

January 25, 2012

SUBMITTED ONLINE;

HARD COPY TO FOLLOW

Clerk of the Board

Air Resources Board

1001 I Street

Sacramento, California 95814

Submitted online at: <http://www.arb.ca.gov/lispub/comm/bclist.php>

**Re: NOTICE OF PUBLIC HEARING TO CONSIDER THE “LEV III” AMENDMENTS TO THE CALIFORNIA GREENHOUSE GAS AND CRITERIA POLLUTANT EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND TEST PROCEDURES AND TO THE ON-BOARD DIAGNOSTIC SYSTEM REQUIREMENTS FOR PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY VEHICLES, AND TO THE EVAPORATIVE EMISSION REQUIREMENTS FOR HEAVY-DUTY VEHICLES**

Environmental Defense Fund appreciates the opportunity to submit comments on the proposed “LEV III” amendments. Environmental Defense Fund (EDF) is a non-profit, non-partisan, non-governmental environmental organization that combines law, policy, science, and economics to find solutions to today’s most pressing environmental problems.

1. **EDF Applauds California’s Leadership**

California's leadership is rooted in a firm bipartisanship. Over 40 years ago, during the development of the Clean Air Act in 1967, it was Republican Senator George Murphy of California who sponsored the pivotal legislative language guaranteeing California's continued leadership in establishing clean cars standards. Senator Murphy won sweeping bipartisan support for California to maintain its authority to protect human health and the environment from automobile emissions pointing to the very seriousness of air pollution: “In my judgment the pollution problem is one of the most serious domestic problems facing our country today.”

California has continued to show bipartisan leadership in driving our state and our nation toward cleaner cars and trucks. The National Academy of Sciences examined California's time tested leadership finding the Golden State has long been a “laboratory for emissions control innovations.”[[1]](#endnote-1)

In 2002, the California Legislature passed, and the Governor signed, Assembly Bill (AB) 1493 (Pavley). This law required ARB to develop and adopt regulations to achieve the maximum feasible and cost-effective reduction of heat-trapping greenhouse gas emissions from passenger motor vehicles, beginning with the 2009 model year. The Board approved regulations at its September 2004 hearing, and they were adopted in their final form in August 2005.

Following California’s lead, the U.S. Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) worked with California’s Air Resources Board (ARB) to establish a National Program to increase fuel efficiency and reduce GHG emissions from the nation’s fleet of MY 2012-2016 passenger vehicles. The federal agencies estimate that the national standards will save consumers more than $3000 over the lifetime of a 2016 vehicle. The rule is also expected to reduce greenhouse gas (GHG) emissions from the light-duty fleet by approximately 21 percent by 2030 and save 1.8 billion barrels of oil over the lifetime of the fleet.[[2]](#endnote-2)

Following this first phase of fuel economy and GHG standards, in a May 2010 Presidential Memorandum, President Obama requested that EPA and NHTSA, together with California, continue a coordinated National Program to improve fuel efficiency and reduce greenhouse gas emissions of light-duty vehicles for MY2017–2025. The President stated that the second phase should “seek to achieve substantial annual progress in reducing transportation sector greenhouse gas emissions and fossil fuel consumption” and “strengthen the industry and enhance job creation in the United States.”[[3]](#footnote-1) He also requested that EPA and NHTSA work closely with California on a 2010 technical assessment that would evaluate technologies and costs to achieve varying levels of GHG emission reductions through model year 2025.

As a result, EPA and NHTSA again collaborated with California to develop a rigorous national program – beginning with the release of the jointly authored September 2010 *Interim Technical Assessment Report*. The federal proposal, released in November 2011, estimates the second phase of the National Program will save approximately 4 billion barrels of oil and 2 billion metric tons of GHG emissions over the lifetimes of those vehicles sold in MY 2017-2025. The agencies also estimate that the fuel savings will far outweigh higher vehicle costs, and that the net benefits to society of the proposed standards will be as much as $421 billion over the lifetime of MY 2017-2025 vehicles.[[4]](#footnote-2)

Based on the *Interim Technical Assessment Report*, ARB developed its second phase of greenhouse gas regulations that will apply for the 2017 and subsequent model years. The proposed GHG emission standards would reduce new passenger vehicles carbon dioxide (CO2) emissions from their model year 2016 levels by approximately 34 percent by model year 2025 in California. That’s a reduction of 52 million tons of greenhouse gases by 2025, the equivalent of taking ten million cars off the road. These reductions will provide a savings of $5 billion in operating costs in 2025 for California drivers, which will rise to $10 billion in 2030 when more advanced cars are on the road.

The benefits estimated as a result of ARB’s LEV III proposed amendments are significant and imperative to combat climate change, curb our addiction to oil, and reduce cost burdens at the pump. And California’s continued collaboration with EPA and DOT to establish protective fuel economy and greenhouse gas emissions standards will again mean cleaner cars and trucks for California, our nation and the world. EDF supports ARB’s proposal and applauds California for its leadership.

1. **Rigorous Greenhouse Gas Standards Provide Key Opportunity to Strengthen Energy Security, Save Consumers Money and Curb Climate Altering Gases**

The United States consumes more than 19 million barrels of oil a day[[5]](#footnote-3), which is nearly a quarter of the oil consumed in the entire world, and more than all European Union nations combined.[[6]](#footnote-4) Over half of the oil we use each day is imported from foreign countries, and more than 70 percent of the oil we consume is used for transportation. [[7]](#footnote-5) California consumes 10 percent of our nation’s total oil consumption, putting more than half into vehicles.[[8]](#footnote-6)

California and our nation are addicted to oil, which is a threat to national security. The U.S. consumes nearly 25 percent of the world’s oil production, but controls less than 2 percent of the supply.[[9]](#footnote-7) And over half of the oil we use each day is imported from foreign countries, many of which do not like us. In 2008, we sent over $1 billion a day overseas to pay for oil, the majority of it going to nations deemed “dangerous or unstable.”[[10]](#footnote-8) The rate at which we consume oil helps our enemies by paying to finance and sustain their unfriendly regimes. And the longer the U.S. remains dependent on petroleum, the more the U.S. will have to engage in tough fights just to protect our energy supplies. If we want to reduce our dependence on oil, we must address fuel consumption from our fleet of highway cars and trucks. The LEV III program will do just this by significantly cutting California’s oil consumption, which is an important first step in leading our nation toward oil independence.

Additionally, the high price of oil threatens our fragile economy. Gasoline and diesel fuel prices remain high, leaving consumers with less money to spend elsewhere.[[11]](#footnote-9) More than half of the oil California consumes is for transportation.[[12]](#footnote-10) The proposed amendments would provide consumers with over $2,000 in savings over the life of a new model year 2025 vehicle, with a payback period of less than 3 years.

One piece of the economic picture that is often not considered is the economic impact of unexpected spikes in oil prices, price volatility. One of EDF’s economists, Jamie Fine, has worked with collaborators to show that policies that lower energy demand also provide a hedge against rising energy prices. Their study – which will soon be published in the Journal, *Energy Policy* – looked at the energy use that will be avoided and the resulting savings by California’s entire plan to reduce GHGs to 1990 levels by 2020, of which the current GHG standards are a critical part. They found that cost savings from avoided gasoline and diesel use in the event of an energy price shock in 2020 could be in the range of $2.4 to $5.2 billion[[13]](#footnote-11).

The proposed emission reductions are also an important part of a national and global effort to ward off the worst consequences of climate change. The U.S. Global Change Research Program has found that climate changes “are already affecting water, energy, transportation, agriculture, ecosystems, and health.”[[14]](#endnote-3) Its 2009 Assessment predicts that water resources will be further stressed, crop and livestock production will be increasingly challenged, coastal areas will be increasingly threatened, and human health will be impacted due to heat stress, waterborne diseases, poor air quality, extreme weather events, and diseases transmitted by insects and rodents.

In California and the Southwest: “Water supplies will become increasingly scarce, calling for trade-offs among competing uses, and potentially leading to conflict. Increasing temperature, drought, wildfire, and invasive species will accelerate transformation of the landscape. Increased frequency and altered timing of flooding will increase risks to people, ecosystems, and infrastructure.”[[15]](#endnote-4) And according to a peer-reviewed study published in the scientific journal *Climatic Change,* climate change is also likely to harm California’s economy by reducing the types of natural, non-irrigated vegetation available for livestock forage and the ability of forest ecosystems to store carbon dioxide*.[[16]](#endnote-5)*

These impacts do not come at a small price. Natural disasters in 2011 wielded the costliest toll in history — a massive $380 billion worth of losses from earthquakes, floods, tornadoes, hurricanes, wildfires, tsunamis and more. And that figure does not include the expenses associated with sickness or injuries triggered by the disasters.[[17]](#endnote-6)

The LEV III program is an important tool in helping to ward off state, national and global consequences of climate change. ARB estimates the program will reduce GHG emissions by 52 million tons, or 34 percent, by 2025.

1. **Strong Criteria Pollutant Standards Will Save Lives and Help Communities Restore Healthy Air**

In 1999, California adopted the LEV II amendments, which set more stringent fleet average criteria pollutant emissions requirements for model years 2004-2010 passenger cars and light trucks. In order to achieve further health and environmental benefits, ARB is proposing LEV III amendments to further strengthen the standards. The ARB estimates the proposal will result in an estimated 75 percent reduction in smog-forming emissions by 2025. By 2035 reactive organic gases (ROG) statewide emissions would be reduced by 34 percent, oxides of nitrogen (NOx) emissions by 37 percent, and particulate matter (PM2.5) emissions by 10 percent. And these reductions will come at a very reasonable cost. ARB analysis concluded that the average cost-effectiveness of light-duty vehicles meeting the LEV III program exhaust requirements relative to the 2008 fleet is approximately $4.00 per pound of NMOG + NOx reduced.

The reduction of these criteria pollutants is important because of their harmful health and environmental impacts. Fine particles are so small that they can be breathed deep into the lungs and cause serious health problems including increased respiratory symptoms; decreased lung function; aggravated asthma; and premature death. People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure.

NOx is harmful because it reacts with ammonia, moisture, and other compounds to form particulate pollution. NOx also reacts with volatile organic compounds (ROGs) in the presence of heat and sunlight to form ozone. Children, the elderly, people with lung diseases such as asthma, and people who work or exercise outside are at risk for adverse effects from ozone. These include reduction in lung function and increased respiratory symptoms as well as respiratory-related emergency room visits, hospital admissions, and premature deaths.

The estimated reductions in harmful air pollutants from the proposed amendments are expected to avoid up to 530 premature deaths by 2025, and will help hard hit areas like the San Joaquin Valley Air Basin and the South Coast Air Basin meet health-based air quality standards.

Again, we support the proposed LEV III amendments and applaud California for bringing cleaner vehicles to our roads.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

Thank you for the opportunity to comment. If you have any questions, please contact Hilary Sinnamon at [hilary@redmtngroup.com](mailto:hilary@redmtngroup.com) or (208) 720-3218.

Respectfully submitted,

Hilary Sinnamon

Consultant to Environmental Defense Fund

Erica Morehouse

Environmental Defense Fund

1. National Academy of Sciences, “State and Federal Standards for Mobile-Source

   Emissions: Committee on State Practices in Setting Mobile Source Emissions Standards,” National Research Council (2006). Available online at: <http://www.nap.edu/catalog/11586.html> (last accessed January 22, 2012). [↑](#endnote-ref-1)
2. EPA Fact Sheet, *EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks*, (April 2010), available at <http://www.epa.gov/otaq/climate/regulations/420f10014.htm> (last accessed June 6, 2011). [↑](#endnote-ref-2)
3. The White House, Office of the Press Secretary, *Presidential Memorandum Regarding* *Fuel Efficiency Standards* (May 21, 2010), available at[*http://www.whitehouse.gov/the-press-office/presidential-memorandum-regarding-fuelefficiency-standards*](http://www.whitehouse.gov/the-press-office/presidential-memorandum-regarding-fuelefficiency-standards)(last accessed June 6, 2001). [↑](#footnote-ref-1)
4. 76 Fed. Reg. 74854 (December 1, 2011) at 74859. [↑](#footnote-ref-2)
5. EIA, Petroleum Statistics, US Petroleum Consumption, (2010), available at <http://www.eia.gov/dnav/pet/pet_cons_psup_dc_nus_mbblpd_a.htm> (last accessed June 6, 2011). [↑](#footnote-ref-3)
6. EIA, Petroleum Statistics, Total World Petroleum Consumption, (2009), available at <http://www.eia.gov/emeu/ipsr/t17.xls> (last accessed June 6, 2011). [↑](#footnote-ref-4)
7. EIA, Petroleum Basic Statistics, 2009. <http://www.eia.gov/energyexplained/index.cfm?page=oil_home#tab2> Last accessed June 6, 2011. [↑](#footnote-ref-5)
8. U.S. Energy Information Administration website at: <http://www.eia.gov/state/state-energy-profiles-data.cfm?sid=CA#Consumption> (last accessed January 22, 2012). [↑](#footnote-ref-6)
9. EIA, *World Proved Reserves of Oil and Natural Gas, Most Recent Estimate*, available at <http://www.eia.doe.gov/emeu/international/reserves.html> (last accessed June 6, 2011). [↑](#footnote-ref-7)
10. Center for American Progress, “Oil Dependence is a Dangerous Habit,” January 13, 2010. <http://www.americanprogress.org/issues/2010/01/oil_imports_security.html> “The United States imported 4 million barrels of oil a day—or 1.5 billion barrels total—from “dangerous or unstable” countries in 2008 at a cost of about $150 billion. This estimate excludes Venezuela, which is not on the State Department’s “dangerous or unstable” list but has maintained a distinctly [anti-American](http://www.washingtonpost.com/wp-dyn/content/article/2007/01/22/AR2007012200178.html) foreign and energy policy. Venezuela is one of the top five oil exporters to the United States, and we imported 435 million barrels of oil from them in 2008.” Last accessed June 6, 2011. [↑](#footnote-ref-8)
11. EIA, <http://www.eia.gov/oog/info/gdu/gasdiesel.asp> [↑](#footnote-ref-9)
12. U.S. Energy Information Administration website at: <http://www.eia.gov/state/state-energy-profiles-data.cfm?sid=CA#Consumption> (last accessed January 22, 2012). [↑](#footnote-ref-10)
13. James Fine, Chris Bush, and Remy Garderet, “The Upside Hedge Value of California’s Global Warming Policy Given Uncertain Future Oil Prices” *Energy Policy*, in press. [↑](#footnote-ref-11)
14. National Climate Assessment. [Global Climate Change Impacts in the United States (2009).](http://www.globalchange.gov/what-we-do/assessment/previous-assessments/global-climate-change-impacts-in-the-us-2009) [↑](#endnote-ref-3)
15. National Climate Assessment. [Global Climate Change Impacts in the United States (2009).](http://www.globalchange.gov/what-we-do/assessment/previous-assessments/global-climate-change-impacts-in-the-us-2009) [↑](#endnote-ref-4)
16. Shaw, Rebecca, et. al., “The impact of climate change on California’s ecosystem services,” *Climatic Change*, November 2011. Available online at: <http://www.springerlink.com/content/q773hv252l138240/fulltext.html> (last accessed January 22, 2012). [↑](#endnote-ref-5)
17. Raloff, Janet, “Insurance payouts point to climate change,” Science News, web edition, January 4, 2012. Available online at: <http://www.sciencenews.org/view/generic/id/337368/title/Science_%2B_the_Public__Insurance_payouts_point_to_climate_change> (last accessed January 15, 2012). [↑](#endnote-ref-6)