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Landfill Gas-to-Energy

Waste Management's new project in Ottawa

Waste Management has broken ground on a new landfill gas to energy (LFGTE) facility in Ottawa, Ontario that will produce up to 6.4 megawatts of energy -- enough to power more than 6,400 homes in the area. It's expected the facility will deliver electricity to the province's transmission grid in the fall of this year.

"Our facility will benefit the local environment and economy because it will help offset the need for non-renewable resources such as coal, natural gas and oil," says Ross Wallace, Site Manager for Ottawa Waste Management Facility. "We think it's a model that communities across Canada should consider."

Landfill gas, produced when microorganisms break down organic material in the landfill, is comprised of approximately 50-60 per cent methane and 40-50 per cent carbon dioxide. At most landfills in North America, these greenhouse gases are simply burned off or "flared." LFGTE facilities collect the methane and use it to fuel onsite engines or turbines, generating electricity to power surrounding homes and neighbourhoods while creating a new revenue stream for the landfills. LFGTE facilities also reduce greenhouse gases by offsetting the use of fossil fuel at utility power plants.

The Ottawa facility will be the company's second LFGTE facility in Canada after the one in Ste. Sophie, Quebec, which delivers gas to the nearby Cascades paper mill. Waste Management also plans to develop a similar energy project at its soon to be expanded Warwick landfill near Watford, Ontario as well as investigating the possibility of building another project at its landfill in Petrolia, Ontario.

The Ottawa LFGTE plant is part of the company's corporate initiative to build 60 new renewable energy facilities by 2012. In 2008, Waste Management plans to bring 10 LFGTE facilities on line and begin development of an additional 10 new sites. These will be in addition to the more than 100 that are in operation at its landfill sites and third party sites across North America. It is also a key component of the company's sustainability initiative to increase its waste-based energy pro- duction. The company currently creates enough energy to power the equivalent of a million homes each year. By 2020, it expects to double that output.

Waste Management designed and operated its first facility in the United States more than 20 years ago. With 277 landfills, Waste Management is North America's largest landfill operator and is in a unique position to expand waste-based renewable power generation across the continent. The company is also exploring partnerships to expand its landfill gasto-energy technology to other private and municipal landfills.

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