



Legislation Details (With Text)

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Title: Actions pertaining to award of purchase contract for the rebuild of one Allison 501-KB5 turbine engine:
 1. RESOLUTION - Declaring an urgent necessity for the preservation of life, health, property, and authorizing the Purchasing Manager or designee to contract for the repair of one Allison 501-KB5 Combustion Turbine Engine without advertised competitive bidding to ProTech Turbine Services (Requires 5 affirmative votes)
 2. Award contract to ProTech in the amount of \$198,000 Turbine Services of Tomball, Texas

Sponsors: Department of Public Utilities

Indexes:

Code sections:

Attachments: 1. RESOLUTION - ProTech.pdf

Date	Ver.	Action By	Action	Result
6/2/2016	1	City Council	approved	Pass

REPORT TO THE CITY COUNCIL

June 2, 2016

FROM: THOMAS C. ESQUEDA, Director
Department of Public Utilities

THROUGH: RICK STAGGS, Wastewater Manager
Department of Public Utilities - Wastewater Management Division

BY: TODD EISCHEN - Industrial Electrical Supervisor
Department of Public Utilities - Wastewater Management Division

SUBJECT

Actions pertaining to award of purchase contract for the rebuild of one Allison 501-KB5 turbine engine:

1. RESOLUTION - Declaring an urgent necessity for the preservation of life, health, property, and authorizing the Purchasing Manager or designee to contract for the repair of one Allison 501-KB5 Combustion Turbine Engine without advertised competitive bidding to ProTech Turbine Services (Requires 5 affirmative votes)
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RECOMMENDATION

Staff recommends that the Council award a contract to ProTech Turbine Services of Tomball, Texas for one Allison 501-KB5 turbine engine rebuild and authorize the Purchasing Manager or designee to execute a contract.

EXECUTIVE SUMMARY

The Department of Public Utilities (DPU), Wastewater Management Division, is requesting the award of a purchase contract for the rebuild of one Allison 501-KB5 turbine engine for \$198,000. Currently, both of the primary combustion turbine engines have failed and require rebuilding.

BACKGROUND

The City of Fresno ("City") currently uses two previously decommissioned combustion turbine engine generators that were purchased from ROHR Incorporated of Chula Vista California in 2002 and placed into service at the Fresno-Clovis Regional Water Reclamation Facility (WRF) in 2004. The combustion turbine engines are fueled using methane gas produced at the Regional WRF. With the large power and heat requirements of the City's Regional WRF, operation of the combustion turbine engine generators using methane reduces the amount of electricity and natural gas that has to be purchased from PG&E, as well as provides a heat source required in the wastewater solids treatment process.

Under normal operation, the Regional WRF's power generation facility can generate 4.5 megawatts of power, which equates to approximately 70% of the WRF's overall power consumption. Both of the primary combustion turbine engines are 31 years old, and are nearing the end of their useful life and require replacement or rebuild to extend their useful life.

The current cost of a new combustion turbine engine is \$1,000,000. The DPU has opted to rebuild one of the failed combustion turbine engines and expects to get 1.5 years of service out of it before it will need any additional repair maintenance. Without the ability to utilize the methane gas produced to generate power and steam, the Regional WRF has to run a boiler and burn as much natural gas as possible to supply the required heat for the Regional WRF solids treatment process, waste unused steam, and flare off any unused gas. Operating in this current state does not allow for redundancy in the event of additional equipment failures. Since there are no facilities for gas storage during extended downtime, any further equipment failure would then have the potential to expose personnel and property to the hazards of combustible gas as it is vented to atmosphere.

One combustion turbine engine was sent to ProTech Turbine Services Company, for evaluation, condition assessment, and budgetary estimates of repairs, and one combustion turbine engine was evaluated onsite at the RWRF. It was determined that due to the severity of the damage on both units the most cost effective and expedient way to get the RWRF's power generation facility back online is to rebuild one unit combining parts from both engines. The Department of Public Utilities, has determined that ProTech Turbine Services can most cost effectively provide the services and materials necessary to perform this rebuild. This is due to the fact that they currently have one engine in their facility and can start on the rebuild immediately. The rebuild of this combustion turbine engine will allow the Regional WRF to resume power and steam generation, while utilizing methane gas and maintaining heat production requirements. This will ensure the necessary redundancy required to accommodate the usage of methane gas production and heat demand loads.

A feasibility study providing alternative options for heat generation, gas production, and power production to aid in reducing costs at the Regional WRF will be conducted during FY17.

Staff recommends that the Council award a contract to ProTech Turbine Services of Tomball, Texas for one Allison 501-KB5 turbine engine rebuild and authorize the Purchasing Manager or designee to execute a contract.

ENVIRONMENTAL FINDINGS

By the definition provided in the California Environmental Quality Act (CEQA) Guidelines Section 15378 this agreement does not meet the definition of a “project” as provided by CEQA.

LOCAL PREFERENCE

Local preference does not apply because ProTech Turbine Services is a sole source supplier.

FISCAL IMPACT

This project has no impact to the General Fund and is located in Council Districts 3. Funds in the amount of \$198,000 are budgeted in the 2016 Sewer Enterprise Fund No. 40501. The fiscal impact of this award would be \$198,000.

Attachment:
Resolution