



OPERATIONS COMMITTEE

Agenda Report

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File #: 2025-4168

Agenda Date: 9/3/2025

Agenda Item No: 12.

FROM: Robert Thompson, General Manager
Originator: Mike Dorman, Director of Engineering

SUBJECT:

ENGINE AND GENERATOR OVERHAULS AT PLANT NOS. 1 AND 2 PHASE 2, CONTRACT NO. J-135C

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a project budget increase of \$2,500,000 for Central Generation Engine Overhauls at Plant Nos. 1 and 2, Project No. J-135, for a new total budget of \$74,700,000;
- B. Award a Sole Source Service Contract to Cooper Machinery Services LLC for Engine and Generator Overhauls at Plant Nos. 1 and 2, Phase 2, Contract No. J-135C, as part of Central Generation Engine Overhauls at Plant Nos. 1 and 2, Project No. J-135, for a total amount not to exceed \$28,642,770; and
- C. Approve a contingency of \$2,864,277 (10%).

BACKGROUND

In the early 1990s, Orange County Sanitation District (OC San) installed eight internal combustion engines manufactured by Cooper Bessemer at the Central Generation (CenGen) facilities at Plant Nos. 1 and 2 to generate electricity using digester gas. During normal operating conditions, the CenGen facilities supply approximately 60% of the electricity at Plant No. 1 and 95% of the electricity at Plant No. 2. CenGen is also used to provide power to the plants during a utility power outage to maintain permit compliance.

OC San staff performs routine and scheduled maintenance based on hours of runtime, in accordance with the manufacturer's recommendations. A complete engine overhaul is required after 120,000 hours of runtime. There are three engine generator sets (Gensets) at Plant No. 1 and five Gensets at Plant No. 2.

Cooper Machinery Services LLC (Cooper) has completed or will be completing overhauls on Genset Nos. 1 and 3 at Plant No. 1 and Genset Nos. 1, 4, and 5 at Plant No. 2 under Contract Nos. J-135A and J-135B. Contract No. J-135B is scheduled to be completed by April 2026. This is the first complete overhaul of these Gensets.

RELEVANT STANDARDS

- Protect OC San assets
- Maintain a proactive asset management program
- 24/7/365 treatment plant reliability
- Comply with environmental permit requirements

PROBLEM

Upon completion of Contract No. J-135B, a total of five Gensets will be overhauled between both plants, which equals the number of Gensets required during normal plant operation to utilize the available digester gas. The remaining three Gensets, Genset No. 2 at Plant No. 1 and Genset Nos. 2 and 3 at Plant No. 2, are in similar condition and also require complete overhauls to provide sufficient redundancy and reliability during wet and dry weather conditions.

PROPOSED SOLUTION

Award a Sole Source Service Contract to Cooper to complete the overhaul of the remaining three Gensets. Upon completion, all eight Gensets at Plants Nos. 1 and 2 will have been rebuilt, each with an additional runtime of approximately 20-25 years.

TIMING CONCERNS

Any delays in initiating the overhaul of the remaining three Gensets will result in continued operation with reduced reliability and an increased risk of failure.

RAMIFICATIONS OF NOT TAKING ACTION

This overhaul is required to maintain overall system reliability and ensure consistent performance across all Genset units. If the engines fail, digester gas will need to be burned using flares, additional utility power will be required. CenGen will not be able to provide power to the two treatment plants during a utility power outage, resulting in a reduction of overall reliability of the treatment plants and potential South Coast Air Quality Management District permit violations.

PRIOR COMMITTEE/BOARD ACTIONS

December 2024 - Approved a contingency increase of \$711,765 (5.6%) to the existing Sole Source Service Contract with Cooper Machinery Services LLC for Engine and Generator Overhauls at Plant Nos.1 and 2, Project No. J-135B, for a total contingency of \$5,284,985 (18%).

April 2023 - Approved the addition of funds to include generator overhauls as part of the construction contract with Cooper Machinery Services LLC for the Engine and Generator Overhauls at Plant Nos. 1 and 2, Contract No. J-135B, in the amount of \$1,637,117 (5.6%), for a total construction contingency of \$4,573,220 (15.6%).

July 2022 - Awarded a Sole Source Service Contract to Cooper Machinery Services LLC for Engine and Generator Overhauls at Plant Nos.1 and 2, Project No. J-135B, for a total amount not to exceed

\$29,361,029; and approved a contingency of \$2,936,103 (10%).

March 2021 - Awarded a Sole Source Service Contract to Cooper Machinery Services to provide a Central Generation Engine No. 1 Overhaul at Plant No. 1, per Proposal 210204-839, for a total amount of not to exceed \$3,705,932; and approved a contingency of \$741,186 (20%).

ADDITIONAL INFORMATION

OC San made extensive efforts, particularly during the procurement of Contract No. J-135B, to identify alternative service providers with adequate technical qualifications who could also meet the terms and conditions of OC San's contracts. After a thorough evaluation, OC San determined that Cooper remains the only viable service provider for this project.

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Budget Update FY 2025-26, Page A-7, Central Generation Engine Overhauls at Plant No. 1 and 2, Project No. J-135). This item will increase the project budget and will be funded from the CIP budget.

ATTACHMENT

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

- Sole Source Service Contract
- Presentation

SA:lb