



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: SEPTEMBER 23, 2024

SUBJECT: REQUEST FOR PROPOSAL NO. 2347 SERVICES AGREEMENT WITH CEMTEK ENVIRONMENTAL, INC. OF SANTA ANA, CALIFORNIA TO PERFORM CONTINUOUS EMISSIONS MONITORING SYSTEM UPGRADES AT SPRINGS POWER PLANT AND APPROVE WORK ORDER NO. 2429762 IN THE AMOUNT NOT TO EXCEED \$703,166

ISSUE:

Consider approval of a services agreement with CEMTEK Environmental, Inc. of Santa Ana, California to perform continuous emissions monitoring system upgrades at Springs Power Plant and approval of Work Order No. 2429762 in the amount not to exceed \$703,166.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Approve a services agreement with CEMTEK Environmental, Inc. of Santa Ana, California to perform continuous emissions monitoring system upgrades at Springs Power Plant in the amount not to exceed \$703,166;
2. Authorize the City Manager, or his designee, to execute the services agreement with CEMTEK Environmental, Inc., including making non-substantive changes; and
3. Approve Work Order No. 2429762 in the amount not to exceed \$703,166.

BACKGROUND:

Continuous Emissions Monitoring Systems (CEMS) are mandated by both the United States Environmental Protection Agency (EPA) and the South Coast Air Quality Management District (SCAQMD) as a condition of Riverside Public Utilities' (RPU) operating permit for the Springs Power Plant (Springs). This facility consists of four turbine generators that are critical to meeting daily electricity demands and produce a combined total of 36 net megawatts. Each unit has a dedicated CEMS that was installed when Springs was first commissioned in July 2002.

The CEMS consists of several different analyzers that constantly sample and measure microscopic levels of emissions discharged from each turbine. The installed analyzers are certified through rigorous testing protocols prescribed by the SCAQMD. Maintaining the certification with the SCAQMD requires continuous monitoring, daily calibration tests, and annual

third-party accuracy test audits. Failure to meet these requirements could lead to significant penalties, including rendering the units unavailable for operation.

In December 2015, Horiba Instruments Inc. (Horiba), the CEMS original equipment manufacturer, discontinued production of certain analyzers and would only guarantee their support through 2020. This notice affected the analyzer models used in the eight CEMS units located at both Riverside Energy Resource Center (RERC) and Springs.

In May 2018, the Board of Public Utilities approved the upgrade of CEMS analyzers at RERC. The plan was to ensure long-term reliability and environmental compliance at Riverside’s largest and most utilized power plant. In addition, the Horiba CEMS equipment removed from RERC was repurposed to extend the useful life of the analyzers at Springs.

Due to the recent maintenance history of the analyzers at Springs, staff has determined that an upgrade is critical to maintain environmental compliance and plant availability until the forecasted retirement of Springs in 2030. Horiba analyzer replacement parts (new and used) are no longer available, and the current inventory is based on salvaging parts from a few used analyzers.

DISCUSSION:

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 Springs were to become unavailable, staff would need to procure replacement RA 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.

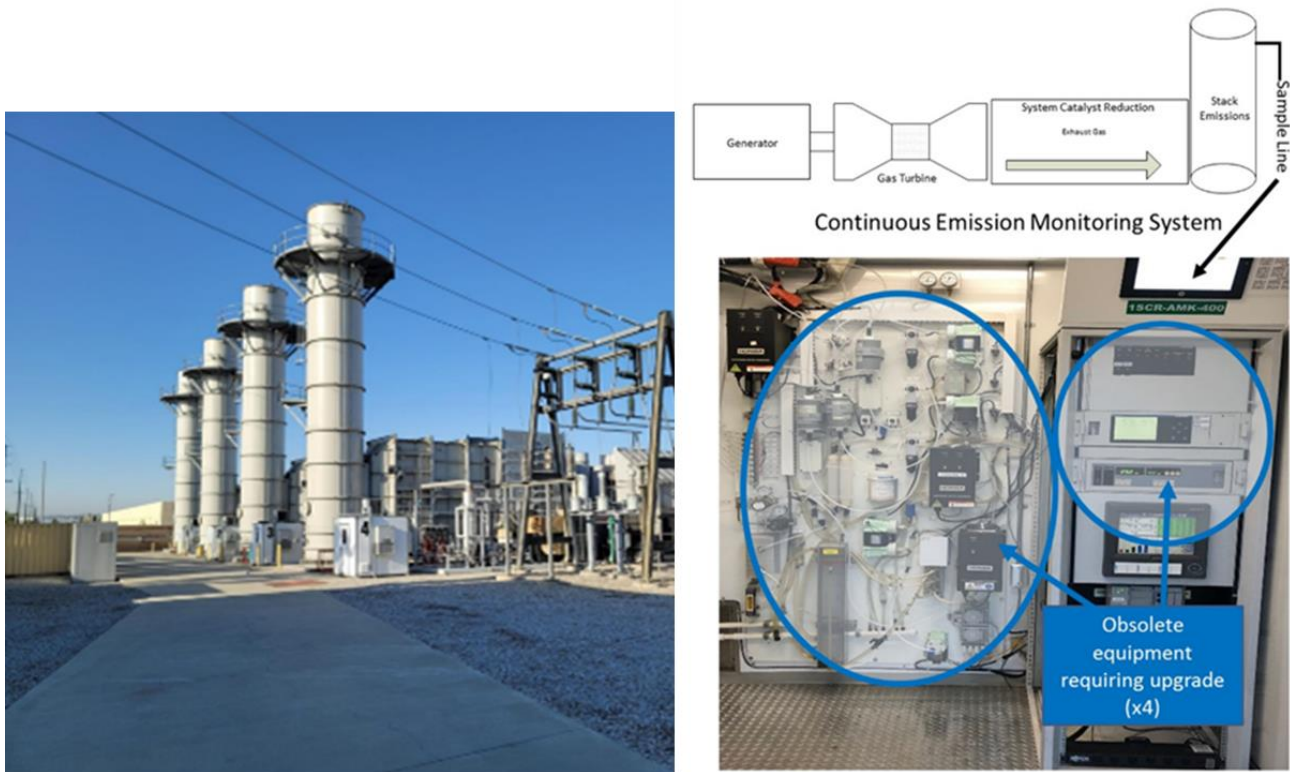


Figure 1 - Springs Power Plant and CEMS equipment

To align with environmental compliance efforts and cost considerations, staff recommends upgrading the CEMS at Springs. The new analyzers and equipment that will be used at Springs are identical to the systems at RERC. After the retirement of Springs in 2030, the analyzers will be repurposed to extend the useful life of the analyzers at RERC, thereby maximizing the value of this CEMS upgrade investment.

CEMS analyzers are highly specialized and complex components. They are manufactured and certified to perform in compliance with EPA and SCAQMD standards. Other than field preventative maintenance, major repairs are restricted to the original equipment manufacturer.

On February 6, 2024, the City’s Purchasing Division, on behalf of Riverside Public Utilities (RPU), posted Request for Proposal (RFP) No. 2347 for a qualified vendor to provide CEMS upgrade services at Springs. The notification summary is shown in the following table:

Action	Number of Vendors
External Vendors Notified	500
City of Riverside Vendors Notified	118
Vendors who downloaded the RFP	27
Proposals received	3

On February 15, 2024, a non-mandatory pre-proposal meeting was held, in which representatives from two companies attended. A total of five questions were received and two addendums were posted. On March 20, 2024, three proposals were received in response to RFP No. 2347 and the results are summarized in the table below:

Vendors	Location	Proposal Amount	Rank
CEMTEK Environmental	Santa Ana, CA	\$835,247.80	1
Pacific Standard Environmental	Santa Ana, CA	\$1,128,117.47	2
Alliance Source Testing	Cypress, CA	\$1,299,905.00	3

➤ *Engineer’s Estimate: \$650,000.00*

When formulating RFP No. 2347, staff specified the minimum work required for the project as the base scope and added an optional section for the other elements associated to the upgrade. The proposal amount in the table above is total for both base and scope items.

After a thorough evaluation of the three proposals, CEMTEK Environmental (CEMTEK) was selected as the highest rated proposal. CEMTEK proposed the lowest price and is a qualified CEMS vendor in Southern California.

After two negotiation meetings with CEMTEK, staff secured the best and final offer, which closely aligned with the engineer’s estimate. Staff also successfully negotiated the inclusion of a 10% contingency option.

Vendor	Location	Best and Final Offer	Contingency Option	Total
CEMTEK Environmental	Santa Ana, CA	\$ 639,242	\$63,924	\$703,166

The allotted time to complete the CEMS upgrade project is 96 hours per unit from its initiation. The removal of the existing CEMS equipment and the installation of the new CEMS equipment is

quite complex. The coordination necessary to take Springs, a power generation facility, offline will require staff to manage various elements of generation unit outages, recertification testing, and other environmental compliance activities. The success of this project requires prompt decisions and approval of any reasonable changes due to unforeseen issues discovered during the installation. Delays will increase costs and extend the non-operational duration at Springs.

To protect against such delays, the agreement with CEMTEK includes a 10% contingency option as a precaution for any unforeseen repairs that could be discovered during the installation and commissioning of the new CEMS equipment. Normally, a project like this will face delays if revisions to the agreement necessitate a newly executed amendment before any further work can commence. Processing an amendment can take up to 30 days to complete and cause work to cease until the amendment is fully executed – during which time the plant would be unable to operate and generate electricity.

The inclusion of a contingency is a precaution only and will allow approval of reasonable unforeseen changes in the work scope during the installation and commissioning of the new CEMS equipment. CEMTEK is not guaranteed payment for the 10% contingency. The 10% contingency will only be used with Riverside’s prior approval. If not used, the funds remain within the Public Utilities Electric Capital Account.

Project and Fiscal Breakdown

Work Type	Performed By:	Amount (\$)
Agreement with CEMTEK Environmental, Inc.		
New Analyzers	CEMTEK	\$315,423
Sample Conditioning Systems	CEMTEK	\$98,948
Engineering and additional materials	CEMTEK	\$186,446
Factory Acceptance Test	CEMTEK	\$5,667
CEMS Recertification Support	CEMTEK	\$32,758
10% Contingency		\$63,924
Total Agreement		\$703,166

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 actions are 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 2, Community Well-Being

Goal 2.6. Strengthen community preparedness for emergencies and disruptive events to ensure effective response and recovery.

Strategic Priority 4, Environmental Stewardship

Goal 4.3. Implement local and support regional proactive policies and inclusive decision-making processes to deliver environmental justice and ensure that all residents breath healthy and clean air with the goal of having zero days of unhealthy air quality per the South Coast Air Quality District’s Air Quality Index (AQI).

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.

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

1. **Community Trust** – Ensuring that Riverside’s power plants comply with all environmental regulations demonstrates a commitment to environmental stewardship and 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** – The negotiated agreement with CEMTEK Environmental, Inc. provides the lowest possible pricing. The CEMS upgrade project at Springs is the lowest cost option that supports environmental compliance and resource adequacy requirements.
4. **Innovation** – Through industry best practices, staff extended the useful life of the existing analyzers at Springs. After Springs is retired in 2030, the analyzers from this upgrade project will be repurposed to extend the useful life of the CEMS at RERC.
5. **Sustainability & Resiliency** – The gas turbine units at Springs operate during the most critical times when the demand for electricity is high. Maintaining reliable CEMS systems is vital to environmental compliance and supports the goal of environmental stewardship while sustaining highly reliable power plant operations.

FISCAL IMPACT:

The total fiscal impact is \$703,166. 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, 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 CEMTEK Environmental, Inc.
3. Presentation