

ITEM #: 17
DATE: 03-26-24
DEPT: Electric

COUNCIL ACTION FORM

SUBJECT: **INSTALLATION OF GEOTHERMAL WELLS FOR MULTI-FAMILY
HOUSING UNITS ON LOT 27 IN BAKER SUBDIVISION**

BACKGROUND:

The Baker Subdivision is a unique opportunity for the City to support a geothermal pilot program, since the City is the developer of this subdivision. Geothermal systems are expected to have beneficial reductions in electric peak loads and related greenhouse gas emissions compared to conventional heating and cooling systems. The system would serve as a demonstration of the performance of geothermal heat pumps and introduce more local contractors and residents to the technology. This could encourage further adoption of geothermal heat pumps, which would further reduce summer peak loads and community greenhouse gas emissions. For those reasons, customer-owned geothermal systems have been supported with rebates for many years. The unique aspect of the Baker Subdivision project is the City installation and management of the system.

Lot 27 of the Baker Subdivision has been set aside for development of low-income affordable multi-family rental housing. The City selected a partner developer, HKG Development, to pursue Low Income Housing Tax Credit (LIHTC) funding for development of 38 apartments, which was approved in 2023. The City required that the subdivision (including Lot 27) would utilize geothermal as the heating and cooling system for the development and committed to providing the geothermal wells for the developer to connect the heating and cooling equipment for the apartments. On November 22, 2023, the City awarded a contract to MODUS Engineering, of Johnston, Iowa, to design a geothermal heat pump system and provide construction oversight. The system will serve all heating and cooling needs of 38 multi-family housing units in six buildings.

The proposed design is integrated with the overall utility plan of the apartment projects, known as Creekside Townhomes. The wells will be located primarily under the parking lot of the project. The wells are interconnected, and each apartment building has a connection to the wells. The City is responsible for installing the interconnected well system. The developer is responsible for making the building connections and providing the mechanical equipment and services to each building and apartment.

The engineer's estimate for the geothermal well installation at the multi-family lot is \$595,017. The Demand Side Management program within the FY 2023/24 Electric budget includes \$294,254.66 for this project. The proposed FY 2024/25 Electric Budget Demand Side Management program includes an additional amount of \$300,000, for a total of \$594,254.66 of available funds. The FY 2024/25 budget is scheduled to be certified prior to the approval of this contract, and staff will prepare a budget amendment to ensure the necessary funds are available at the time expenditures are incurred.

ALTERNATIVES:

1. Approve preliminary plans and specifications for the Installation of Geothermal Wells for Multi-Family Housing units on Lot 27 in the Baker Subdivision, setting April 17, 2024 as the due date for bids, and setting April 23, 2024 as the date of public hearing and award of contract.

2. Do not proceed with the project at this time.

CITY MANAGER'S RECOMMENDED ACTION:

This project is consistent with the City's intent to support sustainable multi-family low-income housing. The proposed geothermal project accomplishes this goal in coordination with the affordable housing developer. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative #1 as stated above.