

Manuel Belgrano,  
Argentina

**800 MW**



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## Combined Cycle for Termoelectrica Manuel Belgrano

### First John Cockerill Horizontal Triple-Wide

#### Project Description

The Manuel Belgrano Argentina site represents John Cockerill's first triple-wide horizontal HRSG project. The order yielded several effective and innovative design strategies addressing matters of seismic restraint, increased thermal expansions, center guide system, internal gaps, acoustic baffling, structural steel, sizing and connection, casing layout, as well as erection procedures.

#### The contract

Manuel Belgrano is one of two Argentinian sites (the other being San Martin) for which John Cockerill won a contract for identical scopes of work. Provision of materials for the projects included: main steel, inlet duct and casing, exhaust stack, walkway system, large bore and small bore piping with supports and instrumentation.

#### Plant operation

HRSGs are designed for base load.

#### Gas turbines

- Siemens SGT5-4000F
- Fuel: natural gas, fuel oil (backup)

#### Heat recovery steam generators

- John Cockerill horizontal, natural circulation, unfired,
- 3 output pressures to Steam Turbine + reheat

#### Performances

GAS	°F		Lb/Hr
Inlet	1,089		5,460,726
Outlet	195		
STEAM	°F	psig	Lb/Hr
HP	1,053	1,885	569,182
IP	608	464	121,254
LP	453	972	85,980
REHEAT	1,049	450	723,116

#### Schedule

- Contract Award
- HRSG ready for PAC
- Commercial operation

November 2006  
January 2008  
November 2009



## CMI becomes John Cockerill

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