



Winners of the 2010 ENERGY STAR® CHP Award



Landis Sewerage Authority Combined Heat and Power Project (Awarded on November 2, 2010, at 2010 CHP Partners Meeting)

Landis Sewerage Authority (LSA) has taken a diverse approach toward implementing its goal of becoming one of the most environmentally-friendly wastewater treatment plants in the state of New Jersey. With the objective of achieving a near-zero carbon footprint and optimizing the recycling and reuse of byproducts from the treatment process, LSA uses treated biosolids to fertilize 550 acres of corn, hay, straw and southern yellow pine trees, and operates a windmill, solar array and CHP system to generate electricity for the facility.

A portion of the biogas produced by a wastewater treatment plant's anaerobic digester is typically used to heat water for use on site. The remainder is flared and goes unused. LSA realized this traditional approach presented an opportunity for increased energy savings and instead utilizes the otherwise-wasted biogas to fuel a 170 kW CHP system. In addition, heat produced by the system's internal combustion engine is captured and used to produce hot water for facility space heating and to warm the anaerobic digester. **Biogas and electricity production are maximized by a digestion-enhancing natural peat extract from Prodex.**

The CHP system requires approximately 34 percent less fuel than would be used by a typical energy supply system. Consequently the CHP system effectively reduces CO₂ emissions by more than 800 tons per year. This reduction is equivalent to the annual emissions from more than 140 passenger vehicles.

EPA is proud to recognize the outstanding pollution reduction and energy efficiency qualities of this project by presenting the **Landis Sewerage Authority** with a 2010 ENERGY STAR CHP Award.

http://www.epa.gov/chp/documents/past_award_winners.pdf



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF AIR AND RADIATION
WASHINGTON, D.C. 20460

Climate Protection Partnership Division
U.S. EPA 6202J
Washington, DC 20460

October 27, 2010

Dennis W. Palmer
Executive Director/Chief Engineer
Landis Sewerage Authority
1776 So Mill Rd.
Vineland, NJ 08360

Dear Mr. Palmer:

On behalf of the U.S. Environmental Protection Agency, I am pleased to inform you that Landis Sewerage Authority has won a 2010 ENERGY STAR CHP Award for the 170 kW biogas-fired combined heat and power (CHP) system located at its wastewater treatment plant in Vineland, New Jersey.

By utilizing otherwise-wasted biogas to produce electricity and hot water for the wastewater treatment plant, Landis Sewerage Authority has demonstrated exceptional leadership in energy use and management. The CHP system requires approximately 34 percent less fuel than would be used in a typical energy-supply system. Consequently, the CHP system effectively reduces CO₂ emissions by an estimated 820 tons per year. This reduction is equivalent to the emissions from more than 140 passenger vehicles.

We plan to list the benefits of this project on the CHP Partnership website (www.epa.gov/chp/public-recognition/awards.html) and look forward to presenting the award at the upcoming Partnership meeting in Austin, Texas. If you have any questions, please contact Bob Sidner of ERG (703.400.8569). Congratulations on your Award!

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary McNeil".

Gary McNeil
U.S. EPA Combined Heat and Power Partnership Program
Climate Protection Partnerships Division
1200 Pennsylvania Ave., NW, MC-6202J
Washington, DC 20460

cc: Bob Sidner, ERG