



Landfill Gas to Energy Proposal



December 20, 2022

Current Cefe Landfill Flare



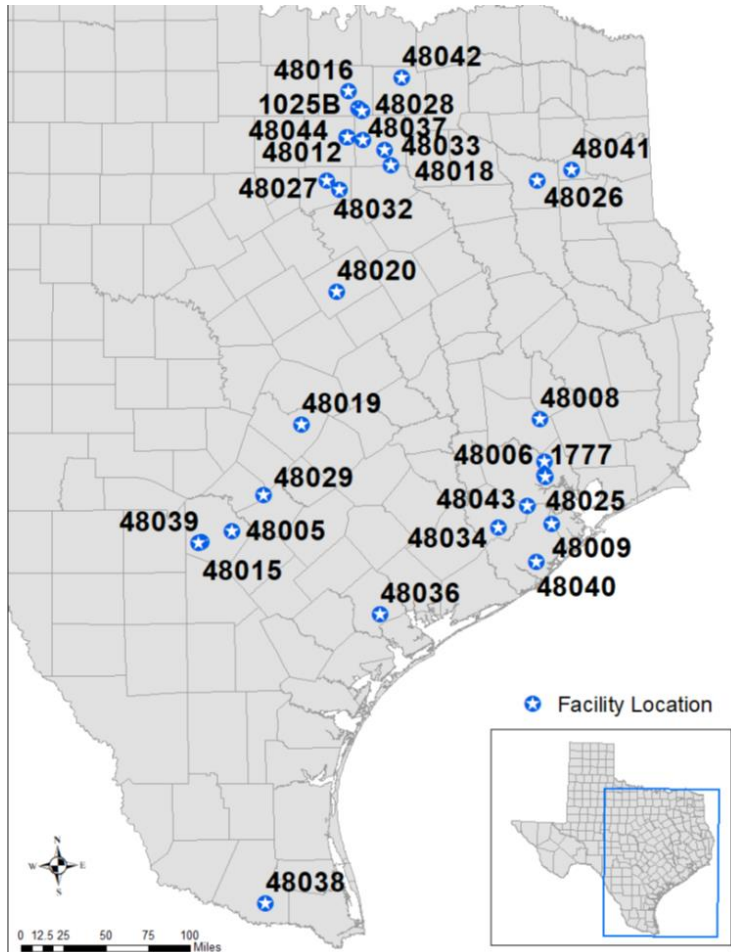
Landfills are some of the largest emitters of green house gases and are highly regulated by the EPA. To meet EPA and TCEQ rules and regulations the landfill gas is burned in flares at both Cefe and J.C. Elliot.

The maintenance and expansion costs for the landfill gas collection system are borne by the Solid Waste Disposal Budget.

The landfill gas collection system must be expanded approximately every 5 years, costing \$400,000 to \$1,000,000 each time.



Landfill Gas to Energy



There are 121 Landfill Gas to Energy projects in the State of Texas utilizing a variety of treatment processes.



Landfill Gas to Energy



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- There are three ways to use Landfill Gas
 - Burn the methane to generate electricity
 - Clean the methane to create pipeline quality gas
 - Sell to an industrial client for internal use
 - Each method has pros and cons dependent on
 - Landfill size and composition
 - Location of distribution lines
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Landfill Gas to Energy Proposal



- 12 companies responded to our RFP, including proposers from Spain, France and Canada.
- Through the RFP process the Morrow Energy (Corpus Christi Renewables) proposal to convert the Landfill Gas to pipeline quality gas was determined to be our best option.
- Several natural gas pipelines cross the landfill property and provide easy access to the natural gas markets with maximum potential green energy credits.

Staff Recommendations

Staff recommends approving the motion authorizing the land lease and the contract with Corpus Christi Renewables to design, build and operate a landfill gas to energy facility located at the Cefe Valenzuela Landfill.