

LOW CARBON FUEL STANDARD

Background

In April, the California Air Resources Board (CARB) is scheduled to finalize regulations for a Low Carbon Fuel Standard (LCFS) to reduce greenhouse gas emissions from transportation fuels by 10% in the year 2020. The LCFS is a key element in the agency's AB 32 Scoping Plan to reduce greenhouse gas emissions in California. What low carbon fuels will be used to meet the standard, their cost and availability has yet to be determined. In fact, many of these new fuels are still in the research and development phase, and are not yet commercially available.

Lessons Learned From Developing Cleaner-Burning Fuels

Cleaner-burning fuels have been at the forefront of California's successful battle against air pollution. History has shown, however, that the introduction of new fuel formulations should be undertaken carefully to avoid unintended environmental issues and to ensure reliable fuel supplies for California's millions of drivers. For example, it was reported that the introduction of new diesel regulations introduced by CARB in 1993 caused "soaring prices, spot outages and failing diesel engines..."¹ In the late 1990's after implementation of CaRFG2, the presence of MTBE in groundwater began to be reported. The state responded to these unintended outcomes by developing new statutory guidance, regulations and review processes for future California fuel formulations.

The lesson: New fuel formulations can deliver significant environmental benefits, but may raise many complicated issues. These potential issues can best be managed by CARB engaging key stakeholders and consumers in a comprehensive review, discussion and development of strategies before mandates are finalized and implemented.

Succeeding at Low Carbon Fuels

Because the LCFS is proposing changes that are more far-reaching than past CARB fuel changes, it could present even greater challenges than prior fuel formulations. Specifically to meet requirements of the Health and Safety Code and the AB 32 Scoping Plan resolution, the following reviews in consultation with key stakeholders must be conducted prior to adoption of the LCFS regulation:

- Conduct multi-media environmental reviews to ensure no adverse impact to California air and water resources and to public health.
- Determine the cost-effectiveness of the LCFS.
- Determine the availability, effectiveness, reliability and safety of the fuels expected to be used to meet the LCFS.
- Determine the effect on availability and cost of conventional fuels, especially in the event fuels mandated under LCFS have not been developed or cannot be produced and delivered in sufficient quantities to meet the required usage levels.
- Determine the infrastructure requirements, availability and cost for each fuel mandated under the LCFS and the time required to design, permit and construct these facilities.
- Document the impact of the proposed LCFS on fuel efficiency, and on the existing motor vehicle distribution system.
- Analyze how the LCFS will impact key segments of the California economy including trucking, railroads, fleet operators, construction industry and agriculture.
- Determine the cost to consumers.
- Conduct extensive testing in consultation with vehicle manufacturers, truckers, fleet operators and others to determine how low carbon fuels will impact product availability, vehicle performance and equipment reliability.
- Adequate time to conduct these reviews must be taken to ensure that potential environmental and fuel supply issues are fully considered and addressed.

¹ National Petroleum News, November 1, 1993.