

**TRABUCO CANYON WATER DISTRICT
REGULAR BOARD MEETING | DECEMBER 15, 2022**

ITEM 14: APPROVAL OF PURCHASE OF ONE (1) VARIABLE FREQUENCY DRIVE AND RELATED EQUIPMENT FOR DOVE RECYCLED WATER PUMP STATION

The Dove and Robinson Ranch Recycled Water Pump Stations (DCRRPS) provides treated effluent from the Robinson Ranch Wastewater Treatment Plant Reclaimed Water Reservoir to the Dove Canyon and Robinson Ranch/Trabuco Highlands communities. These areas are isolated pressure zones from each other. In 2019, staff made the following improvements at the pump station:

- Repair to interior piping (suction and discharge side).
- Installation of a concrete support for the existing pumps & concrete pedestal /relocation of chlorine tank
- Removal of the 75 Hp pump and installation of a 100 Hp pump.
- Removal of the inoperable 30 HP pump.
- Installation of three Variable-Frequency Drives (VFD's).
- Replacement of the 16" BFV on the suction side.
- Installation of exterior piping on the suction and discharge side, including bypass nozzles.
- Relocation of the interior Electrical/Motor Control Center (MCC) to an outside, enclosed, temperature controlled MCC.

Since that time, two of the three VFD's have failed due to corrosion of a few parts. The failure is not typical of this type of application; therefore, Staff and TESCO are in the process of investigating the reason for the failure. TESCO is repairing the VFD's at no cost to the District. Staff recommends purchasing a back-up VFD and additional parts for redundancy prior to the summer (Exhibit 1 & 2). In addition, Staff continues to repair the piping inside the station due to corrosion. Staff recommends upgrades to the station for next fiscal year which include:

- Installation of two 100 HP pumps.
- Replacement of the corroded header.
- Replacement of the filters.
- Repair of the upstream sluice gate stem/supports in the upstream reservoir.
- Reconfiguring the header connection to the Robinson Ranch PS

FUNDING SOURCE:

General Fund

FISCAL IMPACT:

\$40,190 (not budgeted)

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

COMMITTEE STATUS:

This matter was reviewed with the Finance/Audit Committee

RECOMMENDED ACTION:

1. *Receive information at the time of the Board meeting.*
2. *Recommend the Board of Directors authorize the General Manager execute a contract for the Dove & Robinson Ranch Recycled Water Pump Station VFD's and Replacement Components to TESCO Controls in the not to exceed amount of \$40,190 (Action Calendar).*

EXHIBIT(S):

1. Project Photos
2. TESCO Controls Proposal

CONTACTS (staff responsible): LAUSTEN

Dove/Robinson Ranch Recycled PS



Motor Control Center and Variable-Frequency Drive

Dove/Robinson Ranch Recycled PS



Pumps & Header

To: Trabuco Canyon Water District
 Attn: Oscar Ulloa
 Re: Dove & Robinson Recycled Water Pump Station
Spare VFDs & Replacement Components

Quote Date: 12/14/2022
 Quote No.: 22J241Q05

Dear Oscar:

Thank you for your interest in TESCO products, services, and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project.

Scope of Work

This quote is inclusive of the Allen-Bradley VFDs available to serve as spare units for operating Booster Pumps No. 1-3 (Dove Canyon) at Trabuco Canyon Water District's (District) Dove & Robinson Recycled Water Pump Station. Also included are individual components that may be required as replacements for the parts that have recently faulted/failed on the District's existing VFDs at this pump station.

Note, the parts quoted herein are of the same PowerFlex series VFDs as currently in operation, which will allow the District to maintain the existing functionality and eliminate any size constraint issues. Refer to the *Scope of Supply* below for a listing of the applicable VFD HP ratings and available replacement components.

Please Note: Per the District's request, this quote is inclusive of parts supply only; no removal, installation, testing, or startup services are currently included.

Scope of Supply

Item	Qty	Description	Price
DOVE & ROBINSON RECYCLE WATER PUMP STATION			
1	1	Allen-Bradley PowerFlex 755TL 125HP (156A) Normal-Duty, Low Harmonic Variable Frequency Drive	\$38,110.00
2	1	Allen-Bradley PowerFlex 755TL Heat Sink Fan	\$780.00
3	1	Allen-Bradley PowerFlex 755TL Power Supply Board	\$1,120.00
4	1	Allen-Bradley PowerFlex 755TL Wire Harness Kit	\$180.00
TOTAL (Items 1-4, including applicable sales tax):			\$40,190.00

Project Clarifications

- Unless otherwise indicated by the Scope of Work above, this quote is to **furnish only** and does not include any trade labor, trade work, construction work, site improvement, contractor services, or any trade installation services. Any trade labor and/or related trade work shall be performed by others/contractor.
- Unless otherwise indicated by the Scope of Work above, the following is **not** included within this quotation:
 - Conduit, field wire, tubing, or basic trade installation materials (brackets, screws, bolts, j-box, stanchions, pull-box, etc.)
 - Instrumentation mounting components, brackets, stanchions, sunshields, etc.
 - Local control stations and/or field mounted disconnects.
 - Instrumentation, devices, components, or equipment not specifically identified in the above quotation.

- Fiber optic patch panels, cable, splicing or terminations.
- Networking infrastructure or architecture modifications to existing facilities.
- Any 3rd party testing, harmonic testing/analysis, protective device coordination study, short-circuit analysis, or Arc-Flash Risk Assessment (AFRA) services.
- Electrical interconnection diagrams for equipment not furnished by TESCO.
- ISA process control loop diagrams.
- Signal loop diagrams for equipment not furnished by TESCO.

Terms & Conditions

- Quote is firm for 30 days unless otherwise stated.
- Intellectual Property and Confidentiality Notice: The scope of work and price quotation shall not be construed as a formal design or recommendations on design for the related project. All content contained within this quotation is the intellectual property under the proprietorship of Tesco Controls, LLC and is subject to applicable copyright laws. Such intellectual property shall not be duplicated, replicated, copied, or shared without explicit written consent from Tesco Controls, LLC, as it contains confidential information and work product developed exclusively for use by Tesco Controls, LLC.
- Delivery: to be provided approximately **18-20** weeks after receipt of purchase order, written notice of intent, or notice to proceed.
- Lead-Time & Supply Chain Impacts: Due to the supply chain impacts imposed by the pandemic, all quoted lead-times are subject to change without notice.
- Unless otherwise stated above, price does not include any sales tax, use tax, or applicable fees; please apply any taxes and/or fees as appropriate. Please note that all invoices will include sales tax where applicable.
- TESCO price is FOB factory, full freight allowed.
- TESCO warranties against defect in design, workmanship, and materials for a period of one year from date of installation and does not exceed 18 months from the date of shipment from the factory.
- TESCO carries liability insurance, with full workers' compensation coverage.
- Terms are net 30 days on approved credit accounts.
- Interest will be applied to all past due invoices.
- All merchandise sold is subject to lien laws.
- Final retention to be paid within 10 days after the project notice of completion.

Please feel free to contact us at (916) 395-8800 to discuss any questions or comments you may have regarding this quotation.

Sincerely,

TESCO CONTROLS



John Wright
Technical Sales Supervisor
jwright@tescocontrols.com