

PPL Renewable Energy | Frey Farm Landfill

PPL Renewable Energy designed, constructed, owns and operates a 3.2-megawatt landfill gas-to-energy plant at the Frey Farm Landfill in Lancaster County, Pennsylvania. PPL worked with the Lancaster County Solid Waste Management Authority, the Commonwealth of Pennsylvania and Turkey Hill Dairy.

PPL uses methane gas from the landfill to fuel its generators. The engines produce approximately 25.2 million kilowatt-hours per year, enough electricity to power approximately 2,400 homes.

Additionally, PPL sells heat, which is a byproduct of the process, to the adjacent Turkey Hill Dairy. The heat provides Turkey Hill with about 86 percent of the thermal needs of its operation.

This landfill gas-to-energy power generation system was named "Project of the Year" in the U.S. Environmental Protection Agency's 2006 Landfill Methane Outreach Program.

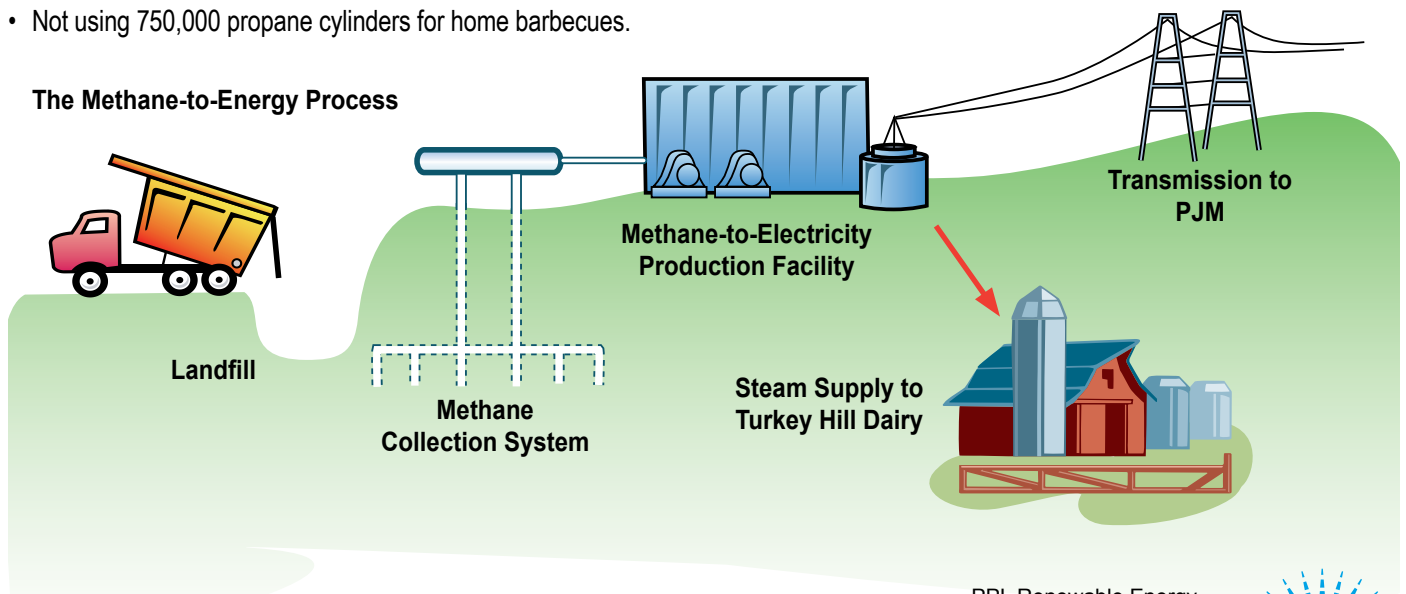
This landfill gas-to-energy plant reduces annual greenhouse gas emissions by 39.6 million pounds of carbon dioxide by avoiding the use of fossil fuels.

The reduction of greenhouse gas emissions is equivalent to any one of these annual environmental benefits:

- Removing 3,300 cars from the road.
- Not consuming 2.0 million gallons of gasoline.
- Reducing the import of 42,000 barrels of oil.
- Not using 750,000 propane cylinders for home barbecues.



Location:	Manor Township, Pa.
Operational:	January 2006
Equipment:	Two Caterpillar 3520 (1.6 MW) engines
Capacity:	3.2 MW
Input:	Landfill methane gas
Output:	Around the clock, base load is sold to PJM. Heat is sold to the adjacent Turkey Hill Dairy.



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