China Energy Shenning Group CO.LTD., China

Shenhua Ningxia Coal Industry Corporation Limited 4Mt/a Coal to liquids project, China

Duration: 3 years; Budget: € 7 billion

Project description

The Shenhua Ningxia Coal Industry Corporation Limited 4Mt/a Coal to liquids project is the first industrialized CTL project in China initiated by Ningxia Coal Group. Main aims of this project are to exploit Ningxia Coal Group’s resource advantages as well as achieve clean conversion and efficient utilisation of coal. It is also the world’s largest single-unit investment and largest CTL project. The design scale of this project is an annual output of 4.05 million tons of synthetic oil, with an annual conversion of 20.46 million tons of coal. The project covers a total area of 680 hectares and consists of 6 parts which covers 71 main items: process production equipment, public works, auxiliary facilities, treatment infrastructure, service facilities and off-site infrastructure.

5 biggest strengths indentified by PE Assessors

1. People, leadership and people orientation. Leaders acted as role models for success, gave room to develop competences, organised good communication and collaboration in the IPMT and with contractors and suppliers - the “one team” approach. The Senior Management and Project Managers were committed and very actively involved in the project from the beginning until the end. The team members appreciate these approaches and their readiness to discuss and accept suggestions, if in accordance with the objectives. The Management and team were ready to modify approaches if this seemed beneficial.

2. Project results. The project leaders and IPMT set ambitious objectives for all topics: high output of the plant, minimise waste, efficient processes, professionalism, select the best employees, suppliers and contractors.

3. Processes and resources. The project started to think from the commissioning and operation phase in terms of planning project success. For this suppliers and contractors were obliged by contracts to deliver their necessary contribution.

4. Processes and resources. The IPMT provided standardised processes for management and technical topics that assured efficient processes.

5. People and purpose. The IPMT based its approach for the CTL project on the experience and approaches that had been successfully applied for the previous Coal to Chemical projects of Ningxia Coal in the last 10 years and adapted them to the needs of the CTL project. Many internal members of IPMT had already worked on previous projects and built up individual competences and organisational capabilities. Lessons learned of the most recent projects were considered and it was checked if they were relevant for the CTL project. Also ideas from other companies were applied (e.g. tidyness of the plant).