

**COUNCIL ACTION FORM**

**SUBJECT: COOLING TOWER BLOWDOWN MODIFICATION PROJECT**

**BACKGROUND:**

As part of the power generation process, the Power Plant uses water cooling towers to dissipate the heat in the circulating water that the water has removed from the turbine's steam condenser. Periodically, a portion of the circulating water must be discharged (blown down) from the cooling tower and replaced with fresh (make-up) water as the mineral concentrations in the water increase due to evaporation. The Power Plant has a National Pollutant Discharge Elimination System (NPDES) permit from the Iowa Department of Natural Resources to blow down (discharge) the cooling tower water into the storm sewer system, which eventually connects to the South Skunk River.

In June 2017, the Electric Department received a renewed permit from Iowa DNR for the Power Plant's cooling tower blowdown water. **The limits in the new permit require the Power Plant to either treat the cooling tower blowdown water before it is discharged to the storm sewer or find another method of disposal. Electric has chosen to modify the system to send the cooling tower blowdown water directly to the City's sanitary sewer system for treatment at the City's sewage treatment plant. The renewed permit issued in 2017 requires the blowdown water system to be modified by May 2023**

On June 28, 2022, as a prerequisite to issuing an invitation to bid (ITB), City Council approved preliminary plans and specifications for the Cooling Tower Blowdown Modification project. **This project will create the infrastructure necessary to allow the Power Plant's cooling tower blowdown water to be discharged into the City's sanitary sewer system.** The bid was advertised on the Current Bid Opportunities section of the Purchasing webpage and a Legal Notice was published on the websites of a contractor plan room service with statewide circulation.

The base bid is to install the project according to the plans and specifications with a completion date of May 31, 2023. A bid alternate is to accelerate the completion date up to April 28, 2023. **This alternate was requested by the City in order to be assured that Electric meets the regulatory requirement to discontinue sending cooling water blowdown to the storm sewer by May 2023.**

On July 27, 2022, three bids were received as shown below:

Bidder	Base Bid	Alternate
<b><i>Engineer's Estimate</i></b>	<b><i>\$282,000.00</i></b>	
Keller Excavating, Inc., Boone, IA	\$329,344.20	\$25,550

On Track Construction LLC, Nevada, IA	\$456,892.00	\$5,000
Synergy Contracting, LLC, Des Moines, IA	\$486,609.00	\$1,000

*Bid amounts are inclusive of applicable sales tax*

Staff reviewed the bids and recommends that the low bid submitted by Keller Excavating, Boone, IA, in the amount of \$329,344.20 (inclusive of Iowa sales tax) plus an additional \$25,550 to move the completion date up to April 28, 2023, for a total estimated price of \$354,894.20 be accepted. It should be noted that the bid is a unit price bid, and the bid price of \$354,894.20 is an estimate based upon the assumed scope of work. Invoices will be the unit prices of the bid applied to the actual work performed.

The CIP budget has a current balance of \$397,166 available for the project.

**This project will require a temporary closure of portions of Duff Avenue to connect the new line to the sanitary sewer main located under the street. Staff will discuss the project timing with the contractor to minimize traffic disruption to the extent possible. Once the pre-construction meetings have taken place, staff expects that a request will be made to the City Council at a later date to authorize staff to administratively close Duff Avenue for the work.**

**ALTERNATIVES:**

1. Award a contract to Keller Excavating Inc., Boone, IA, for the Cooling Tower Blowdown Modification in the amount of \$354,894.20 (inclusive of Iowa sales tax).
2. Award a contract to another bidder.
3. Reject all bids and delay the Cooling Tower Blowdown Modification project.

**CITY MANAGER'S RECOMMENDED ACTION:**

The operation of the cooling towers, and the necessary blowdown discharge, are critical to the operation of the Power Plant. The direct discharge to the sanitary sewer and treatment at the City's sewage treatment plant is preferred over installing additional water treatment processes at the Power Plant.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative #1 as stated above