



250kW ADVANCED GASIFICATION PLANT

CREATING CLEAN ENERGY THROUGH SUSTAINABLE, ON-SITE WASTE CONVERSION

LOCKHEED MARTIN
We never forget who we're working for®



A GREEN SOLUTION SUITABLE FOR A DIVERSE RANGE OF WASTE



As businesses and organizations of all types look to meet their sustainability goals, finding effective and affordable ways to manage waste disposal becomes a priority. The innovative advanced waste gasification system from Lockheed Martin using Concord Blue technology provides an affordable, environmentally friendly solution. It's designed to handle a variety of waste – from municipal solid waste to commercial and industrial waste and more. The system converts waste to raw syngas. Once cleaned, the syngas is suitable for an internal combustion engine to generate electricity, for conversion to biofuels or for hydrogen production.

The advanced gasification system is flexible and scalable, making it an option for a wide variety of industries. Systems can be incorporated into an existing facility. The modular plant design allows much of the plant elements to be built offsite and requires as little as a one-half acre of land. In addition to saving money on waste disposal costs and transportation, the closed-loop system requires no additional power once the conversion process begins. Power can be used at the site or sold to create an additional income stream.

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PIRA# SUS201505001

UNIQUE WASTE-TO-ENERGY SOLUTION

Concord Blue's patented Reformer[®] technology transfers heat instead of direct heating or combustion to convert waste into syngas. The decomposition of the feedstock and refinement of the gas produced takes place in separate reactors, known as staged reforming, located vertically within a tower to minimize parasitic load and footprint. This design allows for precise control of the process and increases the overall efficiency of the plant. The reformation process excludes oxygen, ensuring an environmentally friendly process without the use of incineration. The technology fulfills all international, EPA and European regulations for air emissions.

END-TO-END SUPPORT

With decades of experience in the energy generation market, Lockheed Martin has the expertise needed to create tailored solutions that safely, affordably and effectively dispose of waste. The team will work with you throughout each phase of the project—from conducting project feasibility studies, through providing engineering, procurement and construction support, to handling lifecycle management needs.

250kW SPECIFICATIONS & FEATURES

		Biomass (Wood Chips)*	Municipal Solid Waste*
Compact	Land Specs	0.5 acre land required (assuming off-site wood chipping)	1 acre land required (assuming on-site feedstock handling)
	Utilities Required	Propane/Natural Gas Nitrogen Water/Water Treatment/ Waste Water Treatment Cooling Water Compressed Air Biodiesel	Propane/Natural Gas Nitrogen Water/Water Treatment Waste Water Treatment Cooling Water Compressed Air Biodiesel
Flexible	Feedstock Consumption (tons/24 hours a day)	~9.2	~7.5
Efficient	Raw Syngas Production (scfm at 0°F and 1 atm)	240	240
Green	Emissions	Meets U.S. and EU standards	Meets U.S. and EU standards
	Discharge Water	Meets local sewage discharge requirements	Meets local sewage discharge requirements
	Waste – Ash (lbs/day)	~310	~740

*Quantities may vary based on actual feedstock characteristics.