

This article is being reprinted with permission from OPIS and originally appeared in Ethanol & Biodiesel Information Service (EBIS). For more information on EBIS, please visit www.opisnet.com/products/ethanol-biodiesel-newsletter.aspx or call 888.301.2645.

ENVIA Earns RFS Pathway Approval for GTL Fuels and Starts First Plant Construction

Earlier this month, ENVIA Energy, LLC received EPA approval for a landfill-gas-to-biofuels pathway under the Renewable Fuel Standard (RFS), as EPA informed ENVIA that its biogas would be eligible to earn Renewable Identification Numbers (RINs) for production of diesel and naphtha.

The announcement came a week before ENVIA held the ground-breaking ceremony on May 15 for its first gas-to-liquids (GTL) plant in Oklahoma City, Okla., at which the fuel will be produced. The GTL facility will be located adjacent to Waste Management's East Oak landfill site.

“Based on our assessment of the information provided in the ENVIA petition, cellulosic diesel and naphtha produced through the ENVIA Pathways meet the lifecycle GHG reduction requirements to qualify for cellulosic diesel (D-code 7) RINs and cellulosic biofuel (D-code 3) RINs, respectively. To qualify for RINs, the fuel produced by the ENVIA Pathways must also meet the other definitional criteria for renewable fuel specified in the Clean Air Act and EPA's implementing regulations,” EPA informed the company in a letter dated May 8.

ENVIA's plan, as outlined in its application, is to use a mixture of landfill biogas and natural gas as a feedstock, but it sought RINs only for the portion of finished fuel that is derived from landfill biogas. The company intends to produce diesel and naphtha through the Fischer-Tropsch gas-to-liquids (GTL) synthesis.

The company said that its process will reduce GHG emissions by 76-77% compared to the traditional fuels to which its biofuels will be compared.

EPA did place restrictions on the amount of electricity and natural gas that ENVIA can purchase to use in GTL processing, as well as set a minimum for co-production of wax. The co-production of wax is important because ENVIA receives credits for reducing GHG by displacing the production of wax made from hydrocarbon sources at a rate of 2,880 gCO₂e per kg wax. “These limits are calculated and designed to ensure that the finished ENVIA fuel for which RINs may be generated attains at least 60% GHG reduction as compared to baseline fuel,” EPA stated.

The approved petition represents an amended proposal from ENVIA, which had originally said in its 2011 application that the GTL process would rely on landfill biogas for feedstock and process fuel.

Commercial operation of the GTL facility in Oklahoma City is expected in 2016, ENVIA announced last week.

With the EPA approval, ENVIA potentially can move ahead on additional similar projects, which is its announced intention. ENVIA Energy is a joint venture between Waste Management, Inc., NRG Energy, Inc., Ventech Engineers International LLC, and Velocys plc. The company was formed in March 2014 to develop a series of GTL plants in the US and elsewhere that will produce renewable, clean fuels and chemicals from a combination of landfill gas and natural gas.

“I predict that in 10 years we will look back at ENVIA Energy’s Oklahoma City project and regard it as one of the first of the new paradigm of distributed production of fuels and chemicals that will have revolutionized the industry,” said Roy Lipski, CEO of Velocys, at the ground-breaking last week. "This project is a landmark for GTL and its application to landfill gas on a commercial basis."

“It gives me great pleasure to see Ventech’s expertise in the modular construction of refineries to be applied to the new area of smaller-scale GTL plants and to see the modules for this first plant take shape in our fabrication facility,” added Kevin Stanley, CEO of Ventech.

Kevin Adler, kadler@opisnet.com