

PPL Renewable Energy | **The Hill at Whitemarsh**

PPL Renewable Energy designed, built, owns and operates an energy-efficient 1.6-megawatt central utility plant for the Whitemarsh Continuing Care Retirement Community in Lafayette Hill, Pa.

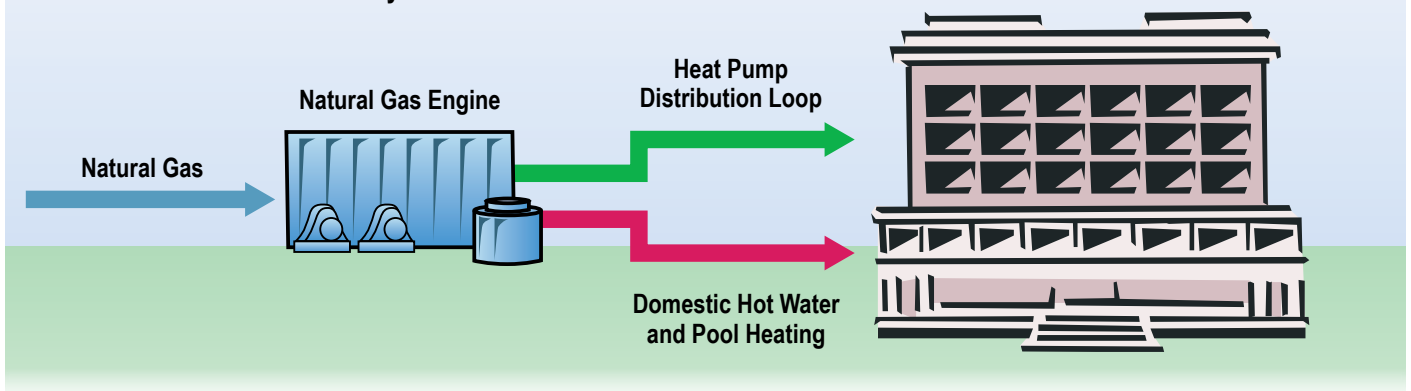
The central utility plant operates efficiently by providing both electricity and thermal energy to the retirement community. The plant reduces the amount of electricity the facility draws from the electrical grid during peak demand periods. The waste heat is recovered from the engine exhaust and jacket water cooling system and used to provide heat for the facility's domestic hot water and indoor pool. The waste heat is also used in the heat pump water distribution loop. If the engine is not operating, heat is provided through three natural gas-fired boilers. The central utility plant also provides back up power for the retirement community in the event of a power outage.

This central utility plant was installed by Burns Mechanical Services of Horsham, Pa., a PPL company. Burns Mechanical also provides maintenance services for the boilers and mechanical equipment.



Location:	Lafayette Hill, Pa.
Operational:	May 2007
Equipment:	Caterpillar 3516C engine with heat recovery boiler and three additional boilers
Capacity:	1.6 MW
Input:	Natural gas
Output:	Reduces electricity use from the grid and recovers waste heat from the engine for the facility's heating and cooling and domestic hot water.

The Natural Gas-to-Electricity Process



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