

'Cool Planet' projects biofuel-production cost of \$1.50 per gallon

October 25 2012, by Bob Yirka

(Phys.org)—Cool Planet Energy Systems has announced a projected production cost for its biofuel, made from corn cobs and stover (dried stalks and leaves of cereal crops), of just \$1.50 per gallon sans the benefit of government subsidies. Company representatives also said they have completed a successful test trial of a newly developed process for converting feed stock to fuel, and that Google has been field testing the results with fleet vehicles.

The company has a test facility in Camarillo, CA that creates <u>fuel</u> by pressing feedstock between plates under high pressure, and then placing the plates in a device called a fractionator. This process results in a release of a gas which is then captured and then converted, using catalysts, to a liquid. The resultant fuel is mixed with gasoline. In tests thus far, the company has used a mixture composed of 5 percent <u>biofuel</u> and 95 percent gasoline. <u>Google</u> fleet vehicles—part of its GRide on-demand campus vehicle program—have traveled 2,400 miles on this mixture to-date.

In separate testing, Cool Planet fueled one car with the biofuel mixture and a control car with 100 percent gasoline and found that the test-fueled car met the Low Carbon Fuel Standard California has set for 2020. They also ran both cars though five smog tests and found no measurable differences between them.

The company claims the new biofuel is actually carbon negative because a byproduct of the production process is activated carbon, which can be



used as a soil enhancer. They also note that their process doesn't require the use of any <u>food crops</u>.

Cool Planet says the new biofuel can be made in a manufacturing facility just one-hundredth the size of traditional gasoline refineries. These micro-refineries—which can reportedly produce 10 million gallons of fuel per year—are potentially transportable. This capability would allow for on-site production, thereby removing the environmental impact of shipping from a central production facility.

Because of the fuel's early success so far, Cool Planet has attracted investors such as BP, Google Ventures, General Electric, the Constellation Energy division of Exelon, NRG and ConocoPhillips.

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