



## CONCEPT TO COMMISSIONING

### 52 MW Power Plant for Hail Cement Limited in Saudi Arabia

The 1.5Mt/yr, US\$200m Hail Cement plant is a well known cement producing unit in Saudi Arabia. And located in the northern central city of Hail. The plant was built and commissioned by Chengdu Building Materials Industry Design & Research Institute, which is a wholly-owned subsidiary of Sinoma.

**HOLTEC** has been entrusted for complete Engineering consultancy for cement and Power Plant . M/s Wartsila Corporation shall be supplying 7X20V32 DG sets on turn key contract basis for generation of 52 MW..

#### Owner/Promoter

Promoter Prince Abdulaziz Bin Mousaed



#### Project Consultant

Holtec Consulting Private Limited, India

#### EPC Contractor

Chengdu Building Materials Industry Design & Research Institute , Wartsila Corporation.

#### 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.
- 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

- Power Plant is running on HFO.
- For efficient operation exhaust gas boiler have been considered for pre-heating oil system.
- Zero effluent discharge has been achieved.
- The plant was commissioned in the year 2012 and running efficiently.

#### Salient Features

Power Plant	
<b>Fuel</b>	
HFO	Approx. GCV-9800 Kcal/Kg
<b>DG Engine</b>	
- Four stroke	7X20V32 DG sets
- Generator output voltage	11 KV
Features of DG set	
Tolerance	As per ISO 3046-1986 (E)
Flexible mounting facility	Reduces torsional vibration & noise
Start-up	Pre-heated & pre lubricated engine facilitates fast start-up
Flexibility in fuel selection	Can run both on Heavy & light fuel oil
Speed control	Through Electronic Governor
<b>Emission</b>	
NOx , SOx & PM	Meeting stack emission limit as per World Bank/IFC guidelines "General/ Thermal Power Plants EHS Guidelines"