

Staff Report

File #: 22-424**Version:** 1**Date:** 9/26/2022**Item #:** 3.2a.

TO: Mayor and City Council
THROUGH: Keith Stahley, City Manager
FROM: Peter Fernandez, PE, Public Works Director

SUBJECT:

Oregon Department of Energy Community Renewable Energy Grant

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

Result Area(s): Natural Environment Stewardship; Safe, Reliable, and Efficient Infrastructure

SUMMARY:

The Oregon Department of Energy's Community Renewable Energy Grant provides an opportunity to fund construction costs for the Willow Lake Water Pollution Control Facility Boiler Replacement project. This project meets the grant criteria for resilient renewable energy since the boilers utilize renewable methane biogas as fuel to produce the heat necessary for the facility's digesters to function properly. The digesters then produce the methane biogas that fuels the boilers and provides supplemental energy for use at the facility. A City Council Resolution is required as part of the Oregon Department of Energy Community Renewable Energy Grant process (Attachment 1, Resolution 2022-49).

ISSUE:

Shall Council adopt Resolution 2022-49, authorizing the City Manager to apply for and, if successful, accept an Oregon Department of Energy Community Renewable Energy Grant for the purpose of replacing the biogas boilers at Willow Lake Water Pollution Control Facility, enhancing renewable methane biogas production and resilience at the facility?

RECOMMENDATION:

Adopt Resolution 2022-49 authorizing the City Manager to apply for and, if successful, accept an Oregon Department of Energy Community Renewable Grant for the purpose of replacing the biogas boilers at the Willow Lake Water Pollution Control Facility, enhancing renewable methane biogas

production and resilience at the facility.

FACTS AND FINDINGS:

The Oregon Department of Energy's Community Renewable Energy Grant Program was established under House Bill 2021 and created a \$50 million fund. This grant program has three remaining opportunities to submit applications. Each grant opportunity provides up to \$1 million available for constructing a community resilience project, and 100-percent of eligible costs can be covered. No match is required.

The grant funds will be used to install new boilers within an existing building formerly used for the old cogeneration engine and remove the existing boilers from the south digester building.

The project is estimated to cost approximately \$3.1 million and is currently partially funded in the FY 2022-23 Capital Construction Budget in the amount of \$1,325,700 of Wastewater Rates. Additional funding will be added during the FY 2023-24 budget cycle.

The City Manager may execute amendments to the grant agreement if the following requirements are met: (1) The amendments do not substantially expand the City's obligations; (2) The amendments do not broaden the scope of the agreement to other subjects; and, (3) The amendments do not increase the City's financial obligations. The amendments may extend the term or renew the agreement so long as any other changes to the agreement do not substantially expand the City's obligations.

BACKGROUND:

The City of Salem's Willow Lake Water Pollution Control Facility (WLWPCF) utilizes seven anaerobic digesters to aid in the treatment of wastewater. The digesters produce methane biogas and allow the sludge to digest, further forming solid matter. The digesters utilize the optimum mesophilic digestion method, which requires them to be maintained at a constant temperature of 99 degrees Fahrenheit.

The existing biogas boilers were installed in 1977 to heat the digesters and are at the end of their useful life. The boilers currently serve as the redundant backup to the cogeneration engine. Both the cogeneration engine and the boilers utilize the renewable methane biogas produced from the digesters. The heat produced from these facilities is utilized to maintain the temperature of the digesters for optimized digestion, and to heat many of the buildings at the WLWPCF. The cogeneration engine also uses the biogas to generate supplemental energy that offsets overall electrical demand at the WLWPCF.

Brian D. Martin, PE
City Engineer

Attachment:

1. Resolution No. 2022-49