

COUNCIL ACTION FORM

SUBJECT: UNIT 8 AIR HEATER BASKET REPLACEMENT FOR POWER PLANT

BACKGROUND:

The Unit 8 Boiler utilizes an air preheater to capture the heat in the exhaust gas and transfer the energy to the incoming combustion air to warm it to the temperature needed for efficient combustion of the fuel. The rotary air heater is made of multiple baskets filled with their sandwiched layers of steel that rotate between the exhaust and inlet air ducts and in doing so cools the exhaust and warms the air.

The Unit 8 cold-end baskets were last replaced in 2012. Over time the basket material corrodes, deteriorates, and loses thermal efficiency. The cold-end baskets have deteriorated extensively since they were last replaced. Corrosion of the cold-end baskets is likely accelerated due to the combustion of natural gas and RDF (chloride gases), combined with the temperature of the gases at the cold end.

Black & Veatch was hired to prepare the specifications for the replacement of the air heater baskets. It was their recommendation to negotiate directly with the Air Preheater Original Equipment Manufacturer (OEM).

Arvos Ljunstrom, LLC (OEM) has recommended using an epoxy coating on the cold-end baskets, which would inhibit the corrosion resulting from the natural gas and RDF combustion. Installation will be completed prior to the start-up of Unit 8 after the boiler superheater replacement project. The baskets will be installed by using the Power Plant Maintenance Services Contract.

Arvos Ljunstrom, LLC is the most practical and cost-effective provider for the needed replacement baskets. This requires a single source purchasing arrangement with Arvos Ljunstrom, LLC, which is why a waiver of the City's purchasing policy requirement for formal bidding procedures is also needed. Based on the expertise of Arvos Ljunstrom, LLC with this type of repair, the technicality of the work, and the unique modification being made to the baskets, both Black & Veatch and staff believe the quoted price of \$135,857.77 (inclusive of sales tax) to be reasonable.

Funding for these repairs is available from the approved FY 2020/21 operating budget under Unit 8 Auxiliary Equipment repairs. This currently contains \$145,000 to cover this contract.

ALTERNATIVES:

1. Waive the City's purchasing policy requirement for formal bidding procedures for Unit 8 Air Heater Basket Replacement for Power Plant and award a contract to Arvos Ljunstrom, LLC, Wellsville, New York, in the amount of \$135,857.77 (inclusive of sales tax).
2. Do not approve and direct staff to solicit bids for these repairs.

CITY MANAGER'S RECOMMENDED ACTION:

The replacement of the heater baskets is imperative for the thermal performance of the Power Plant. By not replacing the baskets, the Power Plant's efficiency to produce electricity is inhibited. Additionally, the currently corroded baskets create a maintenance burden by requiring periodic cleaning and unplugging to maintain flue gas exhaust flows to maintain plant performance and continuous operation.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as stated above.