



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JUNE 27, 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, FOR \$99,300

ISSUE:

Consider awarding Request for Bid 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 \$99,300.

RECOMMENDATION:

That the Board of Public Utilities award Request for Bid 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 \$99,300.

BACKGROUND:

Nineteen percent (19%) Aqueous Ammonia (Ammonia) is utilized during the operation of Riverside's power plants. It is an essential component of the emissions control systems that reduce 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 for environmental compliance and essential in keeping air emissions to the lowest possible levels. Having a reliable supply for ammonia is recommended.

Each year, all nine gas turbine units must undergo emissions tests by a certified third party to demonstrate compliance with ammonia usage. As such, ammonia usage is constantly monitored, recorded, and regulated by each facility's respective air permits.

Figures 1 and 2 illustrate the emissions control systems at the Riverside Energy Resource Center (RERC). At RERC, 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 system, 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.

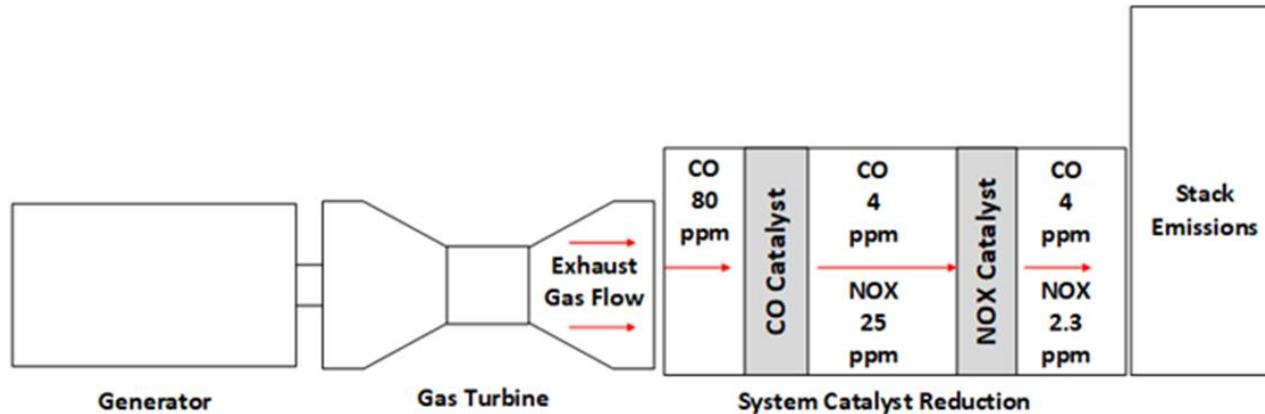


Figure 1. Emissions Reduction Stages at RERC

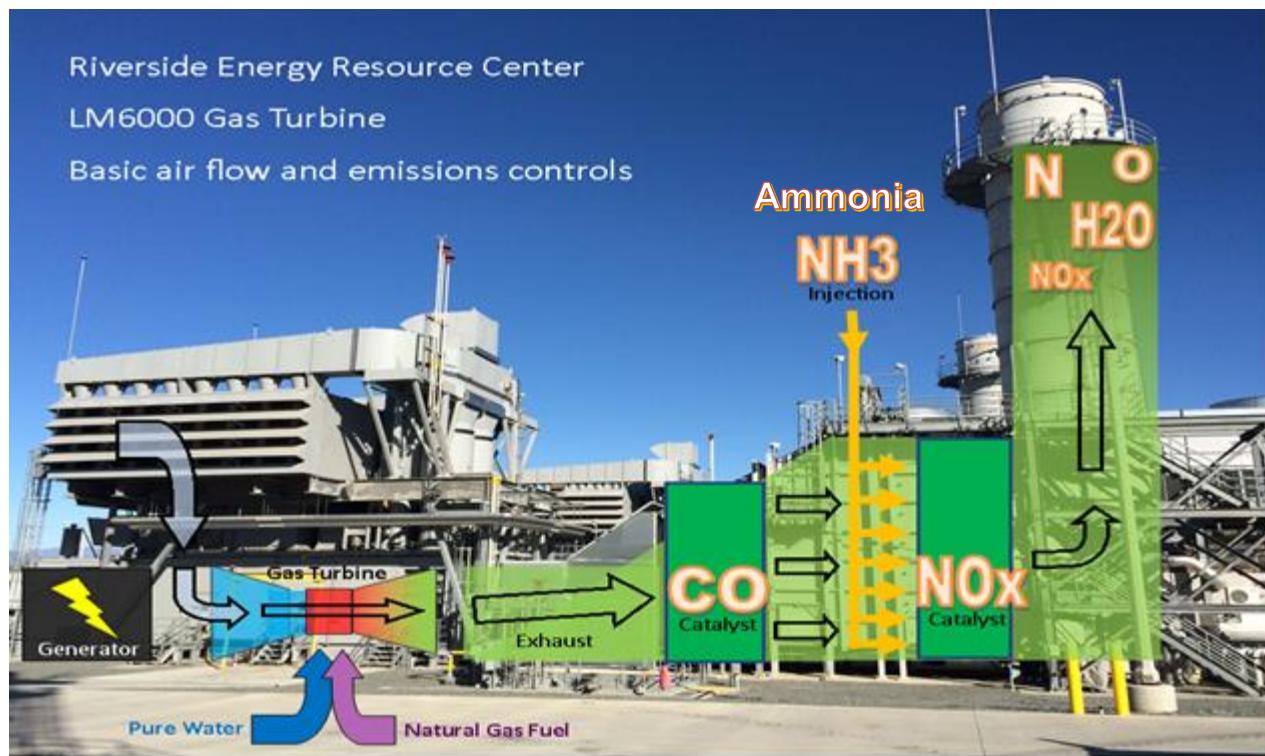


Figure 2. Emissions Flow RERC

DISCUSSION:

Request for Bid No. 7900 was issued on February 15, 2022 and closed on March 3, 2022. Two responsive bids were submitted. Receiving only two bids is not unusual because there are few local chemical suppliers who provide this product, particularly in the quantity that is needed by RPU's power plants. Ammonia is regulated by Department of Transportation and Riverside requires up to 6,000 gallons of ammonia per delivery.

Because ammonia usage varies with power plant operations, staff estimated total annual ammonia quantities for each facility in the bid specifications and requested a fixed price per gallon of ammonia for the next three years.

After evaluating the submitted bids, staff recommends the bid submitted by Airgas Specialty

Products, Inc. They provided fixed pricing for three years at the lowest competitive cost.

Table 1. RFP Notification Summary

Action	Number of Vendors
External Vendors Notified	76
City of Riverside Vendors Notified	6
Vendors Who Downloaded the RFP	11
Proposals Received	2

Table 2. Bids Received

Vendor	Location	Amount 3 Years	Rank
Airgas Specialty Products, Inc.	Lawrenceville, GA*	\$99,300	1
Hill Brothers Chemical Co.	Brea, CA	\$157,500	2
Univar Solutions USA Inc.	Kent, WA	Declined	N/A

* Company has California distribution.

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23812.

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 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 fiscal impact for Fiscal Year 2022-23 is \$33,100, and the total three-year contract is \$99,300. The City Council will consider the Fiscal Years 2022/23 – 2023/24 biennial budget on June 21, 2022. Sufficient funds are included 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.

Future years' funding will be included as part of the budget process.

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

Attachments:

1. Bid Award Recommendation
2. Presentation