



# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE: AUGUST 26, 2024**

**SUBJECT: APPROVE SERVICE AGREEMENT WITH GE VERNOVA OPERATIONS, LLC. OF HOUSTON, TEXAS - REQUEST FOR PROPOSAL NO. 2359, TO PERFORM TURBINE BLADE MAINTENANCE ON RIVERSIDE ENERGY RESOURCE CENTER UNITS 3 AND 4 IN THE AMOUNT OF \$348,303**

**ISSUE:**

Consider approval of Service Agreement with GE Vernova Operations, LLC. of Houston, Texas - Request for Proposal No. 2359, for turbine blade maintenance on Riverside Energy Resource Center Units 3 and 4 for \$348,303.

**RECOMMENDATIONS:**

That the Board of Public Utilities:

1. Approve the Service Agreement with GE Vernova Operations, LLC. of Houston, Texas - Request for Proposal No. 2359, for turbine blade maintenance on Riverside Energy Resource Center Units 3 and 4 for \$348,303; and
2. Authorize the City Manager, or his designee, to execute the agreement with GE Vernova Operations, LLC., including making non-substantive changes.

**BACKGROUND:**

The Riverside Energy Resource Center (RERC) consists of four General Electric LM6000 model gas turbine engines that, in total, provide 30 percent of Riverside's summer daily electric power demands. Riverside constructed the RERC facility in two phases: Units 1 and 2 (Units 1&2) commissioned in 2006, and Units 3 and 4 (Units 3&4) in 2011.

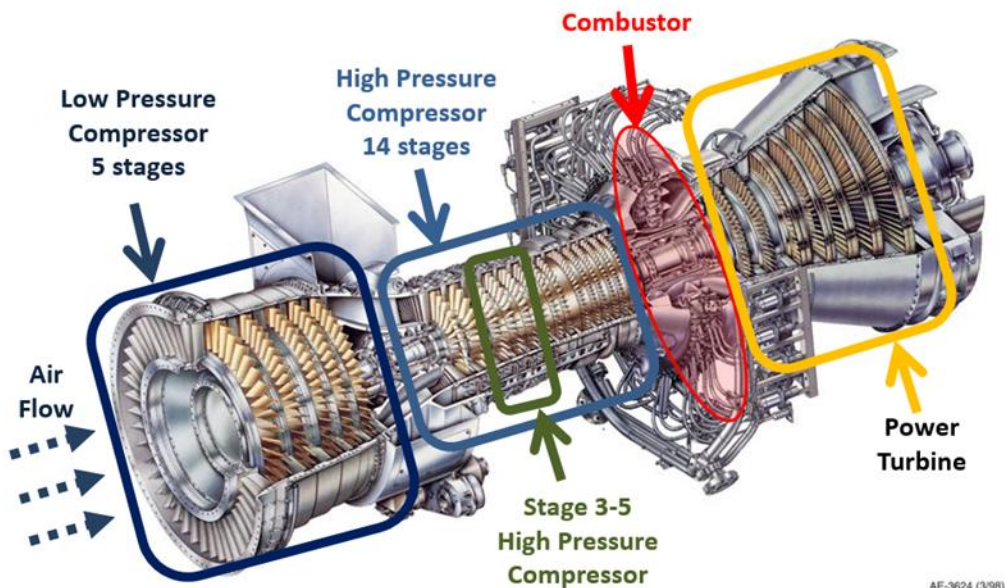
In February 2016, GE Vernova Operations, LLC. (GE) issued Service Bulletin 310. A service bulletin is a document issued by a manufacturer to notify equipment owner/operators of an identified deficiency with specific equipment that could have a significant material impact if not addressed in a timely manner. This maintenance advisory identified a limitation with unit start-up cycles and recommends partial turbine blade replacements after 1,500 engine starts.

The LM6000 gas turbine has 14 stages of high-pressure compressor (HPC) turbine blades. Service Bulletin 310 specifies replacement of the rotating blades on stages three, four, and five. If not replaced before 1,500 engine starts, the affected rotating blades could dislodge, cause

significant downstream damage during engine operation, and result in catastrophic failure of the gas turbine.

RERC Units 3 and 4 reached the start cycles limit and staff completed the Service Bulletin 310 blade replacements in November 2018. Since then, RERC Units 3 and 4 reached another 1,500 start cycles and staff recommends completing the advised maintenance during an outage planned in November 2024.

The following illustration shows various components of the turbine. The section highlighted in green outlines the rotating blades on stages three, four, and five that are recommended for replacement under Service Bulletin 310 as discussed previously in this report.



The following photos below show examples of the damage caused by turbine blade failures in GE turbines owned by other power generation facilities.



**DISCUSSION:**

The City’s Purchasing Division, on behalf of Riverside Public Utilities (RPU), posted Request for Proposal No. 2359 (RFP 2359) on March 21, 2024. Upon releasing RFP 2359, 115 vendors were notified via PlanetBids, and 13 prospective bidders downloaded the documents. No questions were received, and RPU did not issue any addenda.

**Table 1. RFP Notification Summary**

Action	Number of Vendors
External Vendors Notified	103
City of Riverside Vendors Notified	12
Vendors Who Downloaded the RFP	13
Proposals Received	1

Only four companies worldwide are qualified and authorized to perform the specialized gas turbine maintenance services required at RERC. All four vendors were notified and downloaded the proposal documents. RFP 2359 closed on April 18, 2024, and staff received one proposal. This outcome is not unusual, considering the limited number of companies that perform this highly specialized maintenance.

The evaluation criteria were formulated with the goal of identifying the best proposal and a competitive price while also including an emphasis on approach and methodology. Given that the authorized companies possess similar qualifications, significant weight was placed on the bidder’s capacity to adhere to outage schedules, minimize repair times, and ensure parts availability alongside pricing. The RFP evaluation criteria is listed below:

- a. Qualifications and Experience (25% - 25 points)
- b. Approach and Methodology (40% - 40 points)
- c. Price (35% - 35 points)

RPU staff evaluated the proposal submitted by GE and have determined the proposal from GE meets the needs of RPU. GE provided competitive pricing and is capable of meeting Riverside’s outage schedules and repair times. The City’s Purchasing staff recommends awarding GE, the original equipment manufacturer.

**Table 2. Proposal Received**

Vendor	Location	Average Score (100 max)	Amount	Rank
GE Vernova Operations, LLC.	Houston, TX	98.7	\$348,303	1

Purchasing Resolution 24101 Section 508 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 action is in compliance with Purchasing Resolution No. 24101.

**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** – Ensuring that RERC operates reliably during critical periods and provides electricity to RPU’s electric customers serves the greater public good.
2. **Equity** – This item ensures that RPU’s power plants can safely and effectively operate and provide reliable electricity benefiting the entire City and all customers.
3. **Fiscal Responsibility** – Riverside is a prudent steward of public funds and ensures responsible management of the City’s financial resources while providing quality public services to all.
4. **Innovation** – Performing the OEM recommended turbine blade maintenance on RERC 3 and 4 is the best practice and ensures the units will continue to operate with high reliability.
5. **Sustainability & Resiliency** – RERC operates during the most critical times when the demand for electricity is high and beyond the capacity from renewable sources. Performing the turbine blade maintenance 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 \$348,303. Sufficient funds are available in the Public Utilities Maintenance Generating Plant Account No. 6120130-424131.

Prepared by: Scott M. Lesch, Utilities Assistant General Manager/Power Resources  
Approved by: David A. Garcia, Interim 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: Phaedra A. Norton, City Attorney

Attachments:

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