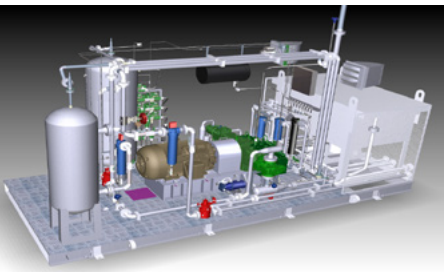
GE's Latest CNG In A Box* System Is Customized to Meet Fueling Station Needs

Modular plug-and-play design lets you choose one of four compressor frame options to align with the required size.

GE's optimized, turnkey CNG compression solution makes it faster, easier and cheaper to fuel natural gas vehicles (NGVs).

Scalability For Multiple Sites and Conditions



Our strong relationship with GE was pivotal to producing a high performing fueling system while paying attention to serviceability requirements.

LOCATION
Eaton, Colorado

BACKGROUND
The popularity of NGVs—now numbering over 15 million worldwide is growing. Since they emit 25% less CO_2 and eliminate 70% of smog-producing pollutants[1], compared to traditional gas or diesel-fueled vehicles they are cleaner alternatives for truck and bus transportation.

To provide a customizable, expandable package that would allow entrepreneurs like Sparq Natural Gas, LLC to more easily site, design, finance and build CNG stations, GE had to overhaul the one-size-fits-all character of its first-generation CNG In A Box system into a more robust system.

CHALLENGE
Sparq Natural Gas, LLC approached GE Oil & Gas to create a flexible, minimal-cost, redundant version of its CNG In A Box fueling station with the scalability to work in large and small cities and in different climatic conditions. To meet Sparq's CNG demand, GE developed its CNG-200 model with an H302 frame. It was preconfigured for expansion with select equipment that was sized and plumbed to accommodate additional compression equipment.

[1] Department of Energy, Alternative Fuels Data Center, http://www.afdc.energy.gov/locator/stations/ and NGVAmerica, https://www.ngvamerica.org/vehicles/consumers/

We have a long term partnership with GE where our collaboration enabled us to create a competitive CNG fueling solution.

SOLUTION

Given its compression and packaging expertise and leadership in natural gas infrastructure network development, GE sought to integrate several of its vanguard technologies into the new CNG In A Box—including advanced editable controls and user interface, on-board priority and control panels, and an on-board gas dryer system with a sealed box for easier winterization.

To accommodate customers such as Sparq, GE reconfigured the CNG In A Box to make it easier to maintain, and to give operators greater accessibility to major equipment. Wide access doors were added in multiple locations, and a new isolated control room allowed indoor human machine interface (HMI) access. GE discarded its ISO shipping container in favor of an expandable frame on a steel and concrete baseplate and—unlike other products available in the CNG compression market—built it strictly to fire and safety codes.

RESULT

The Sparq station was built very quickly thanks to GE's modular design, which has all necessary components preconfigured on board for final operation. The unit has operated proficiently and continuously, with no problems, since its commissioning in May 2016. The project's scalability lets Sparq buy only the amount of compression it needs to service its customers and deliver reliable service at a reasonable cost.

Moreover, the new design is suitable for all of Sparq's stations, whether they're located in subtropical climates found in Houston, TX, or more temperate areas like Eaton, CO.

"If I were to highlight a few qualities that led us to purchase from GE it would be: Service responsiveness, direct accessibility to GE's experts, and GE's willingness for continuous improvement to better the industry, leading to faster gas fueling experiences."

– ***Norman Herrera, CEO, Sparq Natural Gas, LLC***

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