



# City Council Report

**Date:** May 1, 2023  
**To:** City Council  
**Through:** Marc Heirshberg, Deputy City Manager  
**From:** Beth Huning, City Engineer  
Marc Ahlstrom, Assistant City Engineer  
**Subject:** Food to Energy Program, Phase 1: Flare to Fuel Project  
Northwest Water Reclamation Plant (NWWRP)  
City Project No. CP0870  
Council District 3

## Purpose and Recommendation

The purpose of this report is to present the second Guaranteed Maximum Price (GMP) for the Food to Energy Program, Phase 1: Flare to Fuel, a Construction Manager at Risk (CMAR) project. (See Exhibit "A" for project location).

This is the final of two GMPs, to be presented to Council for approval. GMP No. 1 included the early procurement of critical equipment that has long lead times. GMP No. 2 includes the installation, testing, and commissioning of the early procurement equipment, procurement of the remaining material not included in GMP No. 1, and the construction to connect the new system to the existing natural gas distribution system.

Staff recommends that Council award a contract for this project to Archer Western Construction in the amount of \$4,724,201.12, (GMP No. 2) and authorize a change order allowance in the amount of \$472,420.11 (10%).

## Background

In January of 2020, the City completed a feasibility study for implementing co-digestion of food waste in the existing digesters at the Northwest Water Reclamation Plant to generate additional biogas that could be converted into renewable natural gas and used as a fuel for the Solid Waste Management Department's fleet. Utilizing this gas will also allow the City to collect credit incentives from the federal Renewable Fuel Standard program.

The study determined that utilizing biogas to generate renewable natural gas under the federal Renewable Fuel Standard program was both environmentally friendly and

economically feasible. The study recommended a phased approach, with the first phase involving the installation of a gas upgrading system to will “clean” the existing biogas at the Northwest Water Reclamation Plant to make it suitable for the City’s existing natural gas distribution system. The future second phase will additional improvements to further maximize the use of the facility for higher concentrations of food waste.

In July of 2022, the City Council approved GMP 1 which included procurement of the necessary equipment for the first phase of the improvements

## **Discussion**

In October 2020, Staff received two “Statements of Qualifications” (SOQ) from contractors proposing to act as the CMAR for this project. Based on an evaluation of the SOQ’s and subsequent interviews, Archer Western Construction was recommended as the most qualified CMAR and was awarded a Pre-Construction Services contract on January 11, 2021. Archer Western Construction has performed pre-construction services during the design development including reviewing the design for constructability, preparing cost estimates, and developing the project schedule and phasing.

Community Impact – The project work will take place within the existing treatment plant site. Some construction noise and traffic may impact the immediate area as the work progresses. Once underway, construction of this project is anticipated to last approximately 12 months.

## **Alternatives**

An alternative to the approval of a Construction Services contract for this CMAR would be to construct this project using the traditional Design/Bid/Build method. This is not recommended due to the unique and complex nature of this project and extensive coordination needed with other plant operations. Much of the work in this project will be competitively bid by Archer Western Construction to multiple subcontractors, and staff will ensure that Mesa based businesses, including affiliated business, are given an opportunity to bid on the work.

Another alternative is to not perform the work. This is not recommended because the existing biogas is a valuable renewable resource that is currently being disposed of. The biogas could be used as a renewable energy source to help the City achieve the renewable energy goals and carbon reduction goals in the Climate Action Plan.

## **Fiscal Impact**

The total authorized amount recommended for this project is \$5,196,621.23, based upon a GMP of \$4,724,201.12, plus an additional \$472,420.11 (10%) as a change order allowance. This allowance will only be utilized for approved change orders.

This project is funded by the Capital Utility Fund-Solid Waste and the Environmental Compliance Fee Fund.

**Coordinated With**

The Solid Waste Management Department and Water Resources Department concur with this recommendation.