



Department Source: City Utilities - Solid Waste

To: City Council

From: City Manager & Staff

Council Meeting Date: December 20, 2021

Re: A resolution authorizing the City Manager to proceed with the selection of a design build contractor for Landfill Gas Electric Generation Plant Unit #4.

Executive Summary

Staff has prepared for Council consideration a resolution authorizing the City Manager to proceed with the selection of a design build contractor for Landfill Gas Electric Generation Plant Unit #4.

Discussion

Water & Light (CWL) owns and operates an electrical production plant at the City Sanitary Landfill that uses methane produced in the landfill to fuel three GE-Jenbacher reciprocating engine/generators. Each GE-Jenbacher engine-generator set has a capacity of 1 MW. The plant entered service in June 2008, was expanded in 2013, and has produced an annual average of 15,000 MWHs over the past five years. As the fuel for the engines is from the natural decay of material in the landfill, the energy produced at the Landfill Gas Plant is part of CWL's renewable energy portfolio. On an annual basis, the Landfill Gas Plant has provided about 1.2% of Columbia's total energy.

This project will add a fourth and final unit to the plant as originally designed, and will increase the Landfill Gas Plant's capacity to 4.0 MW. Based on the project requiring expertise in landfill gas electric generation, staff is recommending this project be completed utilizing the Design-build process included in Section 22-76 of the City Code of Ordinances.

The estimated project cost is \$2,000,000 and funds have been appropriated to project E0175.

Council previously held a public hearing on this project on July 19, 2021.

Fiscal Impact

Short-Term Impact: \$2,000,000.

Long-Term Impact: Regular operating and maintenance expenses will be part of the annual budget.

Strategic & Comprehensive Plan Impact

[Strategic Plan Impacts:](#)

Primary Impact: Reliable Infrastructure, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Livable & Sustainable Communities,

Tertiary Impact: Not Applicable

Legislative History

Date	Action
7/19/2021	PH28-21 Public hearing for 4 th generating unit.
07/06/2021	R117-21 Resolution setting public hearing for 4 th generating unit.
09/06/2016	B214-16 Authoring replacement of reciprocating engine/generators at the Landfill Gas Electric Generation Plant; authorizing the Purchasing Division to enter into a contract for the purchase and installation of the replacement engine/generators.
08/15/2016	R108-16 Resolution setting a public hearing; declaring the necessity for proposed replacement of reciprocating engine/generators at the Landfill Gas Electric Generation Plant.
08/12/2012	B197-12 Authorizing design and construction of an engine/generator set to provide additional capacity at the Landfill Gas Electric Generation Plant; providing for request for proposals through the Purchasing Division, appropriating funds.
04/17/2006	Authorizing the design of a renewable fuels facility at the Sanitary landfill, authorizing a request for proposals.
02/06/2006	R28-06 Resolution providing that the City Water and Light Department and Public Works Department jointly operate a renewable fuels project using landfill gas.

Suggested Council Action

Approval of the resolution.