



Case Study

Altamont Landfill Gas-to-Energy System

Background

Altamont Landfill, located in Livermore, CA, is one of the largest landfill operations in Northern California with 1.5 million tons processed annually. It was generating more than four (4) million cubic feet of landfill gas. The landfill owner realized that it needed to develop a facility to utilize the gas for beneficial use. The goal was to develop a two-centaur turbine facility capable of utilizing the biogas to produce 6.6 megawatts of electricity.

DEI Scope of Work

DEI team member was responsible for the creation of a strategic and construction plan that laid out gas production forecasts, planning and construction budgets, and permits required for the entire process. The team members then managed construction and facility start-up.

DEI Tasks

The DEI team member on this project was responsible for the following tasks:

- Development of biogas projections and energy utilization to determine the extent of beneficial use for the gas
- Preparation of budgets, pro-forma and project controls for the development of the facility
- Preparation of design drawings and specifications to prepare bid packages for construction of the facility and selection of equipment vendors and contractors
- Obtained land use, air quality, building and other operational and agency permits needed for development, construction and operation
- Provided construction management services
- Managed start-up, commissioning and ensured the facility was able to operate continuously before hand over

Results

- The Altamont Landfill Gas-to-Energy Facility has been built and has been in operation since start-up in 1989.
- By 2006, nearly eight (8) megawatts were being produced from clean burning methane gas and being fed to the local power grid. Enough energy to power 9,500 homes.