



GENERATION SECTION PROJECT OVERVIEW FOR 2025

Riverside Public Utilities

Board of Public Utilities
January 13, 2025

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BACKGROUND

Springs Power Plant	Clearwater Power Plant	Riverside Energy Resource Center (RERC)
		
• 36 MW • Commissioned in 2002 • 22 years in operation • Forecasted retirement → 2030	• 28 MW • Commissioned in 2005 • 19 years in operation • Forecasted retirement → 2040	• 196 MW • Units 1 & 2 Commissioned in 2006 • 18 years in operation • Units 3 & 4 Commissioned in 2011 • 13 years in operation • Forecasted retirement → 2040



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DISCUSSION

1. Routine Maintenance and Support Services

a. Essential for normal day-to-day operations

b. Necessary to prepare for peak summer performance

c. Services for specialized equipment

d. Multi-year agreements

- Ongoing maintenance activities
- Better pricing

2. More extensive maintenance projects

a. Critical to meet retirement timeline

b. One Capital Improvement Project: CIP-Funded



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DISCUSSION – ROUTINE MAINTENANCE

Project	Description	Annual Cost	Facility
Turbine Instrument Calibrations	- Vital turbine instrument calibrations - Performed by OEM or ASP annually	\$50,000	RERC CW
Turbine Borescope Inspections	- Gas turbine condition and serviceability - Performed by OEM or ASP annually	\$50,000	RERC CW
Gas Compressor Maintenance	- Boosts gas pressures for turbine operation - Preventative maintenance – 6 compressors	\$85,000	RERC
Air Compressor Maintenance	- Pressurized air for plant equipment - Prolong the service life – 6 compressors	\$100,000	RERC Springs



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DISCUSSION – ROUTINE OPERATIONAL SUPPORT

Project	Description	Annual Cost	Facility
DAS Software Support	- Monitors, records, and validates emissions data - Required for environmental compliance	\$44,716	RERC CW Springs
Supply of Ammonia	Essential for emissions control	\$66,000	RERC CW Springs
Water Treatment Chemicals	- Corrosion and biological growth prevention - Same chemicals since plant was commissioned	\$165,000	RERC CW
BOP Controls Software Support	- Centralized control system for plant equipment - Turbine controls, emissions management, SCADA	\$60,000	RERC Springs



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DISCUSSION – EXTENSIVE MAINTENANCE

1. Clearwater Cooling Tower

- Essential for condensing steam in combined-cycle process and cooling plant equipment
- Aggressive operating conditions
- Significant deterioration and corrosion
- Maintenance required for reliable operations until retirement
- RFP 2412 – Currently in negotiations
- Estimated cost is \$600,000



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DISCUSSION – EXTENSIVE MAINTENANCE

2. Clearwater Control Systems Upgrade

- a. Centralized computerized control system for plant equipment
- b. Existing system is outdated
- c. Many components are obsolete
- d. Unsustainable for the plant to reach retirement
- e. Evaluating upgrading existing system vs replace it entirely
- f. Preliminary estimate of \$2,000,000 however, final cost is still to be determined
- g. Capital Improvement Project



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DISCUSSION – TIMELINE

Project	Tentative Board Approval
Clearwater Cooling Tower	1 st Qtr. 2025
DAS Software Support	1 st Qtr. 2025
Supply of Ammonia	1 st Qtr. 2025
Air Compressor Maintenance	1 st Qtr. 2025
Balance of Plant Controls Software Support	1 st Qtr. 2025
Multi-Year Borescope	2 nd Qtr. 2025
Gas Turbine Instrument Calibrations	2 nd Qtr. 2025
Gas Compressor Maintenance	2 nd Qtr. 2025
Clearwater Controls Upgrade (CIP)	2 nd Qtr. 2025
Water Treatment Chemicals	2 nd Qtr. 2025



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STRATEGIC PLAN ALIGNMENT



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.



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.



Community Trust



Equity



Fiscal Responsibility



Innovation



Sustainability & Resiliency



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RECOMMENDATION

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



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