Projects across U.S. turn landfill gas into energy

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More U.S. communities are turning trash into power. Nationwide, the number of landfill gas projects, which convert methane gas emitted from decomposing garbage into power, jumped from 399 in 2005 to 519 last year, according to the Environmental Protection Agency.

"There's certainly an increasing interest in doing these projects," says Rachel Goldstein, leader of EPA's Landfill Methane Outreach Program, which provides technical help to develop them. She says they are popular because they control energy costs and reduce greenhouse gas emissions.

As garbage decomposes, it creates gas that is half methane, which has 20 times the global warming potential of carbon dioxide, according to the EPA. Instead of letting the gas escape into the air, these projects collect the gas and treat it so it can be used for electricity or upgraded to pipeline-grade gas. The projects power homes, buildings and vehicles.

President Barack Obama, who is promoting wind, solar and nuclear power as ways to generate clean energy, has made Recovery Act funds available for the projects.

Landfill gas provides constant power and doesn't "require the sun to shine or the wind to blow," says Wes Muir, of Waste Management, a Houston-based company that runs 115 of these projects and plans to have 160 to 170 by 2013.

His company worked on a $15.5 million, partly state-funded project in

Livermore, Calif., that in November began producing 13,000 gallons of liquefied natural gas each day. Another project last year, which cost $45 million, is generating enough power that the University of New Hampshire has cut its natural gas usage by 80 percent, he said.

Other new efforts:

• In Albany, Ga., the Marine Corps Logistics Base is starting work this year on a project to produce 2 megawatts of electricity for on-site use.

• In Anne Arundel County, Md., construction is slated to begin this summer on a landfill gas plant that will cost at least $5 million, $2.1 million of which will be federal stimulus funds.

"The federal grant was a key part of moving this project forward in a difficult economy," county spokesman Dave Abrams says.

• In Glendale, Ariz., a public-private project began producing energy in January. "We're powering 750 homes," says Jennifer Stein, city spokeswoman, adding it has given a "second life" to Glendale's 37-year-old landfill.

These projects are not without obstacles and controversy. Large ones often cost millions of dollars, and environmental groups say they do not produce renewable power because their source -- trash -- is not renewable.

The Sierra Club opposes government subsidies for them, and the Natural Resources Defense Council prefers such incentives be directed at solar, wind and energy-efficiency efforts. "We shouldn't be driving people to think it's OK to landfill stuff," says Nathanael Greene, director of NRDC's renewable energy policy. He says as many items as possible should be recycled so they don't end up in landfills.

Even so, Greene says it's better to do something with the gas. "If you got it," he says, "use it."

The EPA's mantra remains "reduce, reuse, recycle," Goldstein says. "We don't encourage more landfills." She says the country, however, has to deal with the gas from its existing landfills.