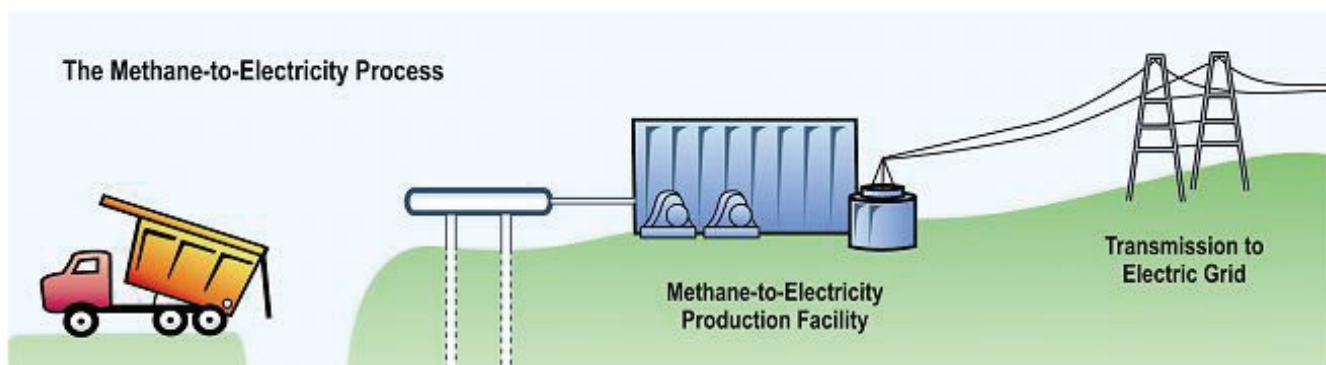


RENEWABLE ENERGY AT THE FREY FARM LANDFILL

In partnership with PPL Energy Services, the Authority is developing a renewable energy project that extracts methane gas from its two landfills, Creswell and Frey Farm. The Authority is investing \$1 million in gas collection infrastructure to make this project possible. The Creswell Landfill is inactive, having closed in the late 80's; its gas collection system is in place with 53 wells placed throughout the site. Gas wells at the Frey Farm Landfill, currently in use, are installed as the final cap is placed. The site hosts 33 wells with a total of 120 wells expected when the landfill reaches capacity, expected in 2020.



Landfill gas is generated during the natural process of bacterial decomposition of organic material contained in landfills. Landfill gas is composed of about 50% methane and 50% carbon dioxide and water vapor. The gas is collected through a series of pipes. Major particulates and water are removed to assure clean gas is sent to the engines. The clean gas is then sent to two engines contained inside sound attenuated enclosures where 3200 kilowatts of power is generated (enough power for about 3,200 homes).

Any landfill gas that is in excess of what can be used by the two engines or is available when the engines are not operating will be burned in an enclosed flare to assure destruction of the gas. Finally, power generated by the two engines will be transformed to a higher voltage and sent into the power grid through utility lines located nearby.

The environmental benefits of this project are significant. It is projected that this project will be the equivalent of planting 48,000 acres of forest per year, removing 45,000 cars from the road, offsetting 800 railroad cars of coal or 400,000 barrels of oil. The economic benefits are remarkable as well. This project will promote local economic growth, lower energy costs and develop a domestic, renewable source of energy.

For more information about the Authority please contact our office at (717) 397-9968 or visit us at www.lcswma.org.