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**Development Authority and Clarkson University Work Together for Sustainability**

**Watertown, NY – January 6, 2010** - The Development Authority of the North Country recently completed a joint effort with Clarkson University to conduct conceptual research of alternative uses of waste heat produced at the Authority's Solid Waste Management Facility. The project was conducted by Clarkson students from Dr. Susan Powers' Industrial Ecology course this past semester.

Commencing in October of 2008, the Authority began destroying methane gas by burning the biogas and producing electricity at its Landfill Gas to Energy (LFGTE) Plant that produces electricity. The Facility was developed in cooperation with Innovative Energy Systems, and will produce 6.4 MW of electricity and 23.84 mm BTU/hour of waste heat utilizing four generator engines. Electricity from the three engines currently operating is being sold to the power grid for distribution but a use for the waste heat is yet to be identified.

Dr. Powers' students completed preliminary assessments for two alternatives uses for the waste heat: 1) to utilize the waste heat for a tomato greenhouse; and 2) to utilize the waste heat to grow algae for biofuel.

A tomato greenhouse would provide a locally grown source of produce eleven months of the year and reduce the carbon footprint of the North Country by decreasing greenhouse gas emissions from transportation. Algae biofuel produced on site could be utilized in landfill equipment and surplus supply could be shared with local community partners. Additionally, leachate from the landfill process may prove to be an effective growing media for the algae due to its nutrient content.

"This is another example of how research by Clarkson students and faculty can be used right here in our own backyard," said Dr. Powers. "The work from our laboratories and classrooms has real-life applications that benefit the citizens of our region."

Students completed written reports as part of their semester long project and presented their findings to the Authority's management team on December 1, 2009. Initial findings indicate that both options could utilize all the waste heat generated by the

LFGTE Plant and would provide additional environmental, community, and economic benefits, meeting the triple bottom line for sustainability.

“DANC is to be commended for its commitment to furthering its sustainability efforts,” said Clarkson University President Tony Collins. “Clarkson is excited to have the opportunity to work with this state-of-the-art facility, which shows how sustainability can complement economic development in the North Country.”

Additional research is necessary to further explore the economic impacts of such a project and to determine how to best utilize the valuable resource of waste heat.

“The Authority enjoys a strong working relationship with Clarkson University,” said Jim Wright, Executive Director of the Authority. “We look forward to partnering with Clarkson on this project, and others, to explore innovative and sustainable solutions to improving the economy and benefit the North Country region.”