

UK town using fuel from human waste

October 7 2010, by Lin Edwards



(PhysOrg.com) -- A town in Oxfordshire has become the first in the UK to have biomethane gas generated from human waste piped to their homes for gas central heating and cooking.

Up to 200 households in Didcot now receive the [gas](#) via the national gas grid. Head of energy, technology and innovation at British Gas, Martin Orrill, said customers would not notice any difference as the gas is purified to the highest standard and has no odor. The gas is generated at a [sewage treatment](#) works plant in Didcot installed earlier this year by Thames Water.

The entire process takes less than three weeks, with the sewage being collected and sent first to settlement tanks. The solid [waste material](#) is then fed into digesters, where [anaerobic bacteria](#) digest the sewage, with

the aid of enzymes to speed up the process. The digestion process generates [methane](#), which can be burned to drive turbines and produce electricity, or can be purified and fed into the gas network and piped to homes and businesses. British Gas says supplying the gas rather than electricity is far more efficient since around two-thirds of the energy is lost in electricity generation.

Joint venture partners in the Didcot project, British Gas, Scotia Gas Networks, and Thames Water, all hope to expand the process to other towns across the United Kingdom, and other utility companies such as Ecotricity and United Utilities have also announced biomethane projects being planned. One of these projects, in Manchester, could be supplying 500 homes with biomethane by mid next year. Another British Gas project in Suffolk will provide gas from digestion of brewery wastes to around 235 households.

The Didcot project cost £2.5m (around \$4 m US) and was influenced by promises of government incentives aimed at encouraging utility companies to develop renewable technologies. An EU directive means the UK must ensure at least 15 percent of its energy is from renewable sources by 2020.

There are now fears that government spending cuts could reduce incentives, making it more difficult for companies to develop the new infrastructure without unacceptable price rises.

The UK produces an estimated 1.73 million tonnes of sewage sludge annually. If all sewage treatment works in the UK were fitted with the technology, they could supply gas for up to 350,000 households.

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Citation: UK town using fuel from human waste (2010, October 7) retrieved 17 April 2024 from

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