



**How landfill-gas-to-energy works**

1. Creating energy from landfill gas begins with collection. When taking into account homes, restaurants, construction sites, schools and all kinds of businesses, the average person generates over four pounds of trash daily. A collection truck can typical hold over 10 tons.
2. As waste enters a landfill, it decomposes, creating a gas. When captured, this gas can be used to produce electricity. The process we use to do this is called *landfill-gas-to-energy*.
3. Gas is collected through wells placed all along the landfill. These wells work on a vacuum and actually draw the gas through the entire process.
4. Once out of the landfill, we first filter the gas to take out any liquids or small pieces of debris. Next, the gas is compressed until it can be used as a fuel. We then chill the gas, using condensation as a way of separating any remaining liquids. Lastly, we filter the gas a second time and then it's ready for use. The whole process takes seconds.
5. Landfill gas can either be piped to a customer's power plant, or simply brought to a plant located at the landfill. In either case, the gas is used to power an electrical generator or turbine. When you think of these machines, they really are not that different from a car engine. They operate on pistons, air filters, radiators, batteries, and so on.
6. Energy from these generators is sent to a utility grid, which then transfers the power for residential and business use.
7. Think of this whole process as a circle – it starts at your home and ends at your light switch. That's closing the loop for our environment.

“We have the muscle to make these energy projects happen. Every year, Waste Management is opening new plants, and by 2020, we will produce enough energy to power two million homes.”

Paul Pabor, VP of renewable energy for Waste Management.