Questions and Answers
July 2007

Landfill Gas (LFG) Collection and Utilization

Renewable Energy Project

Q. How many homes will the Landfill Gas Collection (LFG) and Utilization Renewable Energy Project supply electricity for?
A. The first phase of this project can produce up to 2.1 megawatts of electricity .This will generate enough energy for approximately 1,500 homes.

Q. What are the main benefits of the LFG system?
A. The system reduces greenhouse gas emissions from the landfill, generates renewable "green" energy and reduces odours both in and surrounding the landfill site.

Q. Will the LFG collection and utilization system create additional air pollution?
A. No, In fact, the system will reduce the amount of air pollution by reducing greenhouse gas emissions from the landfill site. Decomposing garbage in the landfill produces gas, which is rich with methane, that naturally rises out of the landfill. With the installation of the LFG system, it is now collected under vacuum and, through combustion at extremely high temperatures, the methane is converted to carbon dioxide, which is 21 times less damaging to the ozone layer, and our atmosphere. The LFG system is operated under approvals granted by the Ontario Ministry of the Environment and must conform to strict emission guidelines set by the Ministry.

Q. When did the LFG system become operational?
A. There were two main phases to complete before the LFG was operational. Halton Region received the necessary Ministry of Environment Certificate of Approval (Air) for Phase 1, the gas collection field, plant and flare system in December 2006. The system has been operating since December 18, 2006, after successfully completing the trial period.

Oakville Hydro began operating the utilization plant, the engines that generate the electricity, in late June, 2007. This completed Phase 2 of the project.

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Q. Could a LFG collection and utilization system be installed on any of the closed landfill sites in Halton such as in Burlington and Georgetown?
A. Yes it could. However, because of the smaller size and age, these landfill sites are not large enough to generate enough gas to make these potential projects sustainable or financially viable.

Q. Who are the partners in the LFG project?
A. The Regional Municipality of Halton and Oakville Hydro Energy Services Inc. (OHESI) are the partners in the project. The Town of Oakville is the shareholder of Oakville Hydro.

Q. What happens to the electricity once it is generated at the landfill site?
A. The electricity is fed into the Ontario electricity grid by a hydro pole line.

Q. Where is the landfill gas system located?
A. The system is located at the Halton Waste Management Site located at 5400 Regional Road 25 in Milton, between Britannia Road (Regional Road 6) and Highway 407.

Q. How long will the LFG system be operational?
A. It is expected that the LFG system could continue to operate 15 to 20 years after Halton's Waste Management Site is closed.

Q. When will Halton's Waste Management Site be closed?
Based on Halton's current waste diversion rate of 43.1 per cent it is estimated that the landfill site will close around 2023. This fall Halton Regional Council will make a final decision on changes to waste collection (including weekly GreenCart and Blue Box collection) that could extend the life of the landfill site by another six to eight years. Halton's landfill site opened in 1992.