on some of  
18 the results of that work here largely related to water and  
19 to some degree energy use and the impacts of climate change  
20 on those production activities. I keep publishing all these  
21 papers and climate change studies but my mother will never  
22 be impressed with me, I think. (Laughter)

23 PRESIDING OFFICER GRUNDLER: Will you make sure  
24 your mic is on, please.

25 DR. DALE: Is it on?

1           As you have heard, water is essential to  
2 California's development. We are a semiarid state. We've  
3 got 35 million people here and none of us would be here if  
4 in one way or another we couldn't get some water either to  
5 agriculture or to the urban areas where we live. This  
6 development has been made possible by overcoming a  
7 fundamental mismatch in the timing of when water comes in  
8 the form of winter precipitation and snow and when we need  
9 it. We use about 75 percent of the water in the summer,  
10 largely for agriculture.

11           This mismatch has been resolved or is resolved by  
12 an elaborate system and a mix of both manmade storage,  
13 that's our reservoirs, and natural storage, which is the  
14 snow about which you've heard so much already.

15           Now climate change threatens half of that storage,  
16 which carries over the water when it comes and when we need  
17 it. If emissions continue unabated, as you saw the  
18 predictions are we're going to lose most of the snowpack.  
19 If we manage to curb emissions we can keep most of the  
20 snowpack. This is important. If we lose the snowpack we  
21 lose half the effective water storage used to bridge this  
22 time gap that I talked about.

23           This can have many adverse effects on the state,  
24 some of which you've heard. There's higher flood risk.  
25 Instead of that water falling and staying up in the

1 mountains as snow it can all come down in one big rush.

2 This place could be underwater some day.

3           There will be more droughts. Under the climate  
4 scenario predictions that we've looked at using the climate  
5 models and the state models for water supply we see that  
6 over half the years would be classified as dry or critically  
7 dry years. That would mean lower divergence to farmers. In  
8 critically dry years now many farmers, many parts of the  
9 Central Valley that produce these crops that Louise was  
10 talking about would get no surface water supply.

11           Now the cost to the state of all these things, I'm  
12 an economist, I'm supposed to come up with a number. But  
13 the cost is likely to depend on what we do as a state. And  
14 the first reaction, in my opinion, is going to be an ironic  
15 one but we're going to increase the amount of electricity we  
16 use. Here we are trying to curb emissions, climate change  
17 is going to force us to increase electricity use unless  
18 we're careful.

19           This would happen because first farmers would do  
20 as they have always done in the past. When they don't get  
21 surface water they start pumping ground water. Enough years  
22 elapse and the studies we have done show ground water levels  
23 could be falling permanently 200, 300 feet down. That means  
24 a big increase in electricity use to get the water.

25           Similarly in urban areas the reaction will likely

1 be to increase desalination plants, recycling plants, both  
2 of which require large amounts of electricity. So do long  
3 distance transfers of water to the state.

4           Again, this is an ironic feature of what can  
5 happen because we'll be doing large efforts to curb our  
6 emissions but at the same time our demand is going to be  
7 growing.

8           In my opinion this reaction is not going to be  
9 sustained because I think we'll also do what we have done in  
10 order to avoid this for farmers and that is build new  
11 storage reservoirs. These are expensive but there is  
12 potential to do this. And if you want a number to hang on  
13 to as a notion of what the climate change can cost the state  
14 think of what it costs to build new storage in this state.

15           The estimates from the latest federal and state  
16 studies suggest the costs range between \$700 and \$4,000 an  
17 acre-foot of storage. The snowpack losses we've talking  
18 about average about eight million acre-feet of storage. So  
19 that's a number like \$11 billion. That's a rough estimate  
20 of what it can cost the state due to climate change. If we  
21 curb emissions we can cut those costs in half.

22           So to sum up, water is essential to the economy.  
23 The snowpack is needed to bridge the timing of when water  
24 come and when we need it. Climate change can eliminate a  
25 lot of that bridge, a lot of that storage. And while the

1 economic impacts are hard to quantify, if we assume we're  
2 going to be building storage to make up for the loss of  
3 snowpack the costs can range up to \$11 billion.

4 PRESIDING OFFICER GRUNDLER: Thank you very much.  
5 Any questions from the panel?

6 PANELIST HOROWITZ: I have a question for the  
7 entire panel. Earlier today we heard testimony from the  
8 auto manufacturers that there is no evidence that the  
9 greenhouse gas standards that we are talking about today,  
10 even if they were applied nationwide, would have any effect  
11 on the consequences of climate change that you have been  
12 talking about on the panel. Does anyone on the panel have  
13 any comment about that?

14 DR. GLEICK: I'll make a short one. It's wrong.

15 PANELIST HOROWITZ: Okay. Anything you can say to  
16 back that up or put in your written comments would be --

17 DR. GLEICK: Well sure. Other people have already  
18 testified with specific numbers but the transportation  
19 sector alone accounts for a very substantial fraction of  
20 national greenhouse gas emissions and a larger fraction of  
21 California's emissions. It is obvious these standards would  
22 have an enormous effect in the long run on reducing our  
23 emissions. You have also heard testimony from the other  
24 states that there are a number of other states willing to  
25 adopt California's standards as we move forward. It's one

1 piece of a large strategy to reduce emissions, it is not a  
2 silver bullet, but it's an important component of an overall  
3 strategy.

4 DR. BALES: There is no silver bullet but if you  
5 want to reduce greenhouse gases you look for sources of CO2  
6 emissions that can be reduced and the transportation sector  
7 has to be part of that mix.

8 PRESIDING OFFICER GRUNDLER: Thank you again for  
9 taking the time to present such thoughtful testimony.

10 I'd like to invite the next panel, which is  
11 comprised of a number of non-governmental organizations.  
12 Please come up.

13 I'd like to remind everyone that these proceedings  
14 are being webcast so hopefully you've told your family  
15 members the website so that they can watch you. (Laughter)

16 I'd like to invite Mr. Russell Long to present the  
17 first testimony.

18 MR. LONG: If it's okay with all you I'd like to  
19 defer to Patricia Monahan at Union of Concerned Scientists  
20 who has, she has a previous obligation to leave.

21 PRESIDING OFFICER GRUNDLER: That would be fine.

22 MS. MONAHAN: To pick up my children so thanks for  
23 your accommodation. My name is Patricia Monahan. I am the  
24 Deputy Director of Clean Vehicles for the Union of Concerned  
25 Scientists and I am also the California Office Director. My

1 comments today are on behalf of UCS and our over 240,000  
2 members and activists. UCS is a leading science-based  
3 nonprofit working on solutions to major environmental  
4 challenges like global warming. UCS's transportation  
5 program was born in California in 1991 and we have been  
6 working here for 15 years on policies and regulations to  
7 strengthen California's vehicle emission standards.

8 We urge EPA to allow California and the 11 other  
9 states to implement tailpipe emissions standards for global  
10 warming pollution from cars and trucks. Global warming is  
11 the gravest environmental challenge humankind has faced and  
12 you have heard from a number of reputable scientists on the  
13 impacts here in California, which are significant. By  
14 allowing states to act now we make it easier to avoid the  
15 most catastrophic impacts of climate change.

16 California's greenhouse gas standards for vehicles  
17 are achievable through fuels and technologies available  
18 today. California's standards require a 34 percent  
19 reduction in global warming pollution for cars and light  
20 trucks and a 25 percent reduction for larger trucks and SUVs  
21 within the next ten years. Auto makers can build affordable  
22 vehicles with existing technology that would meet or exceed  
23 California's global warming pollution standards. At UCS we  
24 have created a minivan design that shows how auto makers  
25 could meet the standards using a combination of vehicle

1 technology and low carbon fuels available today.

2 Our minivan, which we have dubbed the UCS  
3 Vanguard, runs on E85 fuel and features engine, transmission  
4 and vehicle designs available today. The Vanguard reduces  
5 global warming pollution by more than 40 percent, which  
6 exceeds California's emissions standards. This technology  
7 package would cost only \$300 and would save the consumer  
8 over \$1300 in reduced fuel costs.

9 All of the technologies in the Vanguard are in  
10 vehicles on the road today but auto makers have yet to  
11 combine them in a single package. We have a UCS Vanguard  
12 brochure that on the back, which I'll be submitting, has a  
13 list of all the vehicles that are available today with the  
14 package of technologies that we employed on the Vanguard.

15 This package can be achieved with no sacrifice in  
16 performance or size. And wince we're using off-the-shelf  
17 technologies we're not talking pie in the sky, we're not  
18 even talking hybrid. If you want to see more you can check  
19 out our website which has more detail on the features but  
20 I'll be discussing some of the more prominent ones on the  
21 Vanguard.

22 The Vanguard minivan design's key components can  
23 be found piecemeal in more than 100 vehicle models on the  
24 road today. The Vanguard uses conventional technology to  
25 achieve significant reductions in global warming pollution.

1 Here are some of the technologies that we employed:

2           Variable valve and timing on engines, such as the  
3 Honda VTEC. Cylinder deactivation, or as GM calls it,  
4 Active Fuel Management, which activates the cylinders when you  
5 need them. Automated manual transmission, which is in the  
6 Audi A3 and in several VW models like the Jetta. that  
7 blends the performance of a manual with the ease and  
8 convenience of an automatic. Six speed transmissions, which  
9 are in Ford Explorers and almost all BMWs. Air conditioning  
10 with better hoses and more efficient compressors. Improved  
11 aerodynamics and tires that reduce the load on vehicles.  
12 Electrification of components such as the steering on  
13 Acura's NSX. And flex-fuel capability to allow the vehicle  
14 to use E85. The technology package on the Vanguard can be  
15 used on the smallest cars to the largest trucks.

16           The Vanguard shows that global warming pollution  
17 reduction is possible with technologies and fuels used in  
18 cars today with no sacrifice required of the consumer.  
19 Vehicles meeting the standards have the same size, same  
20 acceleration, and same safety characteristics of higher  
21 polluting vehicles. And the consumer actually saves money.

22           We urge EPA to grant the waiver to allow  
23 California and the 11 other states who have adopted the  
24 standards to move forward immediately. By using technology  
25 already in vehicles on the market today the auto industry

1 can build no compromises cars and trucks that meet  
2 California's standards and the consumer's passenger-  
3 carrying, load-hauling and performance needs.

4           Historically auto makers have opposed basic safety  
5 and emission standards, making exaggerated claims about the  
6 cost of seat belts or catalytic converters. Auto companies  
7 need to look forward to a future with cleaner vehicles,  
8 rather than always looking into the rear view mirror at the  
9 past. It's time to make auto companies put their talented  
10 engineers to work on designing cleaner vehicles. Thank you.

11           PRESIDING OFFICER GRUNDLER: Thank you.

12           Mr. Long.

13           MR. LONG: I'm Russell Long and I am speaking on  
14 behalf of the 80,000 members of Bluewater Network and  
15 Friends of the Earth today.

16           In January 2001 our organization developed a  
17 relatively simple legislative solution for reducing  
18 greenhouse gas emissions from automobiles. With  
19 Assemblywoman Pavley we introduced a bill that would reduce  
20 such emissions to the maximum, feasible and constant effect  
21 of extent possible. The goal was to prevent global warming  
22 by holistically targeting all of a cars' greenhouse gas  
23 emissions rather than focusing simply on tailpipe emissions  
24 as had been the practice with criteria pollutants. Our goal  
25 was also to provide continuing authority for the state to

1 make further improvements in the future.

2           And in deference to the auto industry's analyst's  
3 concerns about the need for regulatory flexibility there  
4 would be no specific mandates on how the industry should  
5 meet the targets. This approach would for the first time  
6 open the door to reductions in nitrous oxide emissions from  
7 catalysts, HCFCs from AC units, the carbon content of the  
8 fuels themselves, something that we're very pleased the  
9 Governor decided to act on last year, in addition permitting  
10 fuel efficiency measures such as engine and drive-train  
11 performance to meet any new standards set by the state.

12           Since we were pessimistic about federal action at  
13 the time we asked the state to use its unique authority to  
14 move this effort forward. And our hope was that if we  
15 succeeded other states would follow and this would  
16 eventually lead to the federal government -- lead the  
17 federal government to create a national standard quite  
18 similar to California's.

19           With so many states having now adopted the  
20 California regulations, and with Congress considering  
21 similar measures, we are very pleased that our original  
22 vision has been virtually borne out. During this process we  
23 pushed the Air Resources Board to consider all feasible  
24 alternatives for greenhouse gas emissions reductions,  
25 including the need to consider the use of plug-in electric

1 hybrids as well as alternative fuels as key elements towards  
2 creating a cleaner automotive sector.

3           At modest cost increases plug-in hybrids have the  
4 ability to reduce greenhouse gas emissions by 50 percent or  
5 more and continue to represent the most important area for  
6 short- and medium-term improvements in emissions.

7           And at this point I'd like address some previous  
8 comments by others. Once again the auto industry comments  
9 demonstrate the same doom and gloom attitude they  
10 demonstrated with seat belts as Patricia mentioned, with air  
11 bags, catalytic converters, unleaded fuel. They say, we  
12 can't do it, it's not feasible, it'll cost too much, it  
13 won't have any effect.

14           And today their pessimism has hit a new low with  
15 their approach to climate change. In essence their point is  
16 that even if this regulation were extended globally it  
17 wouldn't reduce global warming by any appreciable amount.  
18 Well first I would like to point out that much of the  
19 testimony and the comments by scientists and regulators that  
20 they cited were taken very much out of context so these need  
21 to be taken with a grain or perhaps a boulder of salt. This  
22 is true for Dr. Hansen's testimony as well as those by the  
23 New York and Vermont regulators.

24           Second, the Alliance fails to mention anything  
25 about climate tipping points. As many climate scientists

1 have noted, we are fast approaching a time when the planet  
2 could be tipped into runaway global warming. It is unclear  
3 exactly when that is but many respected researchers believe  
4 we are already dangerously close to that point. If we  
5 arrive there, there will be nothing that anyone can do to  
6 stop global warming. Every nation, every state, every  
7 industry, every citizen will have to do their share if we  
8 are to avert a catastrophe. Will that be enough? Nobody  
9 has that answer.

10 But unlike the auto industry, which seems to be  
11 arguing today that we should simply put our heads in the  
12 sands and hope the problem goes away by itself, we need to  
13 act now to protect our homes, our citizens, our jobs, our  
14 wildlife and our planet.

15 And the fact is that the projected amount of  
16 greenhouse gas emissions reductions from this regulation in  
17 California alone, let alone worldwide, is staggering. This  
18 is not a trivial reduction. As the global auto fleet  
19 approaches one billion cars, if this regulation were carried  
20 over to all new vehicles, global greenhouse gas emissions  
21 would fall dramatically from the baseline, representing  
22 significant progress in our fight to avert this problem.  
23 Plus the Air Resources Board does have continuing authority  
24 to tighten these regulations, which would allow us to dig  
25 even deeper.

1           Third, the Alliance has some explaining to do  
2 because in recent Congressional hearings they recognized  
3 that global warming is a problem. And they acknowledged the  
4 need to do something about it and they said this needed to  
5 be done on a national basis. How then can Mr. Clubok then  
6 claim today that there is nothing to be done. The Alliance  
7 testimony this morning was not only deceptive but  
8 inconsistent with what they are telling our federal  
9 legislators in Washington DC.

10           EPA has a long history of successfully working in  
11 conjunction with states, including California, to protect  
12 our air and water quality. Now is not an opportunity to  
13 strangle states rights. The EPA's job is to protect  
14 citizens and future generations so that we are not left with  
15 a Road Warrior future. That might be good for Hollywood  
16 films but it is not good for California citizens. Thank  
17 you.

18           PRESIDING OFFICER GRUNDLER: Thank you Mr. Long.

19           Next I'd like to invite Tim Carmichael from the  
20 Coalition for Clean Air.

21           MR. CARMICHAEL: Good afternoon. My name is Tim  
22 Carmichael with the Coalition for Clean Air. It is a  
23 pleasure to be here. A thank you to EPA for having this  
24 hearing here in California and the one you had in DC and a  
25 thank you to all the people that have today to testify in

1 support of the waiver.

2 I had the privilege of working with Assembly  
3 Member Pavley and many of the people in the room in getting  
4 this bill that led to the regulation that we're talking  
5 about today through the California Legislature, signed by  
6 the Governor. And it was not something that was done  
7 lightly, it was not something that was done quickly.

8 And in fact there was a lot of participation by  
9 some of the auto makers. I think that is important to  
10 recognize in spite of the opposition today. Both through  
11 the legislative process and the regulatory process there was  
12 a lot of input, a lot of deference given to their  
13 perspective in how best to craft this program.

14 I have been thinking a lot about where this goes  
15 after today. EPA as an agency, this group and your  
16 colleagues, obviously have work to do relative to the  
17 scientific and legal questions. But I feel that the  
18 testimony has been very good in clarifying those points and  
19 giving you a lot to bolster our support of waiver approval.

20 But ultimately there is going to be a summary  
21 report that is going to go to the administrator and in all  
22 likelihood some version that is going to go to the White  
23 House. And I know that it becomes a public policy question,  
24 some would say a political question as to what the  
25 Administration does about this question.

1           And I have been thinking about the headline or the  
2 abbreviated version of the report back that at some level  
3 they are only going to see the headline. and to me what  
4 we've seen at the couple of hearings that you've had can be  
5 summarized in one line. California climate waiver: auto  
6 alliance opposed, everyone else strongly supportive. And I  
7 think that is really in a nutshell what you are going to get  
8 out of these two days and other correspondence that you're  
9 going to get.

10           And when I say, everyone else. You've had not  
11 just environmentalists that have been supportive of this for  
12 many, many years. You've had business leaders, including  
13 two of the biggest companies in the country testify in  
14 support. You've had elected officials from this state,  
15 you've had leaders from other states and you've had  
16 scientists. This is not a small subset of the population  
17 that is way out in left field on this issue.

18           In fact, and I'll just share just a couple of  
19 stats. In California the Public Policy Institute based in  
20 San Francisco is one of the most respected survey or polling  
21 groups that we have and they regularly do surveys on  
22 environmental questions. And just a couple of things that I  
23 think are insightful from their last year's survey.

24           They asked: How serious of a threat is global  
25 warming to the economy and quality of life for California's

1 future? And 79 percent of Californians said, very serious  
2 or somewhat serious. They also asked, excuse me. Would you  
3 be willing to see tougher air pollution standards on new  
4 cars, trucks and SUVs, even if this was more costly for the  
5 purchase or lease of your next vehicle? Two-thirds of all  
6 Californians said yes, even with the cost implications.

7 And lastly I want to share that they asked,  
8 because this is such a significant policy question and has  
9 been now for five or six years in California. They continue  
10 to ask about it periodically. And they asked specifically:  
11 What about the state law that requires all auto makers to  
12 further reduce emissions of greenhouse gases from new cars  
13 in California beginning in 2009? Seventy-eight percent of  
14 all Californians favor this law.

15 I encourage you to take back this message that you  
16 had the automobile alliance in opposition and everyone else  
17 strongly encouraging the EPA to grant this waiver. And I  
18 think that is the most important communication that can go  
19 up the chain. Thank you very much.

20 PRESIDING OFFICER GRUNDLER: Thank you for your  
21 testimony.

22 Next, from the Natural Resources Defense Counsel,  
23 Roland Hwang. Welcome.

24 MR. HWANG: Good afternoon, thank you. Thank you  
25 for the opportunity to testify today in favor of

1 California's waiver request for it's motor vehicle emission  
2 control program under Section 209(b) of the Clean Air Act  
3 amendments. I am the vehicles policy director for the  
4 Natural Resources Defense Counsel based here in San  
5 Francisco. I represent NRDC and its 1.2 million members and  
6 activists in support of California's efforts to set  
7 standards for global warming pollution from new cars and  
8 light trucks.

9           Mr. David Doniger, policy director and senior  
10 attorney at the NRDC's Climate Center in Washington, DC  
11 previously testified last week on May 22 at the waiver  
12 hearing in Washington. He primarily addressed the legal  
13 standards that govern EPA's review of California's waiver  
14 request under Section 209(b). Our legal conclusion is  
15 clear, and this is also supported by our technical analysis  
16 to which I'll add more detail today. EPA has only one  
17 choice but to grant California it's waiver request. It must  
18 do so without delay. Mr. Doniger spoke about that last  
19 week. He also informed EPA in order to prevent further  
20 delay NRDC on May 21 joined with the Environmental Defense,  
21 a colleague of mine is sitting here, and the Sierra Club in  
22 notifying the agency of our intent to join with California  
23 to legally compel EPA to act if it does not issue the waiver  
24 by this fall.

25           In my testimony today I will supplement

1 Mr. Doniger's previous testimony by presenting our technical  
2 conclusions that support our legal conclusion. It is our  
3 belief that the program is technically feasible and cost-  
4 effective and there is sufficient lead time. Furthermore,  
5 events since the board's adoption in September 2004 serve to  
6 strongly reinforce this conclusion. These events include  
7 persistently higher fuel prices, a rapid consumer shift away  
8 from truck-based SUVs, continued development of clean car  
9 technologies and stringent new CO2 vehicle standards that  
10 are likely to be adopted in Europe. For these reasons we  
11 find there is no basis to deny the waiver under Section  
12 209(b)(1)(C) as inconsistent with Section 202(a).

13 I'd like to start off my technical, the evidence  
14 I'd like to present to EPA with a survey of previous cost  
15 estimates or regulations on vehicle standards.

16 The auto makers claimed in 2004, back at the Air  
17 Resources Board hearing, that the cost of compliance in 2016  
18 would be \$3,000, ARB staff estimated \$1,000. I think it is  
19 important when you look at these different cost estimates to  
20 review the past track record, if you will, of the various  
21 organizations involved in making these estimates.

22 In fact the difference in the cost estimates,  
23 based upon my survey of previous work including EPA's work  
24 on cost of compliance predictions versus actual for vehicle  
25 standards, my conclusion is that the \$3,000 versus \$1,000

1 estimates are consistent in actuality with what has happened  
2 in the past where that estimate in terms of the industry,  
3 auto industry estimates are two to ten times higher.

4 Earlier it was discussed about the Zero Emission  
5 Vehicle program and some of the cost estimates there. I do  
6 not believe that is a very good analogy for this program.  
7 The 1493 program, the California Greenhouse Gas Program, is  
8 about improvements to gasoline vehicle technology, it does  
9 not assume any kind of so-called advanced technologies.

10 As Ms. Monahan spoke of earlier, there is no need  
11 to employ advanced vehicle technologies to reach the  
12 standard that ARB has set for the 1493 program. This  
13 program in fact looks more like the Low Emission Vehicle  
14 Program which the Air Resources Board adopted in 1990  
15 because it is in actuality improvements, incremental  
16 improvements to gasoline vehicle technologies.

17 And when you look at the past history of auto  
18 maker estimates of what those costs look like versus the  
19 actual cost the record has shown that the industry estimated  
20 the cost of the LEV program compliance in 1994, they  
21 estimated the cost to be almost \$800. The actual cost  
22 turned out to be about \$80, so in fact the auto industry  
23 over-estimated the cost of compliance for the Low Emission  
24 Vehicle Program by about a factor of ten. This should come  
25 as no surprise to folks who have worked in this field for

1     awhile.

2             The second point I would like to make is that we  
3     believe that the ARB staff assessment of the technology was  
4     very sound, and we testified to that in front of the Air  
5     Resources Board's Board Members back in 2004.  And since  
6     2004 the world has changed, and the conditions that have  
7     changed have led to us to reinforce our opinion that in fact  
8     the technological feasibility cost-effectiveness and the  
9     lead time has all more been more than adequately  
10    demonstrated by the Air Resources Board to comply with the  
11    waiver criteria.

12            There are at least four factors which have led us  
13    to conclude that since 2004 we have more evidence to believe  
14    that this is going to be, this program will be technically  
15    feasible, cost-effective and adequate lead time.  The first  
16    is the higher fuel prices since 2004.  ARB used \$1.74, today  
17    we can see the prices around the country are about \$3.20 a  
18    gallon.  Even the Department of Energy's Energy Information  
19    Administration concurs that there has been a long-term  
20    structural shift in the oil price markets and their  
21    forecasts have also gone up.  So clearly at \$1.74 the  
22    program was cost-effective.  At \$3.20 nationwide and \$3.50  
23    here in California the program is even more cost-effective.

24            The second reason why we believe the program is  
25    even more cost-effective and the lead time is adequate is

1 that the higher fuel prices and other shifts in consumer  
2 demand has led to a very rapid shift away from truck-based  
3 SUVs. There has been a lot written about the rapid shift to  
4 so-called crossover vehicles and also to small cars,  
5 subcompact cars even. All of these trends point to that the  
6 ability for the auto companies to meet the standards are in  
7 fact eased by this market shift to these crossover vehicles  
8 and smaller cars.

9           The third reason is there has been quite a bit  
10 since 2004, a lot of developments in clean car technologies.  
11 ARB staff's presentation today noted that there are many of  
12 these technologies that are emerging or have been announced  
13 in the marketplace. And these include variable valve  
14 timing, cylinder deactivation, camless valve actuation, six  
15 and seven speed transmissions, continuously variable  
16 transmissions, gasoline direct injection engines with and  
17 without turbocharging, electric power steering, homogenous  
18 charge compression engines and advanced diesel engines.

19           Since 2004 these technologies have either been  
20 introduced or auto makers -- introduced by auto makers and  
21 suppliers or there have been major announcements about their  
22 introductions over the next several years. For example, GM  
23 has stated that one in six, or about 17 percent of its  
24 engines, will be gasoline direct injection by 2010. Another  
25 example of how fast evolving this technology is, late last

1 year Valeio, a French auto supplier, said that it expected  
2 to commercialize camless valve actuation technology by 2010  
3 or 2011. And the final example would be GM, Ford, Nissan  
4 and i believe others all have announced their intentions to  
5 produce in the next several years HCCI engines.

6           The final development since 2004, which reinforced  
7 the technical assessment by the Air Resources Board, is that  
8 the European Union has announced, and it looks like they are  
9 very close to finalizing an agreement for a mandatory CO2  
10 standard for their automobile vehicle fleet. That standard  
11 will likely be about 130 grams per kilometer by 2012.  
12 Though direct comparisons are difficult due to differences  
13 in vehicle fleet size and drive cycles, the 2012 standard is  
14 clearly more stringent than California's 2016 standard in  
15 terms of the auto company's compliance job.

16           To meet the standard auto makers will need to  
17 develop and commercialize for the European market many of  
18 the same technologies needed for the California program.  
19 Several years prior to when they will be needed for the  
20 California Clean Car state -- This will ensure the success  
21 of the technologies and also create larger economies of  
22 scale.

23           In sum my colleague, David Doniger, has already  
24 testified last week that our legal conclusion is clear. EPA  
25 has but one choice, that is to grant California's waiver

1 without delay. This supplemental comments demonstrate there  
2 is no technical basis to deny the waiver under Section 209  
3 as inconsistent with section 202(a). NRDC also intends to  
4 file written comments by June 15 to supplement our oral  
5 comments. We appreciate this opportunity to present our  
6 perspective, thank you.

7 PRESIDING OFFICER GRUNDLER: Thank you, Mr. Hwang.  
8 Environmental Defense.

9 MR. WALKER: Good afternoon members of the panel.  
10 It is a privilege to be here and we thank you for holding  
11 this hearing. I am Derek Walker, Deputy Director of state  
12 Climate Initiatives for Environmental Defense. As most of  
13 you know we are a national nonprofit, non-partisan and  
14 science-based environmental organization and we have offices  
15 here in California in Oakland, Los Angeles and Sacramento.  
16 I respectfully offer my comments today on behalf of not only  
17 our numerous members in California who are deeply concerned  
18 about global warming but our hundreds of thousands of  
19 members across the country.

20 On December 21, 2005 the Air Resources Board  
21 requested this waiver for vehicles beginning with the 2009  
22 model year. Californians entitled to such a waiver under  
23 Section 209(b) of the Clean Air Act, which was enacted in  
24 1967 in recognition of this state's leadership in motor  
25 vehicle emissions control regulations.

1           209(b) compels the Administrator of EPA to grant  
2 California's request for a waiver unless he or she finds  
3 that one of the stated exceptions applies. The legislative  
4 history of Section 209, EPA's prior decisions on waiver  
5 requests and the court review of these decisions, clearly  
6 establish that EPA must be highly deferential to California  
7 and that grounds for denial are very tightly constrained by  
8 these statutory factors. As the DC Circuit Court found in  
9 1979:

10                   "Congress has decided to grant  
11 California the broadest possible  
12 discretion in adopting and enforcing  
13 standards for the control of emissions  
14 from new motor vehicles."

15           EPA's past decisions have been consistent with  
16 this narrow scope of review, recognizing the tremendous  
17 benefit that our country has derived from California's  
18 expertise and efforts. It was 32 years ago that EPA  
19 administrator Russell Train explained that Congress  
20 disallowed EPA from second-guessing California's policy  
21 judgement. Administrator Train said:

22                   "Congress meant to ensure by the  
23 language it adopted that the Federal  
24 government would not second-guess the  
25 wisdom of state policy here."

1 EPA has similarly recognized that the phrase  
2 compelling and extraordinary conditions refers to general  
3 and fundamental circumstances including geography, climate  
4 and California's exceptional motor vehicle population, not,  
5 quote, "to levels of pollution directly." Consequently the  
6 Agency has concluded that the preemption waiver extends not  
7 only to regulations directed at Southern California's  
8 notorious ozone problem but to California's particulate  
9 control problem as well.

10 In its decisions on recent waiver requests, any  
11 suggestion that California did not need its own motor  
12 vehicle pollution control program have been readily  
13 dismissed. In action on California's preemption waiver  
14 request for the LEV II program, for example, EPA stated,  
15 quote, that:

16 "CARB has continually demonstrated  
17 the existence of compelling and  
18 extraordinary conditions justifying the  
19 need for its own motor vehicle pollution  
20 control program. No information has  
21 been submitted to demonstrate that  
22 California no longer has a compelling  
23 and extraordinary need for its own  
24 program."

25 California unquestionably continues to face the

1 compelling and extraordinary conditions in its geography,  
2 climatic conditions, population and motor vehicle use. Just  
3 as EPA had no basis for denying waivers that allowed  
4 California to extend the scope of its programs to include  
5 particulate matter, the Agency similarly has no basis for  
6 refusing to allow California to broaden its programs to  
7 include greenhouse gases, given the serious health and  
8 welfare threats they are now known to pose to California's  
9 resources and to her citizens.

10 California is home to one in seven Americans and  
11 is the most populous state in our union. The state's  
12 population is growing rapidly and will increase by 60  
13 percent by 2050. Furthermore, in 2005 we had 32.5 million  
14 registered vehicles, exceeding the number registered in any  
15 other state by a margin of almost two to one.

16 As in 1967 when Congress enacted the waiver  
17 protections for California, Californians also continue to  
18 suffer from some of the worst air quality in our country,  
19 and we heard some compelling testimony on that earlier.  
20 Thirty-eight of California's 58 counties are currently  
21 designated as non-attainment for the federal eight-hour  
22 ozone standard.

23 California's circumstances are also exceptional in  
24 the expertise and resources that our state devotes to air  
25 quality management. ARB's 2004 and 2005 budget was \$130

1 million, with state and local agencies cumulatively pitching  
2 in an addition \$550 million on air quality management  
3 activities. To put that into context, EPA's air program is  
4 only about \$660 million -- I say only -- about \$660 million.  
5 But compared to California I think that is a particularly  
6 relevant point.

7           Beyond these compelling and extraordinary  
8 demographic conditions, California is highly vulnerable to  
9 climate change. Our economy relies heavily on agriculture.  
10 The coasts are profoundly susceptible to sea level rise and  
11 the state's water resources are critically vulnerable.  
12 California, as we heard in the last panel, is extremely  
13 prone to wildfires, the incidence of which is expected to  
14 increase as climate change progresses.

15           Moreover the challenge of reducing ozone levels in  
16 California, both in its cities and in agricultural areas, is  
17 expected to become harder as the climate crisis grows. As  
18 California laid out in the support document accompanying its  
19 initial waiver request, quote:

20                   "California's high ozone levels --  
21                   clearly a condition that Congress  
22                   considered -- will be exacerbated by  
23                   higher temperatures from global  
24                   warming."

25 Thus, in addition to all the other compelling and

1 extraordinary conditions California is already facing this  
2 waiver request is intimately linked to the same, the very  
3 same air pollution problems that Californians were facing in  
4 the 1960s when Congress first considered and enacted this  
5 preemption waiver.

6 For our globe as a whole the expectation that  
7 surface temperatures will increase as climate change  
8 progresses is firmly established. California in particular  
9 is expected to experience warmer temperatures as climate  
10 change progresses in the coming decades.

11 Recently a regional scale climate model was used  
12 to downscale global climate simulations in order to examine  
13 projections for climate variables likely to affect air  
14 quality in the United states through the mid part of this  
15 century. Temperatures, solar radiation, rainfall, the  
16 stagnation of pressure systems and boundary layer  
17 ventilation were examined.

18 And the conclusion was reached that during the  
19 fall all indicators consistently suggest increased ozone  
20 concentrations will occur in the western part of the United  
21 States. The indicators of higher ozone pollution include  
22 warmer temperatures, increased downward solar radiation,  
23 lower amounts of rainfall, more frequent stagnation episodes  
24 and reduced ventilation. Summer temperatures are also  
25 projected to increase.

1 Higher temperatures are robustly linked to higher  
2 ozone concentrations based on both observations and on  
3 theoretical understandings of atmospheric chemistry. Recent  
4 global modeling studies that have investigated the impact of  
5 future climate change on surface level ozone concentrations  
6 concur in a basic conclusion that was stated by Murazaki and  
7 Hess in 2006, quote:

8 "In general the impact of climate  
9 change alone -- on future ozone levels  
10 will be to decrease surface ozone in  
11 remote regions but to increase it in  
12 polluted regions."

13 In urban areas and in others with high levels of nitrogen  
14 oxides ozone is expected to increase with a combination of  
15 increased temperatures and an increase in water vapor.

16 Of course, no one expects climate change will  
17 occur without contemporaneous changes in the emissions of  
18 conventional air pollutants that directly impact local and  
19 regional air quality. Without further intervention some of  
20 these changes and emissions will themselves be driven by  
21 climate change. For example, the increased emissions of  
22 NO<sub>2</sub>, carbon monoxide and fine particulate matter from the  
23 wildfires we've discussed, and increased emissions of  
24 volatile organic compounds from anthropogenic sources like  
25 fuel and solvent evaporation that are highly responsive to

1 temperature.

2           Other emissions changes could occur due to  
3 population and economic growth, regardless of what happens  
4 to the earth's climate. In particular these drivers are  
5 expected to dramatically increase emissions in Asia.  
6 global atmospheric chemistry and transport studies that have  
7 examined the combined effects of climate change and future  
8 emissions concur in the expectation that without further  
9 regulatory intervention ozone concentrations in the Northern  
10 Hemisphere will increase. Under some scenarios the  
11 projected increases in ozone concentrations are extremely  
12 dramatic.

13           Focusing on California, Aw and Kleeman in 2003  
14 applied a state-of-the-art atmospheric chemistry and  
15 transport model to the South Coast Air Basin to examine the  
16 influence of changes in temperature on air quality. After  
17 evaluating the model they examined how predicted ozone  
18 concentrations would change if ambient temperatures were  
19 increased with no other changes introduced. Peak ozone  
20 concentrations were predicted to rise substantially as  
21 temperatures increased.

22           And Steiner recently, that's 2006, last year,  
23 recently applied EPA's Community Multiscale Air Quality, the  
24 CMAQ model, to examine the effect of climate change on the  
25 severity of a five-day pollution episode in Central

1 California. Their climate sensitivity cases were based on a  
2 regional climate study that predicted temperature increases  
3 ranging from one degree Celsius at the coast to about four  
4 degrees Celsius in the Sierra Nevada. With emissions and  
5 inflow boundary conditions unchanged from the historical  
6 base case that they used, the expected meteorological  
7 changes caused by global warming were predicted to  
8 significantly increase ozone in the San Francisco Bay Area.  
9 They conclude, quote:

10                    "In the future, the San Francisco  
11                    bay area may be particularly sensitive  
12                    to climate change despite strong  
13                    reductions in anthropogenic emissions.  
14                    In this region, the severity and  
15                    frequency of ozone episodes may  
16                    increase, causing more annual ozone  
17                    exceedences."

18                    In summary, the circumstances that justified  
19 Congress' adoption of the preemption waiver 30 years ago  
20 still exist today. Climate change poses a profound threat  
21 to our state, with its reliance on agriculture, tourism and  
22 precariously balanced water resources. Climate change is  
23 also expected to exacerbate the same smog problem that  
24 California faced in the '60s, making it unmistakably clear  
25 that California continues to need its own motor vehicle

1 programs to address compelling and extraordinary conditions.

2           To comment on the earlier testimony of the  
3 automobile manufacturers, it is extremely disingenuous and  
4 dishonest to stand before this panel today and to claim that  
5 the impacts of AB 1493 will not be measurable either in the  
6 United States or around our world. The truth of the matter,  
7 and the reason why those regulators and scientists nodded  
8 their heads and said that they had not studied the impacts  
9 of this bill are that climate change science and modeling  
10 cannot accurately account for changes that are the result of  
11 single policy measures that do not impact, that impact less  
12 than ten percent of global emissions.

13           This bill is extremely significant. But again,  
14 the reason why those scientists and those regulators said  
15 that nothing had been studied on this bill -- And the reason  
16 why Dr. Hansen said he refused to waste computer time is  
17 because Dr. Hansen would rather focus on the limitations of  
18 current global warming science and modeling.

19           What Dr. Hansen does say, and I'm sure now wishes  
20 he were here to say today, is that this bill is well within  
21 the IPCC's low emissions scenario, which is intending to --  
22 with a target of keeping the global increase in temperature  
23 to within one degree Celsius in the next century.  
24 Dr. Hansen also would say and has said that any increase in  
25 carbon dioxide, increases radiative forcing, which also

1 increases warming. That is a basic scientific fact.

2           Making this change in California and in the 11  
3 other states that have passed this automobile emissions bill  
4 will make a tremendous impact in carbon dioxide. As most of  
5 you know, cars and trucks represent a huge portion of  
6 California's emissions pie; 41 percent of California's  
7 emissions come from cars and trucks. If California were a  
8 country it would be the eighth largest emitter of CO2. And  
9 with the two states that are now considering this bill that  
10 would take it up t 15. There would be almost one-third or  
11 over one-third of the US auto market would be covered by  
12 this bill.

13           So California has been a leader in the past.  
14 California's actions and expertise have generated action  
15 both at the national and international stage. And again on  
16 behalf of hundreds of thousands of members of Environmental  
17 Defense I and we strongly encourage you to, without further  
18 delay, approve this waiver. Thank you.

19           PRESIDING OFFICER GRUNDLER: Thank you very much,  
20 Mr. Walker.

21           Mr. Brune from Rainforest Action Network, the  
22 floor is yours.

23           MR. BRUNE: Good afternoon. Michael Brune from  
24 Rainforest Action Network. Thank you all for the  
25 opportunity to speak today. I admire your stamina.

1           I come here with a very straightforward message.  
2 I hope that the EPA will grant this waiver and will do so  
3 without any further delay.

4           One of the challenges of speaking later in the  
5 afternoon is that it is awfully difficult to offer much that  
6 is new so I'll just make three very quick points.

7           The first is that one of the benefits of speaking  
8 later in the afternoon is that while listening to testimony  
9 I have had the opportunity to do a little bit of research.  
10 I am happy to report that the wireless system here in this  
11 office is very fast and very reliable.

12           Almost every news article that I read today  
13 predicts that the EPA and the Bush Administration will  
14 eventually side with the auto industry and the oil industry  
15 and will deny the waiver. I can only hope that this isn't  
16 true. I can only hope that the EPA will not side with the  
17 auto industry and will not rule against everybody else. I  
18 picked up over 600 articles on this hearing and on the  
19 hearing last week. The world is watching and the stakes are  
20 absolutely enormous.

21           The EPA has never turned down a waiver request  
22 from the state of California and I really hope that you  
23 don't start now. We have heard powerful testimony today  
24 about the impacts of climate change on human health,  
25 California's snowpack, the state economy, ozone levels, the

1 federal economy and so on.

2           My second point is to highlight the impacts of  
3 climate change on forests. The prestigious journal Nature  
4 released a comprehensive study about a year ago documenting  
5 the impact of climate change on biodiversity around the  
6 world. Up to 34 percent of all species around the world  
7 would be threatened with extinction. Threatened with  
8 extinction due to climate change, even at conservative  
9 estimates, by 2050. The study also showed that up to 85  
10 percent, 85 percent of all species in the Amazon, will be  
11 threatened with extinction by 2050 using conservative  
12 estimates of climate change.

13           Again, scientists are documenting that species are  
14 migrating towards higher altitudes, migrating towards  
15 northern latitudes. We're seeing the deepest, the warming  
16 of the deepest oceans. All of this is due to a warming of  
17 about one degree so far. Dr. Hansen tells us that there is  
18 another degree of warming already baked into the atmosphere.  
19 The time to act is now.

20           My final point is actually just to make a personal  
21 request. Like a lot of people who have spoken here today I  
22 am also a parent. My daughter is three years old, her name  
23 is Olivia. By the time she graduates high school scientists  
24 predict that we may lose the glaciers at Glacier Mountain  
25 National Park, we'll lose the snows of Kilimanjaro, and up

1 to 70 percent of coral reefs will be destroyed because of  
2 climate change. This happens before my daughter graduates  
3 high school.

4 By the time my daughter is 30 up to 500 million  
5 people throughout Asia and Africa will face severe and life-  
6 threatening water shortages. Again, just because of climate  
7 change. And by the time my daughter is in her mid-40s,  
8 again, up to 87 percent of all species in the Amazon will be  
9 threatened with extinction because of climate change.

10 How much more evidence do we need to take strong  
11 action? How much more evidence do we really need to take  
12 strong action? Please, I urge the EPA not to stand on the  
13 wrong side of history, not to stand with the auto industry  
14 and the oil industries. Please grant this waiver. Momentum  
15 is building to fight climate change and here in California,  
16 as you can sense, our determination is very strong. Please,  
17 don't stand in our way. Please grant this waiver as soon as  
18 possible. Thank you.

19 PRESIDING OFFICER GRUNDLER: Thank you very much,  
20 Mr. Brune. Any questions from the panel? Michael.

21 PANELIST HOROWITZ: A quick question for  
22 Mr. Walker. Your testimony indicates you believe that  
23 climate change will exacerbate the smog problem in  
24 California. The earlier testimony from the auto industry  
25 indicates that the standards might in fact increase smog-

1 causing emissions. Do you have any comment on that?

2 MR. WALKER: My testimony actually says that smog  
3 will increase and decrease variably depending on the  
4 concentration of population and other factors in different  
5 areas.

6 PANELIST HOROWITZ: But you said that in areas  
7 where there was already a severe smog problem that it could  
8 exacerbate the smog problem; is that right?

9 MR. WALKER: Right. I mean as temperature  
10 increases to that degree it can trap more of the  
11 particulates and cause a greater problem. But again that  
12 varies depending on population.

13 PANELIST HOROWITZ: And do you have any comment on  
14 the Alliance's testimony earlier that the standards will  
15 increase the emissions of smog-producing pollutants?

16 MR. WALKER: I think that that -- I would question  
17 their calculation in that. I think that they estimated that  
18 by 2030 there would be approximately the equivalent of  
19 approximately 1.9 million additional cars on the road. It  
20 is pretty clear based on the studies that have been done  
21 surrounding this bill that the reduction in net automobiles  
22 reduced -- net automobiles removed from the road would be  
23 almost 100 million per year. So I think that their, I think  
24 that their estimates are incredibly self-serving, as with  
25 the other statements that they made, eliminating about 95

1 percent of the facts available on any particular question  
2 considered.

3 PANELIST HOROWITZ: Thank you.

4 PRESIDING OFFICER GRUNDLER: Thank you all for  
5 your testimony.

6 I'd like to invite up Panel number 9, the American  
7 Lung Association of California, the California Nurses  
8 Association and Dr. Kelter. Ms. Holmes, would you like to  
9 begin?

10 MS. HOLMES-GEN: Sure. My name is Bonnie Holmes-  
11 Gen and I am Assistant Vice President for Government  
12 Relations with the American Lung Association of California  
13 and I am very pleased to be here today. We are pleased that  
14 you are here in California to hear from us. And we are  
15 especially pleased to be part of such a prestigious group of  
16 public officials, of community and business leaders, of  
17 health and medical organizations and representatives and  
18 scientists. We think this is a wonderful showing of support  
19 from all of our constituencies here in California for this  
20 important law.

21 And we are here today to urge the federal  
22 Environmental Protection Agency to grant the waiver to  
23 California to implement our 2002 Clean Cars Law. As a  
24 public health organization we believe the California Clean  
25 Cars Law is essential to promote improved air quality and

1 public health in California and to promote air quality and  
2 public health in the 11 other states that have adopted this  
3 important program. Of course in addition to be an essential  
4 element of state and national efforts to slow global  
5 warming.

6           The need for this waiver is clear and compelling  
7 and EPA has a clear obligation to grant the waiver. We are  
8 urging today that the federal EPA moves out of the way and  
9 allows California to move ahead and implement this important  
10 law. AB 1493 will reduce emissions from the largest source  
11 of greenhouse gases in California. As you have heard  
12 several times over, passenger vehicles and light duty trucks  
13 are responsible for a huge percentage of California's global  
14 warming emissions, 41 percent.

15           And this legislation and our regulation provides a  
16 feasible, cost-effective pathway to substantially reduce  
17 emissions from these sources with technologies that are  
18 proven and readily available. Without AB 1493 vehicle  
19 greenhouse gas emissions would just continue to rise as more  
20 cars are on the road traveling longer distances.

21           Our state has been at the forefront of clean car  
22 technologies for several decades and the innovations  
23 developed in California have dramatically reduced smog and  
24 benefitted the rest of the country. The AB 1493  
25 requirements to produce cars with lower levels of greenhouse

1 gas emissions continue this important history of leadership.  
2 And will not only help to slow the pace of global warming,  
3 but will also encourage the use of advanced technology  
4 vehicles including hybrid electric and plug-ins and natural  
5 gas and other technologies that have extremely low emissions  
6 of criteria pollutants.

7           Since we are a public health organization I want  
8 to spend most of my time here today talking about our  
9 concerns about public health and how AB 1493 and the Clean  
10 Car, the Clean Car regulation will help to address the  
11 public health problems that we are experiencing here in  
12 California. The reductions in greenhouse gases will result  
13 in important air quality and public health benefits. It is  
14 clear that greenhouse gas emissions -- It is clear that if  
15 California does not reduce greenhouse gas emissions it will  
16 be much more difficult for our state to achieve state and  
17 federal clean air standards.

18           A California state-sponsored analysis of public  
19 health impacts of global warming found that higher  
20 temperatures could dramatically increase the number of days  
21 favorable to ozone formation. In this state study under a  
22 medium-high emission scenario the number of days conducive  
23 to ozone formation were found to potentially increase by 75  
24 percent in Los Angeles and the San Joaquin Valley by the end  
25 of this century. And these two areas, of course, have some

1 of the worst, are experiencing some of the worst smog, worst  
2 air quality in the country and are listed in our American  
3 Lung Association State of the Air Report as some of the top  
4 polluted areas in the country. And of course any increased  
5 pollution would cause severe public health consequences.

6 California already is experiencing thousands of  
7 premature deaths and thousands of hospitalizations every  
8 year from air pollution and California has some of the  
9 highest asthma rates in the country. And studies are even  
10 showing that children growing up in our more polluted areas  
11 have abnormal lung development.

12 All the many public health impacts of air  
13 pollution add up to billions of dollars a year in costs,  
14 medical costs and the cost of premature deaths. And in fact  
15 when an estimate from our State Air Resources Board  
16 estimates over \$50 billion a year in health costs related to  
17 air pollution. And that includes the cost of premature  
18 deaths.

19 The longer we delay, the more emissions we are  
20 spewing into the air, the more health impacts that we are  
21 experiencing. Study after study confirms that air pollution  
22 has a direct impact on respiratory health. I mentioned the  
23 asthma attacks, consider also premature deaths,  
24 hospitalizations. Pollution also contributes to bronchitis,  
25 chronic obstructive pulmonary disease, emphysema, lung

1 cancer and other lung and heart illnesses. And children and  
2 the elderly are particularly vulnerable, with recent  
3 research indicating that exposure to heavy pollution may not  
4 only aggravate asthma or cause more severe asthma episodes  
5 but is also linked to the onset of new cases of asthma.

6 In addition to greenhouse gases resulting in the  
7 potential for greater formation of ozone increased global  
8 warming gases in the atmosphere, of course as has been  
9 mentioned earlier, will result in increased emissions of  
10 pollutants ranging from smog precursors to particulate  
11 emissions from many different sources. So we have a very  
12 serious concern about the public health impacts that are  
13 linked to greenhouse gas emissions and global warming from  
14 motor vehicle and other sources.

15 The longer we delay, again, the more emissions we  
16 spew. It is critical that California reduce its greenhouse  
17 gas emissions through the implementation of AB 1493.  
18 California has, again, led the way for the nation by  
19 adopting this important greenhouse gas regulation and  
20 California clearly has the authority to adopt these  
21 standards. There are clear and compelling reasons for  
22 California to move forward and the American Lung Association  
23 urges you to grant this waiver without delay. Thank you for  
24 time to speak with you today.

25 PRESIDING OFFICER GRUNDLER: Thank you,

1 Ms. Holmes.

2 Ms. Donna Fox from the California Nurses  
3 Association, thank you for being here.

4 MS. DORSEY FOX: Thank you for the opportunity to  
5 be here. I am a registered nurse and I am representing  
6 75,000 registered nurses of the California Nurses  
7 Association and we are asking you to support the waiver. We  
8 are here to say that it is essential to improve air quality  
9 and the public's health in California.

10 Under the Clean Air Act California has a  
11 compelling rationale to merit a waiver. Individual states  
12 or tribes may have stronger air pollution laws but they may  
13 not have weaker pollution limits than those set by the EPA.  
14 This is according to your website.

15 The California Air Resources Board reports that  
16 more than 95 percent of Californians live in areas with  
17 unhealthy air. Passenger vehicles and light duty trucks are  
18 responsible for approximately 40 percent of California's  
19 total global warming emissions.

20 Every day the registered nurses of California  
21 Nurses Association treat patients who suffer from lung  
22 disease, heart disease and premature deaths. Many of these  
23 patients are sick and they're getting sicker from the auto  
24 emissions and the resultant ozone and particulate pollution.  
25 The hardest hit, as you have heard before, are the young and

1 the elderly and those individuals who are already  
2 compromised with lung disease or heart disease. The asthma  
3 rates are skyrocketing. This burden of disease is  
4 preventable. That's why we're here today. Californians of  
5 all ages are suffering.

6           What does this mean? It means a loss of  
7 productivity, it means people having disability because they  
8 can't function in the work place. It means they can't  
9 participate in raising their families. It means children  
10 can't play like children normally do. This means a decline  
11 in the quality of life for Californians of all ages.

12           The technology to substantially reduce emissions  
13 is available. It is a public health imperative for  
14 Californians that you grant this waiver. The registered  
15 nurses of the California Nurses Association urge you to put  
16 the public's health first. Thank you for your attention to  
17 this urgent, public health problem.

18           PRESIDING OFFICER GRUNDLER: Thank you very much.

19           Dr. Kelter, welcome.

20           DR. KELTER: Thank you very much. I thank you for  
21 the opportunity to be here. I have actually been up there a  
22 couple of times in my career and I know what you're going  
23 through. My keester is getting sore just thinking about it  
24 so thank you for your perseverance.

25           My name is Alex Kelter. I am a physician and an

1 epidemiologist. I recently retired from the California  
2 Department of Health Services after 24 years of serving  
3 California's taxpayers. Prior to that I worked at the  
4 Arizona Department of Health Service and the Centers for  
5 Disease Control. I have spent fully half of my career in  
6 the area of environmental epidemiology and toxic substances,  
7 including working on both criteria and toxic air  
8 contaminants in Arizona and here in California.

9           Parenthetically, I've spent the other half of my  
10 career in injury prevention so I am very used to dealing  
11 with the attitudes and practices of the automobile industry.  
12 More on that later.

13           I also hope to be able to say something that  
14 actually other people haven't said and make this late  
15 afternoon worthwhile for you. And I am here today as a  
16 volunteer with the American Lung Association.

17           You have already heard about AB 1493. I'm going  
18 to try not to repeat all that. But I want to emphasize the  
19 point that by not approving this waiver you are denying  
20 California the right to protect the public health as is  
21 guaranteed by the Constitution, protecting health and  
22 welfare is assigned to the states. And as assured by the  
23 Clean Air Act itself, when it permits states to adopt more  
24 protective standards.

25           You have already heard why passing this law was

1 critical for California. you have already heard why  
2 California clearly has the compelling and extraordinary  
3 circumstances that are needed to merit this waiver. You  
4 have already heard that motor vehicles continue to be a  
5 major source of emissions in California and that 40 percent  
6 of our greenhouse gas emissions come from automobiles. you  
7 have already heard that AB 1493 will provide a feasible and  
8 cost-effective way to reduce emissions with technologies  
9 that are proven and readily available today.

10 We have known for decades what the health effects  
11 of air pollution are and how bad they can affect people with  
12 their respiratory health, their cardiovascular health,  
13 perhaps even their mental health through disease processes  
14 including asthma, bronchitis, emphysema, chronic lung  
15 disease and lung cancer.

16 As with all forms of environmental degradation it  
17 is the poor, the young and the old who are affected the  
18 most. And now we know that not only does air pollution  
19 exacerbate these conditions, but in the case of asthma can  
20 actually cause it.

21 Now for something new. Furthermore, in this day  
22 and age with the accelerating epidemic of childhood obesity  
23 upon us, all of us physicians are urging our patients to get  
24 out and be active in the community. How can we do that in  
25 good conscience when we know the air quality that we're

1 sending people into? It's almost abusive.

2 We know that asthma is a disease that can rob a  
3 youngster of his childhood, make him afraid to be out in  
4 nature and to explore the world. We know that children  
5 today have the free range that is about ten percent of that  
6 we had when we were kids, and how essential it is for a  
7 child to develop and grow normally to be able to explore and  
8 touch and sense the world without restriction.

9 Perhaps lung disease is the cruelest way to die.  
10 The constant air hunger. The wondering when your next  
11 breath will be your last. The feeling, the sense that  
12 you're moving just enough air to stay alive and no more.

13 You have already heard the findings about the  
14 environmental damage that will be done to California through  
15 global warming so let me cut to the chase. One of the  
16 things I value most about my training as a physician is the  
17 training I received in recognizing when it is time to act  
18 and stop waiting for more data.

19 We know that ultimately we cannot continue the  
20 trend of ever-accelerating VMT and still avoid worsening  
21 climate change. But we are a long way from implementing the  
22 compact urban development and new land use policies that  
23 will bring about a reduction in VMT. So right now is the  
24 time to act. Right now we need to be able to reduce auto  
25 emissions to the rock bottom levels achievable with existing

1 technology to protect public health.

2           It has been said that delay is the cruelest form  
3 of denial. I strongly urge the EPA to grant this waiver  
4 now. It is bad enough that the states have to go it alone.  
5 But for EPA to stand in the way is explicable and wrong for  
6 our children, wrong for our patients, wrong for all of  
7 California residents and the residents of the other 11  
8 states and the nation. Please don't add more heat to the  
9 already accelerating skepticism of government that the  
10 public has.

11           Unlike some other witnesses I am not worried about  
12 the earth, I am just worried about the creatures that live  
13 on it. Thank you.

14           PRESIDING OFFICER GRUNDLER: Thank you very much,  
15 doctor. Any questions for the panel?

16           Thank you for your time.

17           I'd like to invite the members of Panel 10 to come  
18 forward. Todd Campbell from Clean Energy, Laura Stuchinsky  
19 from the Silicon Valley Leadership Group, Mike Jackson,  
20 Transportation Technology, TIAX, and Bob Roberts from the  
21 California Ski Industry Association. Thank you very much.

22           We'll begin with Mr. Campbell. He is not here.

23           Ms. Stuchinsky, you may begin.

24           MS. ROSA: My name is Kris Rosa, representing  
25 Laura Stuchinsky and the Silicon Valley Leadership Group. I

1 am here to express the Leadership Group's support for the  
2 waiver.

3 By way of background, the Silicon Valley  
4 Leadership Group is a public policy trade association  
5 founded 29 years ago by David Packard of Hewlett Packard.  
6 Today the Leadership Group has more than 210 members,  
7 including many of the nation's largest high tech and biotech  
8 firms.

9 The Leadership Group's members have made reducing  
10 the nation's greenhouse gas emissions and dependence on  
11 imported fossil fuels a priority for their individual  
12 organizations and the Leadership Group as a whole. That is  
13 why the organization was one of a handful of business groups  
14 in the state that supported AB 32. It is also why it  
15 supports California's request for a rule waiver to implement  
16 AB 1493.

17 We believe it is imperative that our nation take  
18 swift and concerted action to avert the worst effects of  
19 global warming. We applaud the Governor and the Legislature  
20 for exercising early and bold leadership on this issue. It  
21 is consistent with the state's long and proud history of  
22 leadership on environmental policy.

23 Given that transportation is a major source of  
24 greenhouse gases, 40 percent of all emissions in the state,  
25 it makes sense for California to reduce emissions from this

1 section to the maximum extent feasible. Reducing tailpipe  
2 emissions is one strategy to achieve that goal.

3 To achieve the deep cuts in emissions that are  
4 needed ultimately we will need to take comprehensive action  
5 on a national level. But until that occurs it is essential  
6 that the federal government encourages states willing to  
7 take steps into the vanguard to do so. To pilot programs  
8 and policies that, if effective, could be replicated across  
9 the country.

10 California is the ideal place to road test  
11 these ideas. Our leadership and residents support such  
12 action. California's size, the numbers of cars purchased  
13 and driven in this state gives us the heft to make  
14 significant change. A number of the world's experts from  
15 the public and private sector are already doing the cutting-  
16 edge research to make the necessary to happen in order to  
17 implement the state's motor vehicle greenhouse gas reduction  
18 regulation as well as other related state policies and  
19 programs.

20 In summation, the Silicon Valley Leadership Group  
21 urges the granting of the waiver. This is not only in the  
22 best interest of California but for the nation. Thank you  
23 for this opportunity.

24 PRESIDING OFFICER GRUNDLER: Thank you, Ms. Rosa.  
25 Mr. Jackson.

1           MR. JACKSON: Thank you. My name is Mike Jackson.  
2 I am Senior Director of TIAX Corporation, LLC. I head up  
3 our west coast office and I have focused my career for the  
4 last 30 years on transportation technology. TIAX has been  
5 involved in a number of studies that touch upon many of the  
6 technical issues around reducing greenhouse gas emissions  
7 from light duty vehicles.

8           So thank you for giving me the opportunity to  
9 provide comments and support of California's request for a  
10 waiver of preemption under Clean Air Act Section 209(b). In  
11 my opinion, the California is needed to protect public  
12 health in California. This regulation will reduce damages  
13 associated with climate change as well as criteria  
14 pollutants and our over-reliance on petroleum-based fuels.

15           ARB's GHG emission standard coupled with Governor  
16 Schwarzenegger's Executive Order S-01-07 requiring ARB to  
17 establish a low carbon fuel standard, LCFS, will provide a  
18 set of performance standards that will effectively control  
19 overall emissions, be they greenhouse gas emissions or  
20 criteria, and the economic impacts of our current fuel  
21 vehicle system.

22           These performance standards will generate fuel and  
23 vehicle innovations at reasonable costs and will provide  
24 necessary emission reductions to protect public health. For  
25 these reasons I urge the US EPA to approve California's

1 waiver request.

2 I have included a Figure 1 in my testimony that  
3 illustrates that as the light duty vehicle fleet approaches  
4 it gets cleaner with the -- towards the cleanest  
5 technologies, such as Partial Zero Emission Vehicles or  
6 PZEVs, that the greenhouse gas emissions and the economic  
7 damages that are associated not only with those from  
8 criteria pollutants but greenhouse gas emissions and our  
9 over-reliance, that all these become very, very important.  
10 They are equal in their contribution to the damages that  
11 will occur in California. We need these kind of performance  
12 regulations that address these combined issues of reducing  
13 criteria pollutants, greenhouse gas emissions and economic  
14 consequences of relying solely on petroleum fuel for our  
15 transportation system.

16 In recent congressional testimony each of the CEOs  
17 of General Motors, Ford and Chrysler expressed the need for  
18 the auto industry to develop alternative sources of  
19 propulsion systems on diverse sources of energy. GM's  
20 Wagoner indicated the need to combine solutions to reduce  
21 gasoline use and oil imports to also to reduce CO2  
22 emissions. Ford's CEO said that:

23 "Our analysis shows that the most  
24 cost-effective solutions to lower the  
25 CO2 emissions from vehicles must be a

1 combination of biofuels and vehicle  
2 technology advancements."

3 An integrated systems approach considering the vehicle and  
4 the fuel is needed to provide combined benefits of reducing  
5 criteria emissions, GHG emissions, and reliance on petroleum  
6 based fuels. Reformulating fuels in the early 1990s  
7 provided substantial advances in automotive emissions  
8 technology and was the first step to integrating the fuel-  
9 vehicle system for criteria pollutants. The next step in  
10 this process of controlling vehicle emissions is to optimize  
11 the use of advanced engine technologies and low carbon fuels  
12 to further reduce and possibly even remove the automobile  
13 from the environmental equation.

14 ARB in their GHG emission standard and the  
15 subsequent low carbon fuel standard are performance-based  
16 standards from which the oil and auto industries can respond  
17 with innovative, cost-effective solutions. ARB's standard  
18 incorporates not only advanced technologies but also the use  
19 of alternative fuel technologies such as flexible fuel using  
20 ethanol blends, compressed natural gas, plug-in hybrids.  
21 Further, the regulation is written to not only include  
22 tailpipe emissions but just as importantly the upstream  
23 components of those emissions as well as vehicle air  
24 conditioning impacts.

25 There are also direct upstream reductions of

1 criteria pollutants, contrary to what the Alliance suggested  
2 this morning, since less gasoline fuel is being produced and  
3 distributed. Estimates that we have made at TIAX indicates  
4 that in 2020 that reduction in terms of NOx plus ROC,  
5 although not substantial, is on the order of five tons per  
6 day. It's not insignificant either. And when you're  
7 talking about PM emissions it's on the order of one ton per  
8 day.

9           These emissions, as you can imagine, it's hard to  
10 figure out exactly where they are all coming from and what  
11 the emission factors are for each step along the  
12 distribution chain. Throwing in some higher estimates they  
13 could be as high as 15 tons per day or 6 tons -- 15 tons per  
14 day of ROC plus NOx or 6 tons per day of PM. This is in  
15 stark contrast to Mr. Clubok's presentation of where he's  
16 going to increase, the emissions would increase by about  
17 that magnitude.

18           I have also shown in my testimony here a figure 2  
19 which illustrates the benefits of alternative fuels in  
20 meeting greenhouse gas standards compared to engine  
21 efficiency measures alone. And this figure is illustrating  
22 how low carbon fuels can achieve very, very substantial  
23 reductions in GHG emissions. Ethanol fuels produce, for  
24 example, from cellulosic resources or from sugar cane,  
25 provide extremely low GHG impacts. Other alternatives such

1 as electric drive, including electric vehicles or plug-in  
2 hybrid electric vehicles, also provide significant  
3 reductions due to higher vehicle efficiencies, but also the  
4 fact that the electric generation mix is cleaner.

5 The question is, will these technologies be  
6 accepted in the marketplace? Recent announcements by all  
7 the OEMs suggest that they are serious about successfully  
8 bringing these vehicles to the marketplace.

9 FFVs are already sold in California and the US.  
10 Nationwide now six million are on our roads. The CEOs from  
11 GM, Ford and Chrysler have committed to provide 50 percent  
12 of their productions as FFVs by 2012 in support of the  
13 President's goal to reduce petroleum use by 20 percent by  
14 2017. Toyota has indicated they will be the first to market  
15 with PHEVs. GM has introduced the Chevrolet Bolt that they  
16 expect to have in production by 2010. DaimlerChrysler is  
17 currently demonstrating PHEV architecture in their Sprinter  
18 van. All manufacturers continue to invest in developing  
19 hydrogen fuel cell technologies. Similarly, the energy  
20 providers are also investing in new fuels that have lower  
21 GHG impacts and can be effectively marketed using new or  
22 existing infrastructure.

23 In conclusion, high oil prices and high oil and  
24 gasoline prices, reliance on oil supplies from  
25 geopolitically unstable regions, the growing consensus of

1 the impacts of global warming, what you've heard today, and  
2 California's continuing struggles to meet ambient air  
3 quality standards in the South Coast and San Joaquin regions  
4 has mobilized our Legislature to require far-reaching  
5 regulations.

6           Protecting public health has always been a high  
7 priority for Californians, as has protecting our economy,  
8 industries and jobs. ARB's greenhouse gas emission  
9 regulation for light duty vehicles and the proposed low  
10 carbon fuel standard will, in my opinion, provide much  
11 needed reductions not only in the GHG emissions but in ozone  
12 precursors as well as direct and indirect particulate  
13 emissions. This will be accomplished with advanced engine  
14 technologies, with lower carbon fuels and with electric  
15 drive technologies with promises of zero tailpipe emissions.  
16 All of these technologies will be needed in California to  
17 protect our citizens. Thank you.

18           PRESIDING OFFICER GRUNDLER: Thank you,  
19 Mr. Jackson. You indicated some analyses you have done  
20 estimating the air quality impacts of these standards. Are  
21 those part of your written testimony that you'll be  
22 submitting?

23           MR. JACKSON: I can do that. It wasn't part of  
24 the written testimony.

25           PRESIDING OFFICER GRUNDLER: That would be useful

1 to us.

2 MR. JACKSON: And to be clear, it's the estimate  
3 of the upstream emission criteria pollutants?

4 PRESIDING OFFICER GRUNDLER: Correct.

5 Mr. Roberts, please begin.

6 MR. ROBERTS: Thank you very much. Are we on?  
7 Thank you very much. Welcome to California and thank you  
8 very much for your patience in this long day. It is very  
9 much appreciated. My name is Bob Roberts. I am the  
10 Executive Director for the California Ski Industry  
11 Association and I am here on behalf of our 37 resort members  
12 and our Board of Directors.

13 The winter sports industry in California is in  
14 fact the proverbial canary at the 7,000 foot mine shaft.  
15 And quite honestly, we are not feeling too good these days.  
16 For the last half century we have been providing  
17 recreational opportunities on the snowpack and making our  
18 living off of that. With the demise of timber, cattle, the  
19 extractive industries on our mountain communities, we have  
20 become recreation and tourism. The real economic engines  
21 for the mountain communities in California.

22 Today our industry attracts about eight million  
23 visitors, literally from all over the world, to ski and  
24 snowboard on our slopes. This is an infusion in the  
25 mountain communities of California of a little over \$2.5

1 billion each year. And that really doesn't include the  
2 billions of private and public infrastructure dollars that  
3 are going in to make these communities continue to be able  
4 to attract and complete in the competitive industry that  
5 we're in, which is tourism and recreation.

6           Thirty-five years ago snow making was a novelty.  
7 About a handful of areas in Southern California engaged in  
8 it and, quite honestly, the rest of us felt that it was  
9 really quite a folly. The Sierra Nevada and the Siskiyou  
10 Ranges, we pretty reliably got 30 to 40 feet of snow. Our  
11 season lasted six months. The drought years were few and  
12 they were far and few in-between.

13           At a personal level I have a very clear memory of  
14 the spring of 1974. On Mount Shasta I had to actually  
15 trench lines so that skiers could work over our 40 foot  
16 snowpack so that our chair lifts would operate. It's a  
17 memory that stays with me today because we really never  
18 really worried about our snow quality. In fact we needed  
19 four feet of snow just to cover the rocks.

20           That's all changed. Today our resorts statewide  
21 have tens of millions invested in snow making and these are  
22 large, sophisticated snow making systems throughout the  
23 state, Southern California all the way through Tahoe,  
24 Mammoth, up to Mount Shasta.

25           The reports that we got from Scripps in 1999 and

1 again from the National Academy of Sciences in 2004, and  
2 what we heard earlier today, really just confirmed for us  
3 what we have seen firsthand. Over the last 50 years the  
4 springtime temperatures in the Sierra have increased two to  
5 three degrees Fahrenheit and it has been noticeable. Our  
6 springtime runoffs are now about two weeks earlier.

7           This particular season was a real punctuation  
8 mark. Clearly it was a drought year. Our snowpack was down  
9 40 percent. Our season, quite frankly, ended a month early  
10 and our visitation was off 18 percent. Now it's a bit of an  
11 anomaly but the fact of the matter is it does bring  
12 attention very clearly to our dependence on weather and the  
13 dynamic changes that are clearly happening for us.

14           We've looked at other studies, these same studies,  
15 studies that have been done in Utah and Colorado and Europe  
16 as well, and they have all pointed to the same thing. If we  
17 do nothing our snowpack, particularly here in the Sierra  
18 Nevada, will disappear by the end of this next century. It  
19 will reduce by at least 80 percent. And you heard similar  
20 kinds of discussions and points made by our scientists  
21 earlier. This for us is just an extraordinarily concerning  
22 and a very difficult situation to foresee for our industry.

23           Obviously we want to see mitigation and we'd like  
24 to see it very quickly and handily here in California. The  
25 ski and snowboard industry in California, along with our

1 counterparts throughout the world, are really committed to  
2 this question of climate change. How can we mitigate it?  
3 Frankly we are a very small industry.

4 Our industry, the California ski industry, was an  
5 early and a very ardent supporter of AB 1439, equally for AB  
6 32. We partner, for example, with the NRDC on a Keep Winter  
7 Cool campaign that is a national campaign that we have all  
8 participated in.

9 Our resorts are on low carbon diets. We buy green  
10 tag energy, we use biodiesel in our fleets, we have  
11 aggressive recycling programs. We work very closely with  
12 our transportation systems in our districts to try and  
13 encourage public transportation as well as carpooling. And  
14 our construction, to the extent possible, all of our new  
15 construction is as green as we can make it. So that our  
16 industry is doing what it can but we are a very, very, very  
17 small industry.

18 So one of the things our Board has most recently  
19 elected to do is to produce an IMAX. And I think we have  
20 all seen the award-winning production on the part of Ex-Vice  
21 President Gore. And if you can get an Oscar for a  
22 PowerPoint presentation we think that an IMAX talking about  
23 the greener way is going to be appropriate. And we have  
24 sponsored one before and we are going to sponsor this again  
25 because our last one went on five continents. It was

1 Adventures in Wild California. And we feel that this is a  
2 way to get messages out to people not only in the United  
3 States but broadly across the world that will resonate and  
4 will stay in communities and will attract schoolteachers  
5 leaders of communities.

6 So as a small industry we're doing everything we  
7 can but we need this waiver. We need these changes. And we  
8 feel very strongly that this is the time, it's here and we  
9 have the grounds. I think if you look at the compelling and  
10 extraordinary language, which are the precise grounds in the  
11 language, they merit this waiver. And on behalf of our  
12 industry, our mountain communities and our millions of  
13 winter sports visitors we urge you and request that you  
14 grant the waiver. Thank you.

15 PRESIDING OFFICER GRUNDLER: Thank you,  
16 Mr. Roberts, thank you all.

17 It is typically our practice to --

18 Let me invite up Panel 11, some other non-  
19 governmental organizations who are presenting testimony  
20 today. The Sierra Club, Environment California, The Union  
21 of Concerned Scientists, Arizona PIRG, Global Exchange,  
22 Republicans for Environmental Protection and the Planning  
23 and Conservation League. Thank you all for coming.  
24 Mr. Zichella, why don't you lead off.

25 MR. ZICHELLA: Good afternoon. Several other

1 people have said it and I know it's been a long day so I am  
2 going to do the best I can not to repeat what other people  
3 have said. Many good points have been made about the  
4 impacts on California by people who can do a far better job  
5 than I can at it. Certainly I think that you get the idea.  
6 We have a lot at stake here. A lot of the impacts our state  
7 are experiencing are not just impacts that are forecast,  
8 they are already observable.

9 My name is Carl Zichella. I am the Regional Staff  
10 Director for the Sierra Club for California, Nevada and  
11 Hawaii. I am testifying today on behalf of our 210,000  
12 Sierra Club members in these three states and our 1.3  
13 million members and supporters nationwide.

14 As I mentioned, a lot has happened since 2004 that  
15 we have talked about today. We know about the IPCC reports  
16 and what they've said, we know about the impacts that the  
17 state's research has been about California. We have seen  
18 the Supreme Court decision clarifying the authority of EPA  
19 to regulate CO2, which really should guide your actions in  
20 this waiver. If you have the authority to regulate CO2 as a  
21 pollutant under the Clean Air Act so certainly does  
22 California. That Supreme Court ruling was a watershed. It  
23 really turns a corner I think in many ways politically in  
24 this country.

25 And one of the developments that we have seen

1 since this law was enacted was a broad public consensus that  
2 is bipartisan now nationwide, to the 60th percentile  
3 nationwide. You heard earlier, we're to the 80th percentile  
4 in support of immediate action here in California. I think  
5 it's time to really move forward and not to allow any  
6 further delay.

7           Skipping over a number of things that have already  
8 been said. I do want to mention that I got kind of angry  
9 this morning listening to the auto makers. And I know part  
10 of it was sort of a sense of bad deja vu. We've heard the  
11 same kind of remarks from them over and over and over again  
12 through the years. You heard the representative this  
13 morning say, someone is going to say, there they go again.  
14 Well someone is going to say, there they go again.

15           As I listened to them this morning it brought to  
16 mind the words of I. F. Stone who once wrote, in order to  
17 understand this year's lies you have to remember last year's  
18 lies. This is an industry that told us it was too expensive  
19 to put safety glass in cars. It was too expensive to put  
20 padded dashboards in cars. That seatbelts were going to  
21 bankrupt their industry. That they couldn't put catalytic  
22 converters on automobiles or they'd all go broke.

23           In 1973 one of my personal favorites was the Ford  
24 Motor Company testifying before Congress on corporate  
25 automobile fuel economy standards, that if we pass CAFE

1 standards at all everyone would be driving Pintos by now.  
2 One quick look out the window shows how wrong that was. And  
3 in fact they have never been right.

4           One of the examples they gave to try to mitigate  
5 this perception was that the zero emission vehicle mandate  
6 in California was a bit of a failure. Well that's  
7 interesting, seeing as how they never tried to market an  
8 electric car and they bought up every single -- and they  
9 took back every single electric car that was leased in the  
10 state and destroyed it.

11           Now it's quite amazing to me that they'll sit  
12 there and argue for no action to be taken. They will  
13 criticize this particular law for which we're seeing a  
14 waiver saying that it can't solve the global warming problem  
15 on it's own. It's not going to bring down global  
16 temperatures.

17           Well, you know, as we've also heard scientists  
18 tell you, there is no silver bullet. But i would argue that  
19 this piece of legislation that we're talking about today, AB  
20 1493, is part of what I would characterize as silver  
21 buckshot. The kinds of things, the many kinds of things  
22 we're going to need to do to get a handle on this problem.

23           I would characterize the industry's arguments this  
24 morning as one being, let's not take the first step on a  
25 journey, and then be surprised that we never get to the

1 destination. That we shouldn't do anything. That we should  
2 just hold off.

3 Well I just think that these arguments are not  
4 only irresponsible, they are actually immoral. Because  
5 knowing what we know right now about the problem of global  
6 warming and the delay that we have been forced to wait  
7 through for the last six years, it's just inexcusable that  
8 further delay would occur.

9 There is zero doubt in the scientific community  
10 any more, well I should say maybe there's ten percent of  
11 those that still think that global warming isn't real. With  
12 90 percent certitude from the scientific community according  
13 to the IPCC that this is a problem and that we are causing  
14 it there is zero excuse to hold off on action any more. To  
15 do so actually threatens the future generations of Americans  
16 and other people on this planet with diminished, and  
17 probably even greatly diminished lives if we do not live up  
18 to what we need to do.

19 The state of California acted when the federal  
20 government would not. It took the initiative to help  
21 protect its citizens when the federal government would not.  
22 And I think that to say that there is any excuse but a  
23 political excuse to deny this waiver would be an abuse.

24 And frankly I just feel so strongly about this,  
25 and so angry about what was said earlier today, that I need

1 to just exhort you to take back to the EPA that this is  
2 going to be a battle to the finish over this waiver. States  
3 have the right to do this, they have the need to do this.  
4 If the 11 states and the five more that are considering it  
5 adopt this law, 40 percent of the US automobile market would  
6 be affected.

7 US cars and trucks if you break them out by  
8 themselves as a separate category is the fifth leading  
9 source of greenhouse gas emissions in the world. California  
10 is the leading consumer of gasoline in the United States.  
11 It's clear California needs to do this, we have a lot of  
12 contribution to make, not only to direct greenhouse gas  
13 reductions but to leading other states and other nations in  
14 reducing greenhouse gas emissions.

15 We urge you to grant this waiver, we urge you to  
16 grant this waiver now. To accede to the industry's position  
17 is to say we never take the first step on a journey that we  
18 absolutely must reach our destination on. Thank you.

19 PRESIDING OFFICER GRUNDLER: Thank you,  
20 Mr. Zichella.

21 MR. ZICHELLA: You're welcome.

22 PRESIDING OFFICER GRUNDLER: Next we have a  
23 representative from Environment California, Jason Barbose.

24 MR. BARBOSE: Thank you. My name is Jason Barbose  
25 and I'm a Global Warming Advocate with Environment

1 California Research and Policy Center. Our organization is  
2 a statewide citizen-based environmental advocacy  
3 organization that represents approximately 70,000  
4 Californians. And thank you, of course, for giving me the  
5 opportunity to speak today on this matter. I hope my  
6 comments aren't overly duplicative of comments already made  
7 today, but to the extent that they are I believe they will  
8 be reinforcing important points.

9           And basically the main thrust of my comments is  
10 that the extraordinary and compelling risks that global  
11 warming poses to California require immediate and well-  
12 reasoned solutions and California officials are doing just  
13 that. It was with great purpose that California regulators  
14 and officials adopted greenhouse gas standards for motor  
15 vehicle and it is with a great urgency that we are asking  
16 the EPA to grant us the waiver for those standards.

17           This year the United Nations Intergovernmental  
18 Panel on Climate Change, the IPCC, is releasing the current  
19 state of climate science after a rigorous, multi-year  
20 process that included extensive review by scientists and  
21 governments worldwide, including the United States. And the  
22 IPCC found that the evidence of global warming is, quote,  
23 "unequivocal" and that with greater than 90 percent  
24 probability it is very likely human activities, primarily  
25 the burning of fossil fuels, are responsible for most of the

1 observed increase in global average temperature since the  
2 mid-20th century.

3           And for years scientists and government officials  
4 have done extensive research in California as well about he  
5 particular threats global warming poses to our environment  
6 and our economy and our public health here in our state.  
7 And as has been expressed in greater detail already today,  
8 these threats and challenges are tremendous. In California  
9 we are always at risk of drought, but studies show global  
10 warming could nearly drain our Sierra snowpack, depleting  
11 water supplies for both people and agriculture.

12           In California we already suffer from some of the  
13 worst air quality in the nation but global warming could  
14 increase by 75 percent the number of days conducive to smog  
15 pollution in the Central Valley and in Los Angeles Air  
16 Basin. In California we are home to an amazing array of  
17 natural environments unmatched in any other state but global  
18 warming could dramatically alter these important ecologic  
19 ecosystems.

20           And the good news is that the IPCC has also  
21 concluded that we can avoid or delay many of these impacts  
22 if we quickly and significantly reduce global warming  
23 emissions by at least 15 to 20 percent by 2020, and then 80  
24 percent by 2050.

25           Unfortunately, as you can imagine, the facts show

1 that we have been on an alternate trajectory. Global  
2 warming emissions rose 17 percent nationwide between 1990  
3 and 2005, by nearly the same amount in California. And a  
4 large part of this emissions increase, as you know, is  
5 attributable to cars and light trucks. The transportation  
6 sector in California accounts for over 40 percent of our  
7 state's greenhouse gas emissions. Carbon dioxide emissions  
8 from motor gasoline consumption in our state increased 15  
9 percent from 1990 to 2004 from 111 to 128 million metric  
10 tons.

11 So in seeing the compelling need to cut global  
12 warming pollution the extraordinary consequences of failing  
13 to take action, and the major contribution that cars and  
14 SUVs make to the problem, California decision-makers made a  
15 rational response. They undertook a multi-year process that  
16 included careful and measured technical review and public  
17 input to create first-in-the-nation standards to cut global  
18 warming pollution from cars and light trucks.

19 And the standards, of course, can be met with  
20 technology already in the market, they will give auto makers  
21 flexibility to apply any technology they choose.

22 And since 2004, as you know, 11 states have  
23 adopted the California tailpipe emission standards.  
24 Together these states account for more than one-third of the  
25 US auto market. And according to Environment California's

1 analysis, by 2020 the cumulative emissions reductions  
2 achieved in these 12 states, including California, will be  
3 the equivalent to taking 74 million of today's cars off the  
4 road for an entire year.

5           And unfortunately, without EPA's stamp of approval  
6 California and these 11 states will not be able to take this  
7 important step, which is of course why we are all here  
8 today. Unfortunately though, California's standards were  
9 carefully crafted to meet the various criteria for a waiver  
10 of preemption under the Clean Air Act.

11           And I'll defer to ARB's comment earlier today and  
12 last week at the hearing in DC but let me just say this.  
13 The standards are obviously as protective of public health  
14 and welfare as federal standards because the federal  
15 government has refused to set any global warming emission  
16 standards for vehicles. The standards address compelling  
17 and extraordinary conditions California faces from climate  
18 change and reflect California's pioneering role in reducing  
19 pollution from tailpipes.

20           In all you could say the standards are consistent  
21 with the Clean Air Act, given the wealth of evidence that  
22 they are technologically feasible and that the required test  
23 procedures are consistent with EPA's requirements.

24           And so in conclusion, global warming demands  
25 immediate action at the local, at the state, at the federal

1 levels. Given the risk, it is grossly irresponsible for the  
2 federal government to reject the limits on global warming.  
3 But more than that it is unconscionable for EPA to stand in  
4 the way of state action and leadership. And so on behalf of  
5 Environment California I respectfully urge the EPA to grant  
6 California's waiver request and remove the current roadblock  
7 to clean cars. Thank you.

8 PRESIDING OFFICER GRUNDLER: Thank you very much.

9 Mr. Bosh.

10 DR. BUSCH: Yes. It's actually Busch, B-U-S-C-H.

11 PRESIDING OFFICER GRUNDLER: Thank you. Sorry  
12 about that.

13 DR. BUSCH: I've seen different spellings without  
14 the C, that's a new one to me though. I actually have a few  
15 slides. I don't think I can advance those from here. Okay,  
16 I will. So thanks very much for the opportunity to say a  
17 few words today. I'm Chris Busch, I'm an economist in the  
18 Union of Concerned Scientists California Climate Program.

19 A bit about my credentials: I have a PhD in  
20 Agricultural and Resource Economics from the University of  
21 California and a master's degree in public policy from  
22 Berkeley as well. Previously I worked as a Senior Research  
23 Associate at Lawrence Berkeley National Laboratory.

24 Today I would like to address the compelling and  
25 extraordinary conditions that exist in California regarding

1 the impacts of unabated global warming. With respect to at  
2 least three key aspects, water supply, coastal impacts due  
3 to sea level rise and air quality and public health,  
4 California is especially vulnerable to global warming  
5 impacts.

6           The economic cost of sea level rise could easily  
7 amount to billions of dollars. Much attention has been  
8 given to the risk posed by inundation of low-lying land in  
9 the San Francisco bay Area. An issue of at least equal  
10 importance is the danger of erosion of cliffs and related  
11 damage to property. This will be particularly important in  
12 Southern California.

13           I'd like to highlight some original research that  
14 professor Michael Hanemann and I conducted for the state  
15 last year. This work sought to provide some information  
16 about the economic impacts of sea level rise in Southern  
17 California.

18           We found, based on the vulnerability of valuable  
19 real estate and infrastructure that approximately 120 miles  
20 of Southern California coastline can be expected to need  
21 protection during the course of this century. With sea  
22 walls in California now averaging about \$6,000 per linear  
23 foot this suggests a cost estimate for the protection of  
24 Southern California's coastline of about \$3.8 billion in  
25 today's prices.

1           This is in no way reflective of the total expected  
2 cost. Maintenance costs for sea walls average about four to  
3 ten percent of installation costs annually. Another  
4 somewhat hidden cost is the phenomena of passive erosion  
5 that occurs with installation of sea walls, which cause the  
6 beaches that lie in front of them to wash away, resulting in  
7 additional costs in the form of lost beach recreation or  
8 costly beach sand replenishment.

9           The California Coastal Commission's report,  
10 overview of Sea Level Rise and Some Implications for Coastal  
11 California reinforces the view that the south coast faces  
12 significant economic implications from sea level rise.

13           The figure on the screen now shows the expected  
14 economic damage for different parts of the California coast,  
15 if the coast were to be left unprotected, as a function of  
16 physical vulnerabilities and the location of valuable  
17 property along the coast.

18           The relative losses are ranked on a scale of one  
19 to five with five being most severe. The height of the  
20 cross-hatched bars show the relative level of economic  
21 damage projected for each of the coastal counties. Again,  
22 absent installation of sea walls. With the exception of a  
23 small slice of coastline at the former military base, Camp  
24 Pendleton, the entire south coast receives the highest risk  
25 rating of four or five.

1           Let me close with a few words on the issue of  
2 water supply and flood protection impacts, which can also be  
3 expected to impose very large costs. Probably no other  
4 state has such an intricately woven and climate dependant  
5 water management system. The projected decrease in Sierra  
6 snowpack will have serious water supply related impacts on  
7 both agricultural and urban water users, as Dr. Larry Dale  
8 testified to earlier. These water supply impacts could be  
9 lessened by new investments in California's water management  
10 system, but these new projects themselves will be costly  
11 both monetarily and ecologically.

12           The increased risk of catastrophic flooding is  
13 also particularly remarkable. Sacramento's flood risk is  
14 the greatest of any major US city. This next slide gives  
15 the relative flood risk as reported by the Sacramento Area  
16 Flood Agency, Flood Control Agency, excuse me. the height  
17 of each bar represents the level of flood protection for a  
18 particular city. The figure shows that Sacramento has the  
19 lowest, estimated flood protection with defenses thought to  
20 be able to withstand a 77-year flood.

21           Global warming will further increase Sacramento's  
22 flood risk. The damages following Katrina have made clear  
23 the immense economic damages associated with flooding of a  
24 major metropolitan area.

25           In conclusion, California faces an extraordinary

1 and compelling array of economic impacts if global warming  
2 continues unabated.

3 We urge approval of California's waiver without  
4 further delay so that we can move forward with global  
5 warming solutions. Thank you very much.

6 PRESIDING OFFICER GRUNDLER: Thank you, Dr. Busch.  
7 Mr. Somers.

8 MR. SOMERS: Thanks for the opportunity to testify  
9 today. My name is Mike Somers and I am a representative of  
10 the Arizona PIRG Education Fund. The Arizona PIRG Education  
11 Fund conducts research and education on public interest  
12 issues. I am here today to urge the EPA to grant  
13 California's waiver request and give Arizona and all the  
14 states the power to cut global warming pollution from cars  
15 and light trucks.

16 As you are likely aware, in February 2005 Governor  
17 Napolitano established a Climate Change Advisory Group  
18 comprised of 35 diverse stakeholders. The Arizona PIRG  
19 Education Fund was an active participant in the CCAG's  
20 Transportation and Land Use Work Group. Over the course of  
21 the next year and half the CCAG and its working groups  
22 discussed a variety of policies that could reduce global  
23 warming pollution in Arizona. The Clean Cars Program  
24 emerged as one of the top policy options to reduce global  
25 warming pollution in Arizona and received a unanimous

1 recommendation to the governor by the full CCAG. So in  
2 Executive Order 2006-13 Governor Napolitano called for an  
3 adoption and implementation of the Clean Cars Program. The  
4 rulemaking process has not yet begun.

5 In part through the Governor's Executive Order and  
6 the CCAG process it was recognized that investing now in  
7 Arizona's growing infrastructure can make enormous  
8 differences down the road. Arizona can significantly reduce  
9 its global warming pollution by creating and implementing  
10 programs to achieve the greatest emission savings. And  
11 Arizona could make major strides towards reducing its share  
12 of global warming pollution by ensuring our state has  
13 cleaner cars.

14 The Arizona PIRG Education Fund's report, Cars and  
15 Global Warming: Policy Options to Reduce Arizona's Global  
16 Warming Pollution from Cars and Light Trucks documents how  
17 Arizona could limit its contribution to global warming over  
18 the next two decades by implementing policies to reduce  
19 carbon dioxide emissions from cars and light trucks.  
20 Furthermore the report states that controlling global  
21 warming pollution from the transportation sector,  
22 particularly cars and light trucks, is essential if Arizona  
23 is going to reduce its emissions and its long-term impact on  
24 the climate.

25 According to the report, transportation-related

1 emissions are responsible for approximately 39 percent of  
2 Arizona's global warming pollution. Cars and light trucks  
3 such as pickups, SUVs and minivans, are the most important  
4 sources of global warming pollution within the  
5 transportation sector, responsible for approximately 60  
6 percent of all emissions from transportation and more than  
7 one-fifth of Arizona's total emissions of global warming  
8 pollution.

9           The Arizona PIRG Education Fund's report documents  
10 how carbon dioxide pollution from cars and light trucks in  
11 Arizona could double from 1990 to 2020 unless action is  
12 taken to reduce emissions.

13           According to the report, by implementing the Clean  
14 Cars Program to take effect in model year 2011, calendar  
15 year 2010, Arizona could reduce carbon dioxide pollution  
16 from cars and light trucks by about 14 percent below  
17 projected levels by 2020. Once the program is fully  
18 implemented in 2016, consumers are projected to save at  
19 least \$3 to \$7 every month as the result of the standards,  
20 and more if gasoline prices remain high.

21           Arizona, California, the other states that have  
22 adopted the Clean Cars Program and other states that are  
23 considering the adoption of the Clean Cars Program, deserve  
24 the green light to establish limits on health-damaging  
25 pollution and global warming pollution from automobiles.

1 California has acted based upon the facts, that  
2 cars and SUVs are a major contributor to global warming  
3 pollution, and rationally acted to reduce that pollution at  
4 the source. Furthermore, California's standards are  
5 feasible.

6 They can be met with technology already in the  
7 market and will save vehicle owners in lower maintenance and  
8 operating costs over the lifetime of the vehicles. The  
9 standards give the auto makers the flexibility to apply any  
10 technology they choose to reduce global warming emissions,  
11 including production of vehicles that use lower carbon  
12 fuels.

13 So in conclusion, California and the other states  
14 that have adopted the California program account for more  
15 than one-third of the US auto market. By cutting global  
16 warming pollution from tailpipes these states can help make  
17 a big dent in the emission reductions that we need to avoid  
18 the worst effects of global warming. And it will save money  
19 for consumers.

20 So on behalf of the Arizona PIRG Education Fund I  
21 urge the EPA to grant California's waiver request and give  
22 the states the power to cut global warming pollution from  
23 cars and light trucks.

24 PRESIDING OFFICER GRUNDLER: Thank you very much,  
25 Mr. Somers and for traveling here to present your testimony.

1           Next we have Mr. Hudema from Global Exchange.

2           Maybe not, okay. How about Mr. Burke from  
3 Republicans for Environmental Protection.

4           MR. BURKE: Hi, my name is Buddy Burke with  
5 Republicans for Environmental Protection. I am the State  
6 President of the California chapter of Republicans for  
7 Environmental Protection. Good afternoon. Thank you for  
8 coming out here to let us speak our mind here.

9           I'm going to be right more to the point. I'm  
10 going to be very brief. I don't want to repeat what has  
11 been said earlier today, or at least not very much of it.  
12 But I do want to mention a little bit to go along with what  
13 Carl said. You don't begin a long coast-to-coast journey by  
14 waiting for all the lights to turn green. The time to act  
15 is now. And what I'm here to say is I know I'm speaking for  
16 the majority of the rank and file grassroots Republicans.  
17 And what I found traveling throughout the country with the  
18 organization is that I am speaking for the majority.

19           We are recognizing the rights of the individual  
20 states. Republicans for Environmental Protection gives only  
21 the strongest support for the granting of a waiver for the  
22 state of California to allow it to set its own more  
23 restrictive standards. And with minimum regulation, what we  
24 do believe is that people will choose the better option.  
25 Sometimes government has to interfere slightly. That's

1 really what we're based upon.

2           The state has chosen to regulate its air quality  
3 through proper legislative process, in a manner which it  
4 deems most effective. As demonstrated dozens of times in  
5 recent history, California has taken a lead in conservation  
6 and is demonstrating that ongoing tradition yet again. So  
7 why should this be interfered with from the federal level  
8 now at this time?

9           We at Republicans for Environmental Protection see  
10 it as our solemn duty to support legislation which continues  
11 the tradition of conservation set forth by Presidents  
12 Roosevelt, Grant and of course President Nixon. What this  
13 does is this places a value -- in placing this value above  
14 all else. And it is our legal obligation as well.

15           The ultimate charge of the EPA is to guard our  
16 precious natural resources. The air we breathe and live in  
17 is clearly in that responsibility.

18           It was Senator Barry Goldwater who said:

19                   "While I am a great believer in the  
20 free enterprise system and all that it  
21 entails, I am an even stronger believer  
22 in the right of our people to live in a  
23 clean and pollution-free environment."

24           We at Republicans for Environmental Protection  
25 say, let's help the free market do what's right. And we

1 respectfully thank you for your time and for the opportunity  
2 and urge you to grant this waiver. Thank you.

3 PRESIDING OFFICER GRUNDLER: Thank you, Mr. Burke.

4 You must be the representative from the Planning  
5 and Conservation League. State your name and present your  
6 testimony.

7 MR. VANDER SLUIS: Yes, my name is Matt Vander  
8 Sluis with the Planning and Conservation League. I am the  
9 Program Manager for our Global Warming Program. It is a  
10 program that is a collaboration between the National  
11 Wildlife Federation and the Planning and Conservation  
12 League. We are the state affiliate of the National Wildlife  
13 Federation here in California.

14 I will be even more brief. We need this waiver in  
15 California. It must happen. We have no other options.  
16 Global warming is here. There were 164 people in California  
17 who died last summer during a heat wave. It was a two-week  
18 heat wave, 164 people who died. In Europe in 2003 people  
19 went to the beach because it was hot and they came home and  
20 their family members were dead.

21 Global warming is here. It is affecting our lives  
22 today. This isn't a problem for 20 years from now or 30  
23 years from now. It's a problem today. California is  
24 filling a gap in leadership. The EPA must step aside.  
25 Please grant us this waiver, thank you.

1           PRESIDING OFFICER GRUNDLER: Thank you very much,  
2 Mr. Vander Sluis. Any questions for the panel?

3           Thank you so much for your time.

4           We invite the last panel up, citizens of  
5 California, and any other individuals who added their name.  
6 This will be our last panel of the day and then we're going  
7 to be inviting the State of California up to make some  
8 summary remarks. So if any of these citizens are still  
9 here, Kelly Cuthbertson, Nicole Dickinson, Joanie Misrack,  
10 Anna Marie Sanchez, Keith Gagomiros, John Sweet, please step  
11 forward.

12           Is there anybody else in the audience that would  
13 like to present testimony at this time?

14           Seeing no hands I would like to invite the State  
15 of California back up to the podium to make some final  
16 remarks.

17           AIR RESOURCES BOARD CHIEF DEPUTY EXECUTIVE  
18 CACKETTE: I'd like to thank the EPA for allowing us to make  
19 some concluding remarks. I think there are several things  
20 that the Alliance brought up this morning in their testimony  
21 that we would like to put on the record.

22           The Alliance made -- Did you need a name? I'm  
23 sorry. Tom Cackette, Chief Deputy Executive Officer of the  
24 Air Resources Board.

25           The Alliance made several points this morning for

1 which I think a response is appropriate. These can be  
2 grouped into two areas. The first one is that there was no  
3 measurable impact of our greenhouse gas regulations on  
4 global warming, even if adopted nationwide or even if  
5 adopted worldwide.

6 And the second one was that ARB never made a  
7 protectiveness finding. And included in that comment of  
8 theirs includes issues such as our LEV standards allegedly  
9 not being more stringent than EPA's and that our greenhouse  
10 gas standards cause an increase in smog emissions. So if I  
11 could briefly address these issues I would appreciate it.  
12 And we'll add some more in our written comments on the 15th.

13 The first issue is that there is no impact of our  
14 regs on global warming. I think Dr. Long responded better  
15 than I can in his testimony this afternoon so I'd ask that  
16 you reread his comments very carefully because they were  
17 very articulate and to the point. But I wanted to add a  
18 couple more points.

19 First of all the IPCC has clearly articulated that  
20 solutions to increasing global warming involved reductions  
21 of emissions. If we are going to have climate change  
22 improvement it has got to be lower climate change emissions.  
23 And that is exactly what our regulations do, they reduce the  
24 emissions that cause global warming. The Alliance claim  
25 that our standards have no impact on global warming is

1 simply wrong and I think the scientists today add confirming  
2 testimony to that.

3           Second, the Alliance seems to be speaking out of  
4 both sides of its mouth. They tell you that reducing  
5 greenhouse gas emissions has no impact even if our standards  
6 were adopted worldwide, and yet in our testimony at the  
7 Washington DC hearing we presented this slide which shows  
8 several quotes from chief executive officers or very high  
9 officials of car companies. And let me just read them for  
10 you and the audience. First of all there is Tom LaSorda,  
11 who is the :President of DaimlerChrysler, or Chrysler now.

12                   "Every day our engineers are  
13                   working to reduce greenhouse gases and  
14                   petroleum consumption. We absolutely  
15                   will be part of the solution and we will  
16                   accelerate our efforts."

17 And James Press, well-known Board of Director (sic) of  
18 Toyota says;

19                   "Toyota is committed to continued  
20                   action to address climate change and  
21                   promote greater energy diversity. I  
22                   believe the time is right to enlist the  
23                   immense talent and might of the auto  
24                   industry to help solve some of the key  
25                   issues of our time. As an industry we

1           have an obligation to be part of the  
2           solution, not the problem."

3           So the point is that why would they be spending  
4 all this effort trying to reduce greenhouse gas emissions if  
5 in fact the Alliance, who represents their position, was  
6 correct, that adopting these kind of emission standards to  
7 reduce greenhouse gases from cars would be completely  
8 ineffectual whether done on a state level, a national level  
9 or on a worldwide level. There is clearly an inconsistency,  
10 which I think speaks, I guess, for itself.

11           Finally, if you are to accept the Alliance's claim  
12 of no impact of greenhouse gas standards on global warming I  
13 think you have a dilemma, which is that you will not be able  
14 to follow-through on the President's direction to you to  
15 adopt greenhouse gas emission standards for the country. I  
16 mean, why would you do that if there was absolutely no  
17 impact, no measurable impact on global climate change.

18           Let me skip to the second issue now, which is  
19 protectiveness. The Alliance claims that we never made a  
20 protectiveness argument and that is simply not true. All  
21 you have to do is read our resolution adopting the  
22 greenhouse gas standards -- and I think I've got it here  
23 somewhere. Maybe I don't. Here it is. "Be it further  
24 resolved." This is the resolution that was adopted in 2004  
25 when we, when we adopted, the Board adopted these greenhouse

1 gas standards, the subject of this waiver hearing. It says:

2 "Be it further resolved that the  
3 Board hereby determines that the  
4 regulations approved herein will not  
5 cause California motor vehicle emission  
6 standards in the aggregate to be less  
7 protective of public health and welfare  
8 than federal standards."

9 That is the formal Board statement that we are meeting the  
10 protectiveness claim.

11 Now there is a reason behind this, it's not just a  
12 hollow statement. This is a determination that we are  
13 required to make. And the only way that I think you can  
14 reject it is if you find that it's arbitrary and capricious.  
15 And let me give you the foundation for it.

16 First of all the Alliance claims that our smog  
17 emission standards are no longer more stringent than EPA's  
18 and that is simply not true. Look at our standards. Just  
19 look at the numbers. Half the cars in the state of  
20 California have to meet the PZEV standards, which are  
21 somewhere between 50 and 75 percent more stringent than the  
22 comparable federal standards.

23 Look at our evaporative emission standards. Those  
24 same PZEV vehicles have to have zero evaporative emissions.  
25 And our standard for the rest of the vehicles is more

1 stringent than EPA's. Look at our warranty, it's longer.  
2 Nearly twice as long for half the vehicles than EPA's. All  
3 these things show that our standards in fact are more  
4 stringent. And then when you get to greenhouse gas  
5 emissions I think the comparison is pretty straightforward.  
6 We have the standards you don't. So obviously our standards  
7 are more stringent.

8           They also made the claim that the greenhouse gas  
9 standards will increase smog-forming emissions and that is  
10 also false. All you have to do is look at page 189 of our  
11 final statement of reasons -- our initial statement of  
12 reasons, excuse me, our staff report supporting the  
13 standards that we took to our Board, and it shows the  
14 combined effects of all these things that they talked about  
15 today.

16           It shows the combined effects of what the rebound  
17 is in California, it's less than three percent based on a  
18 peer-reviewed study that we sponsored at the University of  
19 California. It shows what the impact of the higher cost of  
20 the vehicles is on fleet turnover. The vehicles will  
21 average 33 days older as a result of our standards. That is  
22 not going to exactly have a big impact. We did quantify it,  
23 however. And then we look at the upstream emissions, which  
24 are lower because of the effect of less fuel being used by  
25 these vehicles.

1           And when you put it all together and it is all  
2 documented in this report here is a one ton per day decrease  
3 of HC and NOx emissions compared to the base case. Not the  
4 30 ton per day increase that was shown by the alliance. So  
5 I think that very clearly from both the smog standpoint and  
6 from a greenhouse gas standpoint and the formal statement of  
7 the Board there is a clear demonstration of protectiveness  
8 on the part of California.

9           And I think even Mr. Jackson today said he would  
10 submit additional information and more recent studies to  
11 backup this claim. So with that I thank you and I'd like to  
12 turn it over to Dr. Sawyer for the final concluding remarks.

13           PRESIDING OFFICER GRUNDLER: Thank you,  
14 Mr. Cackette. Dr. Sawyer.

15           AIR RESOURCES BOARD CHAIR SAWYER: I'm Dr. Robert  
16 Sawyer, Chair of the California Air Resources Board. Thank  
17 you, Mr. Grundler, and members of the EPA hearing panel for  
18 coming to Sacramento to receive the testimony of our  
19 political leaders, our business leaders, our air quality  
20 management districts, our scientists, our medical community,  
21 our environmental organizations and a broad range of leaders  
22 and citizens from the western United States. All in support  
23 of granting our waiver request.

24           Since my appointment as Air Resources Board Chair  
25 I have had the opportunity to visit most of the automobile

1 companies that provide the cars, light duty trucks, SUV and  
2 vans that Californians drive. The message I received from  
3 the leaders and engineers of these companies was very  
4 different from what you heard today from the lobbyist and  
5 lawyer of the Alliance of Automotive Manufacturers.

6 The engineers are productively working on the  
7 development and implementation of the next generation of  
8 clean, efficient, low greenhouse gas emitting vehicle. The  
9 technology that Air Resources Board engineers have projected  
10 to meet the requirements of our greenhouse gas emissions  
11 standard exists and further improvements are on the way.

12 I invite the auto industry to join our efforts to  
13 reduce greenhouse gases. By granting our waiver request you  
14 will send the auto industry a clear message that they need  
15 to do their part to meet the threat of global warming.

16 Thank you.

17 PRESIDING OFFICER GRUNDLER: Thank you,  
18 Dr. Sawyer.

19 Let me close by thanking everyone who took the  
20 time to present testimony today, to participate in this  
21 important process. I want to assure everyone that EPA  
22 understands the significance of these proceedings, not just  
23 here in California but across the United States. This is a  
24 major issue for us to deal with.

25 And I want to thank Cal/EPA and ARB for assisting

1 in all the logistics that went into putting into this --  
2 putting together this hearing. I know a lot of work goes  
3 into this and it went very, very smoothly. My staff is  
4 grateful.

5 And finally, we are going to hold the record open  
6 until June 15 for anybody who would like to submit further  
7 comments. We stand adjourned, thank you very much.

8 (Whereupon, at 4:16 p.m., the hearing  
9 was adjourned.)

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CERTIFICATE OF REPORTER

I, JOHN COTA, do hereby certify that I am a disinterested person herein; that I recorded the foregoing hearing on a tape recorder; that thereafter the tape recording was transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, or in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of June, 2007.

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