Shanxi Xian yang Chemicals Industry Co., Ltd Methanol Products – Xi an, China

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Customer

- Xian yang Chemical Industry Co., Ltd is a subsidiary company of Shanxi Provincial Investment Group CO.
- The company use local natural coal resources to develop the methanol industry.

Plant

- DCS: 4,500 I/O's, SIS: 500 I/O's
- 2 x 40,000 Nm3/h ASU plant unit
- 600 kT/a Methanol single unit (1st. Phase)
- Several projects will be developed by the Shanxi Provincial Investment Group Co. in the next years
- Coal gasification unit (GE license based)

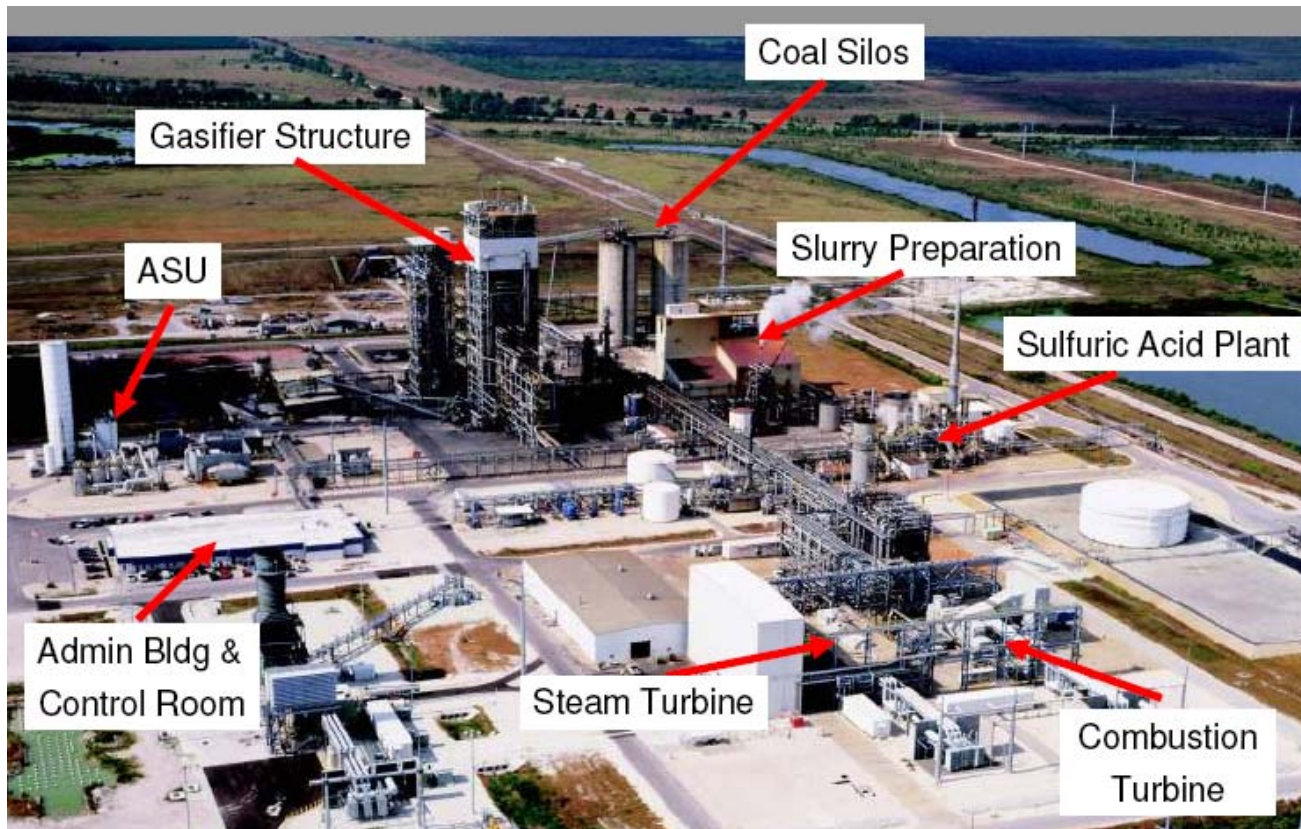## Project Partners

- Siemens SIAS

Project Highlights

- 1st major PCS 7 Slurry coal gasification reference on chemical in China
- Break-though in large scale coal gasification process industry projects

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Plant Overview

Petrochemical, Chemical and Biofuels Industries   Sector Industry

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Process

- Air separation unit
  (Hang Yang internal compression process)
- Coal feed, coal gasification,
  (East China University,
  Opposed multi-burner technology)
- Transformation,
- Purification,
- Methanol synthesis
  (TOPSOE technology)
- Rectification
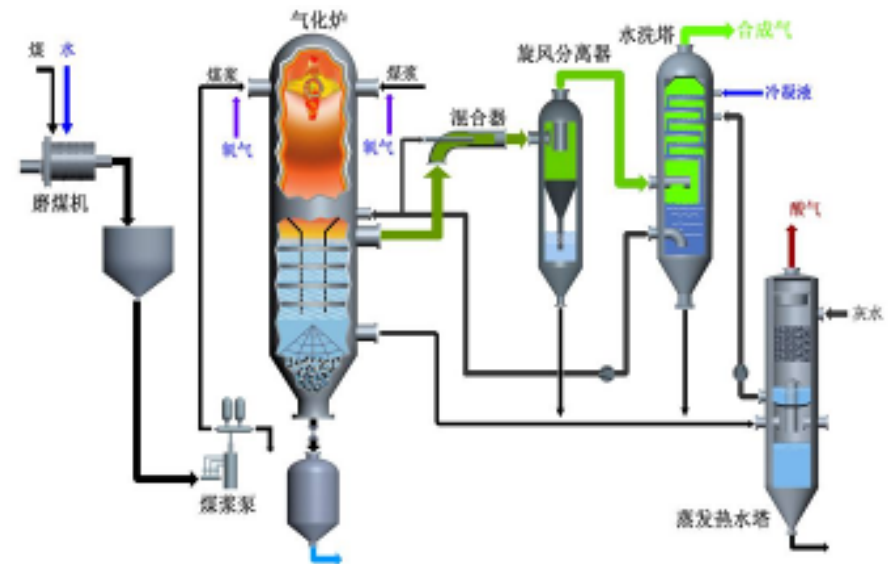
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Scope of Project

- Order as Automation System Vendor, overall engineering investment is about 272 Mio. €
- Project includes 3 plants, utilities and assemblies, along with OSBL (Outside Battery Limit)

DCS/SIS-Package

- Overall implementation Strategy
- Network Construction
- Hardware / Software architecture
- Integration with third party communication link
- Engineering Management and Procedure Documents
- Functional Design Specifications
- Engineering Design, Configuration, Commissioning
- Integration and commissioning of third-party systems
- Operation and maintenance support services

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Automation Scope of Supply and Architecture

Integrated Instrumentation and Automation System

- 7 Redundant Controllers (7 x 414H pairs)
- 1 Red. Failsafe Controller (1 x 417FH pair)
- 5000 I/O
- 3 Engineering Stations
- 1 Redundant OS-Server
- 12 OS-Clients
- 1 OPC-Server
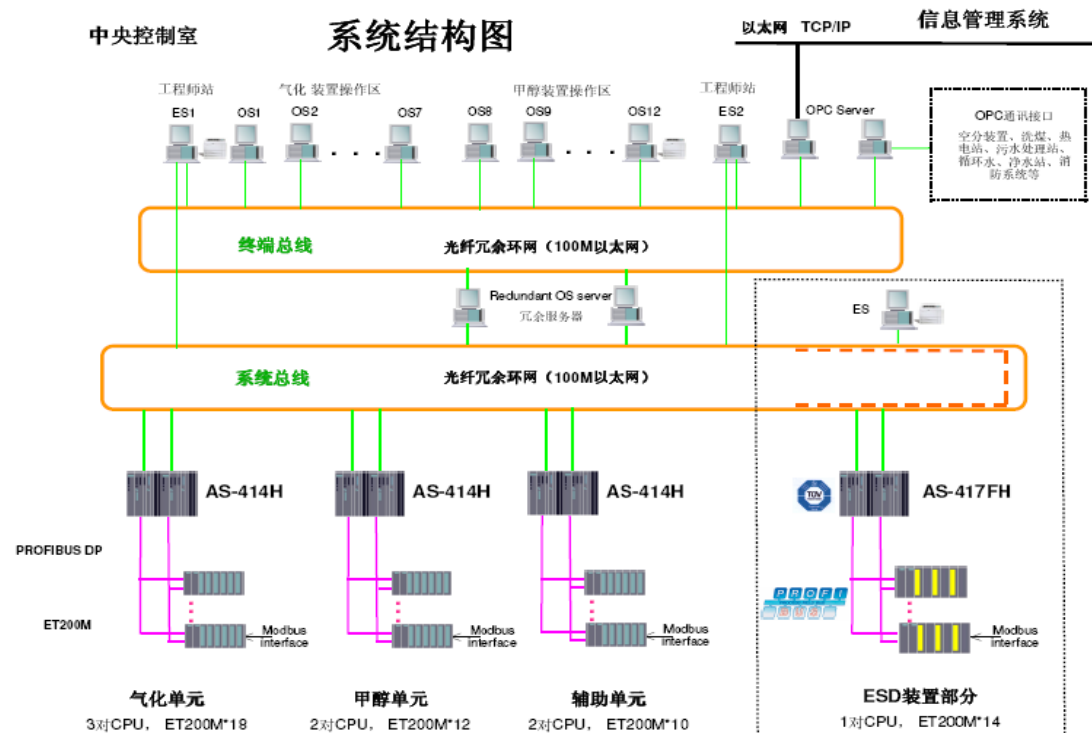
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TIA Benefits with DCS/SIS-Integration

Best-Fit for the requirement of large-scale gasification project execution

- Guarantee synchronization of DCS and SIS,
- Standardize FDS function design specification
- Coordinate and manage multiple local EPCs
- Guarantee the high project quality
- Guarantee project construction schedule
- Centralize operation management,
- Optimize overall factory resources
- Reduce life-cycle cost