

EnerG2 Develops New Material That Enables Faster Adoption of Natural Gas Vehicles

Company's Densely Packed Carbon Adsorbent Can Lower the Cost of On-Board Natural Gas Tanks While Transforming the Way They Are Designed and Function

Seattle – December 17, 2013 – EnerG2 (www.energ2.com), the leading manufacturer of advanced materials for next-generation energy storage, today announced that it has developed a world-class carbon adsorbent material that can transform the way natural gas tanks on vehicles are designed and function. This, in turn, could dramatically expand the number of natural gas vehicles on the road, because the cost of tanks is the most expensive component on these cars and trucks.

The material, which packs at optimal density and has been produced at scale, is compatible with any and all tank geometries and systems. And, in terms of performance, it allows similar volumes of gas to be stored at lower pressure levels of 500-800 psi, as opposed to the more standard pressure levels of 3,000-3,600 psi.

EnerG2's new carbon adsorbent material for natural gas tanks on vehicles has many advantages.

First, it means that there is tremendous design efficiency and no wasted space, because a tank at 500-800 psi can store as much natural gas as a tank at 3,000-3,600 psi, but its flexible form factor will allow it to fit in a space on board a vehicle that's about half the size.

Lower pressure tanks also mean a much simpler and cheaper transition to home refueling. This would help alleviate another key obstacle to natural gas vehicle adoption: availability of refueling infrastructure. Low-pressure compressors are a fraction of the cost of high compression systems.

Lower-pressure tanks are also safer, and they hold more fuel longer if there's a puncture. In addition, they require less energy to compress the gas. And, finally, they lower the cost of compression, as well as the capital investment required for a compressor itself.

"This material represents a real breakthrough," says Dr. Aaron Feaver, Co-Founder and Chief Technology Officer at EnerG2, "because we're ready to go at scale with a material that totally changes the dynamics of natural gas tanks on board a wide variety of vehicles."

Adds Garret Alpers, Founder and CEO of Seattle-based World CNG, which performs Compressed Natural Gas (CNG) conversions of light-to-medium-duty vehicles: "What EnerG2 is doing can radically change the availability of natural gas vehicles in our country and around the world."

There are approximately 135,000 natural gas vehicles on U.S. roads today, and more than 15.2 million operating worldwide, according to Natural Gas Vehicles for America. About one-fifth of all transit buses were run by compressed natural gas or liquid natural gas in 2012; almost 50 percent of the trash trucks purchased in 2012 are powered by natural gas; and more than 35 airports in the U.S. have natural gas vehicles in their own fleets or encourage natural gas use by private fleets operating on their premises.

EnerG2 materials enhance performance for these fleets and infrastructure already in place using high pressure storage. Using their polymer chemistry approach to materials engineering, EnerG2 can tune the adsorbent's nanostructure to improve the storage capacity of high-pressure storage systems by up to 30%.

Regardless of the ultimate outcome, EnerG2 is committed to enabling natural gas as a transportation fuel.

"Natural gas has huge benefits," explains Rick Luebbe, Co-Founder and CEO of EnerG2. "It's still a fossil fuel, but now it's far cheaper than gasoline, it's domestically produced, and it generates lower emissions than gasoline. That's one of the key reasons why we're actively seeking natural gas system development partners for our new material."

For Further Information and Media Inquiries

S.gottlieb@greenc3.com

206-427-9591