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Talking Trash: One Man's Garbage, Another Man's Megawatts

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Parts of continental Europe can't get enough of it. Norwegians are begging their neighbors for more. They've even considered shipping it from the U.S.

What they want is garbage, simple household trash and solid town waste. From Sweden to Spain, innovative power producers have learned to make electricity from waste. The movement is now spreading west and picking up steam in the United Kingdom and the U.S.

<u>Green Waste Energy (GWE)</u>, for example, will soon hitch its innovative waste-to-gas technology to powerful GE gas engines from the <u>Jenbacher family</u>. They will power a new electricity plant in Theddingworth in central England and similar projects may soon move ahead in other parts of the world.



Got Garbage?: GE and Green Waste Energy developed technology that turns household trash into electricity.

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GWE calls the garbage-gulping technology Advanced Recycling and Energy Conversion.

One plant can take 1,000 tons of household trash per day, about 8 percent of what New Yorkers generate daily, and turn it into 600 megawatts of electricity. That's enough to power 24,000 U.S. homes.

Unlike the European incinerators, however, GWE's technology does not burn the garbage. James Burchetta, the CEO and founder of GWE, says that the process starts with the unsorted, or "black bag," garbage being fed into a pressure cooker called an autoclave in batches of 29 tons. Workers sort out the recyclables and turn the remaining cellulose-based feedstock into synthetic gas, or syngas, through a process called pyrolysis. "We not only meet the UK and EU [environmental] standards, we eat them for lunch," Burchetta says.

Syngas has high energy content and burns efficiently in the sturdy Jenbacher J620 engines. "GE gas engines are known worldwide as the leaders in syngas engines," says Richard Bingham, the chief technology officer of Prestige Thermal Equipment, which developed the garbage-gasification process and licenses the technology through a joint venture with GWE. "We're not going to take our technology that we're proud of and put it at risk by using it with another engine."

GWE is now in talks to build similar facilities around the world. "The world is looking for an advanced thermal conversion technology," Burchetta says.

Here's to making garbage a hot commodity.

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