

**COMMISSION FILE NO:** 17-028-3 **DATE INTRODUCED:** March 13, 2017

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

**REFERRED BY COMMISSION CHAIRPERSON TO:** Operations Committee

**RELATING TO:** Authorizing the Executive Director to Execute a Purchase Order for Five Jones Island Solar® Turbine Fuel Injectors

**SUMMARY:**

The Commission is requested to authorize the Executive Director to execute a purchase order with Solar® Turbines, Inc., (Solar®) for five fuel injectors in an amount not to exceed \$220,000. Solar® manufactured the turbines, and the District can only procure injectors from Solar®; therefore, this is a sole source procurement.

At the Jones Island Water Reclamation Facility, the District owns three Solar® turbines, hereinafter called landfill gas turbines. The landfill gas turbines are capable of being fueled by landfill gas, natural gas, or a combination of both. The turbines supply power to the plant electrical grid for plant operations. Exhaust heat from the turbines is also used in the dewatering and drying facility in the drying of sludge to produce Milorganite®. Reliably producing electric power with the landfill gas turbines is critical to maintaining the treatment process and minimizing the total cost of operations.

Within each of the three turbines are eight injectors that inject a stream of natural gas, landfill gas, or a combination of both into a combustion chamber. The injectors are exposed to high temperatures and degrade over time. Currently, five of the 24 injectors have degraded to the point where they need to be replaced. With five injectors inoperable, the District is limited as to the number of turbines that can be operated.

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

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**COMMITTEE ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**COMMISSION ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## **SUMMARY (Cont'd)**

### **Authorizing the Executive Director to Execute a Purchase Order for Five Jones Island Solar® Turbine Fuel Injectors**

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When the landfill gas turbines are not available and operating, the District is not utilizing all available landfill gas, is not maximizing the amount of exhaust heat utilized in Milorganite® production, and is purchasing additional power from We Energies, all of which increase the cost of operations.

In the interest of minimizing the cost of operations while the District reviews the available information, District staff recommends that the District purchase fuel injectors now, so that they can be installed in April. April is the same time that repair work will be completed on the gas compressors that provide the fuel mixture to the landfill gas turbines. When this work is complete, the District can utilize all three landfill gas turbines.

Solar® provided the landfill gas turbines to the District and is the sole supplier of parts for the landfill gas turbines; therefore, this purchase is considered a sole source procurement and the purchase order must be executed with Solar®. The fuel injectors will be installed by Solar® under the extended service agreement (ESA) between the District and Solar®. District staff are exploring the possibility that some of or all the cost of the purchase of these injectors may be recovered under the ESA.

## **RESOLUTION**

Authorizing the Executive Director to Execute a Purchase Order for Five Jones Island  
Solar® Turbine Fuel Injectors

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized and directed to execute a purchase order with Solar® Turbines, Inc., for five Jones Island Solar® turbine fuel injectors in an amount not to exceed \$220,000.