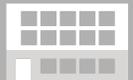




Electricity



Transportation



Buildings



Industrial



Agriculture



Sequestration

Station Operational Status System

Client: California Fuel Cell Partnership
2010–ongoing

More than 8,300 fuel cell electric vehicles are on the road in California and fuel at a network of over 40 hydrogen stations. During these early years of deployment, it's important that drivers know that "their" station has fuel available for making the drive. To answer the need, Frontier Energy developed SOSS on behalf of the members of the California Fuel Cell Partnership.

SOSS includes a database and simple mobile web app that is provided free to every hydrogen station in North America. Each hydrogen station is listed in a database entry with static information: location, opening hours, contact information, etc. Station operators install coding at their management system backend to transmit status information to the server every 15 minutes, or immediately if the status changes. Data is immediately pushed to the SOSS mobile website and to a hydrogen station map at cafcp.org/stationmap. SOSS also pushes data to other maps, in-car GPS systems, and to entities like the National Renewable Energy Laboratory (NREL).

SOSS is an open-source system that uses Linux, Apache, MySQL, PHP and Drupal. Every station provider in the world is provided with instructions to set up their station to report to SOSS, which is a free service for FCEV drivers and is funded by CaFCP's members.



FRONTIER ENERGY:

- Developed the database, interactive station map, and mobile website
- Provides technical support to station operators to implement SOSS and troubleshoot data transmission
- Provides technical support to automakers and app developers to receive SOSS data
- Provides telephone, email, and social media support to FCEV drivers
- Leads a nationwide technical advisory team to establish a common lexicon and terminology
- Provides weekly and monthly data analysis about hydrogen station availability
- Continues to add features and functionality to extend SOSS for cars, trucks, buses and to countries outside the U.S.