Az Zour EPP08 power plant in Kuwait to set record in fast track completion

Backed by the main EPC contractor Alghanim International (AIGTC) and ABB as major electrical and control equipment supplier, the Ministry of Electricity & Water in Kuwait has built an 800 MW gas turbine power plant. The plant was completed and started generating full power more than one month in advance of the contractual schedule.

ABB control technology for two new power stations in Brazil
In May, ABB received the order for the control equipment for two new coal-fired power stations in Brazil. Pecem, 2 x 360 MW and Itaquí, 1 x 360 MW will be operated by the independent power producer EdP, Portugal, and the Brazilian mining company MPX.

EGATROL and TURBOTROL for 1,200 MW Terga Power Station, Algeria
ABB will supply the complete turbine controls for three gas and three steam turbines, which are single-shaft configuration, for the Terga power station in Algeria. The order comprises three EGATROL and three TURBOTROL control systems, the complete remote operation from the central control room, and the common information management and archiving system PGIM. The power station operator is Sonelgaz, which already operates the Relizane and F’Kirina power stations equipped with ABB controls.

Fujairah F2 2,000 MW—the second largest IWPP worldwide
For the Fujairah F2 power station in the United Arab Emirates, ABB will supply five EGATROL gas turbine control systems for Alstom GT26 gas turbines, including the PGIM information management and archiving system and the remote control equipment. The plant operator is the Abu Dhabi Water and Electricity Authority (ADWEA).

ABB will supply the complete turbine control systems for the Flevo CCPP
For the 870 MW Flevo power station in the Netherlands, ABB will supply the complete turbine controls for two gas and steam turbines, which are single-shaft configuration. The order comprises two EGATROL and two TURBOTROL control systems, the complete remote controls for the central control room, and the PGIM common information management and archiving system. The power station operator is Electrabel.
The biggest challenge for all involved was the requirement to complete the project in a record setting period of time. From ground breaking mid September 2007 until full commercial operation on July 31, 2008, it took only 10.5 months, which is a record for a project of this size! The emergency power plant was up and running in the summer of 2008 and could hence ensure no brownouts during the most extreme climate period. The Az Zour power plant is used for the basic power needs of the state of Kuwait during the hot summer months and helps to secure the country’s soaring power demand. Due to the customer’s confidence in ABB’s capability to meet the short delivery time as well as its good reputation in the local market, ABB was selected for the contract.

Wide scope of supply from ABB

ABB’s part of the contract included the supply of five EGA-TROL gas turbine control systems with 800xA operating systems including commissioning, static excitation systems and static starting systems for the gas turbines, control and protection of substation automation as well as a complete gas insulated substation (GIS) and the complete Electrical Balance of Plant (EBoP). Additionally, ABB received the contract to supply the control system for the open cycle BoP and remote control equipment from the EPC contractor Alghanim International.

Due to an eminent and close cooperation between all involved and an excellent relationship with the client and main contractor throughout the project execution, the very ambitious project schedule could be kept.

All of Kuwait’s 10,000 MW electrical generation capacity is thermal and the country is amongst the leaders in per capita consumption with roughly 14,000 kW hours. This is a result of heavy usage of air conditioning, reliance on desalination for water and highly subsidized electricity tariffs. The extreme climate coupled with the rapid economic and construction growth is expected to keep the power demand increase at 8–10 percent in the coming years.

Best paper prize from Elsevier and IFAC for advanced control methods

Elsevier Ltd. and the International Federation of Automatic Control (IFAC) have awarded ABB the prize for the best contribution that was made between 2005 and 2008. The work for which the award was given is a joint research project of BASF, the University of Stuttgart and ABB from 2003 and 2004. ABB contributed the optimization software and know-how that was used for the evaluation of non-linear, model predictive control of an industrial polymerization reactor.
Over the past years, the significance of using simulation models over the entire life cycle of a power station has steadily increased. This begins with early design studies, and continues with the utilization of power station simulators for the commissioning, acceptance tests and training of the operating personnel and extends to model-based online optimization and maintenance planning. At the same time, the systems to be controlled and their interdependencies are becoming more and more complex.

These trends are not only true for the energy industry. The Eurosyslib project was initiated to combine the efforts of more than 20 partners in different European countries and to strengthen European leadership in the area of system modeling with the development of model libraries that are applicable across all manufacturers and areas.

ABB, together with other leading companies in the area of energy and automation technology, is involved in the Eurosyslib project with the creation of a new library for modeling power stations. The optimization of complex systems is made easier by the high efficiency of graphic system modeling, the reuse of existing solutions, and by the improvement in the transparency and reproducibility of the results. Projects that cover the automation and instrumentation and also the electrical and mechanical components achieve a new level of quality through the application of high-quality simulation models. This also makes system optimization possible for the integration of the electrical and mechanical secondary and auxiliary equipment.

The Eurosyslib project will run until 2010. Today, ABB already benefits from participating through access to the latest system modeling developments and their early application to current projects. The Eurosyslib project is promoted by the ITEA 2 program (Information Technology for European Advancement). The participation of ABB in Eurosyslib is supported by the Federal Administration for Education and Research.
In November 2006, the foundation stone of the new black coal power station block “Walsum 10” was laid in Duisburg. ABB received the order for the supply of the complete electrical and control equipment from the general contractor Hitachi Power Europe GmbH (HPE), who will construct the power station block together with the consortium partner Hitachi Ltd. (HTC) to the order of Evonik. ABB is the consortium leader in a consortium with Controlmatic.

With “Walsum 10”, a black coal power station block will again be constructed in Germany for the first time in eleven years. It belongs to the 790 MW class and will be one of the most modern and efficient black coal power stations in Europe with a net efficiency greater than 45 percent.

**ABB will supply the complete e-BOP package**

The ABB scope of supply comprises the electrical equipment with the important components generator circuit breaker, transformers, medium and low voltage switchgear, and the main and turbine controls and boiler protection, instrumentation and analysis systems including the complete related engineering, installation, commissioning and user training.

In addition, in mid 2007, ABB was given the order by the Magdeburg Förderanlagen und Baumaschinen GmbH (FAM) for the design, supply, installation and commissioning of the internal controls for the coal feeder equipment.

This first order with HPE as the general contractor and as the control supplier faced the entire design and engineering team with demanding tasks, which were all successfully accomplished.

- The electrical overall design of the block switchgear including the design of the power of the main transformers to comply with the grid connection requirements for the RWE grid (grid code).
- The very tight plant building constraints placed high demands on the integration and logistics of the components.
- The largely single-line electrical auxiliary equipment without redundancy of the main components.

**Transport by ship on the Rhine**

For the main electrical components for the outgoing energy e.g.:
- Machine transformer 420/21 kV, 890 MVA
- Generator circuit breaker and main generator leads (outside diameter 1.8 m) for 21 kV, 28,000 A
- 2 auxiliaries transformers 21/10.5/10.5 kV, 70 MVA and 21/15.75 kV, 63 MVA

In the meantime, the factory acceptance with HPE and Evonik has been successfully carried out, and deliveries have started. The transport of the machine transformer with a transport weight of 407 t was made within the ABB scope of supply by ship transport on the Rhine directly from the Bad Honnef factory to the transformer foundations in the Walsum power station.
Because of the successful work during the tendering phase, ABB also received the order for the auxiliary electrical components of the 962 MVA Hitachi generator.

- Static excitation equipment type Unitrol 5000
- Electrical generator and block protection type IED 670
- Synchronization equipment type Synchrotact 5

The delivery will be complete by the end of 2008.

In addition to the design and supply of the controls, including the installation and commissioning, because of ABB’s extensive experience in the area of turbine controls, especially in the European market, HPE has assigned ABB the “basic engineering” task for the turbine control for the Japanese turbine.

At present, the engineering of the controls is being done and the first deliveries will take place towards the end of 2008.

In addition to the turbine controls, there is also the complex control of the overall operation of the whole plant (block control) based on ABB’s know-how in this area.

The first installation work has started at the end of 2006 for the electric power supply for the construction site including the conversion of the existing switchgear of Block 9, and the earthing and lightning protection. The installation of the main components started in May 2008. The commissioning work began in September 2008. The commissioning includes, in addition to the complete electrical and control equipment, among others also the responsibility for the electrical block commissioning together with the generator supplier, e.g. the necessary secondary and primary tests of the block protection, acceptance tests to verify the guaranteed block power output, stability verification such as load shedding tests, etc. The start of commercial operation is planned for the beginning of 2010.
Qatar’s largest power station and water project

In April 2008, ABB received the order for the supply of the complete electrical equipment and the grid connections for the Ras Laffan C combined cycle power station in Qatar from Hyundai Engineering and Construction (HDEC), Korea. The Ras Laffan C combined cycle power station and the desalination plant will be the largest power station and water project in Qatar, with energy generation of 2,730 MW by 8 gas turbines and 4 steam turbines, and the production of more than 286,000 cubic meters of drinking water per day by 10 sea water desalination units.

The water and electric power will be purchased by the local EVU Kahramaa for a period of 25 years. The first power and water will already be supplied in 2010 to satisfy the quickly growing demand for electrical energy and water in Ras Laffan Industrial City. The full supply capacity will be achieved in April 2011.

ABB will supply the 400kV, 220kV and 132kV gas insulated switchgear, the 800 MVA grid transformers and the complete electrical systems, such as generator cables and circuit breakers, the medium and low voltage switchgear, standby power supply systems and the complete cable systems for the power station.

The ABB scope of supply comprises the complete system design, engineering, the supervision of the installation, commissioning and customer training.

Outstanding reference
The outstanding references for ABB products in Qatar were pivotal for the allocation of the order. Ras Laffan C is the third power station project in Qatar with the same final customer Kahramaa after Ras Abu Fontas B and Qatalum, and many large switchgear projects. ABB already supported HDEC in the acquisition phase of the project and through its strict system integration capabilities it ensures that the ambitious project targets will be achieved, such as short delivery times and the high quality and efficiency demands in Qatar.

A total of more than 3.7 billion USD will be invested by the investor consortium Suez Energy International/Mitsui together with the state Qatar Electricity Water Corp. and Qatar Petroleum.

We are building the future

Electricity for Europe

This year’s VGB Power Stations 2008 congress with accompanying exhibition was dedicated to the challenges of the practical realization of suitable power generation strategies for Europe that fulfill the high demands on economic viability, security of supply and that are environmentally friendly as defined by the EU targets.

This year with a new record of about 1,600 visitors and more than 110 exhibitors, the international “VGB Power Stations Congress” also demonstrated that there is an enormous interest in the political, economic and technical oriented aspects of the future development of power generation in Europe. Manufacturers and operators were convinced that also in the future only a broad mix of energy is capable of maintaining the usual high quality standard and security of supply of power generation, in which each form of generation remains a necessary and indispensable option. This requires a stable market, which will sustainably support the required investments in new power stations, and also in research and development in new technology and demonstration plants.
WTE Pfaffenhau—highest environmental standards and lowest emissions

The Viennese commune and environment technology department awarded ABB the order for the electrical and process control equipment and the infrastructure equipment for the WTE Pfaffenhau. After it is complete, WTE Pfaffenhau will be Vienna’s third and largest waste incineration plant.

Optimum utilization of the waste
The waste will be transported to the plant by refuse collection vehicles in about 200 trips a day, weighed at the entrance to the environment center and checked for radioactive substances. It will then be tipped into the waste bunker, which holds 18,000 m³. The waste bunker is equipped with two cranes, which clear the tipping areas, mix the waste and place the mixed waste in the feed chutes of the two incinerator grates. About 16 tonnes of waste will be incinerated per incinerator grate and per hour. The heat generated by the incineration will be used for generating steam, which will be fed into a steam turbine at 40 bar and 400 degrees Celsius for generating electric power. The remaining energy in the form of heat will be used for supplying the district heating network.

Highest environmental standards and lowest emissions
For the slag and the flue gas that remain from the incineration, the processing is not yet complete. The slag is sorted into scrap metal and slag by magnetic separators; the scrap metal is recycled as valuable raw material. The flue gas, which has already given up its heat for the generation of energy, now passes through a four-stage flue gas cleaning equipment, comprising an electro-filter, two-stage washing, an active carbon filter and a DeNOx unit. This sets the highest environmental standards, and the lowest emissions are achieved. The waste water from the two-stage washing equipment is cleaned in an internal waste water treatment plant. The filter cakes from the sludge dewatering are placed in transport skips or big-bags and are transported to underground repositories.

Up to 250,000 tonnes of waste from Vienna can be disposed of in WTE Pfaffenhau annually. This is converted to about 65 GWh of electric power and 410 GWh of district heating annually.

The ABB scope of supply for the electrical and control equipment

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<th>Control functions</th>
<th>Quantity</th>
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<td>EB transformer 20/0.69 resp. 0.4kV</td>
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Modern information technology in combination with optimum process control

The Traun, which has always been a significant artery of the Upper-Austrian economy, already aroused the interest of the energy industry because of its relatively large water flow and its gradient. In 1977 to 1980, on the lower Traun, the Marchtrenk power station was constructed, and immediately afterwards, in 1980 to 1983, the Traun Pucking power station was built.

The power stations are each equipped with two Kaplan turbines with vertical shafts. The power is generated by alternating current synchronous generators each of 26 MVA output power.

Within the scope of the renewal of the electrical and control equipment, ABB was awarded the order for the supply of the power station controls, the turbine controller and the excitation equipment.

The automation of the plant was based on the System 800xA with redundant AC800M controllers. The two power stations, which are about 11 km apart, were connected via fiber-optic cable data links. A TCP/IP network was installed over both plants. This allows the customer to carry out the complete operation and configuration of both power stations from any operator station, which provides improved operations management.

The implementation of the hydro-power specific requirements was made on the basis of the Hydro Setup of the System 800xA. In addition to the controls, the turbine controller including the turbine instrumentation was renewed.
To ensure continuous and reliable operation over the next 15 to 20 years, the Swiss Energie Biberist AG has ordered an upgrade of the turbine controls from ABB, including the instrumentation, control and electrical equipment (ICE).

The main business of Energie Biberist AG (EBAG) is the reliable supply of the neighboring paper mill of the M-real company with process steam and electrical energy. EBAG uses environmentally friendly natural gas as the primary energy source, which is converted to heat and electricity by combined cycle heat and power generation for improved energy efficiency. At different locations in the production process, waste heat is reused by heat recovery systems.

More efficient operation and maintenance
The new ABB turbine controls are based on the proven ADVANT AC160 technology, which has already been successfully used in several hundred steam and gas turbines of all sizes. Measurement and control deviations are continuously monitored and can be reviewed at all times. This allows more efficient operation and maintenance. The electrical systems for the protection, synchronization and control of the generator are also included in the scope of supply in addition to the turbine control system.

The steam turbine, which was originally manufactured by ABB, has been in operation for 27 years. The original control system dating from 1981, was largely implemented with relays and analog control systems. The commissioning of the new turbine controls took place in October 2008. This modern and innovative comprehensive solution, which is based on the individual processes and requirements of EBAG, creates optimum conditions to ensure smooth paper production in the future.
Kopswerk II was constructed as a pump storage power station parallel to the existing Kopswerk I and is equipped with three highly flexible, fast response machine groups, each with a 175 MW Pelton turbine, which allows both turbine and pump operation and also in combined operation, regulation pump operation.

Plant components underground
All the large plant components of Kopswerk II are installed underground. This required the excavation of the machine cavern with the removal of about 113,000 m³:
Length about 88 m, maximum width about 30.5 m, maximum height about 60.5 m. In addition there is a transformer cavern: length about 45 m, width about 15 m, maximum height 14.2 m, valve tunnel, 3 underwater compressed-air chambers, an underwater surge chamber and access, cable and escape tunnels. There are three vertical-shaft machine groups, each with a six-nozzle open-jet turbine, synchronous motor/generator, hydraulic synchronization converter with toothed coupling and a three-stage storage pump. The transport of the energy is made from the cavern to the SF₆ switchgear with a 400 m long 275 kV PE cable and from there to the substation, which is 30 km away, via the existing 220 kV power station line Partenen-Bürs.

After the construction period of about 3.5 years, the first machine was synchronized to the grid at the end of April 2008. Machines 2 and 1 will be synchronized at the end of June. After intensive testing of the auxiliaries and lower-level controls, the tests of the start-up and shut-down controls and the mechanical protection were done. The first machine started test operation in August 2008.

Very high demands
ABB played a significant role in the construction of the power station. A total of three orders were awarded to ABB for the supply, installation and commissioning of the controls, the generator cables and the 220 kV SF₆-switchgear (series 300). The SF₆ switchgear was already operationally commissioned to 265 kV in November 2005 from the grid side from the Lünersee station.
ABB plays a key role with respect to the optimum progress of the project, especially for the control area, which includes the central controls, operation and monitoring and allows the overall operation of all the subsystems.

The very high requirements and expectations of the customer, who has a great deal of experience in hydro power, could largely be fulfilled already in advance by running comprehensive in-house tests and simulation programs with an ABB specialist team. On site, ABB then proved its expertise during the installation and commissioning of the plant. The comprehensive tests of the software before on-site commissioning resulted in minimum commissioning time and in great satisfaction on the part of the customer as well as with all the other companies involved in the project.

The modern System 800xA was installed. The control system is based on the redundant controllers (AC 800M) and decentralized I/O systems, which are connected via redundant Profibus systems. Further, universal motor controllers (UMC) and ABB ACS800 frequency converters are integrated in this network architecture. In addition to the completely independently functioning controllers of the three machines and the general auxiliaries, the control server systems and the industrial Ethernet systems are also installed redundantly throughout. In normal operation, the power station is not manned and the control and monitoring are carried out via a data interface from the VIW power station control room, which is a few kilometers away.

On 22nd October in Kuala Lumpur, Malaysia, the Kerawalapitiya project in Sri Lanka was awarded the “Gold Award 2008” in the “Independent Power Producer” (IPP) category of the Asian Power Magazine in a ceremony during “Power-Gen Asia”. This award is given annually for outstanding power generation projects in Asia. ABB and the EPC Contractor Lakdhanavi Ltd. were distinguished for the outstanding realization of the 300 MW new power station project.

The power station supplies electricity to Sri Lanka’s energy supply company CEB (Ceylon Electricity Board) and will be extended by a steam turbine for “combined cycle” operation in a second phase in 2009.

This is already the second award, after the magazine “Trade Finance” had awarded the “Deal of the Year” for the clever project financing model to HSBC, the Hongkong Shanghai Banking Corporation. This was possible because of the optimum collaboration of the financing banks and ECAs (Export Credit Agencies = state credit insurance agencies) with the project consortium, which included ABB. Euler Hermes together with other ECAs achieved a coverage with coinsurance and reinsurance that provided attractive conditions for the customer West Coast Power Ltd.

The Sri Lankan company West Coast Power Ltd. constructed this new project. The first gas turbine was already synchronized to the Sri Lankan grid at the end of September. The Sri Lankan government regards the construction of the power station as important for the further development of the country and to counter the forecast electricity supply shortage up to 2009. For these reasons, the Ministry of Finance has also given state guarantees for the project.

Double award for the Kerawalapitiya project

„Asian Power Award 2008“ & „Deal of the Year“
Renewal of the control systems in CHP Hamborn Block 5

Great teamwork from the placement of the order to commissioning: RWE Power, ThyssenKrupp Steel and ABB successful in the replacement of the process control system of Block 5 of the Duisburg-Hamborn combined heat and power station.

In March 2007, ABB received the order for the replacement of the old INTRASET process control system of the previous Babcock company by the System 800xA. With their insolvency in 2003, the old INTRASET process control system was taken off the market and the support and further development of the hardware and software components was stopped. At the end of 2007, the overhaul of Block 5 was completed after a down-time of only 5 weeks. ABB implemented a modern control concept, which significantly improved the economic viability of the plant. The control and monitoring of the plant is made from a central control room equipped with a large mimic diagram.

Operations manager Klaus Pflipsen of RWE Power is enthusiastic about the functional capabilities of the new system in daily operation: “The control system permits a more conservative operation of the plant. This increases the life expectancy and is therefore an important condition for a further 25 years of power station operation. Our customer ThyssenKrupp Steel is also very satisfied.”

The combined heat and power station on the site of ThyssenKrupp Steel (TKS) has mixed heating from a furnace, coke boiler and natural gas and supplies the plant with about 225 MW of electrical power for steel production in the neighboring smelting works.
Replacement of the controls in only 8 weeks

E.ON Kraftwerke GmbH gave ABB the order for the replacement of the internal controls of Staudinger power station’s Block 5, which has a gross power of 550 MW. During the overhaul of the turbine, the existing system, a Siemens Iskamatik was replaced by ABB’s Procontrol P.

The scope of supply comprised the design, supply, dismantling of the existing control room, and the installation, commissioning, optimization, test runs and documentation for the complete replacement of the internal controls of Block 5, including the integration of the control room equipment in the common control room for Block 4/5 in Block 4.

The internal controls comprise about 1,250 actuators and 4,500 measurements. Concerning the project implementation, the ABB project manager Wilhelm Keck explains: “The commissioning group was made up of a total of 17 technicians, who worked in parallel in the plant. The technical function check was carried out by 40 - 45 control technicians working together. In this way, the replacement of the controls could be completed on time. Because Block 4 already has ABB controls, Blocks 4 and 5 can now both be controlled from a single control room.”

The combined heat and power station on the site of ThyssenKrupp Steel (TKS) has mixed heating from a furnace, coke boiler and natural gas and supplies the plant with about 225 MW of electrical power for steel production in the neighboring smelting works.
In the GKM power station in Mannheim, a 725 degree Celsius high temperature materials test line will go into operation in mid 2009. The research project will test methods for increasing efficiency, as the efficiency of power stations can be increased by very high steam temperatures.

ABB is participating in this project for the development of the next generation high efficiency and low emissions fossil power stations.

The ABB scope of supply comprises the design of the control system, the instrumentation, and controls. Further, ABB will provide web-based access to the archived measured results for the project partners. A total of 14 companies and research institutions, mainly from the Rhine - Neckar region are participating in the project. First and foremost, ABB expects to gain new operational experience with the use of materials for mechanical measurement technology.

Steam temperature above 700 degree Celsius
Up to now, the GKM operated with steam temperatures of 530 degrees. The new Block 9 should achieve 620 degrees, which corresponds to an efficiency of 46 percent. With the temperatures of over 700 degrees Celsius that are to be tested, an efficiency of over 50 percent can be achieved in new power stations, which would then reduce the CO₂ emissions by up to 20 percent.

During the test period of 3½ years, a continuous monitoring program will give information on what materials and design alternatives are suitable for the high temperatures. The installation of the test line in Block 6 will be made during the normal overhaul period in June 2009 and will generate information under these extreme conditions up to the end of 2011.
New bus coupling successfully in operation

The energy supplier Electrabel has been operating the Rodenhuize coal-fired power station on the outskirts of the Belgian City of Gent since the late 1960s. The existing control systems of the four blocks have already been upgraded between 1990 and 1995 with the Contronic E system.

To further maintain operation the obsolete small controllers will now be systematically upgraded. The input and output components will still be used as the interface to the sensors and actuators. The automation functions will be integrated in the new and future oriented AC-870P/Melody central units. A centralized Profibus interface will be provided for the interconnection of these subsystems.

The exchange of signals with the existing automation level will now be assured by a new bus coupling for the measurement and control signals and functions between the AC870P/Melody and the Contronic E. Fast and simple configuration is carried out supported by the power station designation system via the engineering stations of the two sub-systems. After an automatic coupling run, these functions are available system wide. A time-consuming and cost intensive system extension with input and output modules and cabling is not necessary. Stopping plant operation is also not necessary for the technical function check, as there is no change to the existing automation and protection concept.

In Rodenhuize, this coupling principle was successfully installed and tested in a few days with the plant still operating and was then put into operation. About 1,200 signals with their original time-stamp are exchanged in both directions. There is no measurable time delay due to transmission. The system modules are mounted in a standard Melody cubicle. The newly coupled functions can be seen in the graphic pictures by the operating personnel and can be operated via standard displays.

In the future, the new bus coupling will also permit the step-wise transfer of the Contronic E automation to the modern AC 870P/Melody system in small steps. This migration optimally conserves the existing investment e.g. the user interface, the protection equipment and the control concepts.
VGB Keli Hamburg

From the 6th to 8th May, the VGB conference and exhibition on electrical, control, and information processing took place in Hamburg. With more than 500 specialist visitors from manufacturers, operators, the media and R&D, it is the most important industry specific event of its kind in central and northern Europe.

ABB took the opportunity to present current developments and the latest technology in the area of control and electrical and to emphasize them in presentations e.g. on the subject of “Integration of actuators and switchgear with Profibus and IEC 61850 in the System 800xA”.

Power Gen Europe 2008

With rising fuel prices and an increasing concern for the environment, energy efficiency was a key topic at this year’s event which took place in Milan, Italy in June. As an answer to this problem, ABB presented its state-of-the-art System 800xA automation system, providing a unified, plant wide common platform approach offering energy savings of up to 30%. Additionally, ABB presented a number of optimization and service solutions as well as a complete portfolio for electrical balance of plant (eBoP). Parallel to the Power-Gen exhibition, ABB also hosted a one-day customer seminar “ABB Power Generation Days” in a venue close to the fair.

Events in brief

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<tr>
<td>Go Automation</td>
<td>Basel, Switzerland</td>
<td>01.09.09—04.09.09</td>
</tr>
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OTPIMAX® Performance v5.0

is now available as Beta release. The new release contains the full library of Performance Monitoring and Simulation tools of the predecessor v4.0, now running on the PGIM calculation server. This new tool library offers advanced capabilities to users working with PGIM as application platform.

In Control!

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