

# U.S. Domestic Voluntary Action in the Biogas Sector: update to GMI Subcommittee

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GMI Biogas Subcommittee Meeting 28 October 2019

# Snapshot

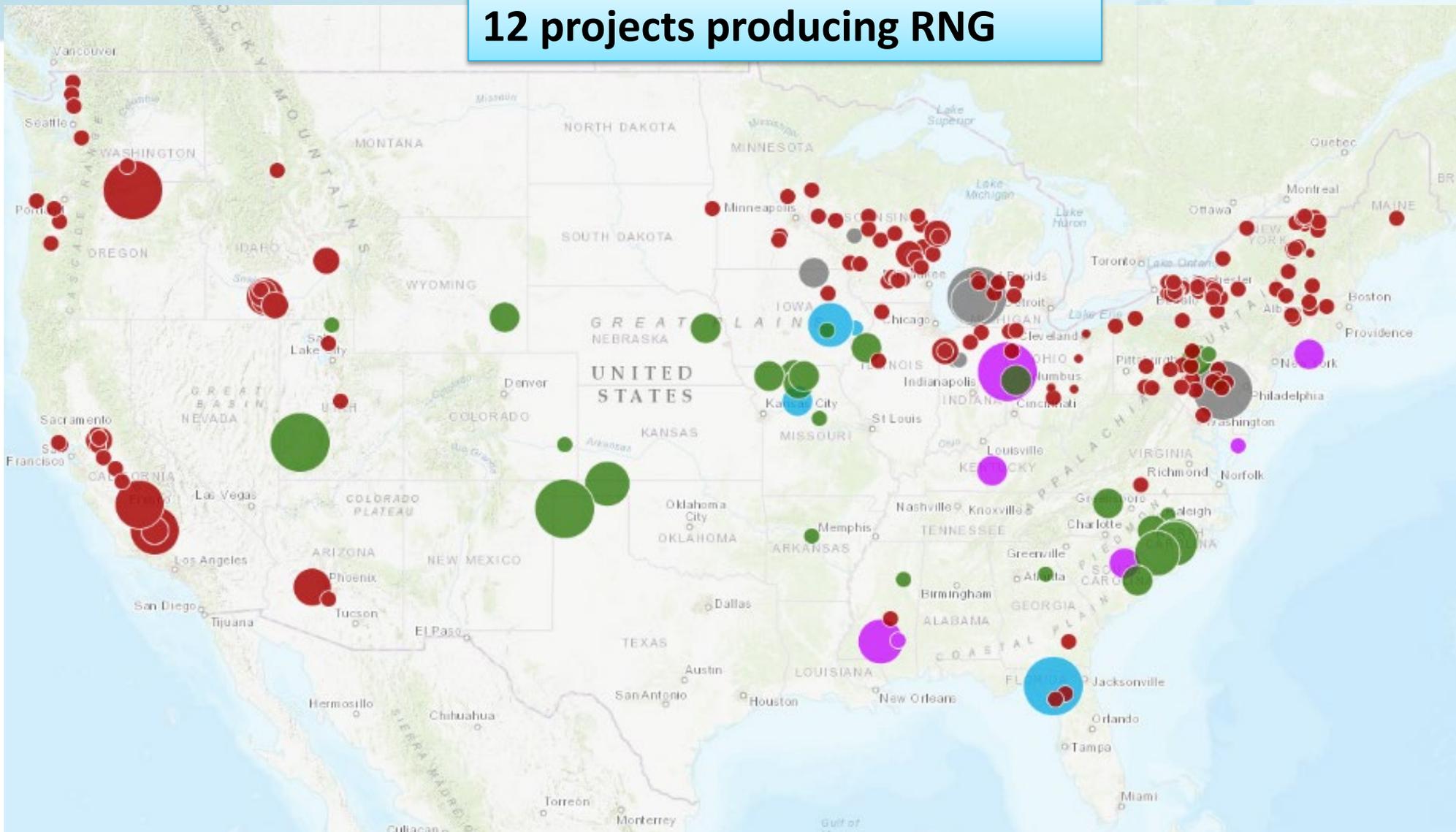
- Biogas resources in municipal – agro-industrial waste, manure, waste water treatment
- EPA promotes voluntary methane reductions by providing critical information/resources/tools, technical assistance, and recognition
- Collect data through voluntary partnerships and greenhouse gas reporting program (GGRP) \*
- GGRP is a regulatory program that requires reporting across many sectors, including landfills above a certain threshold \*



# AgSTAR Project Map

- Dairy
- Hog
- Beef
- Poultry
- Mixed

12 projects producing RNG



# LMOP Project Map

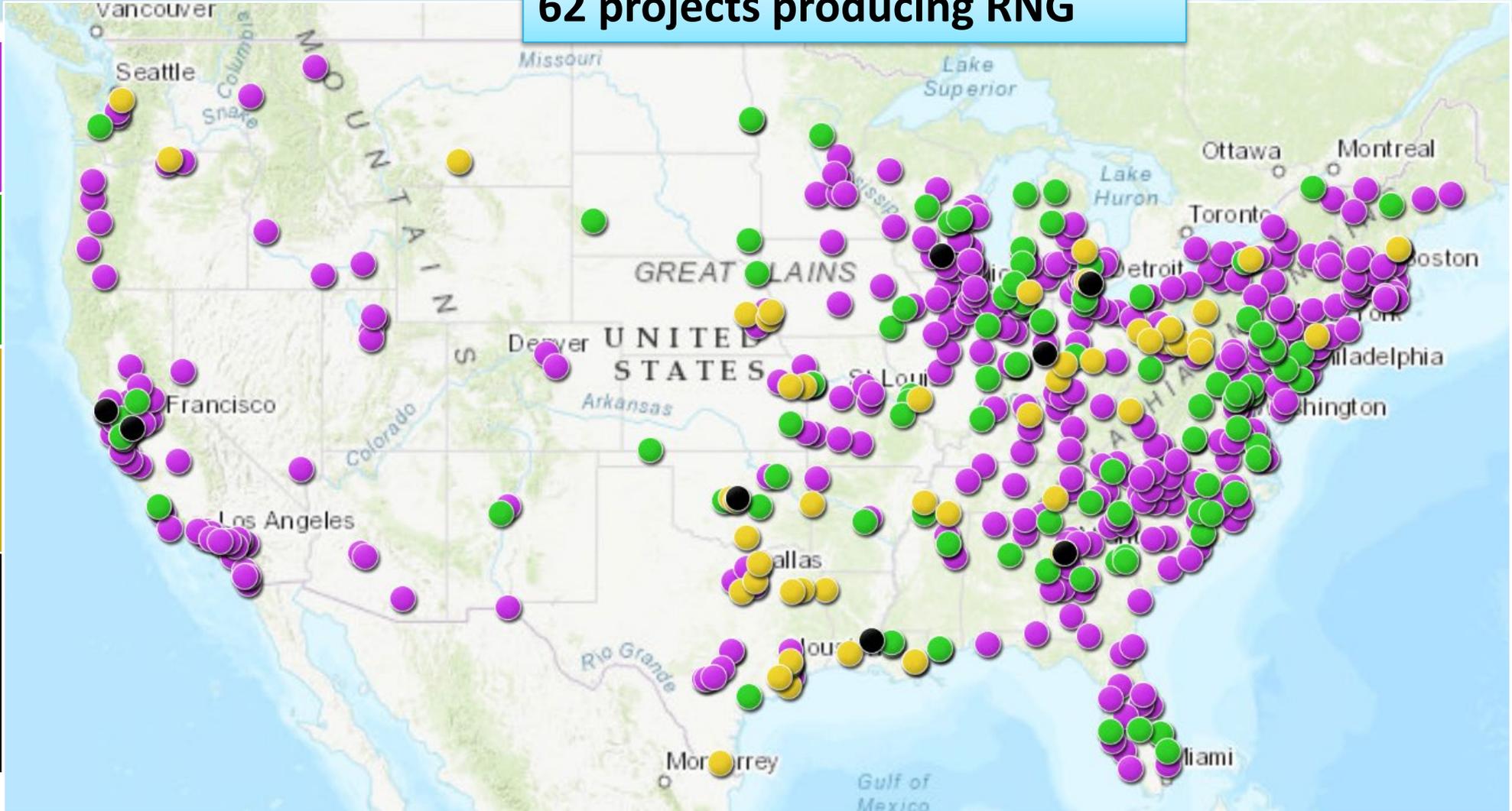
62 projects producing RNG

**429**  
Electricity

**104**  
Direct-Use

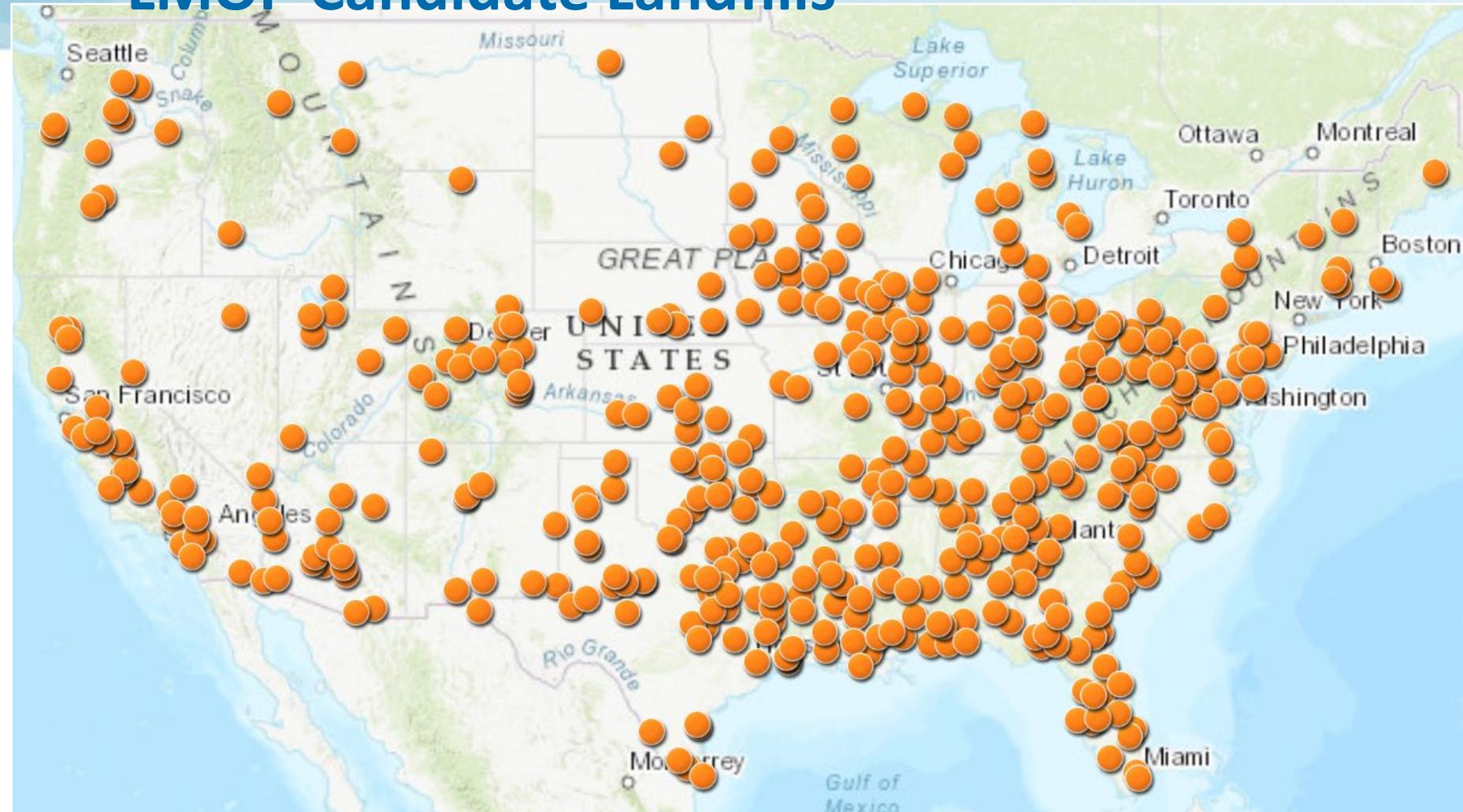
**55**  
Renewable Natural Gas /  
Pipeline Injection  
*(49 for vehicle fuel)*

**7**  
Renewable Natural Gas /  
Local Use  
*(7 for vehicle fuel)*



LFG energy project counts are from LMOP's Landfill and Landfill Gas Energy Database as of July 2019

# LMOP Candidate Landfills



~ 475 Candidate Landfills

(925 MW or 515 mmscfd, 47 MMTCO<sub>2</sub>e/year Potential)

## What is a candidate landfill?

- Landfill is accepting waste or has been closed for five years or less
- Has at least one million tons of waste
- Does not have an operational, under-construction or planned project
- Can also be designated based on interest by the site

Candidate landfill counts are from LMOP's Landfill and Landfill Gas Energy Database as of July 2019

# Background Information

# Information for the Agriculture Sector

## Success Stories

- Project profiles
- Interviews with operators

## Market Trends

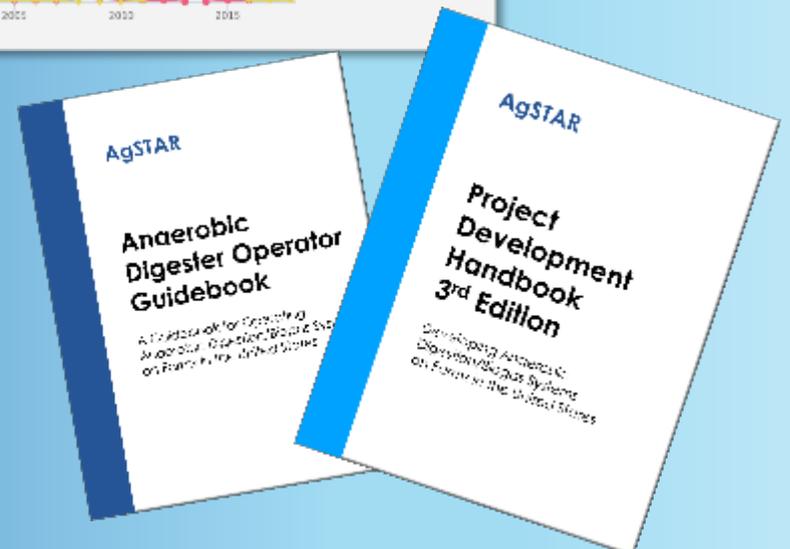
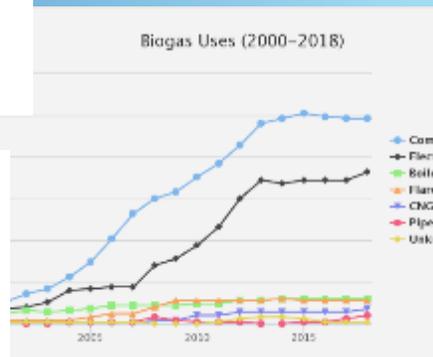
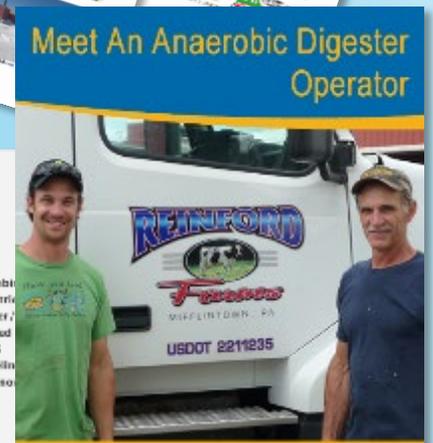
- National data for anaerobic digester projects
- Opportunities

## Technical Information

- Guidelines and permitting
- Updated project handbook (coming soon)
- Operators guidebook (coming soon)

## Collaboration

- Webinars
- Industry events



# Information for the Landfill & LFG Energy Sector

[www.epa.gov/lmop](http://www.epa.gov/lmop)



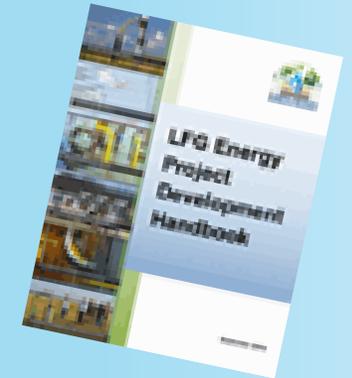
## Tools

- LFGcost-Web
- RNG Flow Rate Tool
- LFG Energy Benefits Calculator
- Conversion Tool



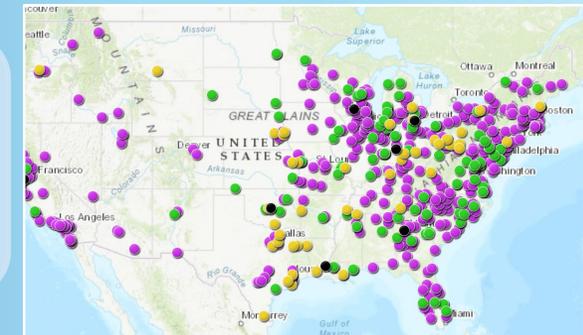
## Technical Publications

- Project Development Handbook
- Fact sheets



## Data

- Excel files and GIS map
- LFG energy projects
- Candidate landfills



## Network

- Webinars and other events
- 1,000+ LMOP Partners
- Listserv messages

