

Landfill Methane Gas Facilities



Orchard Hills Landfill Methane Gas Plant

CLARK-FLOYD LANDFILL METHANE GAS PLANT

LIVINGSTON LANDFILL METHANE GAS PLANT

ORCHARD HILLS LANDFILL METHANE GAS PLANT

Landfill methane gas (LMG) facilities are cost-effective and reliable energy sources that contribute to the reduction of methane, a potent greenhouse gas. Landfill gas, which occurs naturally from decomposing waste, consists of about 50 percent methane, whose emissions are many times stronger than carbon dioxide and considered a contributor to global warming.

Instead of being flared into the atmosphere, LMG facilities capture the methane gas and transform it into a renewable source of fuel to power generators around the clock.

Biomass power from landfills make up a key component in Hoosier Energy's voluntary renewable energy policy that encourages developing efficient, economical renewable energy resources. Hoosier Energy owns and operates three landfill methane gas facilities.

CLARK-FLOYD

The 400-acre Clark-Floyd Landfill in Clark County REMC territory is home to Hoosier Energy's first renewable energy electric generating station. The 4-megawatt Clark-Floyd Generating Plant began operation on Oct. 15, 2007, and expanded in the spring of 2009.

Landfill Methane Gas Facilities

LIVINGSTON AND ORCHARD HILLS

Hoosier Energy owns and operates two landfill gas plants in Illinois.

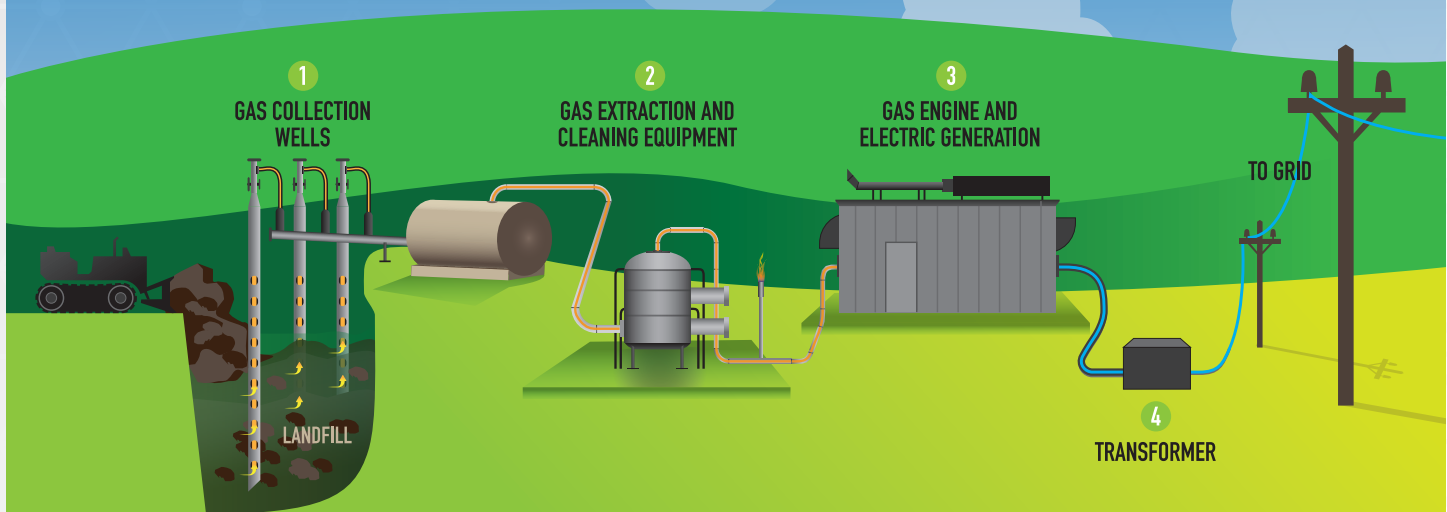
The 15-megawatt Livingston landfill gas renewable energy was added to Hoosier Energy's power production portfolio in November 2011. Operation of the facility near Pontiac, Illinois, began in November 2013 after a two-year refurbishing effort.

The 16-megawatt Orchard Hills facility near Rockford, Illinois began operation in 2016.

Renewable energy credits for the Livingston and Orchard Hills landfill facilities are sold to third parties.

How methane from landfills becomes clean power.

As solid waste decomposes, landfill gas is released consisting of approximately 50% methane gas. Here's how the methane is turned into electricity.



1. A series of wells are drilled into the trash where landfill methane gas is generated.

2. The gas is then piped into a series of chambers where it is "cleaned"—dehumidified, filtered and compressed.

3. High-intensity engines burn almost all of the gas, turning it into electricity. A flare safely eliminates any trace amounts of excess gas.

4. A transformer steps up the voltage of the gas-produced energy for transmission onto the power grid for eventual distribution to cooperative member distribution systems.

Learn more about Hoosier Energy's Landfill Methane Gas Facilities.

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