

# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE: NOVEMBER 14, 2022**

**SUBJECT: REQUEST FOR BID NO. 7900 - THREE-YEAR SUPPLY OF 19% AQUEOUS AMMONIA FOR RIVERSIDE ENERGY RESOURCE CENTER, CLEARWATER, AND SPRINGS POWER PLANTS WITH AIRGAS SPECIALTY PRODUCTS, INC. OF LAWRENCEVILLE, GEORGIA FOR TERM ENDING ON JULY 1, 2025, REVISE EXPENDITURE IN THE AMOUNT OF \$33,100 PER YEAR FOR A REVISED ANNUAL AMOUNT OF \$66,200 AND REVISED THREE-YEAR TOTAL EXPENDITURE AMOUNT OF \$198,600**

**ISSUE:**

Consider approving an additional expenditure for annual costs associated with the three-year supply of 19% aqueous ammonia award by Request for Bid 7900 for Riverside Energy Resource Center, Clearwater and Springs Power Plants to Airgas Specialty Products, Inc. of Lawrenceville, Georgia for term ending on July 1, 2025, originally for \$99,300 over three years; revise expenditure in the amount of \$33,100 per year for a revised annual amount of \$66,200, and a revised three year total expenditure of \$198,600.

**RECOMMENDATION:**

That the Board of Public Utilities approve an additional expenditure for annual costs associated with the three-year supply of 19% aqueous ammonia award by Request for Bid 7900 for Riverside Energy Resource Center, Clearwater and Springs Power Plants to Airgas Specialty Products, Inc. of Lawrenceville, Georgia for term ending on July 1, 2025, originally for \$99,300 over three years; revise expenditure in the amount of \$33,100 per year for a revised annual amount of \$66,200, and a revised three year total expenditure of \$198,600.

**BACKGROUND:**

The City of Riverside owns and operates the Riverside Energy Resource Center (RERC), Springs, and Clearwater Power Plants. Collectively, these facilities provide electricity to Riverside customers and serve as a critical role during hot summer peak months. An unprecedented heatwave throughout the state of California occurred during September 2022. The excessive heat over nine consecutive days pushed the Statewide power usage and increased the operations of the City's three power plants – RERC, Springs and Clearwater.

The higher than expected need to generate power consumed the estimated ammonia budgeted for the current 2022-23 Fiscal Year. Aqueous ammonia is an essential component for the

emissions control systems. During normal plant operation it reduces nitrogen oxide (NOx) emission levels below the allowable limits specified in each facility's air permit.

Use of ammonia at Riverside's power plants is the best available method for emissions control systems in the gas turbine industry. It is needed to comply with environmental regulations and essential in keeping air emissions to the lowest possible levels. Having a reliable supply of ammonia for the next three years is necessary to maintain RPU's ability to operate the power plants in compliance with the applicable regulations.

Figures 1 and 2 illustrate the emissions control systems at RERC. At this location, NOx emissions levels in the exhaust leaving the gas turbine engine equal 25 parts per million (ppm). As the exhaust passes through the emissions control systems, a fine mist of vaporized ammonia is injected prior to the NOx catalytic modules. As the exhaust passes through the catalysts, NOx levels are reduced to less than 2.5 ppm.

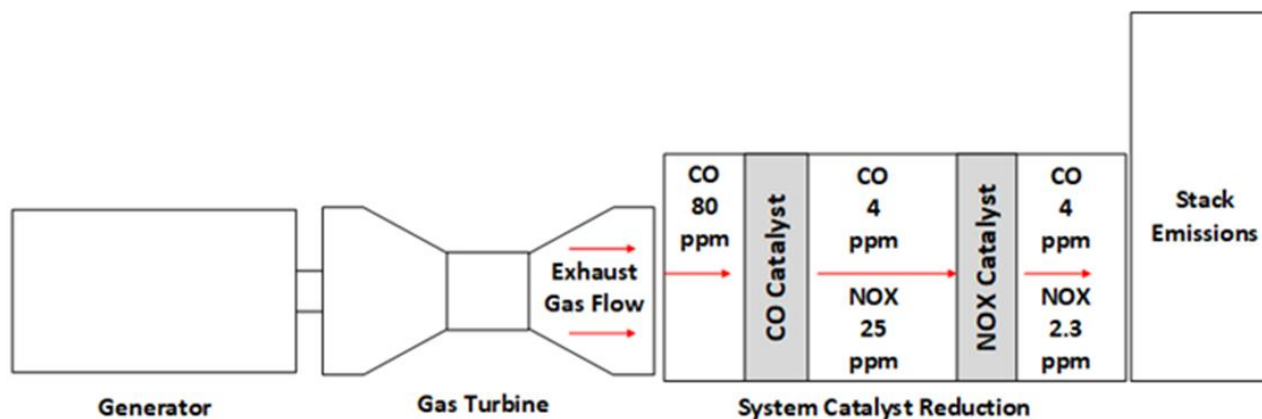


Figure 1. Emissions Reduction Stages at RERC

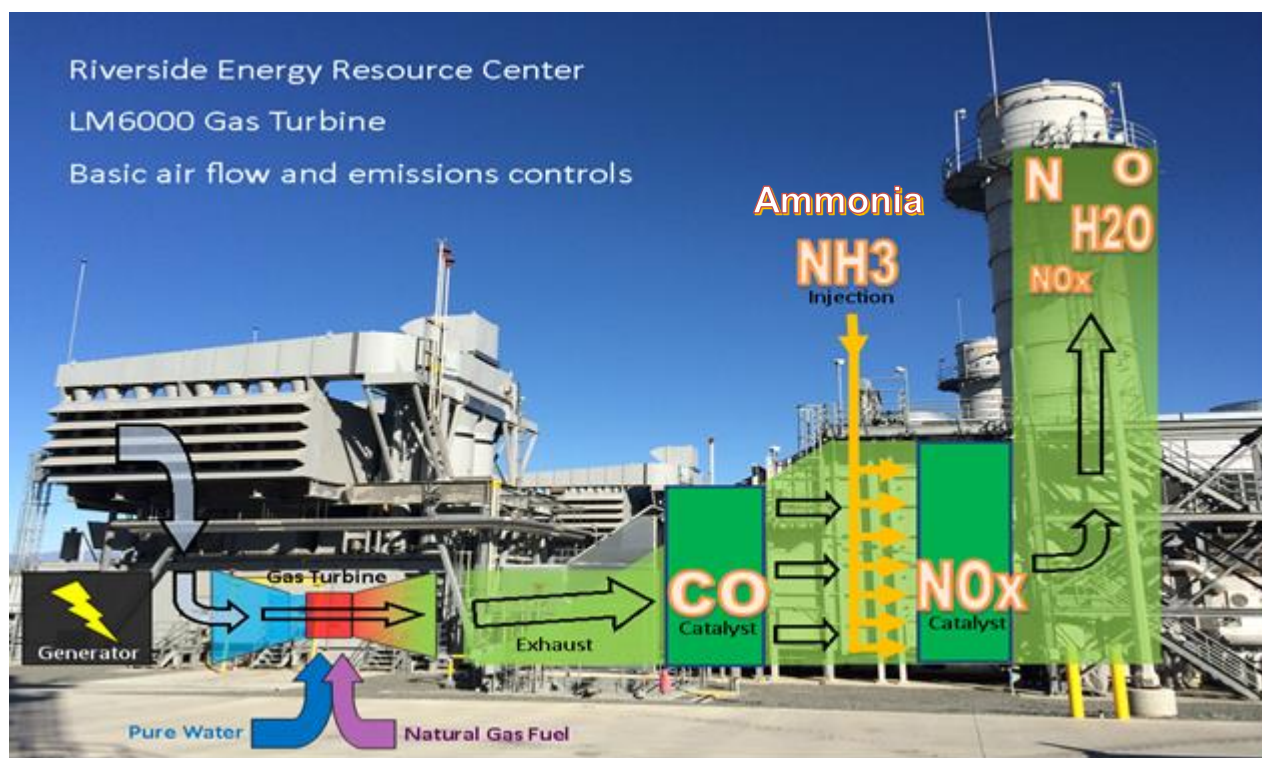


Figure 2. Emissions Flow at RERC

## **DISCUSSION:**

In February 2022, staff issued Request for Bid (RFB) No. 7900. Airgas Specialty Products, Inc. provided the lowest price and fixed rates for three years. The annual budget for ammonia was estimated based on the historical consumption from the previous three years.

On June 27, 2022, the Board of Public Utilities awarded RFB No. 7900 to Airgas Specialty Products, Inc. of Lawrenceville, Georgia, for a three-year supply of 19% aqueous ammonia for Riverside Energy Resource Center, Clearwater, and Springs Power Plants for term ending on July 1, 2025, for an annual amount of \$33,100, and a total three-year amount of \$99,300.

The recent ten-day heat wave that extended from August into early September 2022 exhausted the current fiscal year Board-approved amount of \$33,100 for ammonia, which is approximately four delivery loads.

After further review, staff recommends increasing the approved annual budget for ammonia from \$33,100 to \$66,200 per fiscal year, for an increased three-year total amount of \$198,600. Increasing the approved amount for ammonia is essential to reliable power plant operations, especially during unforeseen factors and future heatwaves like the one experienced this past Summer. The approved budget amount is an estimation and only actual expenditures will be incurred from ammonia usage.

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23812. Section 602 (h) states when goods can be procured from a bidder who offers the same or better price, terms and conditions as the Bidder previously offered as the Lowest Responsible Bidder under Competitive Procurement conducted by the City or another public agency, provided that, in the opinion of the Manager, it is in the best interests of the City to do so.

## **STRATEGIC PLAN ALIGNMENT:**

This item contributes **Strategic Priority 4 - Environmental Stewardship**, and **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); and **Strategic Priority 5 - High Performing Government**, and **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; and **Strategic Priority 6 - Infrastructure, Mobility & Connectivity**, and **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 RPU’s power plants can safely and effectively operate and provide reliable electricity benefitting the entire City and all customers.
3. **Fiscal Responsibility** – Airgas Specialty Products, Inc. provided the lowest competitive bid and prices are fixed for three years.
4. **Innovation** – The use of ammonia is the best available method for emissions control in gas turbines. Small amounts of ammonia keep air emissions at lowest possible level.
5. **Sustainability & Resiliency** – Riverside’s three power plants operate during the most critical times when the demand for electricity is high. Maintaining an environmental compliance program, particularly to ensure air quality requirements are met, for the next three years supports the goal of environmental stewardship while sustaining highly reliable power plant operations.

### **FISCAL IMPACT:**

The total fiscal impact for Fiscal Year 2022-23 is \$66,200. Sufficient funds are available in the Springs Maintenance-Generating Plants Account No. 6120120-424131, RERC Maintenance-Generating Plants Account No. 6120130-424131, and Clearwater Maintenance-Generating Plants Account No. 6120140-424131. Funds will be allocated in the amount outlined below:

#### **Fiscal Year Cost Breakdown**

<b>Year</b>	<b>Current Approval Annually</b>	<b>Increase Amount Annually</b>	<b>Total Annual Amount</b>
<b>Fiscal Year 2022-23</b>	\$33,100	\$33,100	\$66,200
<b>Fiscal Year 2023-24</b>	\$33,100	\$33,100	\$66,200
<b>Fiscal Year 2024-25</b>	\$33,100	\$33,100	\$66,200
<b>Total</b>			<b>\$198,600</b>

Prepared by: Daniel E. Garcia, Utilities Deputy General Manager/Power Resources  
Approved by: Todd M. Corbin, Utilities General Manager  
Approved by: Kris Martinez, Assistant City Manager  
Approved as to form: Phaedra A. Norton, City Attorney

Certifies availability  
of funds: Edward Enriquez, Interim Assistant City Manager/Chief Financial Officer/City Treasurer

#### **Attachments:**

1. Bid Award Recommendation
2. Presentation