Italian energy project confirms ABB’s leadership in power plant automation

Construction of the combined cycle power plant (CCPP) at Gissi, in the south of Italy, has started. The contract for the turnkey construction of the 800 MW CCPP, equipped with two GT 26 gas turbines, steam turbines and electric generators, has been given to Alstom by Abruzzo-energia SpA, a company controlled by ASM Brescia. It will be fitted with ABB automation and control systems based on the 800xA System technology.

ABB will supply the Distributed Control System (DCS) of the power station, integrated with the control of the steam and gas turbines. The contract includes the design, supply and installation of the components and the automation, supervision and control of the whole plant and the commissioning. Profibus fieldbuses, which allow the connection of devices of any kind in the field without limitations, will be used extensively in the...
system, thereby reducing the costs for plant design, engineering and operation, improving efficiency of the combined cycle process and simplifying maintenance.

**Fieldbus opens up for asset optimization**
The advanced Fieldbus integration in the 800xA control system provides powerful field device management for diagnostics and calibration directly from the control room. In addition to improving device management and predictive maintenance, this technology also opens up new possibilities for asset optimization.

**Fully integrated solution preferred**
ABB was chosen as the preferred supplier, offering an integrated solution based on state-of-the-art power station automation as well as guaranteeing delivery in record time, as requested by the customer. The Gissi power station is scheduled to enter commercial operation by the end of 2007.

### The next step to Asset Optimization

The use of optimization techniques, risk assessment and information integration are central components of asset management for today’s utilities. Decisions are driven by the actual condition and performance of assets.

**OPTIMAX® Asset Monitors** are software modules, that are used for condition monitoring, diagnosis and optimization, and which can be deployed at any level of the plant hierarchy. Monitored assets include intelligent field instruments as well as control loops, plant equipment, plant units or entire fleets. This allows operators to maximize availability, operate closer to plant design limits, and dynamically link operations to maintenance management, purchasing and inventory control.

One of the advantages of Asset Monitors is the improved workflow for the operation and maintenance staff. The operator or maintenance technician is notified of a maintenance event by the Asset Monitors. For remote personnel, the event is delivered via mobile phone, e-mail, or pager. If the work is not currently scheduled, the user can automatically initiate the work order process by electronically submitting a fault report to the Computerized Maintenance Management System (CMMS). In turn, if calibration is required, the CMMS work order is automatically forwarded to the Device Management System (DMS). This way, users can significantly reduce the time between problem identification and resolution.

By combining multiple Asset Monitors and automatically generating the required work orders, a plant can achieve world-class status in preventing unplanned outages. Maintenance work can be planned more efficiently, and downtimes are minimized.

### Intense discussions at the ABB Power Generation Days in Hong Kong

In conjunction with the Power-Gen Asia conference and exhibition in Hong Kong, ABB organized a 2-day meeting for specially invited power plant customers from the region. The focus of the meeting was to create a platform for users and suppliers to share their experience within the area of power plant automation issues. The meeting included customer presentations, case studies, panel discussions and future outlooks and was wound up with a visit to the Power-Gen Asia exhibition. If you are interested in receiving information about the ABB Power Generation Days meetings in Europe and Asia in 2007, please contact us.
Windows is not a fixed standard product, but it is continually updated with patches, service packs and new versions. What does this mean for the PCs of your control system? Should you install the updates? May you install them at all? Will the system be stable and secure after the installation?

In theory, the purchase of a control system seems to be a straightforward simple matter: offers are obtained based on your requirements, and the lowest price supplier is selected. However, in practice there are a few hidden traps to be aware of.

To ensure that your control system does not get obsolete or vulnerable to various threats, you need a comprehensive and professional concept how to install patches and how to upgrade to new Windows versions. This involves the study and comparison of specifications, running tests as well as active exchange of information with subsystem suppliers. Only after this can the control system supplier give you exact instructions on what to do in order to keep your system up to the latest status and thus avoid security holes.

Further traps are lurking in the areas of virus scanner updates, infrastructure management (adaption of firewalls to newest threats), in the area of backup and restoration procedures or in the controller lifecycles (interoperability of all subsystems): be sure to check if every vendor’s offer contains concise solutions for all of these issues.

ABB guarantees well thought-out concepts, detailed investigations and extensive tests. Independently of your requirements specification, an ABB offer will always include the guarantee that you will receive a well designed and reliable system that is secure for the future.

This service support agreement gives Pelican Point the confidence that ABB experts are only a phone call away, so in an emergency the time required for root cause analysis will be reduced and down time will be minimized, with the potential for significant savings. Unplanned outage costs can be very high, i.e. assuming a power price of $ 40 per MW and 480 MW hrs, a complete 24 hrs forced outage would cost up to $ 460,000.

Simon Ahrens, Control and Instrumentation Engineer at Pelican Point PS summarizes: “Up to now we are happy and satisfied with the responsiveness we have received from ABB. The issues arising within the ABB Advant Power Control System have been resolved within minimal time frames with the assistance of ABB experts. The potential for savings in time and money, the need to manage risk, and last but not least direct access to the experts from ABB directed us to the decision for a service support agreement and to date we are very pleased with our decision.”
ABB assures long-term support at Advant Power Control user meeting in the US

For the third year in a row, ABB met with Advant Power Control users to discuss specific user issues. The meeting was organized together with the users and took place in Chatham, MA, USA.

The main topics addressed at the meeting concerned the life cycle plan for Advant Power as well as features and enhancements for the 800xA for Advant Power. The ABB response to the users’ request for long-term service support was to assure users that the core controller/communication products, modules, and engineering tools required to maintain existing controller databases will remain active until at least December 2015. Customers having above ABB hardware products installed will get support for these products until at least 2025. Existing systems evolve into 800xA using low-risk steps – providing longevity and additional functions. The ABB commitment is to maximize the useful life of the end user’s investment with commercial automation assurance, offering consistent evolution paths within and between control systems.

The user group meetings are a very appreciated and useful forum for end users to exchange experience and information on their Advant Power Control system installations. The date and place for the 2007 user group meetings will be made public at the beginning of the year. Please contact us if you are interested in receiving more information.

PRODUCT NEWS

Automated 800xA System Back-up
The new solution allows automated online back-ups of an 800xA System and life state recovery of one or more 800xA computers.

Security Patch and Antivirus Management
The new solution supports centralized and automated security patch and antivirus management for an 800xA System. It provides supervision of the update status of any node.

Electronic Shift Log
With the new electronic shift log, events can be recorded and their handling can be traced. Through the systematic use of master data for the plant parts, causes, etc., a level of data consistency is achieved that allows the creation of valuable reports.