Project Report

Grand SFAX Pumping Station Tunisia

The water resources in Tunisia are mainly located in hydro-dams northwest of Tunis. The water needs for the population in the southern are covered by a water pipeline which starts at the water treatment plant Belli south of Tunis and runs 96kms to SFAX, Tunisia's second largest town. The pipeline with a diameter of 1200 -1400mm was initially operated by gravity flow reaching a maximum flow rate of 1200l/sec.

Two booster pumping stations were installed that will adapt the flow of water to the required consumption along the entire length of the pipeline.

ABB supplied the state-of-the-art DCS control system enabling the two pump stations to adapt their respective flow till each pipeline section reached a stable condition providing exactly the amount of water which is needed at the end of the pipeline.

The two series drinking water pumping stations feed the SFAX region by increasing flow of an existing 93km long pipeline from 1.3 to 2.3m³/sec.

The contract was awarded to a consortium. Within the consortium ABB Germany was consortium leader responsible for the complete mechanical and electrical work.

Enduser: Société Nationale d'Exploitation et de Distribution des Eaux (SONEDE), Tunisia.

The project was completed in December 1996.







Technical Specification / ABB Scope

Grand SFAX Pump Station

- 2x pump units (flow: 8200m³/h, head: 68m)
- 1x 2.2MW 5.5kV motor
- 1x 1.8MW 5.5kV motor
- 2x 2.2MW variable frequency drives
- 30x 30kV switchgear cubicles
- 6x 5.5kV switchgear cubicles
- 1x 4MVA 30/5.5kV distribution transformer
- 1x 3.3MVA 30/5.5kV distribution transformer
- DC/UPS system
- Control system
- Instrumentation (radio controlled)
- Complete pump station cabling works
- Pump station piping including valves, accessories and all related equipment
- Photo-voltaic equipment
- Complete erection and commissioning of electrical and mechanical works

Note:

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