

Project Reference

Strong cooperation between global unit and local experts allowed best performance for DEWA



Dubai, the largest city in the United Arab Emirates, is supplied with water and power by the public utility Dubai Electricity and Water Authority (DEWA). ABB Switzerland Power Systems has been supplying Dubai with grid control technology systems on a regular basis since 2006.

Project

To ensure that power is supplied reliably and without interruption, the grid today uses highly advanced and largely automated control technology known as station automation systems. This station control technology has had to be successively expanded as the city has grown and power consumption along with it.

Dubai Electricity and Water Authority DEWA as operator and ABB Switzerland Power Systems have therefore regularly entered into frame agreements with each other; the first one back in 2001. There have been three frames altogether, each with a term of five years. They cover the delivery of more than 130 systems. This arrangement enables the customer to place staggered orders for the control units over the entire term.

The ABB solution

The substation control and monitoring systems are supplied directly by ABB Power Systems Switzerland. The GEC (Global Engineering Center) in Switzerland bears technical responsibility for the entire system; the GEC project manager is also in charge of training and support for on-site experts.

The LEC (Local Engineering Center) handles on-site work procedures in Dubai involving sales, installation, commissioning and maintenance. The training and support from the GEC enable the LEC to adapt the systems technically and to carry out updates. Systems for which a service agreement was concluded are also integrated in this process.

The GEC has a high level of delivery readiness, thus guaranteeing quickness and seamless delivery. With the LEC, the customer has a contact partner familiar with local conditions. Intercultural hurdles can therefore be taken without difficulty.

The LEC employees are trained at ABB University in Switzerland and are always up-to-date. The customer benefits from having experts right on site. The distances and response



GEC Factory Acceptance Test Baden.

times are short; the LEC employees in charge are familiar with the systems and can react quickly. Costs can be cut considerably as a result.

Requirements, problems and further steps are jointly discussed at regular coordination meetings attended by the project managers from ABB Dubai, DEWA and ABB Switzerland. The division of labor between the global organization and the local units yields important advantages – for the customer and for the LEC. It allows lean and efficient structures that are in the interest of everyone involved.

Because the GEC bears overall responsibility, the customer can rely on the functionality and reliability of the high-tech systems.

Scope of ABB delivery

Orders for the systems, ie, the hardware and the software, are placed with the GEC. The GEC purchases the material and is in charge of engineering. It then tests all components and ships them to Dubai unmounted.

The LEC in Dubai then puts the systems into service, ie, puts together the needed components for installation on site. The LEC is also in charge of making the cabinets for the substation control and monitoring systems, of doing on-site installation and of conducting the site acceptance test together with the end customer.

The LEC and the GEC work together as an effective team. The first system was installed and put into operation in 2006 based on IEC 61850. Systems with thousands of pieces of equipment have been delivered thus far. The task can sometimes be highly complex but with expertise from the GEC, the LEC has been able to perform it.



132/11 kV Substation.

Advantages for the customer

The customer derives big advantages from the global supplier (the GEC) collaborating with a local unit (the LEC). This arrangement gives the customer access to the knowledge and worldwide experience of the GEC while receiving support from a local contact partner. In other words, the customer does not have to go the roundabout way of using a consultant to organize and coordinate the different suppliers. The ABB employees in charge in Dubai speak the customer's language and can respond immediately if problems arise. They know the customer's concerns, its requirements and above all, its system inside and out.

The experts at the LECs receive training on a regular basis to keep their expertise up-to-date at all times. If they have questions, they can turn for advice and support to specially assigned engineers in Baden, Switzerland.

As a result, the customer can count on reliable delivery and installation, on reliable service and above all, on a well-functioning power supply system.

For more information please contact:

ABB Switzerland Ltd

Power Systems

Bruggerstrasse 72

CH-5400 Baden, Switzerland

Phone: +41 58 585 77 44

Fax: +41 58 585 55 77

E-Mail: substation.automation@ch.abb.com

www.abb.com/substationautomation

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