

Landfill Gas to Energy Agreement with Viridi Energy, LLC

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Kody Petillo, PE
Public Works Director

LANDFILL GAS TO ENERGY AGREEMENT

AGENDA

- Background on landfill gas generation at the 948A
- Overview of the project
- Selected developer details
- Financial and environmental benefits to the City
- Project timeline

LANDFILL GAS GENERATION

LANDFILL GAS TO ENERGY AGREEMENT

BACKGROUND



- 948A Landfill generates gas as waste decomposes underground
- Federal and state regulations require proper collection and control of landfill gas
- Captured gas is currently flared

LANDFILL GAS

1

Organic waste is collected and transported to a landfill site where it decomposes.



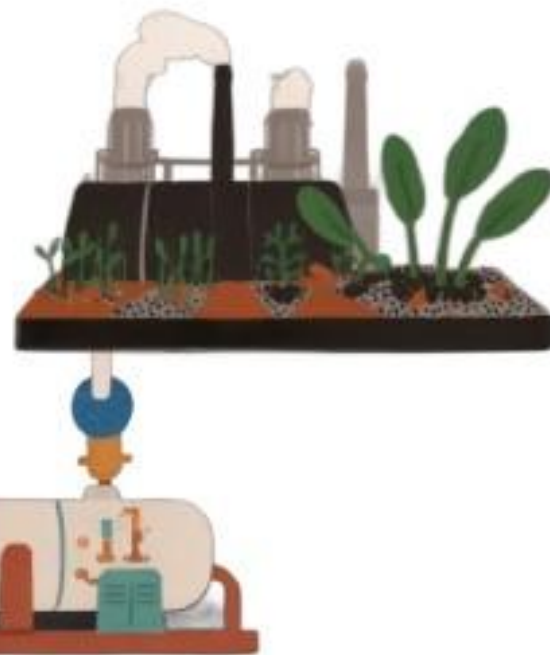
2

At the landfill, the waste is prepared and treated for the decomposition process.



3

A landfill gas capture process captures the methane produced and extracts it through a network of pipes and wells.



5

These gases and fuels are used to power homes for heating and other domestic and transportation uses, reducing reliance on fossil fuels.

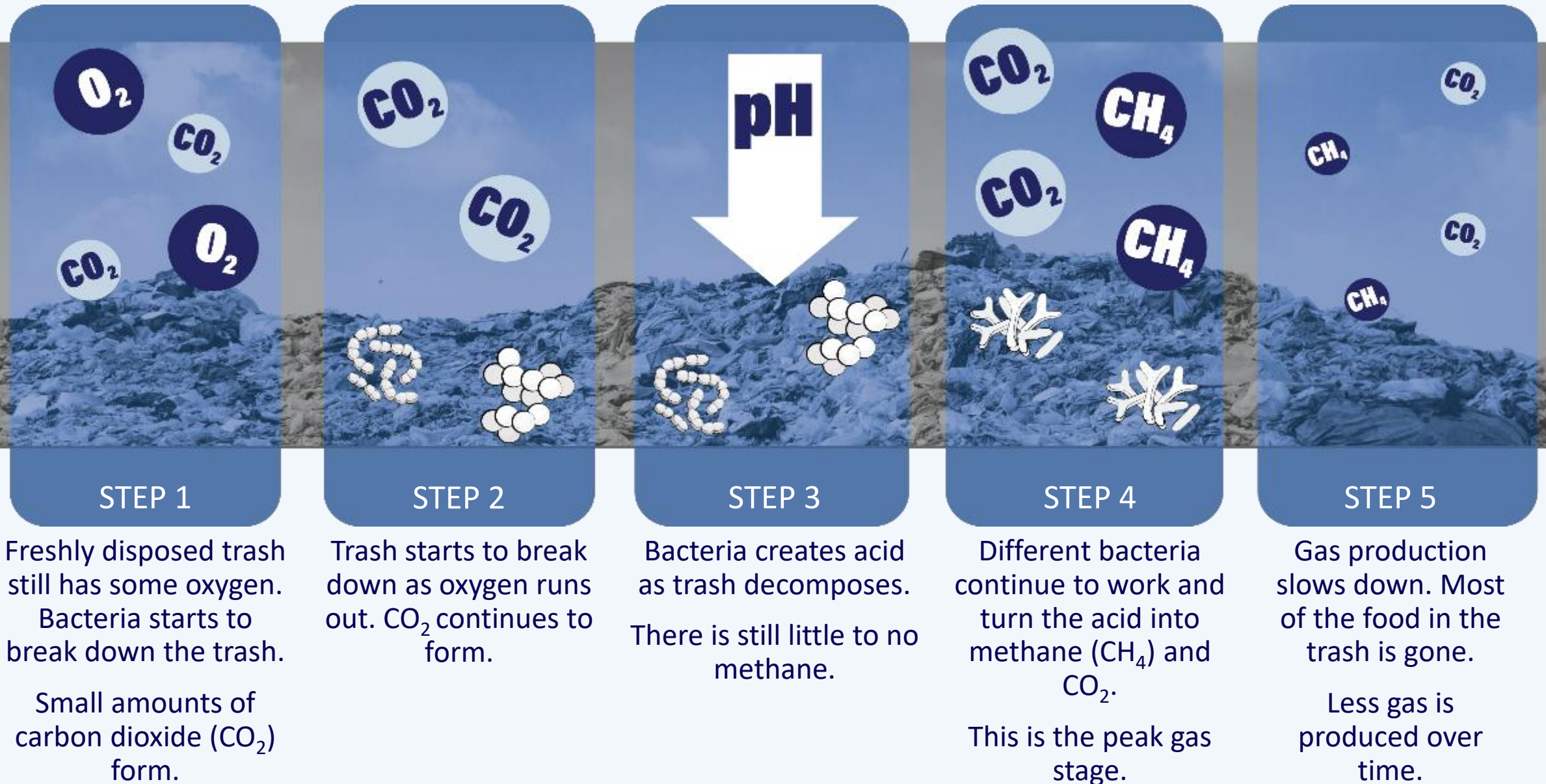


4

Captured methane is refined into Renewable Natural Gas (RNG) and other biofuels, ready to be used as a renewable energy source.



HOW IS GAS MADE OVER TIME?



PROJECT OVERVIEW

PROJECT DEVELOPMENT SUPPORT



- RFP development
- Proposal evaluation
- Financial modeling
- Technical support during contract negotiations



- Legal guidance
- Contract drafting
- Contract negotiation support

PROJECT OVERVIEW

Viridi Energy will develop and operate an RNG facility at the 948A Landfill.



The facility will:

- Manage the gas collection system (GCCS)
- Convert landfill gas to RNG
- Inject RNG into a pipeline for sale



OFFICE

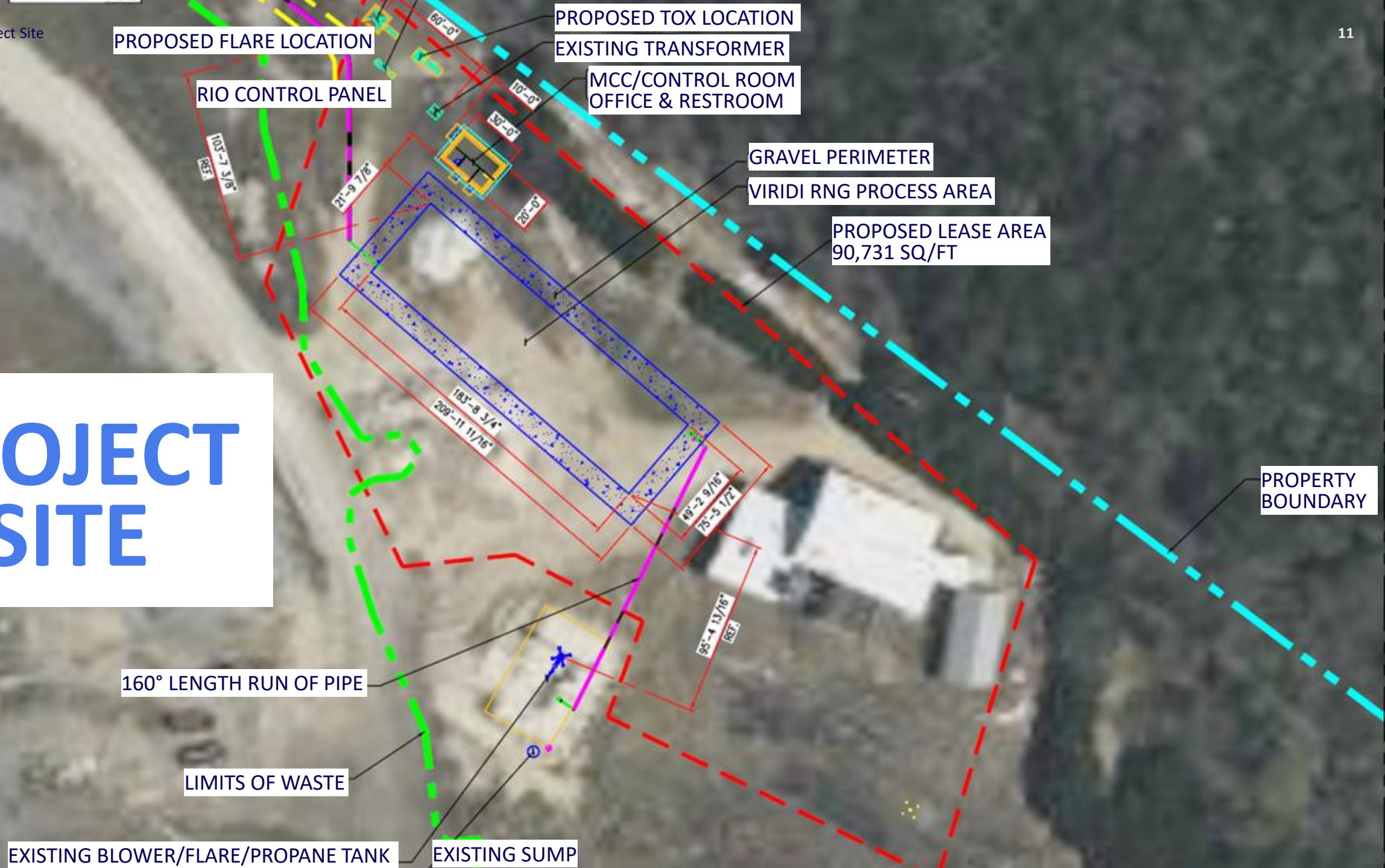
SCALEHOUSE

CITIZENS
COLLECTION
STATION

PROJECT
SITE

**MSW 948A
LANDFILL**

PROJECT SITE



DEVELOPER DETAILS

LANDFILL GAS TO ENERGY AGREEMENT

SELECTED DEVELOPER



Viridi Energy, LLC

- National leader in renewable natural gas (RNG)
- Over 30 successful landfill gas projects
- Strong financial backing
- Selected based on qualifications, experience, and financial proposal

FINANCIAL & ENVIRONMENTAL IMPACTS

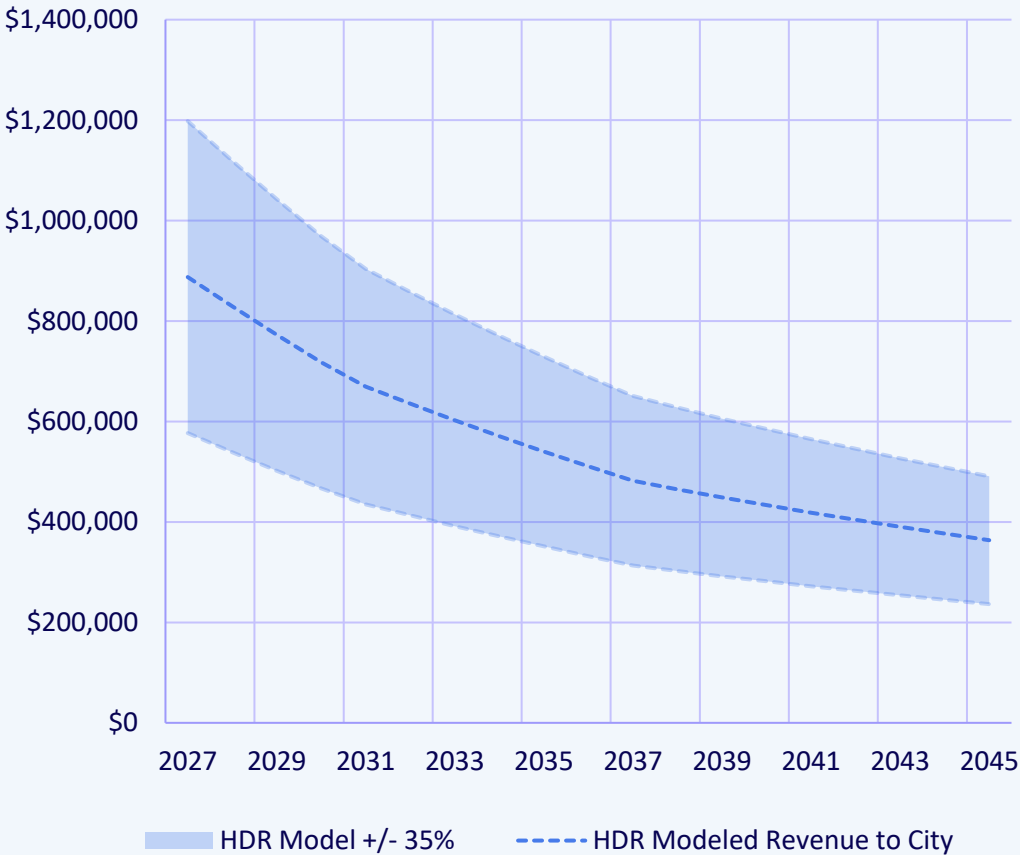
LANDFILL GAS TO ENERGY AGREEMENT

FINANCIAL IMPACTS

- No City capital cost and avoids \$5M in future CIP
- City receives royalty (avg 6.42%, max 15% of gross revenue)
- Estimated revenue: \$887K/year early on, tapering to \$351K/year by 2046 (avg. \$543K/yr.)
- Projected \$10,870,000 revenue generated over 20 years.
- All revenue goes to the Solid Waste Fund

FINANCIAL IMPACT

Viridi Energy, LLC Comparison



Viridi Financial Proposal Summary				
Year	LFG Recovery (SCFM)	Percentage of Gross Revenue to City	Estimated Revenue to City (LFGTE)	Equivalent Residential Rate Impact
2027	1,719	7.80%	\$887,530	\$1.43
2028	1,660	7.54%	\$828,923	\$1.34
2029	1,603	7.28%	\$772,304	\$1.24
2030	1,548	7.00%	\$717,671	\$1.16
2031	1,494	6.77%	\$669,354	\$1.08
2032	1,443	6.65%	\$635,581	\$1.02
2033	1,393	6.53%	\$602,470	\$0.97
2034	1,345	6.41%	\$570,683	\$0.92
2035	1,299	6.28%	\$540,221	\$0.87
2036	1,254	6.15%	\$510,422	\$0.82
2037	1,211	6.01%	\$481,946	\$0.78
2038	1,170	6.00%	\$464,877	\$0.75
2039	1,129	6.00%	\$448,587	\$0.72
2040	1,091	6.00%	\$433,488	\$0.70
2041	1,053	6.00%	\$418,389	\$0.67
2042	1,017	6.00%	\$404,086	\$0.65
2043	982	6.00%	\$390,179	\$0.63
2044	948	6.00%	\$376,670	\$0.61
2045	915	6.00%	\$363,558	\$0.59
Avg	1,258	6.42%	\$543,409	\$0.88

Projected \$10,870,000
revenue generated
over 20 years.

LANDFILL GAS TO ENERGY AGREEMENT

ENVIRONMENTAL IMPACTS

- Reduces methane emissions and carbon footprint
- Decreases fossil fuel dependence
- Supports long-term regulatory compliance
- Lowers environmental compliance costs

PROJECT TIMELINE

PROJECT TIMELINE

[illegible]

LANDFILL GAS TO ENERGY AGREEMENT

NEXT STEPS & QUESTIONS

Next Steps

- Council approval → contract execution and project kickoff
- Developer begins design, permitting & planning

Questions?

THANK YOU.

Please contact kodyp@wacotx.gov for any questions