



WASTE MANAGEMENT

Natural Gas Fleet Profile - CNG Refuse Trucks

NATURAL GAS LEADERSHIP

Waste Management (WM) is a leading provider of waste management services in North America. Through its subsidiaries, the company provides collection, transfer, recycling and resource recovery, and disposal services for customers in the commercial, industrial, and municipal sectors.

WM was one of the first refuse companies to commit to natural gas use, starting with liquefied natural gas (LNG) fueled trucks in Southern California more than ten years ago. More recently, the company committed to purchasing 90% of its new collection trucks as factory-built natural gas trucks.

WM has natural gas fleet operations throughout North America, including a 20 truck CNG fleet in Coquitlam, BC and a 41 truck fleet operating in Ottawa, ON.

SUSTAINABILITY MATTERS

WM has incorporated natural gas truck use as part of their broader corporate sustainability strategy. As the owner and operator of several waste-to-energy projects, the decision to use factory-built trucks that are quieter and lower emission compared to diesel trucks was a natural extension of WM's approach to environmentally responsible operations.

The company now operates more than 3,000 natural gas trucks and 58 stations in North America. WM has been recognized for its leadership, receiving a 2014 NGV Global Champion award, a 2011 NGV America Achievement Award for innovative leadership, and a Corporate Leadership Energy Vision Award for strategic vision and leadership.

BOTTOM LINE BENEFITS

Natural gas is not only helping WM achieve its sustainability goals, it also is providing significant bottom line benefits. For example, the company's Ottawa-area fleet of 41 CNG trucks uses an estimated 1.6 million litres of fuel per year or

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40,000 litres per truck annually.

With CNG fuel savings of more than \$0.40 per diesel litre equivalent after adjusting for 12% higher fuel consumption for the natural gas engine, the bottom line savings are approximately \$640,000 per year for the fleet.

OTTAWA'S FIRST CNG REFUSE VEHICLES

Since 2012, WM's Ottawa area fleet of 41 CNG refuse trucks has been operating collecting residential waste. The company's drivers are pleased with the CNG trucks, primarily due to their quieter engines and the lack of smell related to diesel fuel.

WM'S CURRENT CNG OTTAWA FLEET

CNG Refuse Fleet	41 trucks
Truck Type	Freightliner chassis
Body	McNeilus side-loaders
Engine	Cummins Westport 9 litre ISL G
Vehicle Fuel Storage	280-370 diesel litre equivalent (DLE)
Average Daily Mileage	200-300 km/day
Refueling	Slow & fast fill station, Ottawa
Station Owner	WM
Dealer Support	Cummins Eastern Canada LP

WM bought the first 25 CNG trucks when they were awarded a new refuse collection contract from the City of Ottawa. Since that time, another 16 CNG trucks were added to the fleet.

The CNG trucks at this location are serviced by WM's own mechanics who received initial training from engine provider Cummins Westport. Vehicle refueling training was provided by Enbridge Gas Distribution. IMW Industries provided the compressor station operating training.

CLEAN FUEL TECHNOLOGY FUTURE

WM now prefers CNG over LNG based on its own operating experience. Each CNG truck displaces an estimated 35,500 litres of diesel fuel and results in a reduction of 22 metric tonnes of greenhouse gas emissions per year. WM also has experience with renewable natural gas. The company was the first to use renewable natural gas upgraded from landfill gas as a near zero emission fuel for its refuse truck fleet in California.

"Waste Management is embracing clean fuel technology as part of our commitment to achieving a zero emissions future," said Sherry Stevenson, municipal affairs manager for WM. "Introducing CNG trucks is an important part of our long-term sustainability strategy to reduce emissions by 15 percent and increase fuel efficiency by 15 percent by 2020," said Stevenson.



To learn about using natural gas in your fleet, go to your [Outreach Hub](#) or call us at 1-844-242-8485.