



Facts and figures

Itaipu project

- The name 'Itaipu' was taken from an island near the construction site. In the Guarani language, it means "singing stone"
- Parana, the ninth longest river in the world, had to be rerouted to create the dam
- Earth and rock excavated to create the dam is equivalent to two Sugar Loaf mountains in Rio de Janeiro
- Amount of concrete used to build the power plant enough to build 210 football stadiums
- Enough iron and steel to build 380 Eiffel Towers
- Rate of construction equal to building one 20-story building every one hour
- Main dam as high as a 65-storey building
- Generates more than 14,000 megawatts of electricity, or enough to power the state of California or the combined power demand of Switzerland and Austria
- Power equivalent to burning 433,000 barrels of oil per day, or building 10 medium-sized nuclear power stations

Power transmission system

- Purchased and owned by Eletrobras Furnas to transmit power from the Itaipu hydroelectric plant to the Brazilian network
- Three 765 kV, 60 Hz, alternating current transmission lines, total rating 6,300 MW
- Two 600 kV HVDC transmission lines, total rating 6,300 MW
- Total of 4,309 km of transmission lines
- HVDC was chosen partly to be able to supply power from the 50 Hz generators to the 60 Hz system, and partly because it is economically preferable for long distances

ABB delivery for project

- Equipment for AC transmission systems at 765 kV: auto-transformers, line reactors, circuit-breakers, switchgear, series capacitors banks, system protection and control
- HVDC system at 600 kV: rectifier and inverter stations, complete engineering, procurement and construction with Brazilian contractor for civil works, erection and auxiliary equipment, switchyards at both stations and synchronous compensators at the receiving station.

Hydroelectric power plant

- Located at a particularly favorable site between the countries of Brazil and Paraguay
- Largest hydroelectric power plant in the world in terms of generation of energy
- In operation since 1984
- Installed capacity 14,000 MW
- Historic record for annual electricity production of 94.7 billion kilowatt-hours (kWh) in 2008
- Average annual electricity production of 91.6 billion kilowatt-hours (kWh) in 2009

ABB delivery for project

- Generators, static excitation systems, generator transformer banks, 500 kV GIS substation
- Complete Supervisory Control and Data Acquisition, Energy Management System and Automatic Generation Control (SCADA, EMS, AGC system) to supervise, control, optimize and manage generation and transmission systems