



OPERATIONS COMMITTEE

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Agenda Report

File #: 2022-2361

Agenda Date: 6/22/2022

Agenda Item No: 13.

FROM: James D. Herberg, General Manager
Originator: Riaz Moinuddin, Director of Operations & Maintenance

SUBJECT:

SERVICE CONTRACT FOR PLANT NOS. 1 AND 2 CENTRAL GENERATION FACILITIES' CARBON MEDIA CHANGE-OUT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

- A. Approve a Service Contract to Carbon Bulk Sales LLC to install and dispose of activated carbon media for Plant Nos. 1 and 2 Cen-Gen Facilities, Specification No. S-2022-1289BD, for a total amount not to exceed \$420,972 for the period beginning July 1, 2022 through June 30, 2023, with four (4) one-year renewal options; and
- B. Approve an annual contingency of \$42,097 (10%).

BACKGROUND

Orange County Sanitation District (OC San) Plant Nos. 1 and 2 Cen-Gen facilities use granular activated carbon to remove siloxane, volatile organic carbon (VOC), and sulfur compounds from digester gas. Removal of these constituents is necessary to meet air compliance standards and maintenance requirements. Specifically, failure to remove these compounds will damage both the reductive and oxidation catalysts necessary to control engine emissions.

Two vessels are used in series at Plant No. 1 and three vessels are used at Plant No. 2. The first vessel is the primary tank for roughing and the second vessel is for polishing the residual compounds from the biogas. The third vessel at Plant No. 2 is a standby vessel. Each vessel has three layers of activated carbon media with different specifications recommended by the system manufacturer to remove targeted components from biogas.

RELEVANT STANDARDS

- Maintain a proactive asset management program
- 24/7/365 treatment plant reliability
- Protect OC San assets

PROBLEM

The granular activated carbon removes targeted contaminants from digester gas before utilizing the gas for combustion in the Cen-Gen facilities. The carbon media has a limited capacity to absorb the contaminants. When the carbon material is fully consumed, the medium is exhausted and must be replaced to comply with the AQMD facility permits and operational requirements.

PROPOSED SOLUTION

Staff recommends approving a Service Contract with Carbon Bulk Sales LLC to replace the carbon media utilized to clean digester gas at Plant Nos.1 and 2 Cen-Gen facilities.

TIMING CONCERNS

With the exhaustion of the carbon media in the biogas cleaning system, siloxane, and hydrogen sulfide break-through will occur, and the Cen-Gen facilities will not be able to meet air quality permit requirements when using biogas.

RAMIFICATIONS OF NOT TAKING ACTION

The inability to clean digester gas will result in the inability to meet AQMD air permit requirements using digester gas at both Central Generation Plants. Digester gas will be flared at both plants.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Staff developed a scope of work and invited vendors to submit bids. Three bids were received, as listed below.

Company	Bid Amount (include tax)	Comments
Carbon Bulk Sales LLC	\$420,972	Bid Award - Responsive
Carbon Activated Corp.	\$476,746	Non-Responsive
Advanced Chemical Transport, Inc.	\$766,140	Responsive

Staff has identified Carbon Bulk Sales LLC as the lowest responsive and responsible bidder.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with OC San's Purchasing Ordinance authority levels. This item has been budgeted in the FY 2021-22 Budget, Divisions 830 and 840, line item 65 Operating Budget.

ATTACHMENT

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

- Service Contract

RS:cf