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# THAMES GATEWAY

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**Customer:** Acciona Agua / Interserve  
**Site Owner:** Thames Water  
**Approx. Value:** £9m

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The Thames Water Gateway Desalination Plant on the Beckton STW Site in East London, a joint venture between Interserve and Acciona Agua, is the first of its kind in the UK. Designed to abstract saline water from the river Thames and then via a process consisting of Intake Clarification, Pre-treatment, 4 Stage Reverse Osmosis and Re-hardening Post Treatment, deliver Desalinated water to the North East London Reservoirs and finally into the Thames Water Ring Main. Supplying up to 140 million litres of water a day to London during times of drought, it will be powered in the main using energy from renewable sources.

FSD, together with JV partners Anord Control Systems, were awarded the £9m contract to design, supply, install and commission the 415/690V MCC's and associated cabling and Busducting, along with the 33kV and 11kV cabling associated with the HV/MV Distribution Systems.

During the detailed design phase a value engineering exercise was completed in conjunction with the Main Contractor and Thames Water, the output from this exercise resulted in savings of 12.5% on the Initial Target Cost of the project. The key areas that delivered the saving were:

- Change to water cooled drives for large VSD's – reduction in panel size (30% saving) with resultant saving in building footprint etc and air conditioning costs
- Use of packaged sub-stations where practical
- Use of Busbar in place of cables from transformers to MCC
- Use remote I/O for instrumentation / valves
- Change of protection device type – MCCB's to fuses
- Use of Intelligent MCC's as opposed to conventional
- Change of sub-distribution cabling from 33KV to 11KV
- Use of Profibus cabling for instruments

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