

Green Gas Commissions First US Project

By Ted Dunchak

The Green Gas – Pioneer Crossing landfill project, which converts landfill gas into electricity, is the first project for the Group in the USA. This also provides Green Gas with the platform for further projects in the USA.

Pioneer results in significant overall environmental benefit; making use of greenhouse gas as a fuel to displace electricity usage, which would otherwise be generated by conventional fossil fuels.

Located in Exeter Township, Berks County, Pennsylvania, Pioneer Crossing powers about 4,000 homes and will result in reducing CO₂ emissions equivalents by about 173,000 tonnes per year. As a Professional Engineer,

with extensive experience in solid waste management, I was made Project Manager for the Pioneer construction. Landfill gas to electricity projects are especially challenging as construction contractors, landfill operators

and local utilities usually have limited experience with such projects, and therefore its success required the education of all stakeholders.

Pioneer consists of four Caterpillar 3520C gensets in individual enclosures, each rated at 1.6 MW giving the facility a gross rating of 6.4 MW. Electricity is generated at 480 volts and is exported into the local utility transmission system at 69,000 volts. Production up-time in both September and October 2009 exceeded 96%, and each genset averaged 1.54 MWh of power exported during those months.

