Landfill Gas Powered Turbines Generate About 50% of BMW Manufacturing Plant’s Energy

**Technology Type:**
- Cogeneration Power Plant
- Design-Build
- Turbine Retrofit
- Landfill Gas to Energy
- Power Purchase Agreement

**Summary**
Landfill gas drives the BMW Manufacturing facility in Spartanburg, South Carolina. Reclaimed methane gas drawn from Waste Management’s Palmetto Landfill provides approximately half of the required energy at this BMW manufacturing plant.
Solution

BMW Manufacturing worked with Ameresco to bring landfill gas to its plant. The project entailed the development, engineering, construction and operation of a landfill gas pipeline and retrofit of the existing energy center. BMW had four 1.25 MW gas turbines largely sitting idle on their property. Ameresco was able to recycle the turbines by putting them into service using landfill gas.

- 9.5-mile landfill gas pipeline with cleaning and compressions stations
- Project cogenerates electricity and hot water
- BMW purchases the equivalent of 4,000 cfm of landfill gas for use in their turbines

BMW’s landfill gas program has been a tremendous initiative for the plant. Using methane gas to power our plant is one example of our focus on environmentally friendly production processes.

Josef Kerscher
President,
BMW Manufacturing

Benefits

To help offset BMW’s energy demand, BMW maintains its own power station on site. The station is powered by four turbines fueled by reclaimed methane gas piped in from the nearby Palmetto Landfill.

- Reduce 92,000 tons of CO₂ emissions per year
- Mitigate risks of volatility in the energy markets
- Turbines generate electricity to meet nearly 30% of the plant’s power needs
- Turbines generate electricity to meet about 50% of the plant’s total energy needs
- Environmentally responsible power resource
- No upfront capital