ABB is delivering a complete integrated instrumentation, control and electrical system solution for a 120 MW combined cycle power plant to increase power supply to Indonesia’s power grid.

ABB was awarded a contract by PT. PP (Persero) TBK to provide a complete and fully integrated instrumentation, control and electrical solution for a 120 megawatt (MW) power plant located at Cilegon, approximately 110 km west of Jakarta, Indonesia.

The 120 MW Krakatau combined cycle power plant provides electricity to the PT Krakatau Steel in Cilegon Industrial park, where the excess output is synchronized with the existing 150 kV PLN electrical transmission network. The Krakatau power plant is owned and operated by PT. Krakatau Daya Listrik, which is a subsidiary of PT Krakatau Steel engaged in power plant industry.

ABB supplied a complete designed and engineered electrical balance of plant (EBoP) package solution, inclusive of power, auxiliary and distribution transformers, low- and medium-voltage switchgears, motor control centers, and cable with its accessories.

ABB also supplied a complete 150 kV hybrid substation using hybrid switchgear (PASSMO) which helps customer to minimize civil work, cabling, testing and commissioning activities at site as the equipment is pre-assembled and pre-tested in factory.

As part of the contract, ABB supplied a complete mechanical balance of plant (mBoP) scope, covering key systems, among others, the main cooling and auxiliary water systems, the steam system, the feed water system, the air compressor system, piping systems for gas and steam and the chemical dosing system.

Project profile

Complete integrated electrical and automation solution for Krakatau combined cycle power plant in Indonesia

Project name 120 MW Krakatau combined cycle power plant
Location Cilegon, Indonesia
Customer PT. PP (Persero) TBK – IMECO Consortium
End user PT. Krakatau Daya Listrik
Completion February 2015

ABB solution
– Supply of complete 150 kV hybrid substation package
– Supply of complete designed and engineered electrical package solution, inclusive of power, auxiliary and distribution transformers, LV and MV switchgears, motor control centers, cables and cable trays.
– Complete mechanical balance of plant including supervision of installation.
– Complete design, engineering and supply of state-of-the-art control system, inclusive of continuous emission monitoring system (CEMS).

System benefits
– One single reliable supplier contact point for electrical balance of plant, mechanical balance of plant and control system solution
– Common platform for electrical, mechanical and automation equipment integration, thus reducing risk and increase stability and reliability.
– Hybrid substation minimizes civil work, cabling, testing and commissioning activities at site as the equipment is pre-assembled and pre-tested in factory.
The electrical and mechanical balance of plant systems are seamlessly integrated on a common ABB state-of-the-art automation platform where through a unified control platform, the multi-system integration helps customer to simplify plant control, reduce risk and increase stability and reliability for the plant.

ABB was responsible for the design, supply and commissioning of a state-of-the-art ABB distributed control system inclusive continuous emission monitoring system (CEMS) for the 120 MW facility, including the gas and steam turbines, heat recovery steam generator, balance of plant and plant electrical system.

The solution will provide PT Krakatau with a wide range of operational benefits including advanced information analysis, greater plant design flexibility, improved monitoring and process control and asset reliability, and increased operational and maintenance efficiency.

The plant will be fueled by natural gas, a relatively clean energy source, where it is expected to lower carbon dioxide emissions by generating energy to the grid that would otherwise have been produced using coal or oil as fuel.

For more information, please contact:

**ABB Ltd.**
Business Unit Power Generation
P.O. Box 8131
8050 Zurich, Switzerland
Phone: +41 (0) 43 317 5380
Fax: +41 (0) 43 317 5382

**ABB Pte. Ltd.**
Business Unit Power Generation
Singapore
Phone: +65 6776 5711
Fax: +65 6776 5711

[www.abb.com/powergeneration](http://www.abb.com/powergeneration)