

Wastewater facility powering one-third of its own energy needs with methane gas

December 03, 2008

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The city is a step closer to realizing its goal to see at least a quarter of its electricity needs sourced from local renewable resources.

Methane gas emitted at the city's wastewater treatment facility is now powering one-third of the building's energy needs.

Sludge, which is the solid material sifted out of wastewater during treatment, gives off methane. Once it is cleaned, the gas is used to power a boiler and engine at the treatment facility.

The energy saved is the equivalent of 3,500 tonnes of greenhouse gases and \$300,000 a year, fitting well within the city's community energy plan goals.

The Wellington Street facility celebrated the initiative's grand opening yesterday, as Guelph Hydro Inc. president Art Stokman presented the city with a cheque for \$100,000.

These funds are part of the Ontario Energy Board's plan to deliver incentives for sustainable initiatives, he said.

Stokman said he recalled when fire generators first made waves in the mid-1990s, but were not successful because other chemicals and moisture damaged engines. Recent technology used to clean the gas has made such an initiative possible.

And it really is a success, explained Kiran Suresh, project manager for wastewater services.

Construction of a new digester, gas treatment containers and a new boiler followed schedule and were "well within budget."

The additions cost approximately \$900,000, she said.

"We treat the gas to take out the many things that are not good for the engine," Suresh said.

The methane is pumped through stations in an explosion-proof area, getting rid of hydrogen sulphide and moisture. The excess waste is captured and taken to a landfill about once a year.

Mayor Karen Farbridge, who was in attendance to accept the cheque on behalf of the city, said the initiative and energy goals would not have been possible without the good relationship between the city and Guelph Hydro. "We are the envy of other communities," she said.

Last week, Farbridge attended a Quality Urban Energy Systems of Tomorrow conference in Victoria, B.C. She said a main point of conversation was the need to integrate urban energy systems, including water and wastewater treatment facilities, in all Canadian communities by 2050.

Guelph was lauded as the most advanced community in Ontario because of its community energy plan.

By generating part of its own electricity on site, the wastewater facility is also protected from blackouts. Farbridge said this is particularly important as the treatment facility is an all-day, everyday essential service.

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