Spotlight on Symphony Plus

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How will control system engineering evolve?
ABB has been selected by DTEK Zahidenergo, one of the largest power generation companies in Ukraine, to supply a control and instrumentation solution for the 290 MW Yunus Emre thermal power plant near Eskiehir in northwestern Turkey. The plant will comprise two 145 MW units and comply with the latest European Union emission standards for coal-fired power plants.

The order was awarded by Vitkovice Power Engineering, the Czech-based engineering, procurement and construction contractor for the project. The plant is owned by Adularaya Energy, a member of Naikan Holding.

ABB’s turnkey solution includes design, engineering, installation and commissioning. It comprises the complete electrical balance of plant and power outlet, including the high voltage switchyard. Key ABB products include power and auxiliary transformers, generator circuit breakers, medium and low voltage switchgear, protection systems, 380 kV air insulated switchgear, and control and protection systems for the grid connection.

The power island of both units will be controlled by ABB’s latest generation Symphony™ Plus total plant automation system.

ABB was selected for its expertise in project execution, strong local resources in both countries, and ability to design and deliver a turnkey solution that will maximize plant efficiency and reliability for the end user.

Integrated ICE solution for thermal power plant in Turkey

ABB has won an order worth around $35 million to provide an integrated electrical, control and instrumentation solution for the 290 MW Yunus Emre thermal power plant near Eskiehir in northwestern Turkey. The plant will comprise two 145 MW units and comply with the latest European Union emission standards for coal-fired power plants.

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125 MW photovoltaic power plant, Arizona

ABB has won a contract from Fluor Corporation to supply a Symphony™ Plus total plant automation system for the 125 MW photovoltaic Arlington Valley Solar Project (AVSE II) at Arlington, Arizona. AVSE II – a member of LS Power Group – is developing the project.

The project consists of five array blocks utilizing PV panels made of crystalline silicon cells on a single axis sun tracking system, a SCADA system to monitor and control the various plant systems, including trackers, inverters, substations, the well water supply and treatment system, and the interface with the plant meteorological station. Relevant plant information will be made available to a remote site and to the California Independent System Operator (CAISO).

ABB’s scope of supply includes S+ Operations as the SCADA package to fulfill stringent requirements of scalable yet flexible architecture. S+ Operations will support 60,000 redundant tags with 1,000 historian logs. Hardware provided includes one remote terminal unit, 67 network switches, a GPS clock, control room furniture, two server/client PCs, one client PC, eight communication servers, two printers, UPS backup power supply, and one engineering station. This advanced solution from ABB adds value to the operations and maintenance of this project by maximizing plant availability, production efficiency and overall low maintenance costs. Green energy delivered will be beneficial for California, which has its own green energy efforts.

ABB is supplying a Symphony Plus solution for a new 125 MW photovoltaic power plant in Arizona – one of the largest PV power projects in the United States.

Burshtyn coal-fired power plant, Ukraine

ABB has been selected by DTEK Zahidenergo, one of the largest power generation companies in Ukraine, to supply a control and instrumentation solution for unit 5 of the Burshtyn coal-fired power plant in west Ukraine.

Unit 5 has a generating capacity of 200 MW and is one of 12 units at the 2,300 MW power plant. Burshtyn delivers electricity not only for domestic consumption but also for export to the European power transmission network.

The project is part of a large-scale and long-term modernization program that the parent company, DTEK, has embarked on to improve the efficiency and reliability of its fleet of thermal power plants. This typically involves replacing or revamping some or all of the main plant components - turbines, generators, electrical equipment, control system and instrumentation.

ABB is supplying a new Symphony™ Plus distributed control and instrumentation solution for unit 5 that will replace the 40 year-old manually operated control panels with a state-of-the-art automation system based on the S+ Operations human machine interface. The solution will improve the reliability and availability of the unit and provide operators with an intuitive and easy to use operating environment.

ABB is also responsible for design, engineering, installation and commissioning of the new control and instrumentation solution and for dismantling the old system.
Symphony™ Plus total plant automation. The power of a well-orchestrated performance.

Symphony™ Plus is the new generation of ABB’s total plant automation for the power and water industries. Designed to maximize plant efficiency and reliability through automation, integration and optimization of the entire plant, Symphony Plus offers a simple, scalable, seamless and secure solution. Tune to Symphony Plus and experience the power of a well-orchestrated performance. www.abb.com/powergeneration