Success Stories – Siting Renewable Energy on Contaminated Land

Operating Industries Landfill, Monterey Park, California

Landfill Gas Powers Property Remediation

Site Description

The 190 acre Operating Industries, Inc. (OII) Landfill Site lies just 10 miles east of Los Angeles, California in Monterey Park. For years, the landfill was a source displeasing odors and of visual pollution to those living nearby. Today, after a series of assessments and cleanups, the landfill is now aesthetically pleasing and producing enough clean energy to power about 80% of the site operations.

Property History

Opened in 1948 by Monterey Park Disposal Co., the landfill was bought by OII in the 1950s. Today the landfill is split into two sites by the Pomona Freeway; a 45-acre parcel owned by A.H.A.S., Inc. known as the North Parcel and a 145-acre site owned by OII known as the South Parcel.

In 1984 the South Parcel closed and stopped accepting waste due to findings from a survey conducted by the South Coast Air Quality Management District. The survey detected above ambient levels of vinyl chloride in the air around the landfill. In addition, over 20,000 people live within three miles of the landfill. This resulted in EPA placing the OII Landfill Site on the National Priorities List the same year it closed down.

In the years following the landfills' closure, EPA completed a number of investigations into the onsite contamination. On both parcels, they found various organic and inorganic compounds that if left untreated, could enter the water table and pose a health risk for the surrounding population. To control this, a leachate treatment plant was built onsite to treat liquids from the site and surrounding landfills. Since much of the waste disposed of on the South Parcel was municipal solid waste, it was a prime location to capture landfill gas (LFG).

Renewable Energy Development

In August 1992, Bryan A Stirrat & Assoc, Inc., a civil engineering firm, submitted design recommendations to EPA for LFG migration and mitigation systems on the property. The plans were adopted and construction began soon thereafter. Before construction began, the Southern California Edison Company awarded the landfill a $450,000 grant. Additionally, the California Energy Commission awarded the landfill a $105,000 grant. By 2002, six 70 kW microturbines were installed on the property that convert LFG to electricity. The microturbines save about $400,000 a year and supply the landfill's leachate treatment plant with 80% of its yearly energy needs. Currently, New Cure, Inc. manages the landfill and leachate treatment plant.

QUICK FACTS:

Location:	EPA Region 9, Monterey Park, CA
Property Size:	145 Acres
Site Ownership:	Private - Operating Industries, Inc.
Former Use:	Landfill
Contaminants:	Vinyl Chloride; other organic and inorganic compounds
Project Type:	Superfund
Type of RE:	Landfill Gas (LFG)
Project Cost:	$1.5 million
Key Partners:	EPA Superfund; New Cure, Inc.; US Army Corps of Engineers; California Energy Commission; California EPA; Southern California Edison Company;

PROJECT HIGHLIGHTS:

- Granted $450,000 by the Southern California Edison Company and $105,000 by the California Energy Commission to install microturbines and convert landfill gas into electricity
- Six 70 kWh microturbines were installed, generating 80% of the annual energy needs of the landfill's leachate treatment plant.

U.S. EPA OSWER CENTER FOR PROGRAM ANALYSIS

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To learn more about siting renewable energy on contaminated land, visit: *www.epa.gov/renewableenergyland*