



**For More Information, Contact:**  
Celeste Dodge ([cdodge@electratherm.com](mailto:cdodge@electratherm.com))  
775.398.4690

**For Immediate Release:** February 6, 2012

**ElectraTherm Green Machine Installed at Biogas Plant in Austria**  
***First Green Machine Application at Biogas Facility on a GE Jenbacher 312***

Reno, Nevada. – ElectraTherm installed its first Green Machine in Austria at a biogas power generation facility to increase electrical production at the site without adding fuel or emissions. The site produces biogas through anaerobic digestion to fire a 500kWe GE Jenbacher 312, generating electricity to sell to the grid while using heat to dry crops during harvest. With the addition of the Green Machine, excess engine heat will now be utilized to generate additional electricity. This is the first known application where an Organic Rankine Cycle (ORC) is incorporated into a biogas facility to supplement this efficient use of renewable energy.

ElectraTherm's Green Machine generates distributed power from waste heat, and patent pending technology offers unprecedented efficiency and flexibility for biogas power plants with anaerobic digesters. Hot water enters the Green Machine at 190°F (88°C), where it heats a working fluid into a pressurized vapor, using ORC technology. The high pressure vapor expands through ElectraTherm's patented twin screw power block, spinning an electric generator and creating up to 65kWe. For the size engine and available waste heat at this site the power generated averages at 32kWe. Since its commissioning in September 2011, the machine has operated approximately 3,000 runtime hours.

The anaerobic digestion process requires heating of the anaerobic digester tanks, to keep the bacteria at the appropriate temperature to effectively decompose the biomass to create methane (biogas). The system is designed to recover as much waste heat as possible to sustain the anaerobic digestion process as well as produce fuel free, emission free electricity using the ElectraTherm Green Machine.

The Jenbacher 312 engine is equipped with an exhaust gas heat exchanger designed to combine both the heat available in the exhaust and the heat available in the jacket water into a single heat stream. The waste heat from the engine is used to heat the anaerobic digestion process, as well as dry maize after harvest. The excess heat not needed to optimize the anaerobic digestion process and the seasonal grain drying is utilized by the Green Machine to produce fossil-fuel free electricity 24/7 as required.

"In addition to increasing plant efficiency, the power generated by the Green Machine meets Feed-In Tariff requirements by the utility, which can pay up to 18.5 Euro cents per kWe," said Karl Leisch, President of WTI and project developer. "The value of the Green Machine provides a significant revenue stream for 20 years."

ElectraTherm is exhibiting at Bio Gas World 2012 in booth number C46. The event takes place February 21-25, 2012 in Berlin, Germany.

###

**About ElectraTherm, Inc.**

ElectraTherm, Inc. is a renewable energy company headquartered in Reno, Nevada. ElectraTherm's product, the Green Machine, generates fuel-free, emission-free power from low temperature waste heat using the Organic Rankine Cycle (ORC) and patented technology. Our machines are modular, robust power generators with an attractive payback. For more information on ElectraTherm and its clean energy products, please visit [www.electratherm.com](http://www.electratherm.com).