

SEXTON LANDFILL GAS REHABILITATION UNITED STATES



**Transforming landfill gas into renewable energy
to rehabilitate a closed waste facility in Chicago**

This project involves the capture and combustion of landfill gas to generate renewable energy at the Des Plaines waste handling and disposal site in northwest Chicago, Illinois. The project includes gas collection and power generation systems that recover and burn these gases which would otherwise be released into the atmosphere.

The Context

As solid waste decomposes underground, it creates landfill gas made up of carbon dioxide and methane; a greenhouse gas 25 times as potent as CO₂. Over half America's waste goes to landfill and waste sites such as Des Plaines are major contributors to national greenhouse gas emissions. In fact, over 35 percent of the States' human-induced methane emissions are landfill-derived – but it's possible to harness this methane to create renewable energy instead.

The Project

Run by Sexton Energy, this landfill gas project is a 30-minute drive northwest of downtown Chicago in the suburb of Des Plaines. The project recovers landfill gas produced by the closed Des Plaines landfill site and burns the methane component, which would otherwise be released into the atmosphere, to create renewable electricity which is then sold to a local electric utility.

The Benefits

On top of preventing the release of almost 58,000 tonnes of CO₂ equivalent annually, Sexton Landfill Gas generates clean energy. This diversifies the fuel mix of a local utility and grid that is otherwise heavily reliant on fossil fuels, and moreover increases the renewable energy share of electrical production in the United States. By capturing and repurposing landfill gas, the project also prevents local water contamination caused by its underground migration and stops noxious odors from being released into the surrounding environment, thereby improving the local community's quality of life.

Rehabilitation means that this closed landfill site may one day be repurposed as a recreation space for the local community of Des Plaines.



**2,500
kWh**

of clean power supplied to the local grid on average annually, increasing the renewable energy share of the US electricity mix



**58,700
tCO₂e**

mitigated on average each year through the capture and use of landfill gas for renewable energy generation

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: Sexton Energy Des Plaines Landfill Methane Recovery and Destruction Project | **UNFCCC/markit/VCS link:** http://vcsprojectdatabase.org/#/project_details/167
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