



DANGJIN THERMAL POWER PLANT

CUSTOMER

The Dangjin Thermal Power Plant in Chungcheongnamdo is operated by Korea East-West Power Company Ltd (EWP) and is located in the north-westerly province of Chungcheongnamdo. It is an established plant with eight active coal-fired units with 500MW outputs. In 2011, work began to scope two new power plant units. These units – Dangjin 9 & 10 – will be Korea's first 1,000MW USC coal-fired power plants.

CHALLENGES

The scope of the project included the control and monitoring of all the facilities and devices within the BOP system, including the IEDs, electrical equipment, IED controller, generator, transformer, capacitor bank and protection controls. This meant that any system had to adhere to the IEC 61850 standard.

It was important that the system deployed would:

- ▶ Improve the balance control, especially for such a large power plant
- ▶ Create cost savings by reducing operating manpower
- ▶ Reduce – or eliminate – the opportunities for human error
- ▶ Create optimum energy efficiency through effective protection and power control

- ▶ Limit any power failure spread to a minimum
- ▶ Reduce fault analysis time by delivering clear tools and analysis.

SOLUTION

After assessing various technologies available to them, the NEXPO team decided that the zenon SCADA software from Austrian software manufacturer COPA-DATA would best meet the project requirements. Choe, Hyeon-Hui, the project manager at NEXPO with responsibility for the two Dangjin 1000MW thermal power plant projects, says zenon's ease of engineering was a key advantage: "zenon is an impressive tool. The use of parameters instead of programming and the huge library of pre-configured tools designed for use in the energy industry made it a very compelling solution. Dangjin Thermal Power Plant was also very impressed with the graphical capabilities; zenon makes it very easy to produce ergonomic user interfaces."

TECHNOLOGY

Choe, Hyeon-Hui: "zenon delivered everything we asked and more. We were able to ensure the easy operation and maintenance of the system, easy fault analysis, a stable communication network and reliable redundancy very simply. In addition, the excellent technical support has

really impressed us. zenon offers state-of-the-art software backed up by a great team."

BENEFITS

- ▶ Rapid and flexible project engineering
- ▶ Intuitive and ergonomic graphical user interface
- ▶ Simple system operation and maintenance
- ▶ zenon Report Generator for powerful reporting functionality
- ▶ IEC 61850 compliance
- ▶ Simple-to-configure and reliable redundancy
- ▶ Remote monitoring and control
- ▶ Optimum reliability and security

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