

The Federal Clean Air Act: California's Waivers: How California's Strict Air Quality Standards Have Created Economic Growth and Improved Public Health

Information Hearing of the Senate Environmental Quality Committee  
Wednesday February 22, 2017

**Statement by Don Anair, Deputy and Research Director of the Clean Vehicles Program at the Union of Concerned Scientists:**

Good Morning and thank you for inviting me to speak to the committee today. The Union of Concerned Scientists puts rigorous science to work for a healthier planet and a safer world. At UCS, we lead with solutions, combating climate change and its consequences, working to cut our oil use in half, ramping up renewable energy, reducing the threat from nuclear weapons, building a healthier food system, and much more. Our vehicles program has worked for more than two decades to educate consumers and inform policy makers about the dangers of pollution from transportation and the solutions available to address this pollution.

California's leadership in cleaning up transportation emissions has had an enormous impact on improving the health of Californians. But the ability for California to adopt and enforce vehicle standards has had a far wider ranging impact than just CA. California's world class research institutions have led to a better understanding and appreciation of the detrimental effects of air pollution and climate change emissions around the world. And it has been CA leadership on policy and regulatory development that has led to national and global benefits ranging from improved air quality and public health to automotive technology innovation, reductions in oil use and climate emissions, and an increase in fuel efficient and electric vehicle choices in showrooms across the country.

I will provide you just a couple of examples that illustrate the ripple effects CA has had across the nation and beyond.

A good example is California's Low Emission Vehicle program which began in the 1990's. This program requires automakers to produce vehicles that meet standards for oxides of nitrogen, carbon monoxide, particulate matter and volatile organic gases. California's LEV standards preceded federal standards, and adoption of CA LEVs standards by 13 other states representing roughly 1/3 of the nation's vehicle market, eventually led to adoption of similar federal standards.

A 2007 report by the national research council confirmed the importance of CA's role in driving clean air progress across the nation. That report concluded quote "...the success of the LEV program in California benefited emissions-control strategies across the nation and was primarily responsible for making the new federal standards for model-year 2004 more stringent than they otherwise would have been."

The benefits of those federal standards? The avoidance of an estimated 4,300 premature deaths and economic savings of more than \$25 billion dollars from avoided health costs and lost productivity. This process was repeated as recently as 2012, when CA adopted the 3<sup>rd</sup> revision to the LEV standards and

the federal agencies soon followed with economic benefits nationally ranging from an estimated 7 to 19 billion dollars.

Another example where CA leadership has resulted in significant economic benefits for the entire nation, has been the implementation of greenhouse gas standards for passenger cars and trucks. Recognizing the significant cost of climate change and its impact to the state, CA adopted standards in 2004 following legislation authored by Assembly Member Fran Pavley. Initially, a waiver from the Bush administration was denied, but following a protracted legal fight, eventually was granted under President Obama.

The greenhouse gas standards came at a time when federal fuel economy standards had been stalled for years and US automakers were on the verge of bankruptcy as a result of their production of inefficient vehicle models in an era of rising global oil prices.

California's persistence and technical leadership, as well as the threat of establishing separate state emissions standards, set the stage for development of a joint CA and federal greenhouse gas and fuel economy program. These standards, which are in place through 2025, are expected to decrease climate emissions by 40% and increase the fuel efficiency of new vehicles to an average of more than 35 miles per gallon up from roughly 20 miles per gallon in 2008.

In addition to being the biggest US climate action to date, these standards are providing enormous benefits to drivers in CA and across the nation. These standards have already saved consumers more than \$17 billion dollars in fuel costs since they were enacted. By 2030, net cost-savings after paying for the efficiency technologies, is estimated to be \$350 billion or roughly \$2,500 per US household. This is money consumers aren't spending on gasoline and are freed up to save or spend on other things.

Automakers stand to benefit as well. The last two years have been some of the best in the auto industry with record sales, healthy profits and job growth, all while meeting and even exceeding current standards. In 2015 for example, 10 percent of vehicle sales were compliant with standard levels set for 2020 or beyond.

California's leadership, and the ability to set its own emission standards, means that Americans across the country can go into dealerships today and find pick-up trucks getting 25 miles per gallon and SUVs averaging over 30 miles per gallon.

My final example is California's Zero Emission Vehicle program. Just as CA tailpipe standards have driven innovation in pollution control technologies, CA's ZEV program is driving innovation in electric vehicles.

Over the past seven years, electric vehicles available to consumers in CA has grown from only 2 models, to more than 25 today with estimates that that figure will top 60 models in just a few years. Roughly half of all electric vehicles sold in the US have been purchased in California – amounting to more than a quarter million in sales in CA since 2010.

These vehicles alone are cutting California's oil use by more than 80 million gallons per year and saving consumers more than \$100 million in fueling costs. They are also of course cutting air pollutants and climate emissions. Electric vehicles powered by California's increasingly renewable electricity grid have global warming emissions similar to a 90 mpg gasoline vehicle – a figure that will continue to improve as we move toward a 50 percent renewable electricity goal in 2030 and beyond.

Policies like the zero emission vehicle program and other clean transportation and fuels programs have also driven significant investment in California's clean transportation technology industry. While Tesla is a well-recognized CA manufacturer of electric vehicles employing thousands of Californians, a report by CALSTART last year identified more than 300 CA clean transportation technology businesses employing more than 20,000 workers across the state including vehicle and fuel technology developers and manufacturers.

California's ZEV program is clearly having a national impact as well. Nine other states have exercised their right to adopt California's ZEV program. Starting in 2018, manufacturers will be required to bring more electric vehicles to consumers in these markets where current vehicle availability has been lacking. And some manufactures are choosing to offer their electric vehicles for sale more broadly across the US.

To conclude, California's ability to set stricter-than-federal emission standards on motor vehicles has had an enormous economic benefit to California as well as the nation as a whole. But there is more work to be done. Too many Californians do not have healthy air to breath for at least some part of the year and we are only getting started in our efforts to address climate change. California's ability to lead the nation in combating transportation pollution is essential in meeting these challenges.

Thank you.