

Date: June 11, 2025

To: Thomas B. Modica, City Manager 

From: Robert Dowell, Director of Energy Resources 

For: Mayor and Members of the City Council

Subject: **Status Update on the Proposed Organics Facility at the SERRF Site**

The Southeast Resource Recovery Facility (SERRF), a Waste-to-Energy (WTE) facility co-owned by the City of Long Beach (City) and the Los Angeles County Sanitation District (LACSD) under a Joint Powers Authority (JPA), was decommissioned on February 1, 2024, following Covanta's termination of Agreement No. 23336 effective January 31, 2024. The City's WTE facility, located in the Port of Long Beach area, had been in operation since July 1988.

In April 2023, the City issued a Request for Proposals (RFP) seeking a qualified entity to design, permit, finance, construct, own, operate, and ultimately transfer to the City an organic waste receiving and processing facility at the former SERRF site. The RFP was awarded to Bioenergy DevCo (BDC) in May 2023. Subsequently, the City and BDC sought to enter into an Exclusive Negotiating Agreement (ENA) to further develop the project.

During the ENA period, BDC conducted financial forecasting and local market research. However, due to unanticipated prolonged facility permitting timelines in the greater Los Angeles area and the uncertainty of securing low-solids organic feedstock volumes, BDC concluded in early 2025 that it was no longer feasible to proceed with their proposed project and withdrew from further negotiations with the City.

In parallel, the City has been expanding its efforts to comply with the State of California's Short-Lived Climate Pollutant Reduction Strategy (SB 1383), which mandates the diversion of organic material from landfills to reduce methane emissions. In 2021, the City began to divert organic material from City-serviced commercial accounts and completed that roll out in 2023. In October 2024, the City launched the first phase of its Residential Organics Collection Program, which will be fully implemented by the end of 2025. To date, approximately 29,000 residential accounts out of 118,000 have been enrolled in the program. Once fully rolled out, the City anticipates collecting an estimated 30,000 to 50,000 tons of organic material annually.

Currently, organics collected from residential accounts are sent to local transfer stations and then hauled to composting facilities outside of the region, such as Victorville, Simi Valley, and Lamont. While this diversion significantly reduces organic material sent to landfills and the associated methane emissions, the lack of a local end destination facility

increases transportation costs and associated trucking emissions and limits the City's control over tip fees, processing costs, and beneficial end uses.

Establishing a local organics processing facility would allow the City to leverage its existing solid waste facility permit, manage its organic waste more sustainably and cost-effectively, and help meet SB 1383 diversion requirements. It would also create opportunities for local renewable energy generation through anaerobic digestion, a proven, low-emission technology for processing organic materials and ultimately producing renewable natural gas (RNG). The closure of SERRF presents a unique opportunity to repurpose the site to meet sustainable solid waste management goals and, in the process, comply with State law. This memorandum provides an update on efforts to transition the SERRF site.

Market Sounding and Site Visits

While BDC was evaluating their project's economic viability, Energy Resources (ER) staff initiated "market sounding" efforts to inform the City's next steps in the event an agreement with BDC did not come to fruition. These efforts were intended to inform potential future uses of the site that:

- Benefit the residents of the City;
- Minimize environmental impacts and help meet sustainability goals; and,
- Offer a potential source of revenue through land lease and associated royalties from offtake agreements.

Part of the market sounding process included scheduling site visits to regional recycling and organics processing facilities and holding informational meetings with representatives from waste hauling companies, governmental entities, technology providers, and subject matter experts.

Lessons Learned

The proposed project with BDC demonstrated that the type of anaerobic digestion technology utilized has a substantial impact in the project's economic viability. BDC's design utilized a low-solids anaerobic digestion (LSAD) system, which is optimized to convert high-moisture organic materials, such as food scraps and industrial slurries, into biogas. LSAD systems require consistent, pumpable slurry and have limited compatibility with low-moisture material. Unlike LSAD systems, high-solids anaerobic digestion (HSAD) systems are designed to handle inputs that are low-moisture organic material such as yard debris, which comprise most of the City's organic material generated. While LSAD systems generally produce greater amounts of biogas per ton of high-moisture organic material with greater energy potential, HSAD systems require simpler infrastructure and are more efficient for processing the low-moisture organic material that the City collects.

The dependence of BDC's project on high-moisture organic material limited the feasibility of the proposal and required feedstock agreements with neighboring jurisdictions to be economically viable. However, those neighboring jurisdictions were unable to provide binding organic volume guarantees, and this uncertainty led to the economics of the BDC's project becoming unworkable. Due to high capital expenditures and lengthy facility permitting timelines, it became evident that alignment between the type of anaerobic digestion system deployed and the City's collected organics stream was a critical element in a project's economic and operational feasibility, including producing sufficient amounts of biogas to convert to RNG for revenue generation and more favorable tip fees.

ER staff further evaluated operational wet and dry anaerobic digestion sites in the local region to get a more comprehensive understanding of each facility's challenges and successes and to gauge industry interest in utilization of the SERRF site. By conducting this research during the waiting period for BDC's next steps, staff gained valuable insights into the financial and operational considerations that shape private investment decisions, such as location, feedstock quality, long-term supply guarantees, permitting requirements and timelines unique to California, tip fee rates, ROI, and the availability of energy or compost markets.

Staff learned that there is a need for additional organics processing infrastructure in the region, especially with the implementation of SB 1383. Organics tonnages collected have increased greatly and at a faster rate than new capacity for compost or anaerobic digestion systems can be developed and built. This leads staff to believe that an anaerobic digestion facility coupled with other processes such as mechanical equipment or thermal hydrolysis to address contamination, gas upgrading and injection stations, hydrogen production, electric generation, or other solid waste processing operations on the SERRF site remains the best use of the location. Doing so allows the City to utilize its existing solid waste permit, maintain greater control over its waste stream, reduce the need to transport organic material for off-site processing and disposal, and potentially generate revenue through offtake agreements for RNG, digestate, and/or compost, all while meeting State regulatory requirements.

Next Steps

Through the previously issued RFP and recent market sounding lessons learned, staff identified four options for the site's next steps:

- 1) Issue a revised RFP with a narrowed scope: the City can issue a new RFP that guarantees a specified minimum tonnage of collected organics and narrows the scope of potential technologies to those that are compatible with the City's organic feedstock profile and require qualifications such as having experience developing, operating, and/or obtaining permitting for solid waste facilities in California. A new RFP may receive greater industry interest than the 2023 RFP due to changes in the SERRF site conditions and improved clarity of the City's organics feedstock. The City and Covanta have terminated their partnership, and the site is being

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demolished, presenting a clean redevelopment opportunity. Additionally, staff projects that the City can guarantee a minimum of 30,000 tons per year of organic feedstock, comprised of 90% yard debris and 10% food scraps, lowering uncertainty and risk.

- 2) Explore sole source opportunities: Staff could explore potential direct partnerships with companies that have experience operating the type of anaerobic digestion systems that are conducive to the City's organic waste stream. Public Resources Code 40059 allows cities to manage all aspects of local solid waste generation and disposal, including entering contracts without a competitive procurement process.
- 3) Pause to gather further information: Given uncertainties around organic feedstock availability, permitting timelines, and the broader local economy, a pause could allow for further analyses such as feasibility studies, developing a flexible master plan for the SERRF site aligned with the City's vision for solid waste management, or exploring the possibility of obtaining LOIs or MOUs from neighboring municipalities. The City could lease the site for alternative uses in the interim period.
- 4) Pursuing alternative sites for organics processing and leasing the SERRF site: Assess the viability of developing an anaerobic digestion facility on another City-owned site and lease the SERRF site for alternative uses that would contribute revenue to the City's General Fund. Other City-owned sites may have synergies with anaerobic digestion and better logistical appeal for waste collection routes.

Of the options presented above, staff has concluded the best option for the City is issuing a revised RFP focused on a HSAD system that aligns with the City's existing organics stream. The revised RFP will specify the quantity and type of organic material the City can reliably provide, ensuring compatibility between the available organic feedstock and proven technology. This approach will reduce uncertainty for potential developers, improve project feasibility, and support the City's sustainability efforts. It is anticipated that the revised RFP will be issued in fall 2025.

If you have any questions, please contact Bob Dowell, Energy Resources Director, at (562) 570-2001.

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