Fuel Marketers and Retailers

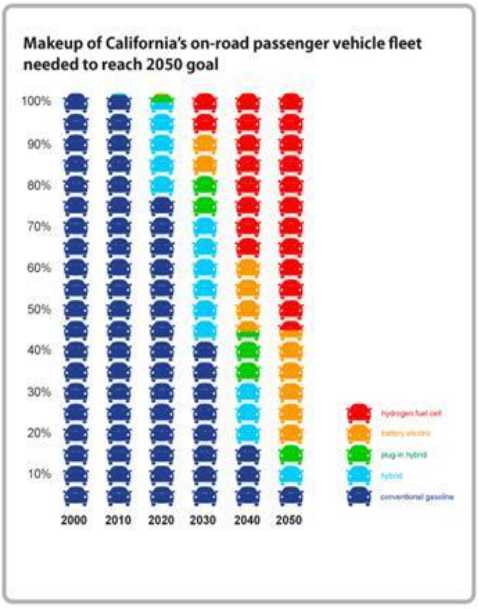
Why Alternative Fuels?

Alternative fuels are growing in use in California to meet the Governor's state goals.[1] In 2014, there were over 40,000 alternative fuel vehicles in the San Diego region alone. Further, there are over 3,750 fueling stations in California that offer alternative fueling options.

Alternative fuels include biodiesel (B20), compressed natural gas (CNG), ethanol (E85), electricity, hydrogen, and propane autogas (propane). They serve as more cost-effective and cleaner-burning options to conventional diesel or gasoline fuel. They also perform just as well as any conventional vehicle.

Installing alternative fuel infrastructure may not only increase the throughput of your fueling station, but it can also signal your commitment to the environment.

The state's commitment to alternative fuel includes several federal and state laws[2] and policies[3] that signal for the increase in alternative fuel use (below).



Helpful Resources for Fuel Retailers:

The California Energy Commission offers grant opportunities to fund the development of a variety of alternative fuel infrastructure. Visit http://www.energy.ca.gov/drive/funding/ to stay up-to-date with their activity.

Learn more about alternative fuels at the Department of Energy's Alternative Fuel Data Center (AFDC): http://www.afdc.energy.gov/ .

Propane

Before adding propane to your retail fuel site, consider the following tips:

- Aboveground propane tanks must be separated by at least 15 feet from tanks that dispense liquid or gaseous motor fuels
- Market the availability of propane by using the tools found here: http://www.propanemarc.com/ProductDetails.asp?ProductCode=4511
- Learn basic information about propane as well as a discussion about the barriers to greater propane adoption and solutions to overcome them here: http://www.propanemarc.com/ProductDetails.asp?ProductCode=4725.
- Ensure you know how to safely use and maintain propane equipment: http://www.propanecouncil.org/safety-minute/

E85

Considerations for Installing E85:

- How much E85 are other stations selling?
- Can you access low-cost E85 sold by a regional blender?
- Do you have a mid-grade tank or extra regular unleaded tank that can be converted?
- What is the estimated throughput for the E85 station?
- What incentives are available for the installation?
- Are gasoline or diesel sales are low? E85 may be a better selling item.

The AFDC has created a case study highlighting the business case for selling E85: http://www.afdc.energy.gov/pdfs/41590.pdf.

Visit www.ethanolretailer.com to download Point of Purchase materials like curbside signs (example above) and nozzle talkers, as well as learn more about how to market E85 at your site.

Biodiesel

To market and sell biodiesel, obtaining BQ-9000 accreditation is the best way to show your product is maintained at the industry standard, ASTM D6751. It also helps promote public awareness and acceptance of biodiesel. Learn more about the accreditation at bq-9000.org.

As a biodiesel retailer, remember these key points:

- Biodiesel blends will work in any diesel engine without the need for modifications
- B20 provides similar horsepower, torque, and mileage as diesel

The Department of Energy has developed Handling and Use Guidelines for Biodiesel that is found here: http://biodiesel.org/docs/default-source/using-hotline/nrel-handling-and-use.pdf.

CNG

When planning to open a CNG station, consider the following points:

- Will you own the station?
- What type of fuel delivery service will you offer: time-fill, fast-fill, or a combination?
- Who will maintain and operate the station?
- Who can access the station (public or private)?
- How will the station be paid for, and how will fuel be charged?

All of this is addressed in NGV America's guide on CNG station business models: http://www.ngvamerica.org/stations/cng-station-business-models.

Hydrogen

Hydrogen fueling can typically be added to an existing gas or natural gas fueling station. Hydrogen fueling equipment includes a dispenser, storage tubes, and a compressor. The following are basic guidelines for adding hydrogen to your station:

- Determine your eligibility – Visit the Alternative Fuel Data Center to ensure that your space can accommodate the infrastructure: http://www.afdc.energy.gov/fuels/hydrogen_infrastructure.html
- Confirm location –To increase the potential for additional or supplemental grant funding, confirm that your proposed station location is within a region that has been prioritized by the *California Road Map* found here: http://www.cafcp.org/carsandbuses/caroadmap.
- Partner with a company experienced with proper building and operation of hydrogen stations.
- Read more about hydrogen – Before installing hydrogen infrastructure, make sure you understand the basics: http://cafcp.org/stations/howitworks.

Electricity

To host an electric vehicle (EV) charging station at your site, consider the following:

- Availability of power – Can the site's electrical panel support the addition of electric vehicle charging stations (EVCS)? If not, is it easy to upgrade? Is it close to a transformer if new service is needed?
- Constructability – How far are the potential EVCS spots from the electrical panel? Does the site require extensive trenching? Construction costs increase when significant trenching is required.
- Environmental protection – Will the EVCS cause environmental impacts to the site?
- Accessibility – Will all EV drivers be able to access the charging station safely?
- Payment – Will you require a fee for EV drivers to access the charging station?
- Partners – Hosts may choose to own, operate, and maintain the charging stations, or partner with an electric vehicle service provider (EVSP) who will maintain and operate the stations on the host's behalf.

More details about being an EVCS host can be found on the Clean Cities Guide: http://www.afdc.energy.gov/pdfs/51227.pdf.

[1]Governor Brown Inaugural Address (2015) - Reduce petroleum use in cars and trucks by up to 50 percent within the next 15 years (2030)
[2]AB 32 (Global Warming Solutions Act, 2006) - Reduce GHG emissions to 1990 levels by 2020; AB 118 (2007)-Created the Alternative Renewable Fuel and Vehicle Technology Program (ARFVTP) in California to fund fuel technologies to meet California's energy, clean air, and climate-change goals
[3]Low Carbon Fuel Standard (2007) - 10 percent reduction in carbon intensity of transportation fuels in California by 2020