Spotlight on Symphony Plus

Italy’s largest public works project  8
Protecting Venice from floods and high water
Treating Hong Kong’s wastewater 12
Controlling one of the world’s mega plants
EDF selects Symphony Plus 20
New service agreement for thermal power plants in France
Envisioning the future 22
How will control system engineering evolve?
Weston Power Plant, Wisconsin

ABB has won a multimillion dollar contract from Wisconsin Public Service (WPS) to upgrade the control system at the Weston Unit 3 Power Plant at Rothschild, Wisconsin.

Weston Unit 3 is a 360 MW Combustion Engineering tangential-fired drum boiler supplying steam to a General Electric turbine-generator. The balanced-draft unit is equipped with two electrically driven boiler feed pumps and a fabric filter baghouse. It uses coal as the main fuel and natural gas for auxiliary fuel and ignition. Weston Unit 3 was originally commissioned in 1981. ABB will supply a Symphony™ Plus control system including high-performance graphics, server and networking equipment, interfaces to existing systems and a high fidelity simulator. As the turnkey supplier, ABB is responsible for all aspects of the project including control system design, implementation, testing, site installation and start-up.

ABB’s design and implementation activities will include review of existing plant systems and operation, I/O list development, hardware configuration, control logic, high-performance graphics, networks and interfaces. ABB will also provide the following retrofit engineering and site services: wiring/race-way and cabling design, demolition and panel/cabinet modifications, power supply distribution and grounding, plant drawing generation and modification, installation supervision, site coordination, craft labor, start-up and commissioning.

“We evaluated several bidders based on technology, experience, project implementation plan and cost. ABB proved to be the right choice for our project, based on those criteria,” said Drew Bain, Project Manager for WPS.

Enhancing efficiency and environmental performance

ABB has won an order from Enel, Italy’s largest power company and one of Europe’s leading utilities, to supply a Symphony Plus automation and control system for one of the units at the Grazia Deledda Sulcis power plant on the island of Sardinia, Italy.

Grazia Deledda Sulcis is a 590 MW coal-fired power plant near the town of Portoscuso on the southwestern coast of Sardinia. The plant comprises two units, each with a generating capacity of more than 240 MW. The existing control systems will be replaced with a total plant automation solution to enhance the unit’s efficiency and improve its environmental performance. The company is taking proactive measures to improve efficiency and reduce the environmental impact of its coal-fired power plants.

The new Symphony™ Plus solution includes the recently introduced HPC800 high-performance controller, burner management and flue gas desulfurization systems, instrumentation, a new control room and operator stations equipped with an intuitive and easy-to-use human machine interface.

The Grazia Deledda Sulcis power plant is located within the Sulcis Iglesiente basin, which contains Italy’s only coal deposits. The use of coal to generate electricity is expected to rise in coming years as Italy seeks to reduce its dependency on natural gas imports from Russia and Algeria. Around 52 percent of Italy’s electricity is generated with natural gas, which makes it one of the most heavily gas dependent countries in the European Union.

The Symphony Plus plant automation system makes a significant contribution towards improving efficiency and lowering environmental impact by integrating multiple plant production and information systems into a single platform.
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