

Biomethane

Gathering Momentum

*FirmGreen Energy Brings Landfill 'gCNG'
As an Answer to Surging Conventional Fuels*

FirmGreen Energy's long preparation to produce vehicle fuel from landfill gas is paying off as the costs of conventional fuels, including natural gas, continue to rise. FirmGreen is promoting its renewable compressed natural gas product as **gCNG**.

The company can make 1,000 GGE (gasoline gallon equivalents) per day of CNG at its Solid Waste Authority of Central Ohio facility, where **Pinnacle CNG** is its fueling partner. Phase II, to be on line this autumn, will see daily capacity of 30,000 GGE. A grand opening is slated for **Sept. 5**.

The SWACO facility near Columbus can produce CNG at a GGE cost lower than \$2.00 per gallon, says FirmGreen president and CEO Steve Wilburn, pointing to diesel costs of about \$4.85 per gallon.

He calculates potential net savings of \$60,000 per day or *\$19.8 million per year for fleets in Ohio alone*.

FirmGreen is offering long term contracts for \$2 per gCNG GGE, Wilburn told *F&F* last week.

Besides Pinnacle, he says, "We are working with Clean Energy Fuels for tube trailer delivery and remote gCNG fueling infrastructure."

Other FirmGreen projects include two northern



FirmGreen's SWACO site this past Friday – (Energy?) Independence Day

Ohio landfills expected to produce 10,000 and 6,000 GGEs per day for vehicles, and the MoPass landfill near St. Louis, for 3,000 GGEs to be injected into local pipelines. Taylor Ridge in Illinois is expected to produce 4,000 GGEs per day. FirmGreen also has projects in Puerto Rico, Mexico and India.

"The environmental and economic benefits of FirmGreen's compelling business model offer landfill operators a viable alternative," the company says.

FirmGreen Energy, president Steve Wilburn, 949-285-4567; steve@firmgreen.com; www.firmgreen.com

Biogas in Brussels, Discount Until July 31

October 27-29, 2nd Annual Biogas Congress organized by Agra Informa. Crowne Plaza Europa Hotel in Brussels.

Capitalizing on Market Opportunities for Biomethane and Landfill Gas in Power and Transportation Fuels theme.

Includes one-day seminar on "Optimizing Production and Upgrading of Biogas."

Registrations discounted until **July 31**.

Agra Informa (London), Carol Algar, +44-20-7017-7496; carol.algar@informa.com; www.agra-net.com/biogas

A First for France

Veolia Environmental Services Promotes Project Based on Landfill Gas at Site Northeast of Paris

The first biomethane facility based on landfill gas in France is slated to come on next year, says Veolia Environmental Services Ile-de-France. Both pressure swing adsorption/PSA and membrane purification technologies will be evaluated.

The facility at the non-hazardous landfill site of Claye-Souilly, northeast of Paris, is to commence operation in the second quarter of 2009. It will produce 60 cubic meters of biomethane (more than 2100 cubic feet) fuel per hour from 200 cubic meters per hour of biogas captured in the landfill, "representing the energy requirements of a fleet of 210 light vehicles," the company says.

"With this industrial pilot, Veolia Environmental Services will develop an area of expertise that complements its energy recovery activities by the direct production of a renewable fuel that is a substitute product for fossil energies, and for natural gas in particular," said Pascal Peslerbe, the Veolia unit's treatment director.

Veolia Environmental Services North America has at least ten landfill gas projects in the U.S., primarily for generating electricity. Worldwide, Veolia Environment posted revenue of €32.6 billion in 2007, equaling nearly \$51.8 billion at current rates of exchange.

Veolia Environmental Services Ile-de-France,

*Pascal Peslerbe, +33-6-1643-5614; pascal.peslerbe@veolia-proprete.fr
or Dr. Christophe Aran, +33-1-3098-5402; christophe.aran@veolia.com*

Veolia U.S. (Milwaukee),

Todd Watermolen, 414-479-7830; todd.watermolen@veoliaes.com

Veolia U.S. info (Chicago),

Denisse Ike, 630-218-1751; denisse.ike@veoliaes.com; www.veoliaes.com

Veolia info (France), Laetitia Ventroux, +33-1-55-69-68-55;

laetitia.ventroux@veolia-proprete.fr; www.veoliaenvironnement.com



*Pro2 power generation hardware at left and
a new turbine at Claye-Souilly in Veolia ES photos*