

COMMISSION FILE NO: 24-102-7 **DATE INTRODUCED:** July 8, 2024

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

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Full Service Agreement for the Jones Island Water Reclamation Facility Landfill Gas Turbines, Contract J06056C02

SUMMARY:

The Commission is requested to authorize the Executive Director to execute on behalf of the District Contract J06056C02, Full Service Agreement (FSA) for the Jones Island Water Reclamation Facility (JIWRF) Landfill Gas Turbines, with Solar Turbines, Inc., (Solar) in an amount estimated at \$13,000,000 for a period of five years.

The District owns and Veolia Water Milwaukee (VWM) operates three turbines manufactured by Solar that operate using a combination of natural gas and landfill gas. These turbines began operating in 2012. When operating at full capacity, the three turbines combined produce enough electricity to power JIWRF during baseflow conditions. As needed to ensure sufficient electricity is available for operations, the District also purchases electricity from We Energies or uses a General Electric turbine that operates on natural gas; however, operating the Solar turbines using landfill gas is the least cost method for providing the electricity needed for plant operations.

ATTACHMENTS: BACKGROUND ☐ KEY ISSUES ☐ RESOLUTION ☒

FISCAL NOTE ☒ S/W/MBE ☒ OTHER ☐ _____

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COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Full Service Agreement for the Jones Island Water Reclamation Facility Landfill Gas Turbines, Contract J06056C02

As the original equipment manufacturer, Solar offers FSA's on installed equipment. The District has had such an agreement with Solar since 2013. Under an FSA, Solar:

- Remotely monitors the turbines in real time, such that many issues are identified and addressed before causing downtime.
- Provides preventive and corrective maintenance, including repairs and replacement.
- Completes engine/generator and major engine component replacement (typically every four to six years).
- Has field service representatives that can be called in to work on the equipment if turbines do go out of service and need work. This results in shorter downtime as compared to not having the FSA in place.

Additionally, the District's air permit with the Wisconsin Department of Natural Resources requires that the turbines operate at or above a specified minimum efficiency. The FSA includes a term that Solar turbines must meet this efficiency requirement; the turbine is exchanged with an overhauled engine when efficiency deteriorates to a defined point.

The FSA also requires that the turbines be operated consistent with Solar's requirements, including the quality of the landfill gas. The District's agreements with VWM for operations and with GFL Environmental for the landfill gas supply ensure that turbine operations meet these requirements.

The District's existing service agreement expires on September 30, 2024. Staff recommends that the District enter into a new FSA to continue to provide these services beyond September 2024. As the Solar turbines are the least cost means of providing electricity at JIWRP, it is important that their availability is maximized. The Solar turbines are a highly engineered, high efficiency machine, and having Solar be responsible for monitoring, inspecting, maintenance and engine exchanges is the best means to maximize their availability.

While the previous agreement was originally for a 10-year period (with an 11-month extension through September 2024), Solar will now only enter into five-year agreements. The cost of the FSA is \$62,952 per unit per month. It includes an annual escalation commencing on January 1 of each year thereafter according to Solar's annual published escalation rate. The FSA cost is largely due to the engine exchange portion of the FSA, which historically has occurred every four to five years. The FSA is funded 75% through the Capital budget with the remaining 25% from the Operations and Maintenance budget.

SUMMARY (Cont'd)

Full Service Agreement for the Jones Island Water Reclamation Facility Landfill Gas
Turbines, Contract J06056C02

As the developer, designer, manufacturer, and sole technical supporter of these turbines, Solar is the only firm that offers and can provide an FSA of this type. Thus, this is a sole source procurement.

RESOLUTION

Full Service Agreement for the Jones Island Water Reclamation Facility Landfill Gas
Turbines, Contract J06056C02

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute on behalf of the District Contract J06056C02, Full Service Agreement for the Jones Island Water Reclamation Facility Landfill Gas Turbines, with Solar Turbines, Inc., in an amount estimated at \$13,000,000 for a period of five years.