

The Air Liquide Group

World leader in gases, technologies and services for Industry and Health



Air Liquide & Toyota Leading the Way

- In November 2014, Air Liquide announced plans to supply a fully-integrated hydrogen fueling infrastructure in the Northeast US, in collaboration with Toyota Motor Sales USA, Inc. (Toyota)
- NE US infrastructure will support Toyota's introduction of a new hydrogen Fuel Cell Electric Vehicle (FCEV), the "Mirai"
- Infrastructure will consist of two state-of-the-art hydrogen distribution centers and twelve fueling stations across a number of states
- 9/12 stations already have leases



Overview



States adopting Federal Chapter 177 placed requirements for automakers to accumulate Zero Emission Vehicle (ZEV) credits starting in 2017.

California currently has 18 stations in operation now, has 29 additional stations in construction now, and is leading a group focused on the implementation of an 8 State Zero-Emission Vehicle Deployment Memorandum of Understanding (MOU) signed in late 2013 by CA, OR, NY, CT, MA, RI, MD and VT

**8 State ZEV MOU calls for 3.3 MM Zero Emission Vehicles by 2025
(1.7 MM of which are to be in the Northeast)**

FCEV Automaker Launch Activity

Hyundai Motor America – Tucson Fuel Cell

- Available now in Southern California
- \$499 per month, including unlimited free hydrogen and concierge service.



Toyota Motor Corporation - Mirai

- Toyota Mirai available preorders now to CA customers and in the Northeast in 2016.
- MSRP \$57,500.
- Lease \$499 per month, including free hydrogen and concierge service.
- Hydrogen station interests include financial and investment relationships with fuel providers in California and the Northeast.



Honda Motor Company

- Launched in Tokyo - U.S. launch in 2016.
- Financial and investment relationship with fuel provider in California.



Toyota Mirai

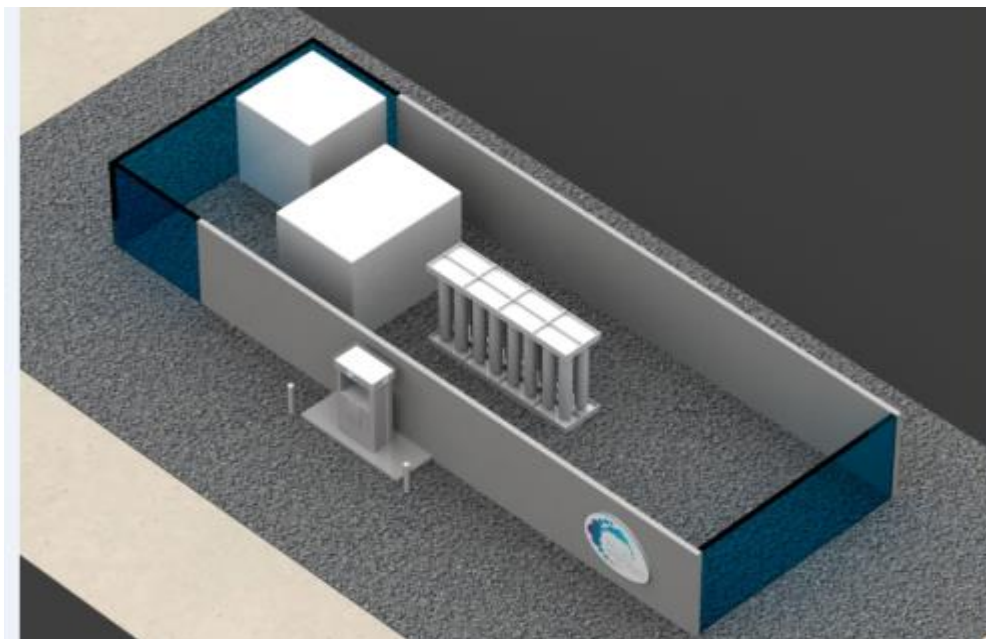


Rendition of Air Liquide Anaheim, CA Station

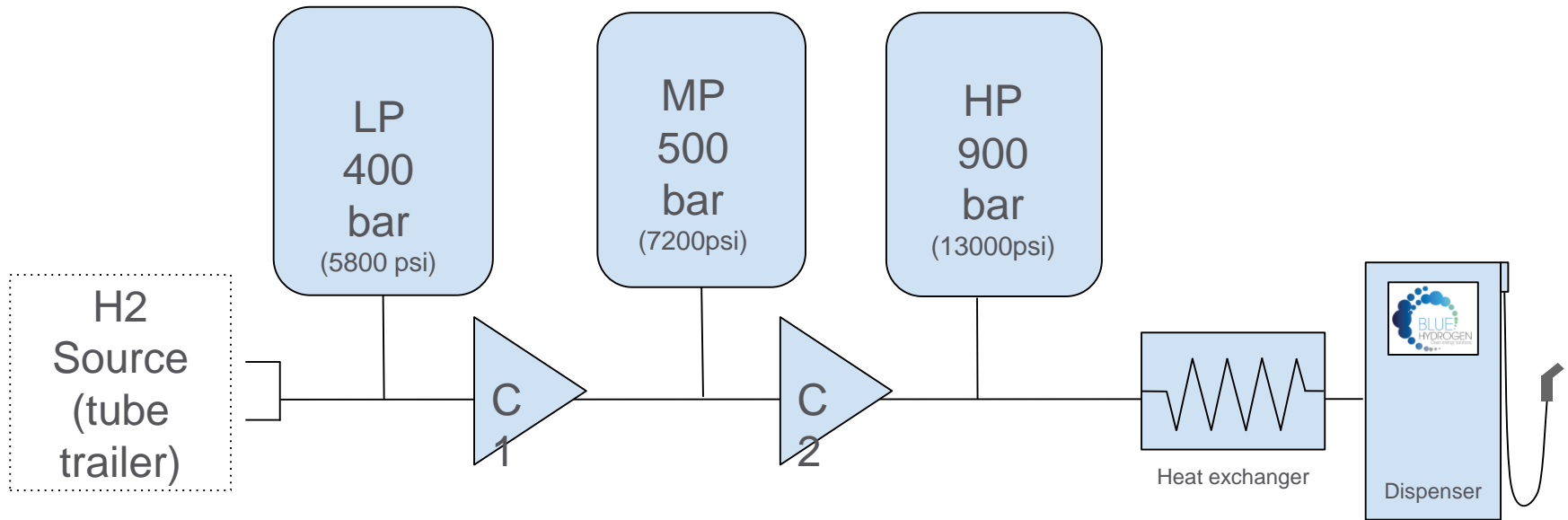


Hydrogen Station Safety

- Site will adhere to all National Fire Protection Association (NFPA) and Compressed Gas Association (CGA), OSHA, NEC and ASME codes and standards
- The control system will have both ACTIVE and Passive safety systems to reduce the risk of fire, and will be monitored 24/7
- Safely designed vent and vent location for rapid purging upward
- HAZOP and Design reviews conducted with tenured Air Liquide Engineers
- Emergency stops throughout



Station Fueling Conceptual Design



- Hydrogen supplied to the station via delivery offloaded to a low pressure (LP) storage module
- The first and second stage of compression (C1) move the gas into the medium pressure storage (MP)
- The final stages of compression (C2) move the gas into the high pressure (HP) storage system
- The gas flows through a heat exchanger which cools the gas to between -31 and -40 degrees Fahrenheit
- Finally, the dispenser controls the cooled gas flowing into the vehicle

Thanks for your attention.
QUESTIONS?

