



TO: Elizabeth A. Pauli, City Manager
FROM: James G. Parvey, P.E., LEED AP, Environmental Services Division Manager
Michael P. Slevin III, P.E., Environmental Services Director
COPY: City Council and City Clerk
SUBJECT: Resolution – Amending Energy Services Contract with McKinstry Essention, Inc.
January 30, 2018
DATE: January 11, 2018

SUMMARY:

A resolution authorizing an Energy Services Contract with McKinstry Essention, Inc., in the amount of \$6,200,000, including sales tax, budgeted from the Wastewater Fund, to construct a facility to process gas from the Central Treatment Plant's digesters for use as renewable natural gas.

STRATEGIC POLICY PRIORITY:

- Assure outstanding stewardship of the natural and built environment.
- Encourage and promote an efficient and effective government, which is fiscally sustainable and guided by engaged residents.

The bio-gas treatment facility at the Central Treatment Plant (CTP) will create renewable natural gas (RNG) vehicle fuel. Doing so will create a public benefit by reducing greenhouse gas emissions by at least 60 percent of diesel usage, supporting the use of renewable fuels for transportation purposes, and increasing the revenue received by the Environmental Services Department (ESD).

BACKGROUND:

In accordance with the 2008 Climate Action Plan and the Environmental Action Plan, the City has committed to reducing its greenhouse gas emissions. Further, the ESD is challenged to provide its ratepayers vital utility services at an economical price. The opportunity to reduce our greenhouse gas emissions while generating revenue through sale of a valuable product is unique.

An unavoidable by-product of treating wastewater is the production of bio-gas, which is a mixture of a variety of gases of which about 60 percent is methane. Currently the City's bio-gas is used to provide heat to the plant and the remainder is flared. Flaring provides no useful energy but does result in somewhat cleaner emissions. Staff estimates the average amount of bio-gas flared has the energy equivalent of 450 gallons of diesel per day.

When bio-gas is processed it can be used interchangeably with natural gas. According to the Environmental Protection Agency, using methane from this source will reduce greenhouse gasses by at least 60 percent compared to diesel fuel or natural gas extracted from the earth. In addition, if bio-gas is used for vehicle fuel it is eligible for an environmental credit (Renewable Identification Number or RIN) that provides strong economic support to the project.

The City is utilizing the Energy Savings Performance Contracting (ESPC) as one strategy to meet greenhouse gas reduction. The ESPC process utilizes an Energy Services Contract (ESCO) to develop and install viable efficiency measures. Through a competitive selection process the City has selected the McKinstry Company of Seattle, WA as the City's ESCO. This contracting is defined under RCW 39.35A and allows local government to develop and install measures that reduce energy and water consumption in a technically and financially viable manner.



On October 11, 2017, ESD staff briefed the Infrastructure, Planning and Sustainability Committee on the Bio-gas Utilization Project.

ISSUE:

The Bio-gas Utilization Project requires agreements with Puget Sound Energy, Inc., IGI Resources, Inc., and McKinstry Essention, Inc. in order to produce, transport and sell the bio-gas produced at the CTP.

ALTERNATIVES:

An alternative to the project is continued flaring of excess bio-gas as is the current practice. This practice emits pollution and provides no valuable return for the practice. While this keeps us in compliance with our air quality requirements, it is not the best option available. The recommended alternative provides the following benefits that are not provided by the current practice: reduced dependence on fossil fuels, decreased greenhouse gas emissions, decreased particulate emissions, and a new revenue source.

RECOMMENDATION:

A resolution authorizing an Energy Services Contract with McKinstry Essention, Inc., in the amount of \$6,200,000, including sales tax, budgeted from the Wastewater Fund, to construct a facility to process gas from the Central Treatment Plant's digesters for use as renewable natural gas.

FISCAL IMPACT:

This project will require the City to finance construction of the needed facilities. Debt service for these facilities will be paid by revenues derived from sale of the processed bio-gas and environmental credits. It is expected that this project will provide positive cash flow for the life of the facility.

EXPENDITURES:

FUND NUMBER & FUND NAME *	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 Wastewater	ENV-04015-08	5310100	\$6,200,000
TOTAL			\$6,200,000

* General Fund: Include Department

REVENUES:

FUNDING SOURCE	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 Wastewater	523900	6223000/TBD	\$3,850,000
4300 Wastewater	523900	4343150/TBD	\$2,350,000
TOTAL			\$6,200,000

Revenues from the sales of RINs and processed bio-gas.



FISCAL IMPACT TO CURRENT BIENNIAL BUDGET: Project cost to be spent 2018-2019, see CAM for IGI Resources.

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes

Note:

The Bio-gas Utilization Project requires agreements with IGI Resources, Inc., Puget Sound Energy, Inc., and McKinstry Essention, Inc. The total capital project costs and debt service interest of the Bio-gas Utilization Project are included in the IGI Resources CAM fiscal impact, including the above amounts for the McKinstry contract.