How Poop-Powered Vehicles Could Drive A Cleaner Future

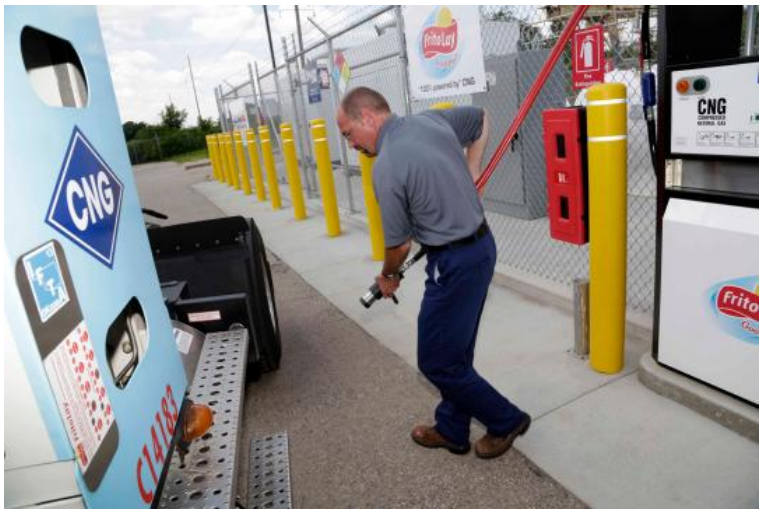
Alex Lloyd | Editor at Large | May 28, 2015

Last week a bus powered by cow poop set a new land speed record, hitting 76.785 mph — 20 mph faster than your typical bus — to become the fastest of its kind in the United Kingdom. What's interesting about this story is not the speed achieved — all the engineers did was remove a speed limiter — but the benefit biomethane-powered vehicles could have on the environment: not simply because of emissions released out of cars, but because of the emissions released out of the poop.

According to the EPA, agriculture accounts for around 9 percent of the United States' total greenhouse gas emissions. Of that, the majority is due to livestock, especially cattle, where methane is released into the atmosphere as the waste stews in fields and such places.

Compared to the 27 percent transportation contributes to the U.S.'s emissions problem, this might seem like a minor issue — but methane's effect is around 20 percent stronger than that of carbon dioxide; if you could remove the cow manure using methane digesters from most California dairies, it would equate to the equivalent of eliminating one million cars from the roads. And that's from just one state; there are around 88 million cattle on farms throughout the United States. What's more, Sustainable Conservation suggests the biogas produced from that methane in California alone could power more than 100,000 vehicles.

Natural gas-powered machines are not a new thing. In 2011 there were 14.8 million of them on the road, mostly concentrated around the Asia-Pacific region where the fuel is more easily accessible and sanctions are in place to reduce dependency on imported gasoline. In the U.S., despite Honda producing the Civic GX for public consumption, most all natural gas vehicles arrive in the form of buses and corporate trucks (like UPS and Waste Management Inc.), although many everyday cars can be converted into using compressed natural gas (CNG) too, for a tidy sum of cash.



As with many green initiatives, when it comes to transportation, the issue is not the product itself — it's getting the product in a timely, efficient manner; the poo-powered buses operating in the city of Reading, England, (of which there are now an entire fleet's worth) travel seven miles away from their route to refuel. In some parts of America like Vermont, that journey could be over one hundred miles.