WATER | ENERGY | LIFE

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES **DATE: NOVEMBER 18, 2024**

SUBJECT: APPROVE SERVICES AGREEMENT TO REQUEST FOR PROPOSAL NO. 2357, WITH GE VERNOVA OPERATIONS, LLC. OF HOUSTON, TEXAS TO PERFORM INLET GUIDE VANE UPGRADES ON THE GAS TURBINES AT SPRINGS POWER PLANT IN THE AMOUNT OF $804,113.70 AND APPROVE WORK ORDER NO. 2505220 INCLUDING A 10% CONTINGENCY OF $80,411.37 FOR A TOTAL AMOUNT OF $884,525.07

ISSUE:

Consider approval of a Services Agreement to Request for Proposal No. 2357, with GE Vernova Operations, LLC. of Houston, Texas to perform Inlet Guide Vane upgrades on the gas turbines at Springs Power Plant in the amount of $804,113.70 and approval of Work Order No. 2505220 which includes a 10% contingency of $80,411.37 for a total amount of $884,525.07.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Approve a Services Agreement to Request for Proposal No. 2357, with GE Vernova Operations, LLC. of Houston, Texas to perform Inlet Guide Vane upgrades on the gas turbines at Springs Power Plant in the amount of $804,113.70;

2. Authorize the City Manager, or his designee, to execute the services agreement with GE Vernova Operations, LLC., including making non-substantive changes; and

3. Approve Work Order No. 2505220 which includes a 10% contingency of $80,411.37 for a total amount of $884,525.07.

BACKGROUND:

The Springs Power Plant (Springs) was first commissioned in July 2002 and consists of four gas GE-10 turbine engines that have the capability to produce a combined total of 36 net megawatts. The compressor section of each gas turbine includes an Inlet Guide Vane (IGV) system which plays a crucial role in regulating the airflow entering the compressor ensuring safe and efficient performance during operation. The IGV system on each gas turbine is comprised of one actuator and one driver as shown in Figure 1 and 2 below:

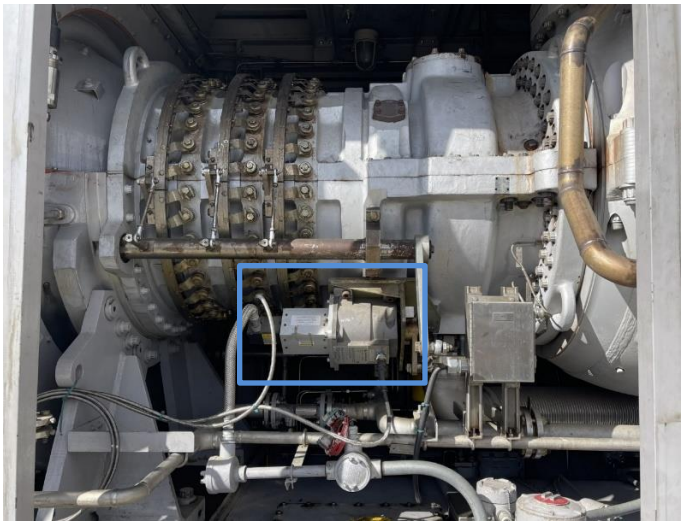

Figure 1 – Springs IGV Actuator

Figure 2 – Springs IGV Driver

Recent maintenance history demonstrates that the existing actuators and drivers, which are vital operational components of the turbines, are failing more frequently as they have been in service for over 20 years. The original equipment manufacturer is no longer supporting these products making them increasingly difficult to maintain and repair. The facility currently has 8 actuators, and 8 drivers installed: 4 are components of the IGV system, and the other 4 are components of the Combustion Air Valve (CAV) assembly. Currently, only one spare actuator and one spare driver are available on site, making it imperative to find a solution to ensure continued operations.

The original scope of the project was to upgrade all actuators and drivers for both the IGV system and CAV assembly, with an estimated cost exceeding $2 million dollars. As this expense was not feasible, a revised approach was developed. Since the IGV and CAV components are interchangeable, it is recommended to upgrade only the 4 IGV actuators and 4 IGV drivers. This adjustment is both cost-effective and resourceful, providing 4 additional spare actuators and 4 spare drivers to support the CAV assembly. This revised plan reduces the total project cost by $1.2 million and ensures the availability of Springs until its forecasted retirement in 2030.

Springs' availability and capacity of 36 net megawatts plays a vital role in meeting Resource Adequacy (RA) requirements mandated by the California Independent System Operator (CAISO). If one unit at Springs were to become unavailable, replacement capacity would need to be procured from the energy market to make-up for the loss. The current market cost to replace 36 megawatts of local RA is at least $8 million dollars per year.

DISCUSSION:

On March 21, 2024, the City's Purchasing Division, on behalf of Riverside Public Utilities (RPU), posted Request for Proposal (RFP) No. 2357 for a qualified vendor to provide upgrades to the IGV actuators and drivers for the gas turbines at Springs. Three questions were received, and RPU did not issue any addenda. The notification summary is shown in the following table:

Table 1. RFP Notification Summary

Action	Number of Vendors
External Vendors Notified	103
City of Riverside Vendors Notified	12
Vendors who downloaded the RFP	10
Proposals received	1

On May 2, 2024, one proposal was received in response to RFP No. 2357 and the result is summarized below:

Table 2. Proposal Summary

Vendor	Location	Average Score (100 max)	Amount	Rank
GE Vernova Operations, LLC.	Houston, TX	94.75	$804,113.70	1

- *Engineer's Estimate: $800,000*

This outcome is not unusual considering this upgrade is highly specialized and requires an advanced level of expertise. The proposal was submitted by the original equipment manufacturer of the gas turbines and demonstrated that they are qualified to perform this type of work.

RPU staff thoroughly evaluated the proposal submitted by GE Vernova Operations, LLC. (GE Vernova) based on the following criteria:

a. Qualifications and Experience (35%)
b. Approach and Methodology (35%)
c. Price (30%)

GE Vernova provided competitive pricing, is highly qualified to perform this specialized work, and is capable of meeting Riverside's outage schedules and repair times.

Table 3. Project and Fiscal Breakdown

Work Type	Performed By:	Amount ($)
Agreement with GE Vernova Operations, LLC.		
Parts and Materials	GE Vernova	$334,536.00
Engineering and Installation	GE Vernova	$440,305.80
Taxes	GE Vernova	$29,271.90
10% Contingency		$80,411.37
Total Agreement		**$884,525.07**

Purchasing Resolution 24101 Section 508(c) states, "Contract procured through Formal Procurement shall be awarded by the Awarding Entity to the Lowest Responsive and Responsible Bidder, except that…(c) Contracts procured through Formal Procurement for Services or Professional Services, where a Request for Proposals or Request for Qualifications was used to solicit Bids, shall be awarded by the Awarding Entity in accordance with the evaluation criteria set forth in the Request for Proposals or Request for Qualifications…"

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 24101, Section 508.

STRATEGIC PLAN ALIGNMENT:

This item contributes to the following strategic priorities and goals from the Envision Riverside 2025 Strategic Plan:

Strategic Priority 5 - High Performing Government
Goal 5.4. Achieve and maintain financial health by addressing gaps between revenues and expenditures and aligning resources with strategic priorities to yield the greatest impact.

Strategic Priority 6 - Infrastructure, Mobility & Connectivity
Goal 6.2. Maintain, protect, and improve assets and infrastructure within the City's built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

The item aligns with EACH of the five cross-cutting threads as follows:

1. **Community Trust** – The IGV system upgrade at Springs ensures the power plant operates reliably during critical periods and provides electricity to RPU's electric customers serving the greater public good.

2. **Equity** – This item ensures that the Springs power plant can safely and effectively operate and provide reliable electricity benefiting the entire City and all customers.

3. **Fiscal Responsibility** – This project was competitively bid, and the project scope was scaled back to significantly reduce the overall project costs. Riverside is a prudent steward of public funds and ensures responsible management of the City's financial resources while providing quality public services.

4. **Innovation** – Performing the upgrade on the actuators and drivers of the IGV system at Springs allows all units to continue operating with high reliability while providing spare parts for the CAV assembly.

5. **Sustainability & Resiliency** – Springs operates during the most critical times when the demand for electricity is highest. Performing the IGV upgrades prevents the potential of a catastrophic failure and supports the goal of sustaining highly reliable power plant operations.

FISCAL IMPACT:

The total fiscal impact is $884,525.07. Sufficient funds are available in the Public Utilities Capital Account No. 6130100-470627.

Prepared by:	Scott M. Lesch, Utilities Assistant General Manager/Power Resources
Approved by:	David A. Garcia, Utilities General Manager
Certified as to availability of funds:	Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by:	Rafael Guzman, Assistant City Manager
Approved as to form:	Jack Liu, Interim City Attorney

Attachments:

1. RFP Award Recommendation
2. Services Agreement with GE Vernova Operations, LLC.
3. Presentation