



# New Biomass Cogeneration Plant

Design / Assist



## Project Description:

S. P. McCarl & Company, Inc. is an integral design assist partner for this renewable energy project. The scope includes the construction of a new cogeneration facility to utilize landfill gas as a fuel source which will be used to generate electricity and steam for a Department of Corrections facility. Excess electricity will be sold to the public utility grid.

Steam and electricity will be generated using a combination of landfill gas fired turbine and reciprocating engines. The cogeneration facility will replace three existing coal fired boilers and become the primary steam source. Peak and back up steam generating capacity will be provided by auxiliary boilers.

## Technical Challenge:

This renewable energy project involves state of the art technology, using landfill gas in an environmentally friendly and energy efficient manner. In addition to the complex mechanical equipment, there is an extensive amount of process piping including fuse welded piping for the natural gas and methane gas systems.

The project experienced delays in the early phases due to land acquisition and permitting issues leading to a very compressed construction schedule. This was even more challenging due to the small footprint of the facility which houses vast amounts of mechanical process equipment. The team worked diligently to ensure an efficient and safe work flow with large work crews in a very confined space.