

**Success Story****Al Dur Independent Power & Water  
Provider 220/66/11kV BSP Substation****Market Served****Energy****Location** Bahrain**Scope** Complete Electrical and Mechanical Installation, Testing and Commissioning Services of 220/66/11kV Substation**Client** ABB**Consultant** ESBI International**Duration** 9 months**Summary**

To meet the future economic needs of the country and as a response to the increased demand for energy in the Kingdom of Bahrain, the Electricity and Water Authority of Bahrain (EWA) has expanded the 220/66kV Transmission Network. This expansion has resulted in the development of Independent Power and Water Production facilities in Bahrain under the "220kV and 66kV Transmission Development 2007-2011 Project".

The scope of this development covers ten new 220kV Substations and 24 new 66kV Substations including additions to the 6 existing 220kV & 66kV Substations and all associated 220kV and 66kV communication cabling connections.

Al Dur Substation is one of the established 220/66/11kV Bulk Supply Point Substations from this prestigious project and is the largest independent power and water desalination plant in Bahrain and ranks one of the largest in the Middle East.

## Background

Al Dur 220/66/11 kV BSP Substation located in the Kingdom of Bahrain energises the largest desalination plant utilising Reverse Osmosis (RO) technology in the Middle East producing 1,234 MW of power and 48 MIGD of water. Irinatech, a multifaceted engineering firm with a strong operational presence across the Middle East, was the key partner to ABB for the complete installation and commissioning of this prestigious project. ABB, a leader in power and automation technologies, was awarded the main contract by the Electricity and Water Authority (EWA).

## Services

Irinatech, with its strong local presence in Bahrain, successfully installed and provided commissioning support for the 220kV and 66kV Gas Insulated Switchgear, 21kV and 11kV Switchgear, Main and 66/11 kV Power Transformers, House Transformers and all associated control, protection and auxiliary supplies. The scope also included installation, testing and commissioning of 220kV, 66kV & 11kV Feeder Cables, Installation of FOC Cables for telecommunication purpose as well as the remote-end differential protection and associated teleprotection works.

Irinatech, with its vast experience in high voltage cable engineering installation solutions, and strict compliance to health and safety regulations, has the necessary skills to man major HV cabling services specific to project requirements. With its reliable high voltage cable jointing and termination services and an impressive portfolio of previous projects, Irinatech efficiently attended to the project requirement and timely completed the 220kV, 66kV and 11kV high voltage termination works including the cable testing and successful handover of the project.

### Irinatech at a glance

We contract to local, regional and multinational corporations and public institutions. Our general scope of work includes Engineering, Procurement, Construction and Handover to end-user. Our current growth strategy focuses on leveraging opportunities in the emerging markets of the Middle East, South Asia and Africa. Primarily focused in the power

infrastructure market, we work across a range of industry sectors including energy, water, telecommunications and infrastructure.

#### Our services include:

- Turnkey Construction
- Technical Support Services
- Engineered Products

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