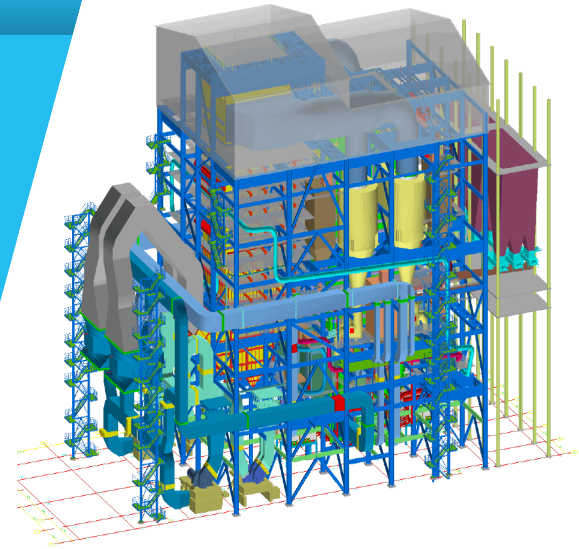


PROJECT PROFILE: CFB, India

Bhavnagar

Circulating fluidised bed combustion



In 2010, India’s premier boiler maker, Bharat Heavy Electricals Limited, contracted Doosan Lentjes to provide engineering services for the design and construction of two 250 MWe CFB boilers at Bhavnagar Power Plant in India’s Gujarat state.

DELIVERABLES

- Extended basic engineering for two lignite based CFB boiler islands, including details for proprietary items

CHALLENGES

- High ash, high-sulphur and high-moisture lignite
- High-pressure, natural-draft boiler
- Wide load range

BENEFITS

- Provision of economic, clean power technology for the Gujarat region
- Reinforcing CFB boiler technology as the ideal solution for burning high-moisture and high-sulphur Indian lignite
- Further collaboration with leading Indian business partner

CFB technology supports efficient use of local lignite resources

India's independent power producer Bhavnagar Energy Company Ltd (BECL) plans to utilise local lignite resources to generate economically and environment-friendly power.

The mining area, developed in conjunction with Bhavnagar Power Plant, is located close to the plant site in India's Gujarat state. Doosan Lentjes' CFB technology is applied for the power generation process because of its proven track record in efficiently burning high-moisture and high-sulphur Indian lignite.

The boilers are designed according to utility size CFB technology, with patented pant-leg and FBHE design, and will increase the number of 250MWe CFBs in India.

With this contract, Doosan Lentjes continues its cooperation with India's premier boiler maker Bharat Heavy Electricals Limited, providing engineering services for the design and construction of CFB boilers.

Key Project Data

Customer	Bhavnagar Energy Company Ltd. (BECL)
Main project partner	Bharat Heavy Electricals Ltd
Location of power station	Bhavnagar, Gujarat, India
Main fuels	High-moisture and high- sulphur local lignite
Award date	2010
Number of lines	2
Plant update	250 MWe
Thermal capacity	610MWth
Live steam	810 mg/h 540 / 173°C / bar
Reheat steam	685 mg/h 540/ 43°C / bar
Feed water	255°C
Emissions	
SO ₂	515 mg/ m ³ (STP)
NO _x	350 mg/ m ³ (STP)
Dust	100 mg/m ³ (STP)
Thermal efficiency (ASME)	77%



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Doosan Lentjes is a global provider of processes and technologies for energy production from renewable and fossil fuels. Our specific areas of expertise include circulating fluidised bed boilers, key technology for the generation of energy from waste, and flue gas cleaning systems. We have been pioneering energy solutions for 90 years and convert over 9 million tonnes of waste into energy each year.

Doosan Lentjes is part of a powerful combination of companies united under the Doosan Group to deliver complementary technologies, skills and value to customers the world over.

Doosan Babcock

Doosan Lentjes

Doosan Škoda Power

NUCLEAR | BOILERS | TURBINES | WASTE TO ENERGY | AIR POLLUTION CONTROL | SERVICE