



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: NOVEMBER 18, 2024

SUBJECT: INCREASE THE AUTHORIZED AMOUNT FOR AS NEEDED REPAIRS ON THE AIR INLET CHILLERS AT RIVERSIDE ENERGY RESOURCE CENTER IN THE AMOUNT OF \$45,749 ON PURCHASE ORDER NO. 250243 WITH TRANE U.S. INC. FOR THE 24/25 FISCAL YEAR FOR A REVISED TOTAL OF \$122,254.

ISSUE:

Consider approving an increase of the authorized amount for as needed repairs on the air inlet chillers at Riverside Energy Resource Center in the amount of \$45,749 on Purchase Order No. 250243 with Trane U.S. Inc. for the 24/25 fiscal year, for a revised total of \$122,254.

RECOMMENDATION:

That the Board of Public Utilities approve an increase of the authorized amount for as needed repairs on the air inlet chillers at Riverside Energy Resource Center in the amount of \$45,749 on Purchase Order No. 250243 with Trane U.S. Inc. for the 24/25 fiscal year, for a revised total of \$122,254.

BACKGROUND:

Riverside Public Utilities (RPU) owns and operates the Riverside Energy Resource Center (RERC). This facility is comprised of four gas turbines that are strategically located within the city limits and achieve maximum power output in less than 10 minutes. RERC generates 195 megawatts of electricity and serves a critical role in meeting customer demands during peak periods.

Each pair of turbines at RERC share a 3,500-ton air inlet chiller system. The chiller system for RERC units 1 and 2 was installed in 2004 and the second system for RERC units 3 and 4 was installed in 2008 (see Figure 1). The Original Equipment Manufacturer (OEM) for these chiller systems is Trane U.S., Inc. (Trane). The chilling system cools the ambient air entering each gas turbine to 47 degrees Fahrenheit. During summer peak months, 20% of the plant's capacity to generate electricity is attributed to the colder air from the air inlet chillers. Without the chillers, the plant capacity can be reduced from 195 to 157 megawatts.

Both chillers at RERC have reached a stage in their useful life cycle that requires a higher level of maintenance to sustain maximum equipment reliability, while maintaining compliance with California Air Resources Board (CARB) regulations.

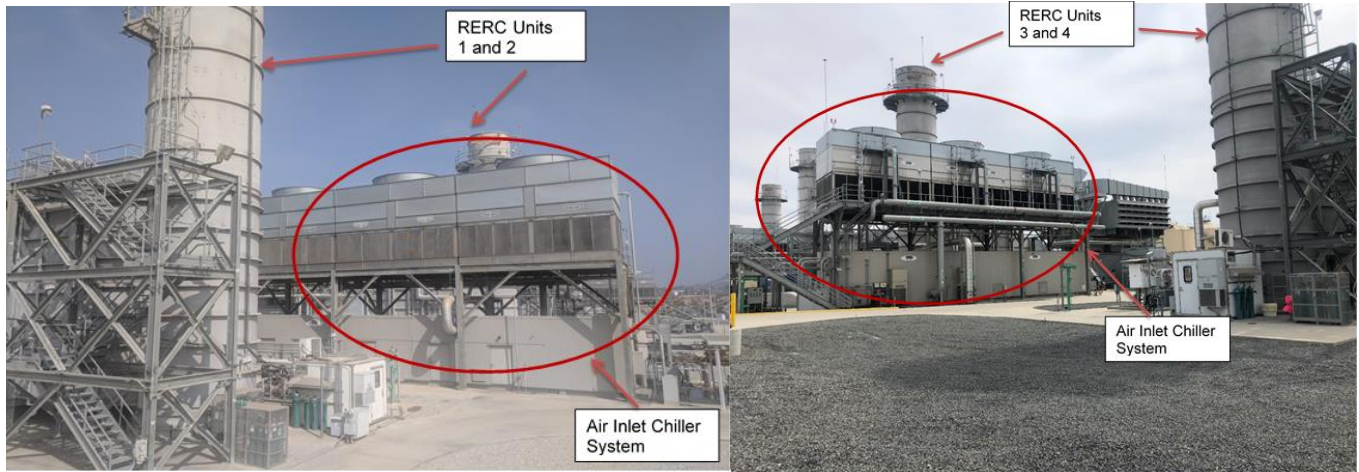


Figure 1 - Air Inlet Chillers at RERC

RPU has retained Trane for the past several years as they have consistently provided excellent service for the preventative maintenance inspections and have been very responsive to any unscheduled repairs needed at RERC. As the OEM of the chiller systems, Trane’s extensive experience with the equipment has allowed them to assess the overall condition accurately and develop a thorough maintenance plan to support the continued reliability of the two chiller systems.

DISCUSSION:

On July 10, 2023, the Board of Public Utilities approved a comprehensive chiller service plan with Trane which includes major overhauls, control system upgrades, and preventative maintenance inspections. Preventative maintenance and quarterly inspections are required as periodic assessments and tests mandated by CARB regulations.

To address potential unanticipated repairs during these inspections, an allowance for as needed repairs was included in the maintenance plan. Funds for as needed repairs will remain in the Generation budget and will only be used if staff approves the repair work. This allows staff to promptly address minor maintenance tasks identified during quarterly inspections, corrective maintenance needs, and repair any refrigerant leaks that may occur throughout the fiscal year. Given that the air inlet chillers are crucial components of the power plant and essential to RERC’s overall performance, addressing repairs at the earliest opportunity is the most effective and cost-efficient approach to ensure plant availability.

Recent inspections during Fiscal Year 2024-2025 revealed additional maintenance needs which depleted \$45,749 of the \$50,000 authorized for as needed repairs. The additional repairs that were approved by staff included a vibration analysis on both chillers (\$2,630), a motor bearing repair on RERC units 3 and 4 (\$32,216), and an electrical fault repair on RERC units 1 and 2 (\$10,903). The approved maintenance was necessary to ensure reliable chiller operation during the current summer peak period. To address any unanticipated maintenance repairs for the duration of this fiscal year, staff recommends replenishing the as needed repairs allowance by \$45,749 for a revised total of \$122,254 as shown in the following table:

Fiscal Year	Preventative Maintenance	As Needed Repairs	Expenditures	Increase Amount	Total
FY 24/25	\$26,504.92	\$50,000	(\$45,749)	\$45,749	\$122,254

Trane has an existing contract under the OMNIA Partners Agreement Contract No. 3341 and is able to provide pricing in accordance with the competitively bid OMNIA rates.

Purchasing Resolution 24101, Section 1104 - Change Orders, states “Modifications to a Purchase Order shall be made only by Change Order, except that minor variances of \$200 or less, where the variance is due to sales tax or freight charges may be processed without a Change Order. Subject to the availability of funds, Change Orders may be utilized for purposes of (1) adding and/or deleting quantity of items being procured, ...Unless otherwise specifically authorized by the Awarding Entity, Change Orders which cumulatively exceed the following will require Awarding Entity approval; b) Any Change Order which causes the contract price to exceed the authorization in Section 203 hereof, if the Contract and/or Purchase Order was not previously approved by the Awarding Entity.”

The Purchasing Manager concurs that the recommended actions comply with Purchasing Resolution No. 24101 per Section 1104(1)(b).

STRATEGIC PLAN ALIGNMENT:

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

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.

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 and provide electricity to the entire City demonstrates a commitment to environmental stewardship and serves the greater public good.
2. **Equity** – This item ensures that RERC can safely and effectively operate and provide reliable electricity benefitting the entire City and all RPU’s customers.
3. **Fiscal Responsibility** – Trane’s contract with OMNIA Partners was awarded via competitive bids and ensures Riverside is obtaining a competitive price for the proposed maintenance services.

4. **Innovation** – Implementation of a chiller maintenance program is a best practice and essential for compliance with CARB regulatory standards.
5. **Sustainability & Resiliency** – RERC operates during the most critical need for electricity. Having well-maintained air inlet chillers is essential to environmental stewardship and sustaining a highly reliable power plant.

FISCAL IMPACT:

The total fiscal impact for FY 2024/2025 is an increase in expenditures of \$45,749. Sufficient funds are available in the Public Utilities Maintenance Generating Plants Account No. 6120130-424131. Appropriations for future fiscal years will be included in the Department’s budget submissions for approval.

Fiscal Year	Preventative Maintenance	As Needed Repairs	Total
FY 23/24	\$25,858.46	\$50,000	\$75,859
FY 24/25	\$26,504.92	\$95,749	\$122,254
FY 25/26	\$27,167.54	\$50,000	\$77,171
FY 26/27	\$27,846.73	\$50,000	\$77,851
FY 27/28*	\$29,239.07	\$0	\$29,244
FY 28/29*	\$30,701.02	\$0	\$30,707
FY 29/30*	\$32,236.07	\$0	\$32,243
FY 30/31*	\$33,847.88	\$50,000	\$83,856
FY 31/32*	\$35,540.27	\$50,000	\$85,549
			\$614,734

* Funds for fiscal years 27/28 through 31/32 will only be used/budgeted if staff opts for the additional 5-year extension.

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

Attachment: Presentation