

COMMISSION FILE NO: 17-080-9 **DATE INTRODUCED:** September 11, 2017

INTRODUCED BY: Executive Director (Signature on File in the Office of the Commission)

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Award of Contract S06029C01, South Shore Water Reclamation Facility Medium Voltage Switchgear Replacement Project, and Approve Changes in Total Project Costs

SUMMARY:

The Commission is requested to award and to direct the Executive Director to execute on behalf of the District Contract S06029C01, South Shore Water Reclamation Facility (SSWRF) Medium Voltage Switchgear Replacement Project, with Pieper Electric, Inc., in an amount of \$2,859,980. Pieper Electric, Inc., was the lowest responsible, responsive bidder among three bids received.

Further, the Commission is requested to decrease the total project cost for Project S06029, SSWRF Medium Voltage Switchgear Replacement Project, by \$787,172 for an amended total project cost of \$3,747,894 and to make a corresponding change to the total project cost for Project M99001, Allowance for Cost and Schedule Changes.

At SSWRF, there is medium voltage switchgear that distributes electric power at 4,160 volts to the majority of SSWRF. The switchgear consists of 14 large circuit breakers enclosed in a fabricated steel building. Electric power from We Energies is fed to the switchgear from two redundant 24,900 to 4,160-volt step-down transformers located next to the switchgear. Electric power that is generated on site is also distributed to SSWRF equipment through the switchgear.

The medium voltage switchgear has been in service more than 33 years and is nearing the end of its useful service life. Replacement parts are becoming difficult to obtain, the switchgear equipment lacks modern safety features, and the steel building housing the switchgear is corroding. The reliability of the switchgear is essential to maintaining operations and regulatory compliance at SSWRF. Failure of the medium voltage switchgear would cause most of SSWRF to be without power.

ATTACHMENTS: **BACKGROUND** ☐ **KEY ISSUES** ☐ **RESOLUTION** ☒
FISCAL NOTE ☒ **S/W/MBE** ☒ **OTHER** ☐ _____

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COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Award of Contract S06029C01, South Shore Water Reclamation Facility Medium Voltage Switchgear Replacement Project, and Approve Changes in Total Project Costs

SSWRF also utilizes motor control centers (MCC) throughout the facility. An MCC is a piece of electrical equipment that is used to distribute 480-volt power to building loads. It contains devices to allow safe starting of motors, large circuit breakers to provide protection, and power disconnects for pump motors, valves, transformers, and other electrical devices.

MCC-8 is located in an electrical room in the SSWRF Digester Gallery. MCC-8 distributes 480-volt electric power to equipment that is critical to operation of digesters. MCC-8 consists of several circuit breakers located in cubicles in a steel enclosure. MCC-8 is over 33 years old and past the end of its useful service life. MCC-8 has a failed section, rendering one of the cubicles unusable, and presents a safety issue when working on the MCC.

The general scope of work for this construction contract includes:

- Replacing the medium voltage switchgear with modern circuit breakers and protective relays and replace the switchgear building and its foundation.
- Replacing electrical cables between the switchgear and four load centers.
- Replacing MCC-8 with a new current technology based MCC.
- Providing electrical studies to ensure correct settings of protective equipment and hazard labeling of new and existing equipment.

The duration for this contract is approximately 20 months.

The low bid received by the District is less than budgeted, and staff requests to reduce the total project cost accordingly.

Consistent with the Agreement for Management, Operations, and Maintenance Services between the District and Veolia Water Milwaukee (VWM), VWM will make a \$30,000 contribution to the District for this project.

RESOLUTION

Award of Contract S06029C01, South Shore Water Reclamation Facility Medium Voltage Switchgear Replacement Project, and Approve Changes in Total Project Costs

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that Contract S06029C01, South Shore Water Reclamation Facility Medium Voltage Switchgear Replacement Project, is awarded to Pieper Electric, Inc., in the amount of \$2,859,980, and that the Executive Director is directed to execute a contract on behalf of the District.

FURTHER RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the total project cost for Project S06029, South Shore Water Reclamation Facility Medium Voltage Switchgear Replacement Project, is decreased by \$787,172 for an amended total project cost of \$3,747,894, and that a corresponding change is made to the total project cost for Project M99001, Allowance for Cost and Schedule Changes.