

Toronto emissions decrease by 67 per cent

Historic reduction in greenhouse gases, MARTIN MITTELSTAEDT reports, is the result of treating methane from garbage dumps

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While Canada struggles to meet its commitment to reduce emissions of greenhouse gases, the city of Toronto has cut its discharges by an eyepopping 67 per cent since 1990, says a new report commissioned by the municipality.

Part of the huge reduction was achieved by such simple steps as improving the energy efficiency of city buildings and streetlights. But the biggest portion was due to changes in the treatment of gas seeping from the millions of tonnes of rotting garbage in municipal landfills.

All told, the city has cut annual emissions from the equivalent of 2.3 million tonnes of carbon dioxide, the main greenhouse gas, to only 765,000 tonnes in 1998, according to the report, which is to be publicly released today.

The drop is one of the largest cuts in greenhouse gases ever achieved in Canada, and it exceeds by more than three times a goal the city adopted in 1990 to cut emissions of planet warming gases from its operations by 20 per cent. The achievement is being heralded by city officials as a sign of what a government committed to environmental improvements can accomplish.

"When Toronto follows through and implements its policies it can do some outstanding things," said Phil Jessup, head of the Toronto Atmospheric Fund, a city body that bankrolls energy efficiency steps.

The biggest reductions came from improvements at landfills, which are major sources of methane, a greenhouse gas that scientists say is 21 times more potent than carbon dioxide.

Methane, also known as natural gas, seeps out of the ground in large quantities from most landfills, where it is produced when garbage containing organic matter -- such as orange peels, newspapers and wood -- decays in the absence of oxygen. In 1990, about 75 per cent of Toronto's greenhouse gas emissions came from waste methane escaping from landfills and other parts of its garbage collection system.

Since then, the city has had contractors install piping into three of its largest landfills, to collect methane and route it to power plants, where it is burned to create electricity. The city has also started composting more organic material, an activity that doesn't produce methane if done properly.

These actions have reduced the city's emissions from garbage collection activities by 92 per cent.

Mr. Jessup said the methane-fuelled generating stations at the city's landfills have the capacity to produce about 20 megawatts of electricity, or the amount that would supply the power needs of about 7,000 typical residences.

The city is currently mulling over whether to install methane collectors at a fourth landfill, which would reduce emissions by a further 20,000 tonnes a year.

Toronto isn't alone among cities trying to reduce greenhouse emissions, which come from the operation of everything from transit buses to heat for social housing and lights in libraries.

In Calgary, for instance, the city transit system has contracted with a wind-energy producer for electricity, a

step that will eliminate carbon-dioxide emissions from the operation of its light-rail C-train system.

And around the world, about 500 cities have pledged to cut greenhouse gas emissions by 20 per cent, the same goal Toronto has set.

"Municipal governments are the level of government that has taken climate change the most seriously," said Robert Hornung, a climate-change program director at the Pembina Institute, an Alberta-based based environmental think tank. "This is the first clear example that I know of in Canada of a municipality claiming that it significantly exceeded that [20 per cent] target."

Canada emits about 700 million tonnes of carbon dioxide a year, a figure that has grown by more than 10 per cent since 1990. Under the Kyoto agreement on climate change, Canada must cut emissions by 6 per cent below 1990 levels between 2008 and 2012. Mr. Jessup said the city has also saved energy through such steps as converting 30,000 streetlight lamps to high efficiency bulbs. In addition, 100 city owned buildings have been given energy-efficiency upgrades, cutting power use by 8 per cent.

The city is mulling over further actions to reduce greenhouse gases, such as using cold water from Lake Ontario instead of air conditioning to cool office towers.

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