Reference Case Study

## ABB excitation systems to control the generator voltage of the world's biggest gas-fired power plant in Dubai

Two excitation systems, type UNITROL 6000 Medium, from ABB in Switzerland, will be installed in the power and desalination plant Jebel Ali in Dubai, in the United Arab Emirates.





**UNITROL 6000 Medium** 

In 2013, ABB excitation systems in Switzerland delivered MEGATROL combined gas-turbine starting and generator excitation system units to the Dubai Electricity and Water Authority (DEWA), the operator of the Jebel Ali power plant. Satisfied with the performance of the equipment, DEWA chose ABB again when it had to retrofit an existing generator excitation. DEWA ordered two UNITROL 6000 Medium excitation systems to control the voltage of the generators at its power plant.

In July 2016, two experts from DEWA and two engineers from ABB in Dubai and Abu Dhabi travelled to Switzerland to witness the acceptance tests of the excitation systems.

Testing of the excitation systems were performed in one day, with the customer signing off the test protocols. The customers told ABB's

project management that they were very satisfied with the services and cooperation with the ABB team from the United Arab Emirates and Switzerland.

The commissioning of the two units at the Jebel Ali power plant are scheduled for the end of the year.

Jebel Ali, the world's largest power and desalination plant is located along the shore of the Arabian Gulf, in Dubai. The power plant complex consists of nine individual plants and is about 3 kilometers long. It covers a large part of Dubai's energy and water consumption. With an output of 9000 Megawatts it is electrically the largest gas-fired power plant. The world's largest seawater desalination plant desalts 2.135 million m³ water per day.



Power plant and desalination plant "Jebel Ali" near Dubai



From left: engineer and commissioning engineer from Excitation Systems Turgi, Switzerland; the customers, ABB engineers from the United Arab Emirates and ABB test engineer and project manager from Turgi



For more information please contact:

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