

Project Name: Change the distribution pumps in Rustaq pumping station

Tender number: T-2443944-2022

BACKGROUND:

The existing Rustaq Distribution Pumps consists of three pumps in operation. These pumps provides water from Rustaq GSR to Rustaq ET located in the same pump station. In view of the increased demand on water consumption, it is required to replace two existing pumps with 2 new pumps of higher flow capacity of 500 m³/hr @50 Mtr Head. Associated piping works (Suction & discharge branches), Electrical, Civil & SCADA work

SUMMARY OF SCOPE FOR WORK:

Pump and Motor Details-

- Pump type: Vertical Split casing pump
- Flow Capacity: 500 M³/hr @ 50 Mtr Head
- Valves
- Soft starter
- Motor Make
- Output- : 110 kW/415 V/50 Hz
- Speed in R.P.M. - : 1490 R.P.M.
- Suction & discharge branches: MS with suitable coating for drinking water application
- Electrical Breaker & Soft starter
- Power cables, termination kits etc
- Cable trays & other accessories

Construction scope of work:

1- Mechanical Works:

- Removal of Existing Pumps-2 Nos
- Installation of New Pumps-2 Nos
- Suction & Discharge branch pipe fittings-2 No's
- Suction Gate Valve : 2 No's
- Discharge NRV: 2 No's
- Discharge Butterfly Valve with actuator: 2 No's

2- Electrical Works:

- Bus bar extension for the existing Panel
- Installation of Two new feeders with soft starter & connect to existing breaker
- Laying of Power cable from Motor to Soft starter panel
- Cable termination
- Earthing cable laying & connecting to existing earth pits

3- Instrumentation Works:

- Utilizing the existing pump signals to new pumps

Brief scope of work

- Continue the current operation logic for new pumps
- Pump vibration & temperature signals will be taken to new panel & providing hard wire tripping protections.

4- Civil Works:

- Breaking the existing pump foundation: 2 No's
- Construction of new Foundation: 2 No's
- Base plate grouting: 2 No's
- Any supports on suction & discharge pipe branches

Testing & Commissioning:

- Pump testing & Commissioning- 2 No's
- Panel/VFD & commissioning-2 No's

NOTE:-

- Pumps & Motors will be supplied with Vibration & temperature sensors. The integration of sensors with PLC panel & Central SCADA and Central SCADA works are considered.
- Any work addition work (Electrical, Mechanical, SCADA & Civil) need for insulation work should be consider and the company need to be consider during the site visit.
- FAT in Factory & SAT include

Time for Completion of the Works

Two hundred and Fourteen (214) calendar days inclusive commence the works – mobilization period.