

NGVs Pave the Way for

Fuel Cells



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The payoff for investing in natural gas vehicles doesn't end with a healthier environment and more secure fuel supply. NGVs will also pave the way to zero-emission hydrogen fuel cell vehicles and an all-clean-vehicle future.

SunLine Transit, the most innovative transit agency in California and an international model, converted entirely to natural gas buses in 1994 and has been an early tester of hydrogen fuel cell bus prototypes. The Coachella Valley agency researched its alternative fuel options a decade ago and concluded that compressed natural gas (CNG) was the most practical clean fuel available—and that it would be a crucial bridge to pure hydrogen fuel.

That analysis remains persuasive. By most estimates hydrogen fuel cell vehicles are still 10 to 15 years away from widespread introduction, and many more years will pass before a majority of cars and trucks on the road are fuel cell vehicles. Recent reports by independent research and environmental organizations²⁰ advocate the SunLine approach for heavy-duty use: Adopt natural gas vehicles (NGVs) now to gain immediate air quality and fuel security improvements, and establish the foundation for a future hydrogen fuel infrastructure.

NGVs can help smooth the path to fuel cells in a number of ways. Because hydrogen fuel and CNG are both compressed gases, the ongoing technology development aimed at making the CNG fueling infrastructure more efficient and user friendly provides a valuable base of knowledge for storing compressed fuel onboard a vehicle and building hydrogen stations. Many of the facility and operational changes fleet



operators must make to convert from liquid to gaseous fuels will also be applicable to hydrogen-fueled vehicles. Natural gas is widely considered the best current source for producing hydrogen, so current CNG fueling facilities are a logical foundation for a hydrogen fueling infrastructure. And with increasing NGV use, drivers and mechanics will receive crucial training. The public is now familiar and comfortable with liquid transportation fuels, but unfamiliar and often uncomfortable with gaseous fuels. This must change if hydrogen vehicles are to gain general acceptance.

In addition to being a bridge to fuel cells, NGVs are a continually improving clean-air option in their own right. Advances such as home-fueling appliances for NGVs—expected to reach the market in the next few years—and even lower-emitting natural gas engines will make NGVs an appealing option well into the future.

See the References page for footnotes.