

IT'S NEVER BEEN DONE BEFORE

Breakthrough Garbage Disposals Help Milwaukee Convert More Food Waste Into Electricity

In Milwaukee, Wisconsin, people are urged to put more food waste down their garbage disposals. The reason is simple. Households using disposals, such as Emerson's newest line of InSinkErator disposals that can grind virtually any kind of food waste, are helping communities like Milwaukee convert more of its residents' food waste into an unending source of electricity.

In Milwaukee, Wisconsin, people are urged to put more food waste down their garbage disposals. The reason is simple. Food waste disposals, such as Emerson's newest line of InSinkErator disposals that can grind virtually any kind of food waste, are helping the Milwaukee Metropolitan Sewerage District convert more of its residents' food waste into an unending source of electricity.

Part of Milwaukee's wastewater system – which serves 1.1 million people in 28 municipalities scattered over 411 square miles – uses an anaerobic digester where bacteria and other microbes, known as archaea, digest sewage in enclosed tanks. As the waste is broken down, the microbes release methane, which is captured and used by the district to generate energy for its operations. In 2007, the district saved \$1.9 million in energy costs from methane generated by the region's wastewater treatment plants. Plus, the district generates additional revenue by converting its biosolids into a natural lawn fertilizer which is sold commercially.

It's Never Been Done Before. The development of Emerson's breakthrough InSinkErator Evolution Excel® disposals enable these devices to grind nearly all food scraps, including orange and banana peels, celery, corn cobs, potato peels, and even rib bones, without clogs or jams. With its exceptional grinding capability, the Evolution Excel is a better option than throwing food waste into a trash bag. Plus, the InSinkErator Evolution Excel runs at least 60 percent quieter than standard disposals.

Food waste management is an often overlooked environmental challenge. The average U.S. family of four produces about 2,000 pounds of food waste each year. More than 19 million tons of this food waste from homes, restaurants and institutions is being hauled in fossil fuel-burning trucks to U.S. landfills.

As food waste decomposes, it emits methane, a greenhouse gas that's at least 21 times more harmful than CO₂ in trapping heat in the atmosphere. Some landfill operators are attempting to capture methane, but experts say it can be challenging and costly. In addition, the decomposing food waste mixes with other landfill elements to form a liquid called "leachate" that has the potential to pollute groundwater supplies. And while disposing of food waste by composting is considered an environmentally correct solution, it isn't practical for many households living in crowded urban settings, apartment buildings, or in cold weather.

Decades of independent scientific studies confirm that disposals help manage biodegradable food waste in an environmentally responsible manner. Since food waste is 70 percent water,

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grinding it in a disposal and transporting it through the wastewater stream to be processed at a wastewater treatment plant is convenient, safe, and efficient.

Disposals themselves have a modest environmental footprint. The device uses only about one percent or less of a household's total water consumption and costs -- on average -- less than 50 cents a year in electricity usage.

Emerson is working with communities like Milwaukee and others around the world to show how food waste disposals can be part of an environmentally responsible solution. Some communities in the United Kingdom even offer incentives for residents to install disposals. It's nice to know that one solution is as close as the kitchen sink.