

Engineering consultant services

Bankable Feasibility For CHP Plant



Location

United Kingdom



Client

Tata Steel



Expertise

Bankable Feasibility Study,
CHP plant

Our Services



- Bankable Feasibility Study Report
- Review of existing project documents
- Elaboration of Framework Specification
- Site Survey/Inspection
- Process Engineering/Systems Engineering
- CAPEX-/OPEX-Models
- Risk Assessments
- Project Management
- Project Execution Planning

Project description

Iron and steel production is very carbon intense. Tata Steel's Port Talbot plant, using a blast furnace-basic oxygen furnace route (BF-BOF) operates very efficiently within the constraints of its existing technology, however, further efficiency gains are limited without a major step change in technology.

Tata Steel planned to construct a 2 × 70MW blast furnace gas-fired CHP located at the Port Talbot site. A key focus of the plant design was to assure reliable and constant steam supply for steel production facilities. The bankable feasibility study was carried out by RWE for Inside Station Battery Limit (ISBL) scope including thermal engineering design, assumptions book, project execution plan, site evaluation report and project management plan.



Our study report enabled the Tata Steel board to make an informed investment decision. Tata Steel has invested more than £1.6 billion since 2007 to upgrade plant and technology at its UK operations, improve efficiency and reduce emissions, including:

- Basic oxygen steelmaking (BOS) gas recovery (reused for other processes)
- Increased use of coal injection to replace coke use in furnace
- Hot linking where possible (to reduce heat loss)
- Recuperation and regeneration (heat recovery from reheating furnaces)
- Variable speed drives for motors (20 – 30% energy savings for motors)
- Studies have been undertaken for upgrading of on-site, blast furnace-gas fueled power stations at a cost (without CCS) of several hundred million pounds

Europe & Central Asia

