

Agenda Report

June 20, 2022

TO: Honorable Mayor and City Council

FROM: Water and Power Department

**SUBJECT: REPORT ON EMERGENCY REPAIR TO GAS TURBINE 4 WITH A
MAXIMUM COST OF \$426,105 AND A 15% CONTINGENCY**

RECOMMENDATION:

This report is for information only as required by Pasadena Municipal Code (PMC) Section 4.08.150 for any emergency purchase where the expenditure exceeds \$75,000.

BACKGROUND:

The City of Pasadena ("City") Department of Water and Power ("PWP") owns and operates GT-4, a General Electric ("GE") LM6000 combustion turbine located at its Glenarm Power Plant. GT-4 is one of five generating units at the location and accounts for just over 42 megawatts (MW) of its overall 200 MW local generation capacity.

On May 18, 2022, GE performed a borescope inspection of GT-4 as part of its preventative maintenance program. The inspection identified a cracked internal component exhibiting visible separation. To avoid further costly damage, and the associated downtime, GE recommended placing the unit out of service until the component is repaired.

With the hot summer months quickly approaching, it is important that local electric generating units are in safe, operable condition and ready for immediate use. Moreover, due to some limitations on Pasadena's ability to import electricity, service reliability depends on local generation during times when demand exceeds maximum import capacity of power. Under certain conditions, import capability is further restricted by planned or forced outages which require increased local generation. The summer outlook for the supply of electricity is constrained due to low hydroelectric levels caused by drought, as well as the threat of load shedding associated with excessive heat or wildfire events. The unavailability of GT-4 during such times impacts the power supply available to meet the City's needs, and could result in rolling blackouts.

Any outage also triggers a non-availability penalty from the California Independent Power System Operator ("CAISO") that is assessed at \$3.79 per kilowatt-month. A complete outage of GT-4 for the month of June would result in a fine in the approximate amount of \$165,000 which represents lost revenues for the City in addition to reduced system reliability.

Due to the emergency nature of the repair, staff requested written quotes from GE and Reed Services Inc. ("Reed"), which partners with IHI Corporation, a GE certified repair provider.

Table 1

Vendor	Location	Bid Amount
Reed Services of Wyoming Inc.	Cheyenne, WY	\$346,850
GE Packaged Power, LLC	Lodi, CA	\$350,790

Reed provided the lowest quote, and was available to start the work immediately. As such, an emergency purchase order was issued to Reed in the amount of \$426,105 under PMC §4.08.150, emergency purchase. The amount included Reed's base quote of \$346,850, estimated tax of \$23,676 and an approximate contingency of 15%.

Over the last seven years, four purchase orders have been issued to Reed, collectively valued at \$80,000. Gas turbine repair is a very specialized industry and staff is not aware of any local vendors that are able to perform this type of work.

Reed started work at the facility on June 3, 2022. The cracked component has been replaced. All other components were evaluated in accordance with the manufacturers recommendations included in the published technical materials and work packages. The unit was reinstalled and tested on June 10, 2022. The unit is currently back in service.

COUNCIL POLICY CONSIDERATION:

The proposed contract supports the City Council Strategic Planning Goal to improve, maintain, and enhance public facilities and infrastructure. It also supports the Public Facilities Element of the General Plan by maintaining public facilities to enhance the quality of life of the community.

ENVIRONMENTAL ANALYSIS:

The nature of the work performed by Reed qualifies for a categorical exemption from CEQA in accordance with Title 14, Chapter 3, Article 19, Section 15301 (Existing Facilities). Section 15301 allows for the categorical exemption from CEQA for repair work on existing publically-owned facilities used to provide electric power that will not result in an increase in capacity or an expansion of existing use. The replacement of the GT-4 component adheres to these guidelines.

FISCAL IMPACT:

The maximum cost of this action will be \$426,105, which includes the base bid amount, estimated tax of \$23,676 and a 15% contingency to provide for any unforeseen additional repair. Funding for this action will be addressed by the utilization of existing appropriations in the Power Capital Fund 411, Capital Improvement Program 3186 (GT-3 and GT-4 Upgrades and Replacements). It is expected that \$426,105 will be spent in Fiscal Year 2022.

The approval of this action will have no impact to other operational programs or capital projects.

Respectfully submitted,



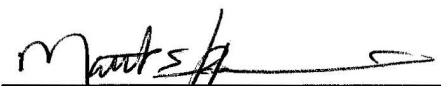
JEFFREY KIGHTLINGER
Interim General Manager
Water and Power Department

Prepared by:



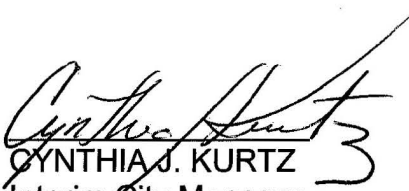
Arturo Silva
Power Plant Manager

Concurrence:



MATTHEW E. HAWKESWORTH
Director of Finance

Approved by:



CYNTHIA J. KURTZ
Interim City Manager