

ITEM #: 45
DATE: 04-23-24
DEPT: ELEC

COUNCIL ACTION FORM

SUBJECT: FIRST PASSAGE OF ORDINANCE AMENDING CHAPTER 28 ESTABLISHING GEOTHERMAL SERVICES AND RULES AND CHARGES THEREFORE

BACKGROUND:

The City of Ames Electric Services has established geothermal wells within public utility easements in the Baker Subdivision of the city to provide low-cost, environmentally friendly, and sustainable heating and cooling to the single-family homes in that subdivision. The geothermal wells are owned and maintained by the City of Ames. The proposed ordinance commits the City to maintain the geothermal wells for a period of 50 years allowing for cost-recovery of the City's investment as well as ongoing maintenance and repair, and costs relating to future replacement or abandonment of the wells at the end of their useful life.

The geothermal wells serving the single-family lots in the Baker Subdivision are 300' deep vertical wells. The piping in the geothermal system is HDPE piping with thermally bonded joints with an expected lifespan of 50+ years. All geothermal piping, including the wells and their service lines are a minimum of 6' below grade.

In April 2023, Council authorized the Legal Department to draft an ordinance to allow the collection of charges from geothermal users and to set rules delineating ownership of geothermal service connections. **The proposed ordinance commits Electric Services to maintain the geothermal wells for 50 years.** Fifty years is an adequate period of time that will give future homeowners confidence to continue utilizing the geothermal wells and invest in new geothermal equipment when replacing their heating and cooling systems at the end of their useful life. **In addition, the the ordinance specifies that property owner will be responsible for repairs to the geothermal service lines between the public utility easement and the building. Finally, the ordinance calls for customers to pay a \$15 monthly fee to offset costs associated with initial construction of the wells, annual operation and maintenance, and costs of eventual replacement or abandonment.**

The separate restrictive covenants for the Baker Subdivision further require that all homes in the Baker subdivision utilize and connect to the geothermal wells serving their parcel at least through 2034 after which customers can continue to utilize the geothermal wells or choose another heating and cooling source. The City has the option to remove and abandon a well if it is not being utilized by the homeowner.

ALTERNATIVES:

1. Approve the proposed of Ordinance amending Chapter 28 establishing Geothermal Services and rules and charges therefore for single-family homes in the Baker Subdivision (321 State Avenue).
2. Do not approve the proposed Ordinance and refer back to staff for additional information.

CITY MANAGER'S RECOMMENDED ACTION:

The proposed ordinance commits the City to maintain the geothermal wells for a period of 50 years allowing for cost-recovery of the City's investment as well as ongoing maintenance and repair, and costs relating to future replacement or abandonment of the wells at the end of their useful life. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1.

ATTACHMENT(S):

[DRAFT-Geothermal ordinance.docx](#)