



Fact Sheet

California Environmental Protection Agency

 **Air Resources Board**

California's Zero Emission Vehicle Program

Cleaner air needed

Over the past 30 years, California has made great strides in reducing air pollution. In the 1970s, it was common to have 100 or more Stage 1 smog alerts each year in the Los Angeles area. Major efforts to reduce air pollution, mainly by cutting emissions from automobiles, have brought markedly cleaner air. From 1995 through 1999, Stage 1 smog alerts in Los Angeles never exceeded 14 in one year. There were no Stage 1 alerts in 1999 or 2000. Still, California faces persistent air pollution problems:

- ? More than 95% of Californians live in areas that fail to meet federal or state air quality standards.
- ? Roughly 50% of smog-forming pollutants still come from gasoline and diesel-powered vehicles.
- ? Although most cars sold in California today are 98% cleaner than those sold 30 years ago, population growth and increased driving will soon overwhelm our pollution control efforts unless we turn to new, cleaner types of vehicles.

To deal with this problem, in 1990 the California Air Resources Board (ARB) adopted the zero emission vehicle (ZEV) program. The ZEV regulation – or “ZEV Mandate” as it is sometimes called -- required automakers to put small demonstration fleets of ZEVs on the road in the 1990s and then begin major ZEV marketing efforts no later than 2003.

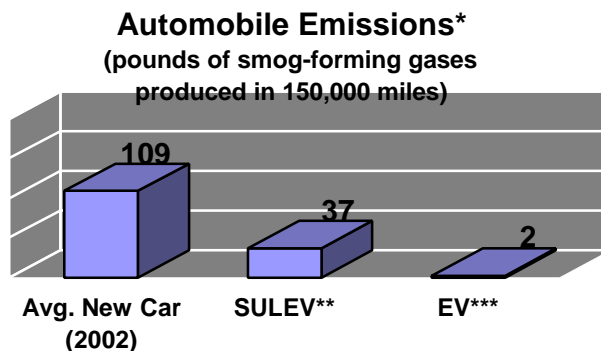
Benefits of the ZEV Regulation

The benefits of the ZEV regulation are now apparent: The major automakers have already put nearly 2500 battery-powered ZEVs onto California's roads. Consumers quickly bought these highly functional vehicles and called for more. The regulation also spurred advances in natural gas and other alternative fueled vehicles, super-clean gasoline vehicles, fuel-efficient hybrids that are powered by a combination of electric motors and internal combustion engines, and fuel cell vehicles powered by electricity created from pollution-free hydrogen.

ARB is not suggesting that every Californian should drive a ZEV. However, attention to a few simple facts shows that many people could make the ZEV clean-air choice without affecting their mobility or lifestyle. Millions of California's households have at least two cars. In the case of married couples with teenage children, the family may have three or more cars. In many of these households, one or more cars are rarely driven more than 50 miles daily, with short trips to school, nearby shopping and other local events more the norm. Surveys have shown that 70 percent of Californians drive less than 50 miles per day, putting them easily within ZEV range. EVs can be charged at work, airports, shopping malls, museums, baseball parks and many other places. Home chargers allow recharging overnight – no trips to the gas station as EV drivers wake up each morning with a “full tank” in the form of fully charged batteries.

Other EV Benefits

EVs reduce pollutants by more than 90 percent when compared to the cleanest conventional gasoline-powered vehicles. This is true even when factoring in emissions from power plants generating the electricity to charge EVs. EVs also eliminate the evaporative emissions that escape from gasoline vehicles. And, gasoline vehicles emit at least ten times more air toxics, like benzene and formaldehyde, than an EV. There is no smog-control system to degrade or fail over time so the EV owner can bypass smog checks and the expense of smog equipment repairs. EVs also qualify for a sticker allowing carpool lane use with only one occupant.



* Smog-forming gases (ROG+NOx); includes gasoline marketing emissions

** Super Ultra Low Emission Vehicle - cleanest gasoline powered vehicle

*** Includes powerplant emissions

Studies estimate that EV maintenance will cost 35 percent to 80 percent less than gasoline car maintenance. Aside from not having to pay for smog checks, EV owners avoid the costs of oil changes, tune-ups, and gasoline. Electric motors have fewer moving parts and typically have longer lives than conventional engines. As with any new technology, the first EVs, produced in small volume, cost more than their gasoline counterparts. However, as EV technology develops and production increases, costs will drop. Meanwhile, incentives and rebates are available to help consumers reduce initial EV costs. More information about EVs and EV incentives is available on the ARB's website.

For More Information

Please contact the ARB toll-free at (800) END-SMOG/(800) 363-7664 (California only) or (800) 242-4450. More information on the Zero Emission Vehicle Program is available on ARB's web site at <http://www.arb.ca.gov/msprog/zevprog/zevprog.htm> or at <http://www.zevinfo.com>.

You may obtain this document in an alternative format by contacting ARB's ADA Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, outside Sacramento).

The energy crisis facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of sample ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>