

**Governments, businesses and the public are increasingly concerned about the security of supply, the sustainability and the environmental impact of our energy sources.**

**Waste Management is responding to the demand for alternatives to fossil fuels through the development of waste-based energy from the waste we all generate.**



Landfill gas from two Waste Management landfills provides a reliable and constant energy source for the Dairyland Power Cooperative to power 4,000 homes in the communities of Bruce, Wisconsin, and Lake Mills, Iowa, each day.



Landfill gas from Waste Management's Ste. Sophie landfill north of Montreal, Canada, is replacing 75 percent of the natural gas used at the nearby Cascades paper mill. The mill's 10-year contract to use landfill gas as a cost-efficient, alternative energy source is credited with keeping the plant in operation after rising fuel costs threatened to shut down the plant.



Using trash as fuel to generate electricity, Wheelabrator's North Broward waste-to-energy plant in Pompano Beach, Florida generates approximately 60 megawatts of energy, enough to power about 35,000 homes.

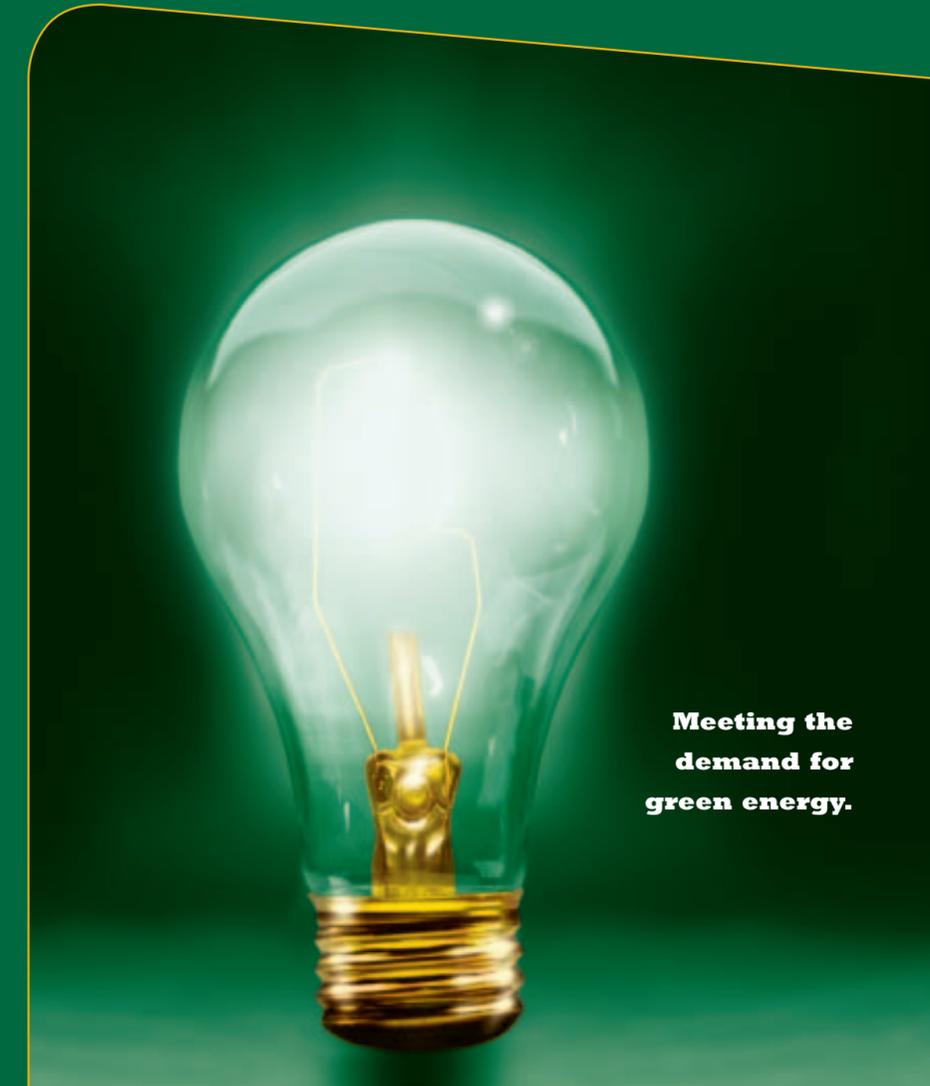
**About Waste Management**

As the leading provider of comprehensive waste management and environmental services in North America, Waste Management serves municipal, commercial, industrial and residential customers throughout the United States, Canada and Puerto Rico. Headquartered in Houston, Texas, the company serves more than 20 million residential and two million commercial customers through its network of collection operations, transfer stations, landfill disposal sites, waste-to-energy plants, recycling plants, landfill gas to energy projects and other related services.



*From everyday collection to environmental protection, Think Green.® Think Waste Management.*

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**Meeting the demand for green energy.**





**WASTE MANAGEMENT RENEWABLE ENERGY**  
**RENEWABLE. RELIABLE. READY.**

**Converting Landfill Gas to Energy**

Today's modern, engineered landfill is an environmentally sound system for waste disposal that minimizes the impact on the environment. Landfills also offer a clean, renewable energy resource that is generated continuously through the decomposition of waste in landfills. This resource is known as landfill gas or methane.

Waste Management operates the largest network of landfills in our industry. Nearly 300 sites manage the disposal of millions of tons of waste per year, providing us with a vast supply of a natural, renewable energy source: landfill gas. Most landfills collect landfill gas, a greenhouse gas, and burn it in a flare system to destroy it. Instead of simply flaring the gas, WM uses this gas in a variety of applications to create green energy. There are three basic types of landfill gas-to-energy facilities.

**Electricity:** Landfill gas is used as a fuel to generate electricity at small power plants at the landfills, or at a nearby industry, with the generated electricity delivered to a utility company.

**Alternative Fuel:** Landfill gas is piped to an industrial or commercial facility where it is used for heating, in place of or in combination with fossil fuels such as oil, coal or natural gas.

**Processed Gas:** Landfill gas is processed and cleaned to natural gas quality and delivered to transmission pipelines, to be used in the normal applications for natural gas.

**We currently supply landfill gas to more than 100 beneficial-use gas projects in North America, providing the equivalent of more than 475 megawatts of energy—enough to power more than 400,000 homes as well as saving the equivalent of nearly seven million barrels of oil per year.**

The U.S. Environmental Protection Agency (EPA) has endorsed landfill gas as an environmentally friendly energy resource that reduces our reliance on fossil fuels like coal and oil. Like wind and solar power, landfill gas is a natural resource that can be harnessed to produce green energy and has many benefits and advantages compared to fossil fuels and alternative energy sources.

- Use of landfill gas as fuel reduces greenhouse gas emissions;
- Energy output is constant and not dependent on sun, wind or other environmental variables;
- Provides a predictable, renewable energy source during energy demand peak hours;
- Fuel prices are stable;
- Energy availability exceeds 95 percent.

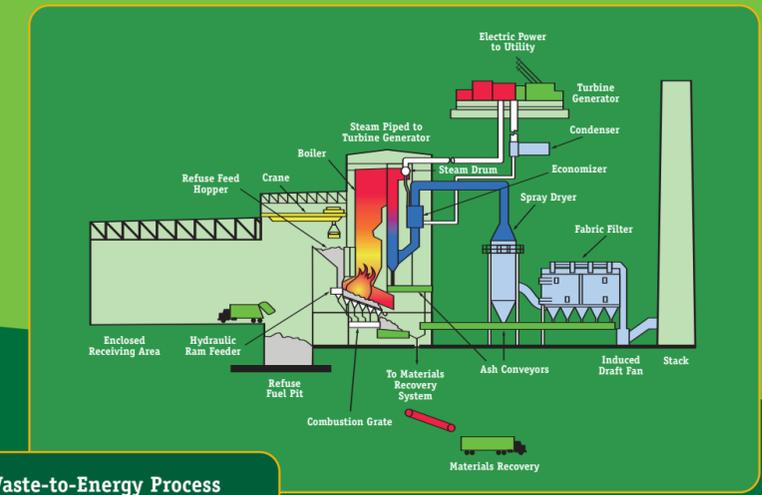
Waste Management has a dedicated renewable energy group with experience gained from three decades of developing clean, renewable waste-based energy resources. This group works closely with businesses, industries and public utilities to develop beneficial-use projects, from landfill gas to waste-to-energy, providing an

economical and environmentally friendly alternative to fossil fuels, produced from the waste we all generate. We currently supply landfill gas to more than 100 beneficial-use gas projects in North America, providing the equivalent of more than 475 megawatts of energy—enough to power more than 400,000 homes as well as saving the equivalent of more than seven million barrels of oil per year.

Waste Management is unique in the industry with its in-house expertise and management of the entire “curbside-to-power” renewable energy cycle. In addition to the collection and safe disposal of residential and commercial waste, our renewable energy group provides landfill gas management, power plant construction and operation, and energy marketing. We helped pioneer the landfill gas-to-energy and the waste-to-energy industry, and we continue to aggressively develop new technologies.

**Waste To Energy**

Another way that we are helping to conserve fossil fuels is by converting waste into energy. Waste Management's subsidiary, Wheelabrator Technologies, uses trash as fuel to generate electrical power through its 17 waste-to-energy plants, which have the capacity to process more than 24,300 tons of waste per day. These 17 plants have a combined generating capacity of 686 megawatts of electricity, enough energy to power more than 700,000 homes. Waste-to-energy plants can also provide steam to municipal district heating systems or nearby industrial facilities. Converting trash to energy reduces the volume of the waste by 90 percent, saving valuable space in landfills while providing a viable and economical alternative to the use of fossil fuels.

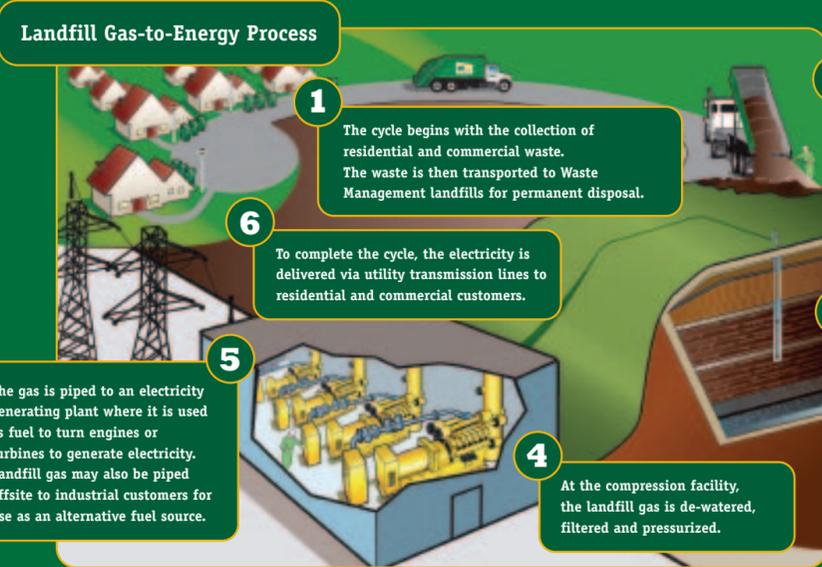


**Waste-to-Energy Process**

A leading waste-to-energy provider in the country, Wheelabrator pioneered the commercial waste-to-energy industry more than 30 years ago. Since then, the company has processed more than 130 million tons of municipal solid waste into energy, saving more than 130 million barrels of oil while generating 70 billion kilowatt hours of clean, renewable electricity.

The waste-to-energy process used by Wheelabrator is one of the cleanest forms of electricity generation. In fact, the EPA has stated that waste-to-energy plants, like those operated by Wheelabrator, produce electricity “with less environmental impact than almost any other source of electricity.” And, studies conducted in conjunction with the EPA have demonstrated that waste-to-energy plants prevent the release of millions of tons of greenhouse gases.

More than ever, public utilities, communities and industries are actively seeking to make renewable energy a part of their energy supply. Waste Management's renewable energy group is a vital and important part of North America's drive to develop alternative energy sources and promote environmental sustainability.



**Landfill Gas-to-Energy Process**

**1** The cycle begins with the collection of residential and commercial waste. The waste is then transported to Waste Management landfills for permanent disposal.

**2** Much of this waste, including food, paper and cardboard, is organic in nature. Anaerobic bacteria digest this organic waste and produce methane gas and carbon dioxide as natural byproducts.

**6** To complete the cycle, the electricity is delivered via utility transmission lines to residential and commercial customers.

**3** The methane gas is recovered via a series of wells drilled into the landfill. These wells are connected by a common pipe system that collects the gas and transports it to a nearby compression facility.

**5**

The gas is piped to an electricity generating plant where it is used as fuel to turn engines or turbines to generate electricity. Landfill gas may also be piped offsite to industrial customers for use as an alternative fuel source.

**4**

At the compression facility, the landfill gas is de-watered, filtered and pressurized.

**When you think renewable energy, Think Green. Think Waste Management.**



**Together, Waste Management's landfill gas projects and waste-to-energy projects produce enough electricity to power one million homes, saving the equivalent of more than 14 million barrels of oil per year.**