



Legislation Text

File #: 16-0136, **Version:** 1

Resolution to Approve a Purchase Order with ARIA Energy for a New Blower Skid for the Landfill Methane Collection System (\$178,600.00)

The City of Ann Arbor has a contract with ARIA Energy (formerly known as Landfill Energy Services) to operate the methane gas collection system at the City's closed landfill. This system includes gas wells and piping to collect the gas and a blower skid with motors to extract gas from the wells and deliver it to a turbine generator or a flare. The City owns the gas collection system including the wells, piping, and blower skid with the flare. The turbine is owned by ARIA Energy.

Under the operating contract, Aria Energy agrees to perform maintenance on the system up to \$6,000.00 per year with the city covering costs that exceed this dollar limit. ARIA Energy pays the city \$1,000.00 per month as a share of the revenue from the electricity generated by the turbine, and these funds are used to fund these maintenance costs.

The existing blower skid, which was installed approximately 20 years ago, has had a series of failures that have kept the system from operating and it has reached its useful life. When the system is not operating for extended periods of time due to equipment failure, methane begins to migrate to the boundaries of the landfill and can be detected at locations along Ellsworth Road on the northerly boundary of the landfill. A separate landfill gas collection system was installed as a precautionary measure on the north side of the landfill. This gas is typically not of combustion quality so it is captured and passed through carbon filters to capture the methane. In addition, when the system is not operational, gas is not collected and energy is not produced. The existing blower skid is no longer reliable and needs to be replaced.

City staff and ARIA Energy identified three options for replacing the aged blower skid. Option #1 consists of purchasing a brand new blower skid with the required components and telemetry. Option #2 consists of rebuilding and reconfiguring the existing blower skid with the required components and telemetry. Option #3 consists of modifying an existing skid, which ARIA Energy would donate to the City, with the required components and telemetry.

	Option #1	Option #2	Option #3
COST	263,664.00	249,605.00	178,600.00
LEAD TIME	16-18 Wee	16-18 Week	16-18 Weeks
GAS COLLECTION SYSTEM DOWN TIME	1-2 Weeks	4-6 Weeks	1-2 Weeks

After reviewing the three options, the preferred option is Option #3, which in addition to being the least cost option will minimize the system down time, keep the system operating in a manner that optimizes gas collection for energy production, and maintain compliance with the USEPA Greenhouse Gas Reporting Requirements.

Option #3 would modify an existing skid in ARIA's inventory to meet the City landfill needs at a cost of

\$178,600.00. ARIA would be donating the skid to the City and the City would invest in replacing equipment that meets the City landfill needs. A new skid built from scratch (Option #1) would cost \$263,664.00. Working with ARIA provides the City a skid with components that are stocked by ARIA for quicker replacement for any future equipment failures. The City will retain full ownership of the skid. As the skid options were evaluated, it was also found that energy efficiency improvements gained from the new blower motor are estimated to save the City approximately \$15,000.00/year. The City of Ann Arbor pays approximately \$30,000.00/year for electric costs on the system.

ARIA is not marking up any of the costs associated with procuring the new skid and is donating the value of an existing skid (approximately \$90,000.00) that is being modified to meet the City closed landfill needs.

Budget/Fiscal Impact

Funding is available in the approved FY16 Solid Waste Fund capital budget.

Sustainability Framework

In addition to supporting compliance with federal greenhouse gas regulations, the work completed under this contract also maintains generation of renewable energy and energy efficiency goals of the City's Sustainability Framework.

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Reviewed by: Craig Hupy, Public Services Administrator

Approved by: Tom Crawford, Interim City Administrator

Whereas, The City of Ann Arbor owns and maintains a closed landfill at Platt and Ellsworth Roads;

Whereas, Organic material decomposes in landfills and creates methane - a greenhouse gas and potential hazard if it migrates to surrounding properties;

Whereas, The City owns the landfill gas collection system and the blower skid that pulls methane gas from the landfill to supply gas to an electric generation system turbine that is operated by ARIA Energy under contract with the City;

Whereas, The blower skid is almost 20 years old and has been repaired repeatedly;

Whereas, The City's closed landfill is now regulated by USEPA for Greenhouse Gas emissions and must report annually;

Whereas, Additional metering equipment would facilitate the City's ability to provide better information to USEPA;

Whereas, Staff has evaluated three options proposed by ARIA including a new skid (\$263,664.00), rebuilding the current skid (\$249,605.00), and modifying an existing skid (\$178,600.00); and

Whereas, There is a CIP project MF-SW-10-03 Methane Gas Recovery Project was included and approved in the FY 16 Solid Waste Fund capital budget;

RESOLVED, That the City Council approves a purchase order with ARIA Energy in the amount of \$178,600.00 to modify an existing skid and install it at the City's closed landfill;

RESOLVED, That the funding for the purchase order be made available without regard to fiscal year;

RESOLVED, That the City Administrator be authorized to take the necessary administrative actions to implement this resolution.