

# Growing Waste to Energy

COMBATING GLOBAL WARMING

BY MARK WEIDMAN

**IN THE 1970S AND 1980S, FEDERAL** and state environmental agencies and more than a few experts were touting the virtues of managing municipal solid waste by using it as fuel in a high-temperature process to generate electricity. After some fits and starts, a new industry called resource recovery developed around using modern, highly regulated facilities to convert trash into energy. Starting in 1975, when Wheelabrator brought the first large-scale, commercially successful, resource-recovery facility online, through the mid-1990s, more than 100 waste-to-energy plants were built. During this growth period energy prices were climbing, smaller landfills – the local town dumps – were being closed for environmental reasons and federal tax incentives spurred development

recycle, energy generation and landfilling, in that order – redefined how we must think in terms of resource management and sustainability rather than trash disposal. Skyrocketing fuel and energy prices have also been a factor for change. The rising price of diesel fuel dramatically increasing the cost of hauling waste to distant locations; our need to reduce our dependence on fossil fuels, especially imported oil; and more refined public policies on solid waste have all led to a resurgence in waste-to-energy.

Add to this, Congress' desire to encourage development of new renewable energy sources by providing production tax credits for renewable energy generators like waste-to-energy, and it's no wonder we're seeing new interest in a proven technology with a 30-year track record of environmental protection and operational efficiencies and improvements.

All of these factors are encouraging municipal governments to take the lead in pursuing new proven technology plants. These forward-thinking leaders want to control the destiny of this vital public service, while generating renewable energy and taking a step to combat global warming. We are seeing municipalities in Florida, Maryland, Hawaii, California and other states calling for new facilities.

As with any growth industry, there are always one or two hurdles, and one of the major policy challenges facing the waste-to-energy industry today is its inclusion in renewable portfolio standards (RPS). These standards, currently being established on a state-by-state basis, require electric utility companies to purchase a certain percentage of their energy from renewable energy generators, like waste-to-energy plants. Currently, 24 states recognize waste-to-energy as renewable energy and allow utilities to include the technology in their energy mix. While there is no federal RPS, federal agencies are also required to obtain a portion of their energy from renewable energy sources.

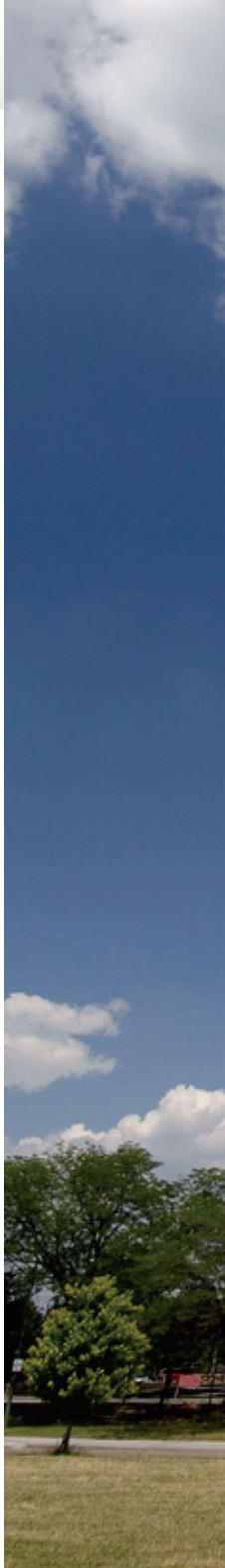
The benefits of adopting waste-to-energy technology extend even further than fulfilling the need for renewable energy. Waste-to-energy is recognized by the EPA and the U.S. Department of Energy as a means to offset emissions of greenhouse gases. Because of the high percentage of biogenic material in

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of this technology. Cities, counties, equipment suppliers and project developers all jumped into this new booming industry.

That is, until the late 1980s, when the one-two punch of drops in energy prices and disposal prices at large, regional landfills made waste-to-energy less of an economical alternative. While the growth of waste-to-energy began to come to a halt in the United States, it did not subside in Europe where there are more than 400 plants in operation and more under construction. During the last few years, with the success of waste-to-energy technology in Europe, along with a number of national and regional issues, this industry has been pushed back into the limelight.

The U.S. Environmental Protection Agency's hierarchy for managing trash – reduce, re-use,



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Wheelabrator Baltimore serves 850,000 residents by processing up to 2,250 tons per day of municipal solid waste. The plant has an electric generating capacity of 60,000 kilowatts, the equivalent of supplying the electrical needs of 68,000 Maryland homes.

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trash, the displacement of conventional electric power with renewable energy, and recovering and recycling ferrous and other metals from the ash residue, every ton of trash converted into clean, renewable energy at a waste-to-energy plant offsets about 1 ton of greenhouse gas emissions.

Today in the United States, 87 of these pioneering facilities manage 93,000 tons per day, or 13 percent of the nation's municipal solid waste, producing 2,700 megawatts of energy, offsetting almost 30

million tons of greenhouse gases annually.

Wheelabrator is proud to have been the pioneer in this small, but vital industry, and we are proud to have established industry standards for safety and operating performance as well as an excellent environmental record. The industry as a whole has a strong heritage and, as we enter into this new century, waste-to-energy technology can help lead us toward energy independence and a cooler planet. ☑

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