



St. Landry, LA

Solid Waste Disposal Landfill
Washington, Louisiana

BioCNG, LLC is leading a team assisting the St. Landry Parish Solid Waste District with the implementation of a turnkey BioCNG™ vehicle fuel system at the St. Landry Parish Solid Waste Disposal Landfill, in Washington, LA.

BioCNG provided engineering, permitting fabrication, materials, installation, and startup for a BioCNG 50 gas conditioning unit, and is now developing a BioCNG 100 expansion unit. BioCNG provided the gas cleanup skids, CNG fast fueling station, and CNG storage tanks. The District received the U.S. Environmental Protection Agency's 2012 LMOP Project of the Year Award for the project.

The original system produced up to 210 diesel gallon equivalents (DGE) per day of BioCNG vehicle fuel, at lower than the cost of diesel. The fuel is produced from 50 standard cubic feet per minute (scfm) of biogas, containing 58 to 61 percent methane. The Parish uses the fuel to power 15 vehicles.

The new unit now under development will triple the fuel production to 630 DGE per day. The Parish will sell the fuel to a large hauling company for use in their fleet of CNG refuse trucks.

Project Manager:
Steve Wittmann

Client Contact:
Katry Martin
Tel # 337.826.5211

Start/End Date:
February 2012 – Ongoing

Key Project Activities

- Design and engineering of biogas fuel conditioning system
- Site layout
- Permitting assistance
- Commissioning and startup



For more information:
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Specifications

Biogas Source

MSW Landfill

Disposal Rate (avg. tons per day)

275 TPD

Gas Collected (entire site)

300 scfm

Gas Quality

Methane (CH₄) - 58-61%

Flare

Onsite flare used continuously

Other Gas Use

None

Available Gas for CNG

150 scfm

Size of BioCNG Unit

BioCNG 50 and BioCNG 100

Components

H₂S removal, chilling, VOC/Siloxane removal, CO₂ removal, skid-mounted

Fueling Unit

Air & Gas Technology-fast fueling, single compressor
CNG trailer fill

Start-Up Date

March 2012

Fuel Production (GGE)

Up to 630 GGE/day

Waste Gases

Landfill flare

Back up for CNG Fueling

Gasoline bi-fuel vehicles

Natural gas

Fleet Size/Type

15 sheriff and public works vehicles

Outside Users

Progressive waste

Collection fleet public

BioCNG Sizing and Cost Information

System Size	Biogas Inlet Flow (scfm)	Typical Fuel Production (GGE/day)	Budget Price (\$million)	O&M Estimate (\$/GGE)		Estimated Fuel Production Cost without RINS	
				Fueling Station	Without Fueling Station	Fueling Station	Without Fueling Station
BioCNG 50	50	200-300	1.2	0.74	0.61	2.16	1.42
BioCNG 100	100	375-600	1.5	0.59	0.44	1.40	0.92
BioCNG 200	200	775-1200	2	0.96	0.31	0.98	0.60

- 1 Fueling station options available from BioCNG at additional cost.
- 2 Grants, subsidies, tax credits not included
- 3 Assumes 10 year depreciation
- 4 BioCNG is qualified to receive D3 and D5 Renewable Fuel Standard Credits. Financial impact will depend on the project-specific operating scenario, and can be up to \$1.20 per/GGE
- 5 Does not include road tax
- 6 Assume 60% methane