CASE STUDY: **GAS PRODUCT** SOLUTIONS

# AL MANSURYA – Iraq

## GT13E2 open-cycle power plant

Alstom to strengthen Iraq's electricity network with a 728 MW, gas-fired power plant

Alstom, in an internal consortium with URUK Engineering & Contracting Co LLC, have won a contract with the Iraqi Ministry of Electricity to build the 728 MW Al Mansurya gas-fired power plant in the Diyala Governorate, northeast of Baghdad.

This is Alstom's first turnkey project in Iraq. The power plant will consist of four units based on Alstom's GT13E2 gas turbine, and will be constructed under a turnkey contract. Alstom will engineer, supply, construct and commission all key power generation equipment.

Al Mansurya plant will add generation capacity to Iraq's electricity network by providing enough electricity to the entire Diyala Governorate and a part of Baghdad, located 80 km away from the plant. Alstom is proud to participate in the reconstruction of Iraq's energy infrastructure with this new plant that will support the country in building up secure electricity supplies for the future. The new plant will also increase the flexibility and reliability of the grid.

Alstom is currently rehabilitating unit 1 of the Najaf gas-fired power station 160 km south of Baghdad. The unit was out of operation for five years. The rehabilitation will allow the first turbine to recontribute an output of 60 MW to the Iraqi electricity network. Another 50 MW output has been added to the Iraqi grid with GT8C2 based project Najaf GT-6, put in commercial operation in early 2013.

**Customer:** ..... Iraqi Ministry of Electricity
**Scope of supply:** ..... EPC contract for a turnkey power plant
**Electrical output:** ..... 728 MW
**Fuel:** ..... Natural gas
**Application:** ..... Power generation

### CUSTOMER BENEFITS

- Prominent operational and fuel flexibility
- High reliability
- Superior part-load performance
- Low NOx emissions over a wide load range.

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ALSTOM

With its environmental and economic advantages, this plant is another example of Alstom's capability to deliver clean integrated power solutions.

## PROJECT FEATURES

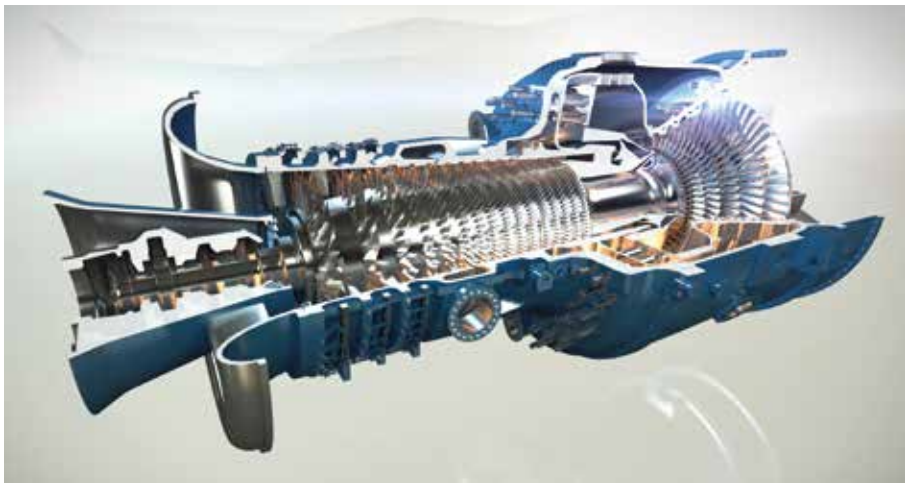
The Al Mansurya Project benefits from the superior integration resulting from Alstom's project management skills, EPC capabilities and state-of-the-art key components:

- 4 GT13E2 gas turbines with outstanding availability and reliability and the associated auxiliaries
- 4 TOPAIR turbogenerators with high efficiency, availability, and simplicity
- 4 Generator station unit transformers
- 400 kW gas-insulated switchyard
- Fuel gas supply system
- Black start diesel generator and Controgas control system for gas turbines and generators.

## CLEAN POWER, CLEAR SOLUTIONS™

Alstom helps you meet the challenges of energy sustainability. Our power generation offering is based on a deep understanding of power markets and our customers' needs. It is organised around three levers to maximise the return of assets over their entire lifecycle:

- Reducing the cost of electricity
- Lowering the environmental footprint
- Increasing flexibility & reliability.



CLEAN **POWER**
CLEAR **SOLUTIONS™**

**LOWERING THE ENVIRONMENTAL FOOTPRINT**

Low NOx emissions of 25 vppm down to 65% GT load thanks to Alstom's unique EnVironmental burner design.

**INCREASING FLEXIBILITY & RELIABILITY**

Most reliable (>99%) and available (>93%) gas turbine in its class.

For more information please contact Alstom Power:

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