



Agenda Report

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File #: 19-0523

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**AGENDA REPORT  
REQUEST FOR CITY COUNCIL AND  
CORONA UTILITY AUTHORITY ACTION**

DATE: June 5, 2019.

TO: Honorable Mayor and City Council Members  
Honorable President and Board Members

FROM: Department of Water and Power

**SUBJECT:**

City Council and Corona Utility Authority consideration of an Exception to Bidding to Toray Membrane USA, Inc. for Reverse Osmosis Membranes for the Temescal Desalter.

**RECOMMENDED ACTION:**

That the:

1. City Council authorize an Exception to Bidding pursuant to Municipal Code Section 3.08.140 (E) to Toray Membrane USA, Inc. of Poway, CA, in the amount of \$141,099.34 for reverse osmosis membranes and appurtenances.
2. City Council authorize the Purchasing Agent to issue purchase orders in accordance with the duly authorized and executed agreements, change orders, amendments and renewals.
3. City Council authorize the continuing appropriation of funds if not expended or encumbered by June 30, 2019.
4. Corona Utility Authority (CUA) review, ratify and to the extent necessary direct that the City Council take the above actions.

**ANALYSIS:**

The Department of Water and Power (DWP) operates a reverse osmosis desalination plant named the Temescal Desalter (Desalter). The Desalter directly treats water pumped from eight groundwater wells in the Temescal Subbasin. The Desalter utilizes 0.0001 micron reverse osmosis membranes for treating brackish water for nitrates and other salts. The membranes are fed by high-pressure feed pumps that push water through the membranes at approximately 170 psi. The membranes are made

of cross-linked fully aromatic polyamide composite. The membranes are assembled in sheets and then rolled into a cylindrical form to fit inside the 8-inch vessels.

The Desalter has four trains of membranes. Trains 1, 2 and 3 have 45 vessels each with 315 membranes per train. Train 4 was part of Phase II of the project and is larger with 66 vessels and 462 membranes. DWP staff take great care in maintaining the membranes to achieve maximum water treatment. The membranes are cleaned on a quarterly basis using a clean-in-place process. The membranes are replaced on a four- to five-year cycle to maintain high water quality. The last membrane replacement was July 2016. The reason for the delay in replacement since 2016 is that DWP staff has been in communication with the membrane manufacturer to determine if a newer technology would become available for use. As the fiscal year is coming to an end and the new technology is not available, DWP staff is proposing to move forward with the membrane replacement utilizing the existing technology. The new membranes are anticipated to be more chemically resistant which will result in less degradation during quarterly cleanings.

DWP first brought this item to Council in December 2007 when the City Council authorized the Department of Water and Power to purchase membranes not to exceed \$500,000 per year. At that time, the City Council authorized purchases from three different firms. In 2007, DWP staff conducted a pilot test of different membrane manufacturers and determined Toray Membranes to be of the best quality and most efficient treatment process for Corona's unique groundwater profile. Members of the DWP Operations Team toured the Toray Membrane facility and observed how they utilized a "no human contact" method of assembly in a clean room environment, which ensures no bacteriological contamination. DWP experienced poor interactions with the other two firms including issues with performance, durability, and bacteriological contamination. Toray Membrane has proven to be the best, most efficient membranes in overall quality and effectiveness.

Toray Membrane USA, Inc. is the sole distributor of Toray Membranes and, as such, DWP requests an exception to bidding to purchase 315 reverse osmosis membranes to replace the membranes in Train 3. The membranes in Train 3 are aging and allowing more salts to pass through the membranes than designed, as confirmed by conductivity analyzer results. DWP staff will work with the Purchasing division in the near future to price the improved-technology membranes.

**COMMITTEE ACTION:**

Not applicable.

**STRATEGIC PLAN:**

Not applicable.

**FISCAL IMPACT:**

Funding for the recommended action is included in the operating budget for the Water Fund (Fund 570).

If funds are not expended or encumbered by June 30, 2019, the budget will roll forward to Fiscal Year 2019-20 to complete the purchase.

**ENVIRONMENTAL ANALYSIS:**

No environmental review is required because the proposed action is not a project governed by the California Environmental Quality Act.

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**REVIEWED BY:** TOM MOODY, GENERAL MANAGER

**REVIEWED BY:** CITA LONGSWORTH, PURCHASING MANAGER

**REVIEWED BY:** KERRY D. EDEN, ASSISTANT CITY MANAGER/ADMINISTRATIVE SERVICES DIRECTOR

**REVIEWED BY:** MICHELE NISSEN, ASSISTANT CITY MANAGER

**SUBMITTED BY:** MITCHELL LANSDELL, ACTING CITY MANAGER & EXECUTIVE DIRECTOR