LA COUNTY SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE

Sunshine Canyon Landfill Gas Beneficial Use Project Update

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DTE Energy
DTE Biomass Energy

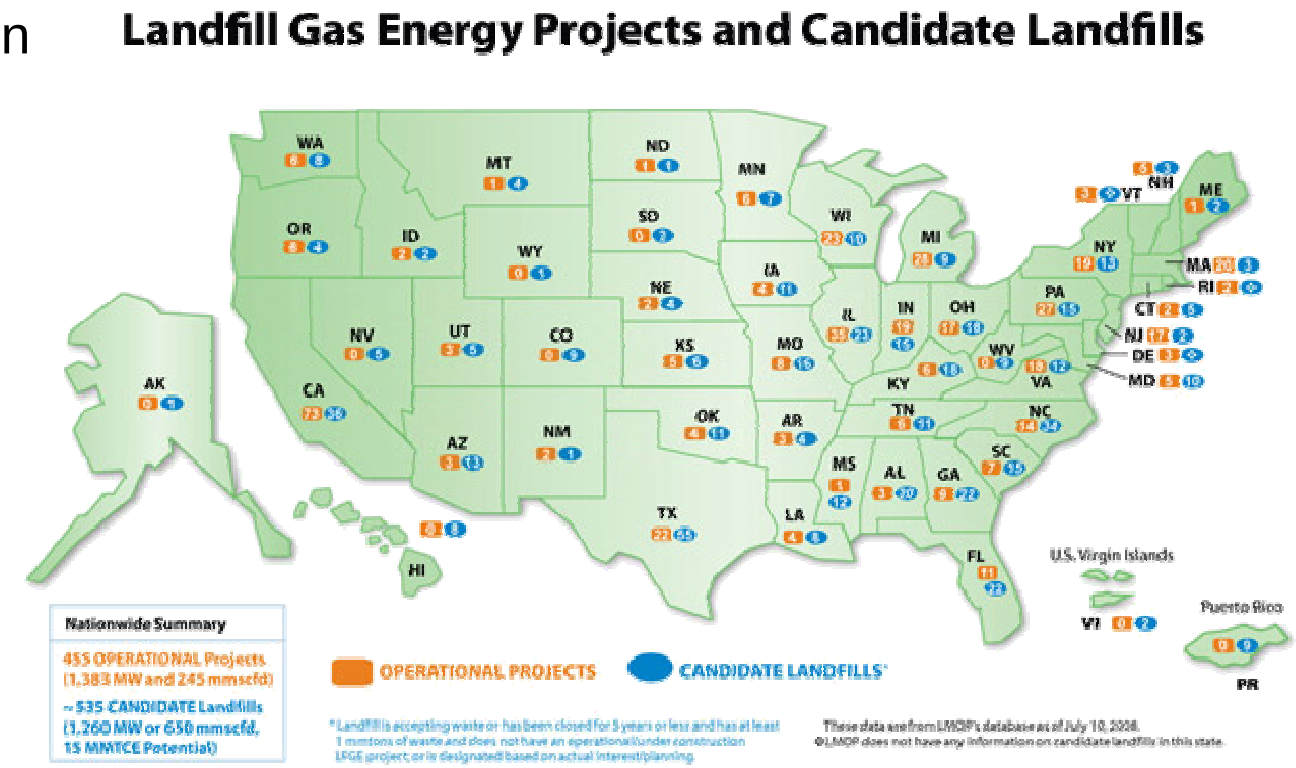
Landfill Energy Systems

Agenda

- Project overview
- Draft Supplemental Environmental Impact Report
- Emissions
- Noise
- View
- Questions

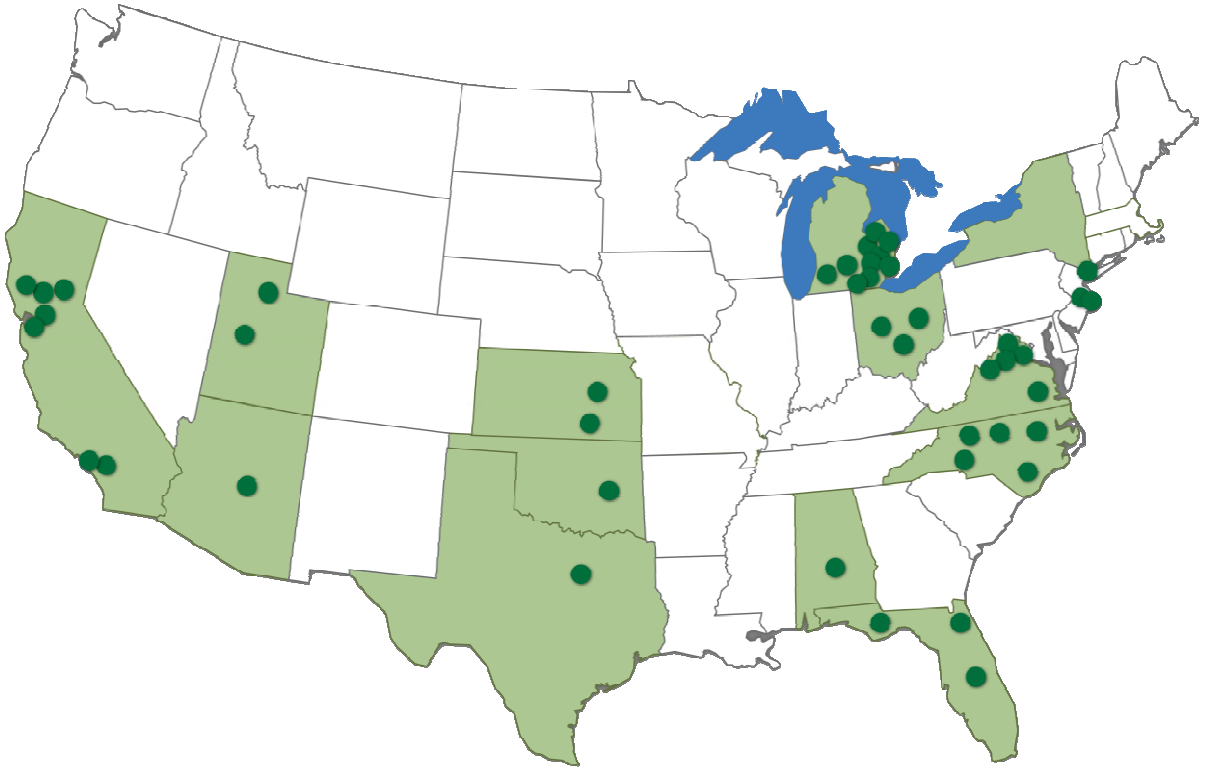
LFG Beneficial Use Widely Accepted for Decades

- Over 455 projects in the US
- Project Types:
  - High BTU
  - Medium BTU
  - Electric Power
- Environmental & Energy Benefits



Data from LMOP

Sunshine Gas Producers



- Partnership between DTE Biomass Energy & Landfill Energy Systems
- 25 year partnership of operating two similar power projects
- Both companies are leaders in the industry
- Together DTE & LES have more experience than any other company in the industry

Sunshine Canyon LFG Beneficial Use Project

- Facility will generate 20MW (12,700 homes)
- LFG burned in the power plant will not be burned in flares
- Solar Turbines –
  - state of the art
  - Meets all South Coast AQMD regulations

- Facility relocated to site below flare 8
- Remote location on landfill property
- ***Project contributes to the State RPS goals***

Draft Supplemental Environmental Impact Report

- South Coast AQMD is the lead agency responsible for preparing the Supplemental Environmental Impact Report
- Assessed potential impact of many environmental factors during construction and operation
  - Emissions
  - Cultural Resources
  - Energy
  - Geology and Soils
  - Hydrology & Water Quality
  - Noise
  - Aesthetics
  - Agricultural Resources
  - Biological Resources
  - Hazards & Hazardous Materials
  - Land Use and Planning
  - Mineral Resources
  - Population and Housing
  - Recreation
  - Solid & Hazardous Waste
  - Transportation & Traffic
- Many identified as not significant in the Initial Study in 2009
- Several studied further in the Supplemental Environmental Impact Report

Emissions – During Construction

- Emissions during construction studied for all portions of the project (electric generation equipment, electric switch yard, and electric transmission line)
- Studied CO, NOx, and particulate emissions
- Studied delivery trucks, construction equipment and construction dust
- Analysis includes worst-case assumptions for construction emissions. The majority of the vehicles are the delivery trucks bringing soil to the site over 340 construction days
  - Republic working with SGP to reduce this significantly by using soils already on site
- The construction project has no significant regional or localized impacts from emissions, after purchase of NOx emission reduction credits

Emissions – During Operation

- Studied CO_2 equivalent (green house gas), CO, NOx, and particulate emissions
- Comparison of emissions between the proposed project and existing flare operation at the LFG volume form 2007 to 2009 (Baseline) showed emission increases largely due to increased LFG combustion volume
- Comparison of emissions between the proposed project (after emission reduction credits) and the No Project Alternative (continued flaring with no turbines) showed future flare operation emissions at peak LFG volume the same as the emissions from the turbine at the same fuel consumption rate for all constituents but CO & $PM_{2.5}$

Comparison of emissions

Regional Air Emissions

Constituent		Baseline Emissions[1]	Electric Generation Plant at Capacity[2]	Flare at Same Combustion Rate[3]	Increase/ (Decrease)
CO_2 Equivalent (Green House Gas)	MT/Year	79,269	114,677	114,635	42[4]
NOx	lb/day	124	124	178	(54)
CO	lb/day	126	858	182	678
Volatile Organic	lb/day	19	19	28	(9)
Particulate (PM10)	lb/day	19	19	27	(9)
Particulate (PM2.5)	lb/day	19	113	27	86
SO_X	lb/day	113	113	163	(50)

[1] Flare emissions from the 2007 – 2009 average LFG flare rate

[2] Electric generation facility emissions include reduction resulting from Purchased Emissions Reduction Credits at full operation capacity

[3] Flare emissions assuming flare combustion the same quantity of gas consumed by the electric generation facility operating at capacity

[4] Increase due to construction emissions. No increase in operational emissions.

- ***Impact of emissions at the nearest sensitive receptors is less than significant***

Operational Noise

- Four noise receptors were studied, all on landfill property
  - Project site, Republic offices, northern and southern portion of the landfill property
- Noise from the operating power plant will be well below ambient noise level at the northern and southern receptors and will create no detectable increase in the background noise level at either receptor
- It is 7850 ft to the southern receptor

Visual

- Facility relocated off the “Flare 8 Ridge”
- Lower location will obscure view of the facility
- Portions of the facility will be visible from a small portion of I-5 near the I-405 split and beyond
- Visual impacts are less than significant

Questions?

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