



# SB 1505: California's Clean Hydrogen Future

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California Climate Choices

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## A Hydrogen Future in California

Diversifying our transportation fuel supply can give our state greater energy security and reduce the impact of price spikes as well as provide important environmental benefits for state residents.

Global warming is of paramount concern with transportation being the largest source of heat-trapping emissions in California. Additionally, state residents continue to suffer from some of the worst air quality in the nation due to conventional fossil fuels consumed in our cars and trucks.

These problems must be solved using a multifaceted approach, including strong emission standards, advanced technology vehicles like hybrids, and fuel diversification. Many of these strategies can and should be introduced or strengthened in the near and mid-term, but hydrogen-powered fuel cell vehicles have the potential to offer significant environmental benefits in the long-term.

Hydrogen fuel from natural gas may be an appropriate means for getting fuel cell vehicles on the road in the near term, but a clean, sustainable hydrogen future depends on renewable hydrogen.

## California's Hydrogen Highway Blueprint Plan

In 2004, the Governor issued an executive order (S-7-04) calling for the development of a Hydrogen Highway Network Blueprint plan. Since then, volunteer experts from industry, government, academic institutions, and non-governmental organizations have developed a blueprint plan that outlines a path to making hydrogen a viable alternative transportation fuel in California.

The objective of the plan is to set the stage for a hydrogen economy while achieving vital environmental benefits, such as helping the state meet its clean air goals under the Zero Emission Vehicle (ZEV) program.

## SB 76 (of 2005)

SB 76 (Chapter 91, statutes of 2005) was a budget trailer bill that set initial specifications and standards for hydrogen as a transportation fuel. The bill directed CARB on how to spend the initial \$6.5 million allocated to the Board to begin implementing the Hydrogen Highway Blueprint plan. The legislation also set temporary environmental goals for identified projects funded through the budget bill. Those goals expire on January 1, 2007.

## SB 1505 – Environmental Standards for Hydrogen Fuel

SB 1505 (Lowenthal) creates important environmental performance standards for the production and use of hydrogen fuel for transportation purposes in California. Specifically, the bill requires the following:

- **Global Warming Emissions** – Hydrogen fueled vehicles must reduce heat-trapping greenhouse gas emissions by at least 30% compared to emissions from new gasoline vehicles on a full fuel cycle basis.
- **Renewable Sources of Energy** – At least one-third of the hydrogen produced or dispensed for transportation purposes in California must be made from renewable sources of electricity.
- **Smog Pollution** – The well-to-tank emissions of smog-forming pollutants from hydrogen fuel dispensed in California must be reduced by at least 50% when compared to gasoline.
- **Toxic Contaminants** – Emissions of toxic contaminants must be reduced to the maximum extent feasible compared to gasoline on a site specific basis.

These standards would apply to any state-funded hydrogen facilities and, once a certain threshold is met statewide, to all hydrogen produced or consumed in the state for transportation purposes.

*SB 1505 will ensure that as a hydrogen-based economy burgeons in the state, it does so in an environmentally beneficial manner.*

