



- Board of Directors
Engineering and Operations Committee

7/9/2019 Board Meeting

7-1

Subject

Award \$475,000 construction contract to Mehta Mechanical Company, Inc. to construct a weather enclosure at the Yorba Linda Power Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

This action awards a contract to construct a weather enclosure at the Yorba Linda Power Plant to protect the generator and its associated control instrumentation from rainwater intrusion and sun damage.

Timing and Urgency

The Yorba Linda Power Plant was recently upgraded with the installation of a new turbine and other associated facility improvements. The upgraded facility is currently operational. The remaining work includes the fabrication and installation of a weather enclosure over the turbine, generator, and exterior instrumentation. The weather enclosure is needed at this time to protect the equipment against rainstorms and sun damage, thereby enhancing the long-term reliability of the power plant.

This project has been reviewed with Metropolitan's prioritization criteria and is included in the Distribution System Reliability Program. Funds for the work to be performed pursuant to this contract are available within the Capital Investment Plan Appropriation for Fiscal Years 2018/19 and 2019/20.

Details

Background

Metropolitan owns and operates 16 small hydroelectric power plants including the Yorba Linda Power Plant, which is located at the terminus of the Yorba Linda Feeder within the Robert B. Diemer Water Treatment Plant. The Yorba Linda Feeder conveys a blend of untreated water from the State Water Project and the Colorado River Aqueduct to the Diemer plant. Due to its high delivery pressure, flows from the Yorba Linda Feeder are controlled through the Yorba Linda Pressure Control Structure and the Yorba Linda Power Plant. The Yorba Linda Power Plant has a generation capacity of 5 megawatts through its single reaction turbine and generator. Depending on pipeline flowrates, daily revenues can range from \$4,500 to \$6,800.

In November 2013, Metropolitan's Board awarded a construction contract to replace the plant's impulse turbine and generator. Turbine replacement was required because the installation of ozone contactors at the Diemer plant changed the hydraulic profile of the plant. This change to the plant's hydraulic profile submerged the original impulse turbine rotor and rendered it inoperable. Installation of the new reaction turbine is complete, and the hydroelectric plant has been returned to service. In September 2018, Metropolitan's Board authorized completion activities for this project, which include control system improvements and design of a weather enclosure for the turbine and generator. Staff recommends awarding a contract for construction of a new weather enclosure at this time. Staff will return to the Board at a later date to award a contract for control system improvements.

Yorba Linda Power Plant Weather Enclosure – Construction

The scope of the construction contract includes fabrication and installation of an approximately 530-square-foot weather enclosure for the turbine and generator at the Yorba Linda Power Plant. Design features of the new enclosure are consistent with the architectural theme of the adjacent ozonation facilities.

A total of \$900,000 is required to perform this work. In addition to the amount of the contract described below, other funds to be allocated include \$94,000 for the Metropolitan force activities to extend the necessary electrical connections from the existing facilities to the new enclosure to power lights and fans within the enclosure; \$80,000 for construction inspection; \$86,000 for submittals review, responding to requests for information, and preparation of record drawings; \$29,000 for contract administration and project management; and \$136,000 for remaining budget.

Attachment 1 provides the allocation of funds. The total estimated cost to complete the Yorba Linda Power Plant turbine replacement, including the amount appropriated to date, funds allocated for the work described in this letter, and amount planned for future work, is anticipated to range from \$19 million to \$21 million. Approximately \$17.4 million has been expended on these projects to date.

Award of Construction Contract (Mehta Mechanical Company, Inc.)

Specifications No. 1953 to fabricate and install the Yorba Linda Power Plant weather enclosure was advertised for bids on April 30, 2019. As shown in **Attachment 2**, one bid was received and opened on May 23, 2019. The bid from Mehta Mechanical Company, Inc., in the amount of \$475,000, complies with the requirements of the specifications. The engineer's estimate was \$392,000. Staff investigated the difference between the engineer's estimate and the sole bid and attributes the difference to the higher cost of steel fabrication and roofing. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 20 percent of the bid amount. Mehta Mechanical Company, Inc. is an SBE firm, and thus achieves 100 percent participation. The subcontractors for this contract are listed in **Attachment 3**.

This action awards a \$475,000 contract to Mehta Mechanical Company, Inc. for construction of a weather enclosure at the Yorba Linda Power Plant.

Metropolitan staff will perform inspection of the construction. For this project, the performance metric goal for inspection is 14.1 percent of the total construction cost. Engineering Services' performance metric target range for inspection of projects with construction less than \$3 million is 9 to 15 percent. The total cost of construction for this project is \$569,000, which includes the amount of the contract (\$475,000) and Metropolitan force activities (\$94,000).

Summary

This action awards a \$475,000 construction contract to Mehta Mechanical Company, Inc. for fabrication and installation of a weather enclosure at the Yorba Linda Power Plant. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

A total of \$900,000 is required for this work. This project has been reviewed and approved by Metropolitan's Capital Investment Plan Evaluation Team. Funds for the work to be performed pursuant to this contract are available within the Capital Investment Plan Appropriation for Fiscal Years 2018/19 and 2019/20 (Appropriation No. 15509).

Project Milestone

January 2020 – Completion of weather enclosure installation at the Yorba Linda Power Plant

Policy

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 49597, dated November 19, 2013, the Board awarded a contract to replace the hydroelectric turbine at the Yorba Linda Power Plant.

By Minute Item 51322, dated September 11, 2018, the Board authorized completion activities for the modification of the Yorba Linda Power Plant.

By Minute Item 51353 dated October 9, 2018, the Board appropriated a total of \$290 million for projects identified in the Capital Investment Plan for Fiscal Years 2018/19 and 2019/20.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves minor alterations to existing facilities with negligible or no expansion of use and with no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under a Class 1 Categorical Exemption (Section 15301) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Award \$475,000 contract to Mehta Mechanical Company, Inc. for installation of a weather enclosure at the Yorba Linda Power Plant.

Fiscal Impact: \$900,000 in capital funds

Business Analysis: This option will increase operational reliability and decrease weather-related deterioration of the generator and associated equipment.

Option #2

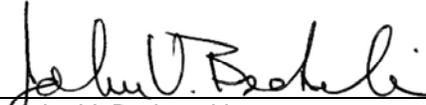
Do not award a contract for the installation of the weather enclosure at the Yorba Linda Power Plant.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to protect against weather-related equipment deterioration and damage.

Staff Recommendation

Option #1

	6/21/2019
John V. Bednarski Manager/Chief Engineer Engineering Services	Date
	6/26/2019
Jeffrey Kightlinger General Manager	Date

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Allocation of Funds for Yorba Linda Power Plant Weather Enclosure

	Current Board Action (July 2019)
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	29,000
Submittals Review & Record Drwgs.	86,000
Construction Inspection & Support	80,000
Metropolitan Force Construction	87,000
Materials & Supplies	7,000
Incidental Expenses	-
Right-of-Way	-
Equipment Use	-
Contracts	
Mehta Mechanical Company, Inc.	475,000
Remaining Budget	136,000
Total	\$ 900,000

The total amount expended to date to modify the Yorba Linda Power Plant is approximately \$17.4 million. The total estimated cost to complete the modifications, including the amount appropriated to date, funds allocated for the work described in this action, and amount planned for future work, is anticipated to range from \$19 million to \$21 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 23, 2019, at 2:00 P.M.

**Specifications No. 1953
Installation of Yorba Linda Generator Enclosure**

The work includes installation of a steel enclosure with single-ply roofing over a hydroelectric generator including ventilation fan, louvers and inlet air filters.

Engineer's estimate: \$392,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Mehta Mechanical Company, Inc. La Palma, CA	\$475,000	\$475,000	100	Yes

¹ Small Business Enterprise (SBE) participation level established at 20% for this contract.

The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

**Specifications No. 1953
Installation of Yorba Linda Generator Enclosure**

Low bidder: Mehta Mechanical Company, Inc.

Subcontractor and Location
Infinity Metals, Inc. La Habra, CA
Maranatha Sheet Metal, Inc. Orange, CA
Best Contracting Gardena, CA

