



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: JULY 2, 2024

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: AWARD A DESIGN-BUILD AGREEMENT TO ANAERGIA SERVICES, LLC, A DELAWARE LIMITED LIABILITY COMPANY (LLC), DBA RIVERSIDE BIOENERGY FACILITY, LLC, A DELAWARE LLC, FOR THE REHABILITATION OF DIGESTER NO. 5 IN THE AMOUNT OF \$9,508,000, PLUS A TEN PERCENT (10%) CHANGE ORDER AUTHORITY IN THE AMOUNT OF \$950,800, FOR A TOTAL CONTRACT AMOUNT NOT TO EXCEED \$10,458,800 – AUTHORIZE A SUPPLEMENTAL APPROPRIATION IN THE AMOUNT OF \$8,434,200

ISSUES:

Award a Design-Build Agreement to Anaergia Services, LLC a Delaware limited liability company, DBA Riverside Bioenergy Facility, LLC, a Delaware LLC, for the rehabilitation of Digester No. 5 in the amount of \$9,508,000, plus a ten percent (10%) change order authority in the amount of \$950,800 for a total contract amount not to exceed \$10,458,800; and authorize a supplemental appropriation in the amount of \$8,434,200.

RECOMMENDATIONS:

That the City Council:

1. Award a Design–Build Agreement for the rehabilitation of Digester No. 5 to Anaergia Services, LLC a Delaware limited liability company, DBA Riverside Bioenergy Facility, LLC, a Delaware LLC in the amount of \$9,508,000;
2. Authorize a 10% change order authority in the amount of \$950,800 for the Design – Build Agreement to rehabilitate Digester No. 5 to Anaergia Services, LLC a Delaware limited liability company, DBA Riverside Bioenergy Facility, LLC, a Delaware LLC for a total contract not to exceed \$10,458,800;
3. Authorize the City Manager, or designee, to execute the Design–Build Agreement with Riverside Bioenergy Facility, LLC, including making minor and non-substantive changes, subject to the availability of budgeted funds; and
4. With at least five affirmative votes, authorize the Chief Financial Officer, or designee, to record a supplemental appropriation in the amount of \$8,434,200 from available Sewer Working Capital to the Digester 5 Rehabilitation expenditure account.

BACKGROUND:

Anaerobic digestion is the decomposition of biodegradable materials under low oxygen conditions. It is a common treatment practice for solid waste, including food waste. Anaerobic digestion produces two main byproducts: **biogas** and **digestate**. Biogas is a mixture of methane, carbon dioxide, and small quantities of other gases. Digestate is the non-gaseous material remaining after digestion. Anaerobic digestion is a key component in the wastewater treatment process at the Regional Water Quality Control Plant (RWQCP) and these end products can generate a new funding stream while reducing the impacts on the environment and landfills.

In 2018, the Public Works Department began pursuing a project which would maximize the full potential of the RWQCP. The project would leverage anaerobic digestion at the RWQCP to address regulatory challenges on climate, waste disposal, and biosolids management. The outcome of these efforts is the proposed “Riverside Bioenergy Facility” (Facility). This project represents the first public-private partnership (P3) for the Public Works Department and would leverage industry leaders and technology to develop valuable waste-derived end products through new and enhanced treatment processes. Key components of this partnership include:

1. The private company would lease a portion of the RWQCP for up to 30 years to develop and operate the Facility;
2. The Facility would process food waste and other anaerobically digestible materials from the City and adjoining agencies/region;
3. The Facility would produce biogas and digestate that have a commercial use. The biogas may be injected into a larger distribution system as Renewable Natural Gas and in later years the digestate would be converted to biochar.

The City would receive rental income from the lease agreement and revenue from the sale of the Renewable Natural Gas and biochar. These new funding streams would help maintain and upgrade the sewer system and reduce the overall treatment cost at the RWQCP. The project also aligns with and supports the State’s goals to better protect the environment.

On December 19, 2023, the City Council (1) awarded RFP No. 2222 for Biogas Upgrade and Digestate Management Facilities to Anaergia Services, LLC a Delaware limited liability company (LLC) doing business as Riverside Bioenergy Facility, LLC, a Delaware LLC (“Anaergia”); (2) approved the Lease and Energy Services Agreement (Agreement) with Riverside Bioenergy Facility, LLC a Delaware LLC for a term ending twenty-years from the Commercial Operation Date as defined in the Agreement, with an option for two additional five-year extensions; and (3) waived the competitive bid requirement pursuant to City Charter section 1109 for future tenant and landlord improvement related to the Lease and Energy Services Agreement, including the rehabilitation of Digester No. 5 for a public utility operated by the City. It was stipulated that staff would return to City Council separately for approval of any expenditures for the rehabilitation of Digester No. 5 and for the construction of the Riverside Bioenergy Facility.

DISCUSSION:

There are currently five anaerobic digesters located at the RWQCP – four in active use and one retired. The retired digester is known as Digester No. 5—a 75-ft diameter digester with a capacity of 1.1 MG, constructed in 1982 and was supposed to be demolished as part of the recent RWQCP expansion. It has not been in service since 2017.

In June 2019, an assessment study was completed by Carollo Engineers, Inc., to evaluate and recommend retrofits to the structural integrity, mechanical, electrical, and instrumentation of

Digester No. 5 so it can be suitable for future use as a food waste digester, capable of processing 100 wet tons per day (WTPD). The 2019 estimate to revive Digester No. 5 was \$1,991,430 and included structural modifications – internal walls rehabilitation and seismic retrofits, mechanical modifications – uninstallation of the existing standby mixing pump and new instrumentations and valves, and miscellaneous electrical modifications. Using the U.S. Producer Price Index, the 2019 estimate equates to \$2,427,500 in today’s value.

The current Digester No. 5 Rehabilitation project (“Project”) proposes to improve the existing Digester No. 5 by removing and replacing the existing digester’s dome, retrofitting the digester’s wall to bring it up to the current seismic codes, installing new mixers, improving heat exchangers, and installing new electrical equipment and instrumentation. Most importantly, with the proposed improvements in place, the current project would alter the capacity of Digester No. 5 and convert it into a regional facility, capable of processing 353 WTPD, which is approximately 3.5 times the WTPD compared to the original capacity in the assessment study completed by Carollo Engineers, Inc. mentioned above. This would increase Biogas production from 175 standard cubic feet per minute (scfm) to 502 scfm and High Strength Waste (HSW) output, which can be converted to fertilizer, from 10 tons to 30 tons per day.

To offset the increase in cost, the City in partnership with Burrtec Waste Industries, Inc. (Burrtec) was awarded a \$3 million grant from CalRecycle to produce food waste feed stock. One million dollars of the grant was awarded to Burrtec for equipment to preprocess City food waste at their Agua-Mansa materials recovery facility prior to transport to the RWQCP, and \$2 million was awarded to the City for the rehabilitation of Digester No. 5. Furthermore, Anaergia had informed staff about an Investment Tax Credit (ITC) in which up to 40% of the cost to rehabilitate Digester No. 5 is available to the City as direct payment if construction starts or 5% of the construction cost spent before 2025. The Table below summarizes the cost and grants for this Project:

Table 1 – Project Cost and Grants

Description	Amount
Design-Build Agreement + Contingencies	\$10,458,800.00
CalRecycle Grant	\$2,000,000.00
ITC Benefit (40%)	\$4,183,520.00
Anticipated Net Cost to City	\$4,275,280.00

This project is the first step in partnership with Anaergia to optimize infrastructure at the RWQCP in respond to regulatory demands, realize efficiencies, address climate change, advance sustainability initiatives, and leveraging grant funds to rehabilitate existing and construct new facilities.

On December 19, 2023, City Council approved the waiver of competitive bidding in accordance with Purchasing Resolution No. 24101, Article Seven, Section 702. Exceptions, Competitive Procurement through the Informal Procurement and Formal Procurement process shall not be required in any of the following circumstances: (n) “When the Awarding Entity waives bidding requirements under and according to the circumstances set forth in Section 1109 of the City Charter, or when it is determined by the Manager to be in the best interests of the City to do so”.

The Purchasing Manager concurs with these actions as they comply with Purchasing Resolution No. 24101, Section 702(n).

STRATEGIC PLAN ALIGNMENT:

This item supports **Strategic Priority 4 – Environmental Stewardship** and **Goal 4.6 – Implement requisite measures to achieve Citywide carbon neutrality no later than 2040.** **Strategic Priority 5 – High Performing Government** and **Goal 5.2 – Utilize technology, data, and process improvement strategies to increase efficiencies, guide decisions and ensure services are accessible and distributed equitably Citywide.** **Strategic Priority 6 – Infrastructure, Mobility, and Connectivity** and **Goal 6.3 – Identify and pursue funding opportunities to develop, operate, maintain, and renew infrastructure and programs that meet the community’s needs.**

This item aligns with each of the Cross-Cutting Threads as follows:

1. **Community Trust** – Management and capitalization of the City’s waste streams benefits all City residents, businesses, and visitors by helping to improve environmental quality, stabilize rates, and leverage previous investments in infrastructure.
2. **Equity** – Optimizing infrastructure at the RWQCP to respond to regulatory demands, realize efficiencies, address climate change, and advance sustainability initiatives benefits all City residents and businesses.
3. **Fiscal Responsibility** – Maximizing the benefit of City infrastructure supports Public Works’ efforts to minimize inefficiencies, maximize reliability, and stabilize rates.
4. **Innovation** – Public Works’ Wastewater Division is focused on implementing the newest technologies to maximize sustainability efforts and lead on resource recovery.
5. **Sustainability & Resiliency** – The City’s Regional Water Quality Control Plant has a wealth of opportunity to be a regional leader in leveraging and expanding its existing infrastructure to meet the needs of the present and positioning the City of Riverside to be at the forefront of resource recovery and beneficial reuse efforts nationally.

FISCAL IMPACT:

The total fiscal impact of this action is \$10,458,800. Upon Council approval, a supplemental appropriation in the amount of \$8,434,200 will be recorded in the Sewer Fund in the account number referenced in Table 2 to award the Design-Build agreement and complete the Project. There is sufficient working capital to accommodate the supplement appropriation. The estimated total project cost including the Design-Build agreement, construction, contingencies, and contract administration is itemized in Table 3.

Table 2 – Funding

Fund	Project	Account	Amount
Sewer	Digester 5 Rehabilitation	9912423-440301	\$2,500,000
		9912423-440301	*\$8,434,200
Total			\$10,934,200

****Denotes Supplemental Appropriation***

Table 2 – Project Costs

Task	Account	Amount
Design - Build Contract	Digester 5 Rehabilitation	\$9,508,000
Construction 10% Contingency		\$950,800
Construction Engineering, Inspection, and Survey (In House) Construction Materials Testing		\$475,400
	Total	\$10,934,200

Prepared by: Edward Filadelfia, Deputy Public Works Director
 Approved by: Gilbert Hernandez, Public Works Director
 Certified as to
 availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer
 Approved by: Kris Martinez, Assistant City Manager
 Approved as to form: Phaedra A. Norton, City Attorney

- Attachments:
1. Design-Build Agreement between City of Riverside and Riverside Bioenergy Facility, LLC.