



3x36 MW Gas Turbine Based Power Plant for Saudi Cement Company at Hofuf in Saudi Arabia

Saudi Cement Company (SCC) is a Saudi Arabia-based joint stock company engaged in the manufacture and sale of cement and related products, as well as investing in cement related sectors. The Company's products include ordinary Portland cement (OPC), sulphate resisting cement (SRC) and Oil well cement (OWC). During 2011, the Company produced 7.27 million ton cement and 6.89 million ton clinker. SCC exports its products to various Gulf Corporation Council (GCC) countries.

HOLTEC has been entrusted for complete Engineering consultancy for cement and Power Plant . M/s General Electric has supplied 3x36 mw gas Turbine based Captive Power Plant

Owner/Promoter

Kingdom of Saudi Arabia (KSA)



Project Consultant

Holtec Consulting Private Limited, India

EPC Contractor

SADELMI.

Scope of Consulting Services

- Techno-Economic Feasibility Study & Report submission.
- Basic Engineering, Preparation of detail Tender/specification for EPC Contractor for captive power plant.
- Evaluation of offers & assistance in finalization of EPC Contractor
- Review of plant technical concept, heat & mass balance diagrams, preliminary plant layout, electrical single line diagrams & philosophy of C&I systems using PLC/DCS systems.

CONCEPT TO COMMISSIONING

- Review and approval of data and drawings from the supplier with a view to coordinate the project activities to ensure that they meet the requirements as laid down in the respective specifications.
- Design of foundations, buildings and structural in conformity with the project engineering and general arrangement drawings for the process departments and material handling sections
- Detailed Engineering & Inspection.
- Project Implementation & Management
- Supervision of Construction, Erection, Trial Runs and Commissioning.

Significant Accomplishments

- Gas turbine can operate on Natural Gas / Crude oil / Synthesis Gas
- Online and off line water washing has been considered.
- The plant was commissioned in the February 2010 and running efficiently till date.

Salient Features

Power Plant	
Fuel: Crude Oil	
Arabian light/Arabian Heavy	Approx. GCV-19157 / 18921 Btu/Lb
Diesel / Compressed Natural Gas	9100 / 8600 kcal/cum
Gas Turbine	3XGE6B – P6885
Heavy duty with multiple fuel option	3X36 MW
- Generator output voltage	11 KV
Emission	
NOx , SOx & PM	Meeting stack emission limit as per World Bank/IFC guidelines "General/ Thermal Power Plants EHS Guidelines"
Salient Feature	
Fuel flexibility	Multiple fuel option
Flexible choice	Can also be used as co-generation
High reliability and low emissions	Low Nox & Sox
Cost benefit	Low fuel cost/HP