

CASE STUDY:

Altamont Landfill and Resource Recovery Facility



“The Altamont landfill gas to liquefied natural gas facility enables us to recover and utilize a valuable source of clean energy in another practical way, reducing our dependence on fossil fuels.”

Paul Pabor, Vice President
Renewable Energy

As waste decomposes in a landfill, it naturally produces methane gas. More than 20 years ago, Waste Management realized this landfill gas (LFG) could be captured and converted into clean-burning liquefied natural gas (LNG). In fact, LFG is the only renewable energy source that directly prevents atmospheric pollution by channeling harmful greenhouse gases into fuel, ensuring they cannot be released into the atmosphere. At Waste Management, we have advanced LFG to LNG technology and use it to generate electricity or replace the use of other gas sources.

We have 129 landfill gas projects at our landfills, which account for over one-quarter of all LFG projects in the United States. Waste Management is the only national waste company that builds and operates its own landfill gas plants.

In 2008, Waste Management formed a joint venture with Linde North America to build the world’s largest LFG to LNG plant at our award-winning Altamont Landfill and Resource Recovery Facility in Livermore, California. The LFG-LNG facility, which Linde built and operates, purifies and liquefies landfill gas that Waste Management collects from the natural decomposition of organic waste.

Our Altamont LFG-LNG facility produces up to 13,000 gallons of LNG per day—enough to fuel 300 of Waste Management’s 491 LNG waste and recycling collection vehicles. Through its LNG production, Altamont has:

- Achieved a 93% methane gas capture rate
- Produced over 2 million gallons of clean, renewable fuel since September 2009
- Displaced 2.5 million gallons of diesel a year and eliminated over 30,000 tons a year of transportation greenhouse gases—the equivalent of removing over 5,000 passenger cars from the road
- Reduced nitrogen oxides (NOx) by nearly 200 tons and particulate matter emissions by over four tons a year
- Produced enough green electricity to power the LNG plant and the equivalent of 8,000 homes annually

Through projects like LFG-LNG production at Altamont, Waste Management is working to develop innovative solutions that reduce our diversion rate and derive sustainable, clean energy from the materials we collect everyday.

AWARDS

The LFG-LNG plant at Waste Management’s Altamont landfill was recognized in January 2010 by the United States Environmental Protection Agency (EPA) at the EPA’s 13th annual Landfill Methane Outreach Program Conference and Project Expo. The Altamont LFG-LNG plant also received a 2010 California Governor’s Environmental and Economic Leadership Award—California’s highest environmental honor—in the category of Sustainable Facility.

