



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: FEBRUARY 9, 2026

SUBJECT: UPCOMING GENERATION SECTION PROJECTS FOR 2026

ISSUE:

Consider receiving and filing an overview of upcoming Board agenda items for the Generation section.

RECOMMENDATION:

That the Board of Public Utilities receive and file an overview of upcoming Board agenda items for the Generation section.

BACKGROUND:

The City of Riverside owns and operates the Riverside Energy Resource Center (RERC), the Springs generation facility, and the Clearwater power plant. These three power generation facilities collectively produce 260 megawatts of electricity, which represents 30 percent of the City's summer peak demands for electricity.

The four gas turbine engines at the Springs generation facility were first commissioned in 2002 and have been in operation for 23 years. Clearwater, which was built in 2005 and was acquired by Riverside Public Utilities (RPU) in September 2010, has been in operation for 19 years. RERC has a total of four gas turbine engines, Units 1 and 2 were built in 2006 and have been in operation for 19 years and Units 3 and 4 were built in 2011 and have been in operation for 14 years. All three facilities have targeted retirement dates outlined in RPU's 2023 Integrated Resource Plan: Springs is forecasted to retire in 2030, while both RERC and Clearwater are expected to remain in operation until 2040.

As the equipment ages, maintenance efforts have shifted to ensure that each power plant operates reliably until its projected retirement date. Staff will continue to perform routine maintenance and inspections that are critical for day-to-day operations as well as peak summer performance at each facility. As necessary, more extensive maintenance projects are being prioritized only to meet each plant's retirement timeline. Staff carefully manage the various maintenance needs to align with the approved budgets for each facility.

At the beginning of 2025, staff presented an overview of ten Generation projects that would require Board approval that year. The following table is a summary of the projects:

Table 1: 2025 Project Summary

Project	Facility	Board Approved Date
Routine Maintenance		
Gas Turbine Instrument Calibrations	RERC CW	9/22/2025
Gas Turbine Borescope Inspections	RERC CW	7/28/2025
Gas Compressor Maintenance	RERC	TBA on 1/12/2026
Air Compressor Maintenance	RERC Springs	12/8/2025
Routine Operational Support		
DAS Software Support	All Plants	2/10/2025
Supply of Ammonia	All Plants	6/9/2025
Water Treatment Chemicals	RERC CW	6/9/2025
Balance of Plant Controls Software Support	RERC Springs	2/24/2025
Extensive Maintenance		
Clearwater Cooling Tower Maintenance	CW	1/27/2025
Clearwater Controls Upgrade	CW	10/27/2025

Following a recent review of each facility, seven priority projects have been identified for this next year.

DISCUSSION:

Below is a brief overview of the projects for which staff plans to seek Board approval in 2026. These projects are in various stages of development, and some project costs represent estimates only. All contract extensions and/or requests for proposals (RFP's) will be processed through Purchasing to ensure compliance with the City's Purchasing Resolution. In the following discussion, only preliminary summaries of each project are presented; more detailed information will be provided by staff during each project's formal Board approval process.

Routine Maintenance Projects

- Clearwater Heat Recovery Steam Generator (HRSG) Insulation Maintenance**
The Clearwater HRSG captures the waste heat from the gas turbine exhaust and converts it into steam which supports additional power generation. After twenty years of exposure to extreme temperature conditions, the HRSG insulation is starting to deteriorate and will be repaired during this routine maintenance. Using thermal imaging, staff can precisely identify and replace only the sections exhibiting elevated surface temperatures, thereby minimizing project costs. The estimated cost for this work is \$150,000.
- Reclaimed Water Storage Tank Maintenance at RERC**
RERC utilizes reclaimed water for both power generation and emissions control, supplied

to all four gas turbines from a single 300,000-gallon storage tank. The interior wall of the storage tank is protected by a specialized liner that is designed to prevent any corrosion from the reclaimed water. The tank has been in operation for 20 years, and the protective coating has now deteriorated to the point that recoating is required. The cost of this work is estimated to be \$120,000.

- **Electrical Switchgear Maintenance at RERC**

The electrical switchgear at RERC distributes and protects power to critical plant equipment and relies on 75 automation modules within a computerized control network. Many of these modules are now obsolete, with no available spare parts. To maintain system reliability, staff plan to replace 37 modules with current, supported versions, repurposing the removed modules to extend the life of the remaining 38. The project is estimated to cost \$80,000.

- **Turbine Blade Maintenance on RERC Unit 4**

The gas turbines at RERC have 14 stages of high-pressure compressor (HPC) turbine blades. Following the annual internal borescope inspection of Unit 4 performed by GE Vernova, it was determined that the stage 1 blades require replacement. This vital maintenance is necessary as a proactive measure to prevent catastrophic failure as a broken blade will cause significant downstream damage during engine operation. The estimated cost for this maintenance is \$300,000.

- **Air Compressor Maintenance at RERC 1 & 2**

RERC was constructed to include air compressors that operate daily to provide pressurized air to various plant systems. A reliable and continuous supply of pressurized air is essential for the overall operations. There are many pneumatically operated components and controllers that rely on clean, dried, and compressed air to function properly. The current service agreement for air compressor maintenance for RERC Units 1&2 expires in December 2026. The estimated cost for this service is expected to be \$90,000 per year, or \$450,000 for a five-year term covering three air compressors at RERC.

- **Uninterruptible Power Supply (UPS) Batteries at RERC**

The RERC facility is equipped with an Uninterruptible Power Supply (UPS) system, which provides a continuous and reliable source of electricity to ensure the safe operation of critical equipment during power interruptions or fluctuations. This system relies on 192 stationary batteries that are strategically distributed throughout the plant. Stationary batteries have an expected service life of approximately 10 years and are routinely replaced when their performance declines. Currently, 60 of the installed batteries have reached the end of their useful life and are due for replacement. The estimated cost for the replacement of these batteries is \$150,000.

Extensive Maintenance Projects

- **Gas Turbine Control System Maintenance at RERC**

The RERC gas turbine units rely on dedicated control systems that are critical to normal operations. These systems, installed in 2005 and 2011, include 16 control modules that have been classified as obsolete since 2014. Replacement parts are no longer available, making continued maintenance infeasible. Following an extensive review, staff propose upgrading to a new configuration that requires only 8 control modules - half the current number. The estimated cost of this upgrade is \$250,000.

Table 2 presents a composite summary of the seven upcoming projects discussed in this report.

Table 2. Project Summary

Project	Cost	Facility	Tentative Board Approval
Routine Maintenance			
HRSG Insulation Repair	\$150,000	CW	2 nd Qtr. 2026
Reclaim Water Storage Maintenance	\$120,000	RERC	2 nd Qtr. 2026
Electrical Switchgear Maintenance	\$80,000	RERC	2 nd Qtr. 2026
RERC Turbine Blade Maintenance Unit 4	\$300,000	RERC	2 nd Qtr. 2026
RERC Air Compressor Maintenance Units 1&2	\$90,000/yr	RERC	3 rd Qtr. 2026
Uninterruptible Power Supply (UPS) system Batteries	\$150,000	RERC	4 th Qtr. 2026
Extensive Maintenance			
Gas Turbine Control System Upgrade	\$250,000	RERC	2 nd Qtr. 2026

FISCAL IMPACT:

There is no fiscal impact associated with this report. Sufficient funds will be made available during each project's formal Board approval process.

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Attachment: Presentation