

Appendix B

Station Location and Siting Criteria

Environmental Criteria

Each hydrogen station funded by the state pursuant to Chapter 91 shall meet or exceed the environmental goals of the California Hydrogen Blueprint Plan, and shall use renewable energy to produce and dispense hydrogen.

- Each station shall use at least 20% new renewable energy to produce and dispense hydrogen with a goal of 33% by 2010.
- The operation of each station will result in a 30% reduction in greenhouse gas emissions relative to comparable emissions from current year gasoline vehicles/stations.
- There shall be no increase in toxic or smog-forming emissions relative to comparable gasoline vehicles/stations.

Location Criteria

These criteria apply to the geographic station locations within the state. Development of the early stages of the California Hydrogen Highway Network will focus on the larger population centers within the State. Regional network clusters are being planned or developed in the larger cities such as San Diego, the Los Angeles basin, Sacramento, San Francisco areas and within the San Joaquin Valley. Draft criteria presented follow:

- The stations should be located in the four existing regional clusters, or a demonstration station/cluster along Interstate-5 or Highway 99 within the San Joaquin Valley.
- Each station location should help maximize the utility, range and usability of the established vehicle fleet operating within that cluster.
- Stations should be located in convenient proximity to the vehicles that will be using the station.
- The stations should be located along or just off of major thoroughfares and highways so drivers do not have to drive too far to refuel.
- If hydrogen is not generated on site, the fueling station should be located as close as practical to the hydrogen generation facility.
- Where possible, station locations should be strategically spaced at convenient intervals within the cluster. Ideal driving distance to the next public station should be approximately 10 miles.
- Where possible, the station should be located where it will receive maximum visibility by the public.
- Station locations should feature anchor tenants that are committed to the project for the long term.

Siting Criteria

These siting criteria deal with the actual layout, appearance and specific capacities of that station.

- All stations must comply with relevant codes, standards, local, state and federal regulations regarding the siting, storage and dispensing of hydrogen fuel (NFPA, CEQA, etc. see list in Implementation Topic Team Report January 5, 2005).
- The station should be sited in convenient proximity to the vehicles that will be using that station.
- Station dispensing equipment should be readily identifiable, safe and easy to use.
- The station must have “public” access. The ultimate goal being an experience similar to that of a gasoline service station.
- Station operators should provide attendants to fuel third party vehicles.
- The station operator will address training and liability agreements to allow National Highway Traffic Safety Administration certified original equipment manufacturer (OEM) and conversion vehicles access to refueling.
- Public access may be limited by a combination personal identification number (PIN), vehicle identification number (VIN) and credit card.
- The station must be open during convenient hours of operation. For example, initially the station should be open, with an available attendant at the station during commute hours, from 6:00 a.m. to 6:00 p.m. generally. If needed, for after-hours operation, an attendant should be available on call.
- For light duty vehicles, on-site dispensed storage capacity should be no less than 30 kilograms (kg) with enough reserve for emergencies.
- Stations should be capable of dispensing at least 10kg/day.
- The station should be capable of dispensing fuel at 5000 pounds per square inch (psi), with the capability of upgrading to 10,000 psi.
- Fuel should be of adequate quality to satisfy vehicle requirements.
- Station layout should allow for easy ingress and egress.
- California Hydrogen Highway signage should be placed in highly visible locations.
- A public education kiosk containing information about the station, the California Hydrogen Highway, the source of renewable sources of energy for that station, and a toll free number should be available to users of the station and the general public.
- Upon request, the station should be made available for Hydrogen Highway events and education.

All fueling/energy stations should provide automatic data collection to record parameters including, but not limited to: energy throughput, energy efficiency, number of fillings, fill rate, hydrogen production rate, renewable percentage,

events and alarms, maintenance records, electricity generated, heat generated for building use and emissions monitoring.