

TECHNOLOGY DEVELOPMENT PROJECT FACT SHEET

FF005: APS Hydrogen Park

The APS Hydrogen Park was the first commercial hydrogen motor vehicle refueling station in Arizona. The Park, permitted to fuel hydrogen motor vehicles in March 2002 and located in downtown the Phoenix historic district, provides an example of modern fueling infrastructure integrated with urban architecture. Since going into operation, more than 5,500 gge (gasoline gallon equivalent) of hydrogen has been produced from city water and delivered into motor vehicles. Hydrogen is priced at \$2.25 per gge reflecting the stable and low cost of Arizona's electricity.



Hydrogen, CNG (compressed natural gas), CHyNG (blends of hydrogen and CNG), and “fast charge” BEV (battery electric vehicle) motor vehicle fueling are all available at the Hydrogen Park fuel dispensers. Customers can use their credit cards to purchase these clean fuels during daylight hours.

	Hydrogen	CNG
Storage Pressure (psig)	150 2400 6,000	3,600 5,000
Storage Capacity	67,000 SCF	50,000 SCF
Production	318 SCFH	350 CFM
Dispenser	5,000 psi	3,600 psi Full Blend Capable

The Hydrogen Park provides a “real world” working laboratory to evaluate the safety and economics of using energy stored in hydrogen as a fuel for motor vehicles and distributed electric generation. Our interest in hydrogen stems from the national goal for energy security and sustainability.

Approximately 5,000 fueling events have occurred since the station began operation and there have been no safety incidents. Hydrogen system availability has been above 99%. The hydrogen produced from water has been 99.9997% pure, and the station has released more than 1 million cubic feet of pure oxygen into the downtown Phoenix air, almost like having a one acre park with 36 turn of the 19th century mature trees. The 5,500 gge of hydrogen was made from 12,650 gallons of water, which was returned to Phoenix air shed as water vapor.

