



Pollution standards authorized by the California waiver: A crucial tool for fighting air pollution now and in the future

Waivers have driven major advances in vehicle pollution technology for over 50 years, benefitting all Americans

California, like all other states, has the inherent obligation to protect the health of its citizens. Federal law limiting vehicle pollution has recognized and respected that right for over 50 years, by allowing California to set its own new vehicle emissions standards to address our extraordinary and compelling air pollution problems, and allowing other states to choose those standards as well. California has led the nation in cleaning up cars precisely because our circumstances required more stringent standards to protect public health and clear the air. Now 13 other states and the District of Columbia freely choose to follow our rules.

California's demonstrated progress in leading the nation's control of vehicle emissions has established a precedent that has benefitted the entire nation when our more stringent rules supplanted national rules over time.

California needed those waivers to support strong standards in the past – and we continue to need them. We have made great progress, but with more cars on the road and stricter federal standards, 7 of the 10 cities with the worst air in the nation are now in California.

The standards we now have, which have been issued a waiver including the requirement for more zero-emission vehicles, are absolutely required to continue to protect public health, and to meet the federal and state air standards in the future.

All the existing standards, including California's Advanced Clean Cars rule, plus additional standards, are needed to meet the **2031 ozone standard in the Los Angeles basin**, to avoid condemning the 12 million people living there to breathe unhealthy air.

We can clear the air, if we keep our existing standards, which are designed to ensure an increasing number of zero-emissions vehicles on the roads through 2026 and beyond. Preventing California's ability to do that jeopardizes the health and well-being of millions of Californians, with increased levels of ozone and smog, exacerbated by rising temperatures because of climate change.

50 years of waivers: good for California, good for the nation

- Congress first established the general preemption of state vehicle standards and the waiver of that preemption for California in the Air Quality Act of 1967.
- Congress recognized that California was experiencing significant air pollution problems as a result of “compelling and extraordinary circumstances”, and that California was leading the nation regulating vehicle emissions at a time when the federal government had not yet adopted comparable standards.
- California has applied for and received more than *100 waivers* over the past 50 years. None have been revoked.
- Waivers are granted for specific California regulations that establish emission standards and other emission-related requirements for new motor vehicles or new motor vehicle engines.

Waivers drive emission control technologies

California’s vehicle rules have directly resulted in the development of major technological advances to clean vehicle emissions. As a result, in terms of smog-forming pollution the average new car sold in California – and nationwide – is more than 99 percent cleaner than a car from the 1970s.

1969: Evaporative emissions – Required tighter-fitting fuel caps and redesigned fuel lines to cut leakage of gasoline vapors.

1973: Catalytic converter – In response to state regulations, automakers developed an exhaust-system technology to cut emissions of smog-forming gases; converters were first required on 1975 model-year cars. Also led to removal of lead from gasoline.

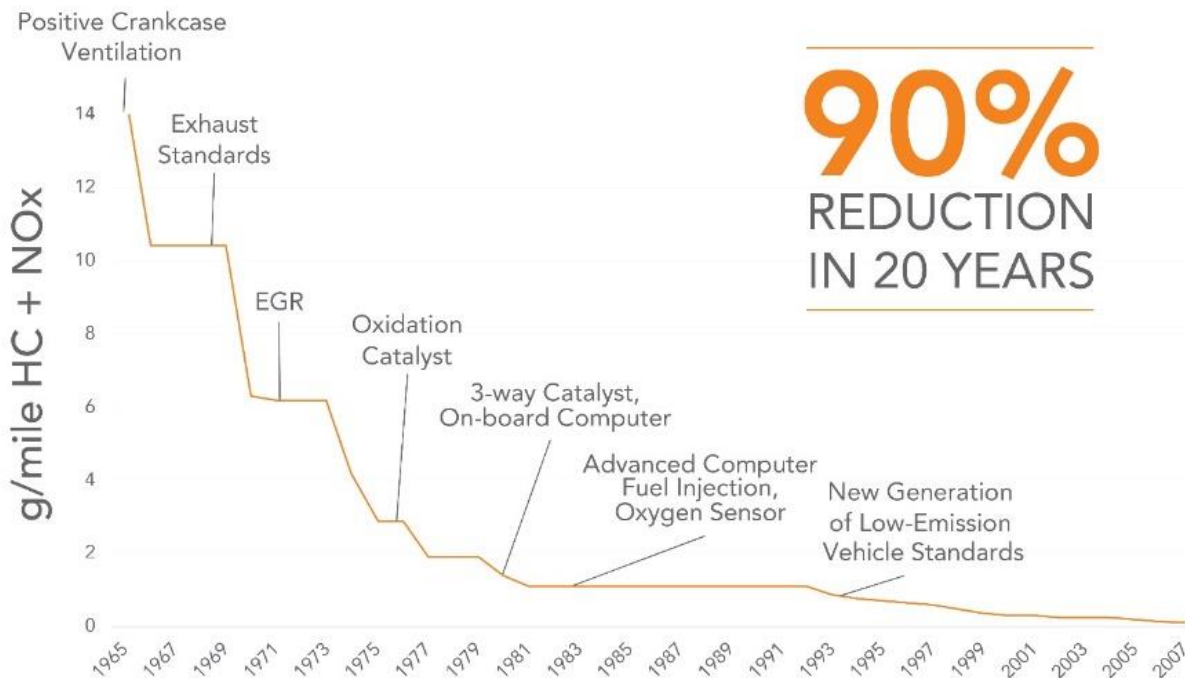
1986: Check engine light – Starting with the 1988 model year, required all vehicles to have computers capable of detecting whether emissions-control equipment is working properly (Onboard Diagnostics) and turn on the Check Engine Light if not.

1990: Low-Emission Vehicle standards – Established standards for allowable levels of smog-forming emissions from passenger vehicles and some SUVs and pickups, for the 1994-2003 model years.

1999: Low-Emission Vehicle II standards – Extended emissions restrictions to include all light trucks and SUVs for the 2004-2010 model years and tightened emissions standards for passenger cars.

2012: Advanced clean cars – Coordinated greenhouse gas and smog-reducing standards and requirements for passenger cars, light-duty trucks and some medium-duty vehicles to align California and national standards for model years 2017-2025, and enacted provisions to enable the increased commercialization of zero-emission vehicles (ZEVs). This program reduced smog-forming pollution 75 percent (compared to 2014) and greenhouse gas emissions by 40% (compared to 2016). (13 other states have adopted at least some parts of California’s program.) Included a California-only requirement for sales of zero-emission vehicles through 2025. (Nine other states adopted the ZEV component.)

Waivers Drive Innovation & Cut Air Pollution



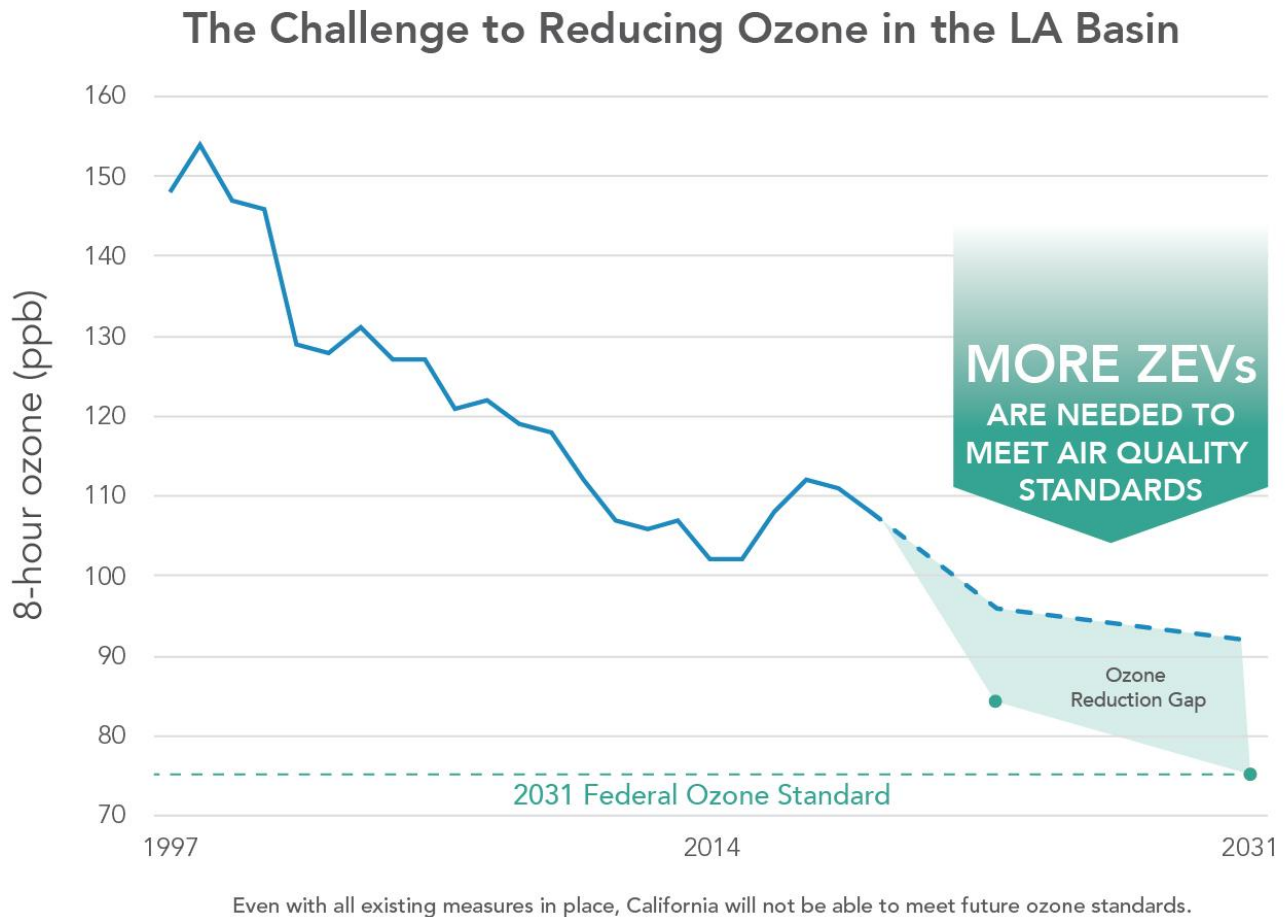
Waivers protect public health

In the 50 years since Governor Ronald Reagan signed the California Air Resources Board into existence, its regulations have brought significant benefits to the state:

- Since the 1970s many pollutant levels decreased 75-99% in California despite doubling of the population and quadrupling of vehicle use.
- 29,000 premature deaths avoided each year. This accounts for 15% of total deaths in the state.

Waivers are still necessary to protect public health in California

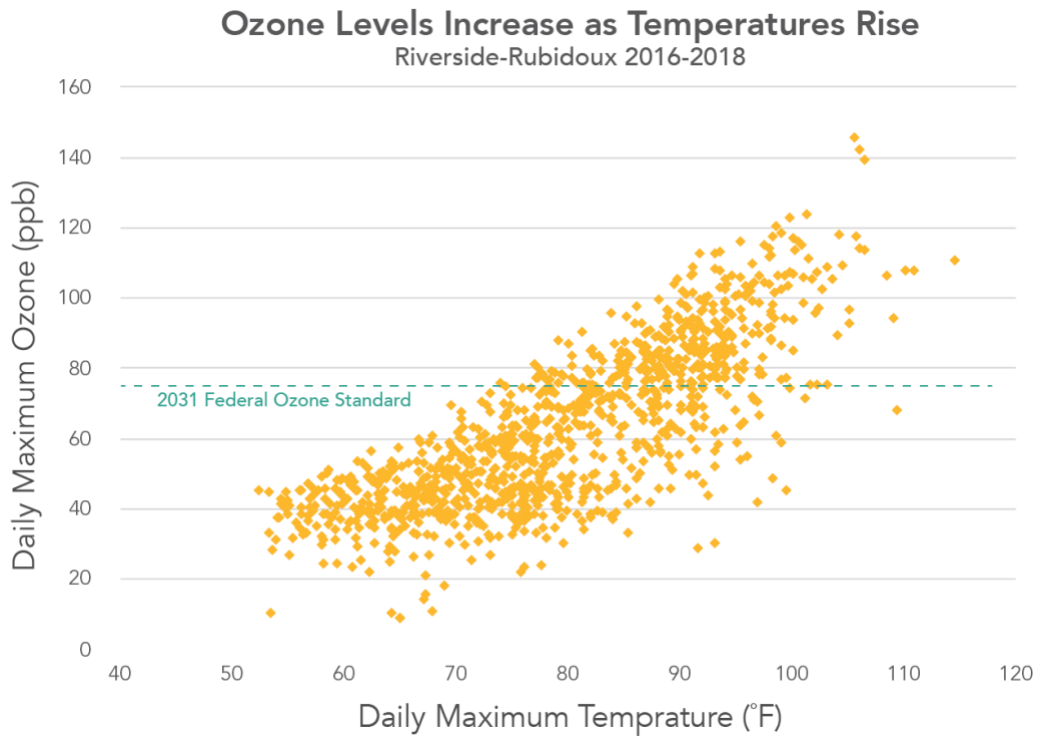
- California still has two areas, the Los Angeles and the San Joaquin Valley air basins, with what federal standards call "extreme non-attainment" for ozone, otherwise known as smog.
- These are the only such areas in the country and almost 20 million Californians currently live under extreme non-attainment conditions. People in these areas suffer unusually high rates of asthma and cardiopulmonary disease.
- California needs increasing numbers of zero-emission vehicles to meet future federal air quality standards, and to address the growing problem of rising temperatures increasing levels of ozone.



Projections indicate that with all existing programs in effect (including the waiver for Advanced Clean Cars) the Los Angeles area will not meet federal ozone standards in 2031. Only increased electrification of the vehicle fleet will achieve the necessary reductions.

Climate change will increase smog

Rising temperatures in the future will exacerbate our ozone problems. There is a clear relationship between increasing temperature and increasing ozone concentrations. (These measurements are taken from recent records for Riverside, which is in the peak ozone area downwind of Los Angeles.)



As federal ozone standards get more stringent, the impact of rising temperatures on ozone levels will be magnified. Increased electrification of the vehicle fleet is the most promising solution to address this troubling issue.

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