



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

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FROM: James D. Herberg, General Manager
Originator: Lan C. Wiborg, Director of Environmental Services

SUBJECT:

RIALTO BIOENERGY FACILITY DRYING AND THERMAL CONVERSION CONTRACT - BIOSOLIDS MANAGEMENT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Sole Source Service Contract to Rialto Bioenergy Facility (RBF) to pilot a biosolids drying and thermal conversion service for approximately 100 wet tons per day at a base fee of \$94 per wet ton, plus monthly fuel surcharge, annual CPI (consumer price index) adjustment, and special sampling events at a rate of \$3,950 per event (6 events) for targeted Per- and Polyfluoroalkyl Substances (PFAS) compounds. The term of this Contract is for three (3) years with two (2) optional one-year renewals for a total annual amount not to exceed \$3,463,095; and
- B. Approve an annual contingency of \$346,310 (10%).

BACKGROUND

The Orange County Sanitation District (OC San) continues to actively pursue biosolids management options to maintain a long-term program that promotes beneficial use of biosolids. In accordance with the principles of its biosolids management policy (Resolution No. OCSD 13-03), OC San maintains a diverse portfolio of biosolids management options that utilize multiple contractors, facilities, and biosolid product markets, while maintaining fail-safe, back-up options.

In February 2020, OC San issued a Biosolids Thermal Conversion (BTC) Request for Information (RFI) as recommended by the 2019 Strategic Plan and reflective of the Biosolids Master Plan to seek emerging technologies to create energy from biosolids and further diversify facilities and biosolids product markets. The 2019 Strategic Plan also recognized rising regulatory concerns regarding PFAS compounds.

In April 2020, OC San received five (5) responses to the RFI, of which four (4) had the appropriate operational temperature of at least 400 Celsius, three (3) had proven scalable technologies, and ultimately only one (1), the RBF, was already funded and in construction to meet OC San's short-term demonstration project timeline to minimize risk to OC San. OC San staff has been working on this sole source demonstration contract and negotiations with RBF since the RFI results were presented

to the Board's Operations and Administration Committees in November 2020.

The RBF is located in Rialto, California in San Bernardino County and is a subsidiary of Anaergia, a global resource recovery company. The RBF process will first dry the biosolids (from about 25% to at least 90% total solids) to produce a pellet utilizing a low-temperature belt dryer. Then Anaergia's patented two-stage pyrolysis system uses high temperatures (about 700 C/1300 F) to produce three products: pyrolysis gas, bio-oil, and biochar. The pyrolysis gas is used for heating the pyrolizer and dryers. The bio-oil is maximized and fed to the onsite anaerobic digesters to increase biogas production. The RBF digesters process organic material extracted from municipal solid waste to generate biogas for pipeline injection, which is a separate process stream than biosolids.

Key features of this contract include:

- **Diversification:** As explained above, this contract provides diversification of OC San's portfolio of biosolids management options into an emerging technology that may also help destroy PFAS.
- **PFAS sampling:** This is the first time Anaergia is installing a pyrolysis unit of this size as previous units were for smaller plants, but the technology is anticipated to be fully scalable. This sole source contract will demonstrate the PFAS destruction effectiveness of the pyrolysis technology. The contract includes up to six (6) PFAS sampling and reporting events at a cost of \$3,950 each to be performed after full commissioning of pyrolysis is complete. RBF's proposal included promising results from their smaller scale pyrolysis operation that indicated destruction of all PFAS components that were tested.
- **Sole source:** Given the short-term, demonstration nature of this contract as well as the 2020 RFI full market survey performed and strict criteria (operational technologies and timeline), OC San staff believe the sole source is the appropriate contract vehicle.
- **Accelerated timeline:** The RBF project is financed with \$117,200,000 of Green Bonds from the California Pollution Control Financing Authority, and RBF's parent company, Anaergia, also provided equity. Therefore, the facility is fully financed, and currently in various stages of construction and commissioning, thereby meeting OC's San's accelerated timeline criteria. Normally, agencies need to commit to long-term, guaranteed biosolids tonnage before projects can be financed and constructed.
- **Low-risk, non-guaranteed tonnage:** As a result of the accelerated timeline, OC San was able to negotiate a contract with no guarantee of tonnage and a short-term commitment which is conducive to the technology pilot this sole source contract serves. This also makes this contract a low-risk biosolids management option as OC San can withdraw at any time. Although the tonnage is not guaranteed, OC San anticipates hauling an average of 100 wet tons (4 trucks) per day.
- **First in line for new advanced technology:** Los Angeles County Sanitation Districts and the City of Los Angeles both added the RBF (Anaergia) as a hauling destination to their Denali contracts in 2018. These hauling contracts only list the hauling location and do not guarantee capacity for the pyrolysis unit. OC San will be the first agency to contractually commit

biosolids to RBF's pyrolysis unit which means OC San is the first in line to have our 100 tons per day of biosolids processed through pyrolysis. As other agencies sign on, OC San will have peace of mind that OC San biosolids are being processed first.

- **Performance guarantees:** This contract contains a price de-escalation clause if the pyrolysis unit is not fully commissioned after nine (9) months from the Notice to Proceed date. The price will drop by \$1 per ton per month for up to seven (7) months until pyrolysis is fully commissioned. By February 1, 2023, if pyrolysis is not fully commissioned, OC San has the option to continue sending biosolids to RBF for drying to create a pellet product at \$87 per wet ton base price. All other contract terms will remain in effect. Note that the dryer is not a PFAS destruction technology, however the drying service will continue to meet emerging market and diversification policies.
- **Short-term:** The contract avoids the typical long-term commitments needed to invest in a new technology. The term of this sole-source Agreement is for three (3) years and, upon mutual written agreement, with an option to extend on a year-to-year basis with up to two (2) annual extensions.
- **Standard contract components:** Other features of this contract are typical of OC San biosolids contracts including fuel surcharge to cover diesel price variability, consumer price index increases to cover onsite facility costs, and an annual contingency of 10% (\$ 346,310) to account for fuel and CPI increases.

RELEVANT STANDARDS

- Maintain and adhere to appropriate internal planning documents (Strategic Plan, Biosolids Master Plan)
- Safe, beneficial reuse of Biosolids
- Comply with environmental permit requirements

PROBLEM

OC San's Biosolids Master Plan, Biosolids Policy, and 2019 Strategic Plan support diversification of biosolids management options including into new technology emerging markets. Potential regulations in the future could target PFAS compounds present at low levels in biosolids and could require treatment or destruction of PFAS in biosolids.

PROPOSED SOLUTION

Approve the Agreement to demonstrate the effectiveness of pyrolysis for PFAS destruction while increasing biosolids management diversity, emerging markets, and sustainability through a local, in-basin management option.

TIMING CONCERNS

With the approval of this contract, OC San will be the first agency to have provided biosolids to the new pyrolysis process. RBF anticipates commissioning of pyrolysis units in December 2021 and will

be working with sister agencies to fill the remaining 200 tons per day of capacity.

RAMIFICATIONS OF NOT TAKING ACTION

OC San will not be able to demonstrate the potential PFAS destruction of pyrolysis, will lose an opportunity to be “first in line”, as well as missing out an opportunity for additional diversification of our biosolids portfolio with a new technology, new emerging market, and new biosolids products (pellets and biochar).

CEQA

The project is within the scope of the OC San’s Biosolids Mater Plan EIR. (Orange County Sanitation District Biosolids Master Plan Project No. PS15-01, State Clearinghouse Number 2017071026, certified June 27, 2018.) The potential environmental impacts caused by the Rialto Bioenergy Facility (the receiving facility) treatment of biosolids are within the operational baseline established by the Rialto Bioenergy Facility EIR. (Final Environmental Impact Report, State Clearinghouse Number 2017071026, Rialto Bioenergy Facility Project, certified March 27, 2018.) Therefore, no additional analysis is required. (Public Resources Code § 21166; CEQA Guidelines §§ 15168, 15162.)

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San’s Purchasing Ordinance. This item has been budgeted. (Budget Update Fiscal Year 2021-22, Pages 28 and 45). Project contingency funds will not be used for this contract.

<u>Date of Approval</u>	<u>Contract Amount</u>	<u>Contingency</u>
07/28/2021	\$3,463,095	\$ 346,310

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Rialto Bioenergy Facility Contract
- Presentation