

CHEMICAL CASE STUDY

# China's Lu'an Group



01 Lu'an coal-to-chemical plant.

Photo credit: Lu'an.

## About the Lu'an project

Leading Chinese energy company Lu'an Group's coal-to-liquid (CTL) demonstration project, which has been ongoing for the past five years, is a landmark undertaking as the country explores new sources of energy. China is increasingly adopting CTL technology, leveraging its rich deposits of coal with the aim of reducing dependence on imported petroleum and gas. The construction capacity of the Lu'an plant is 1.8 Mt/a of liquid, providing a sizeable energy source to the Chinese market, which has been spending heavily to import large volumes of petroleum and gas to meet the demands of its growing population.

### Project overview

Project value	\$3.5 Billion
Manufacturing plants	9
Number of EPCs	7
Annual output	1.8 Million Tons

Integrated automation and safety systems for CTL project with simulated training.

ABB interfaced with multiple Chinese EPCs and also ensured that the project milestones were met. This helped the customer to deal with a series of interlinked tasks and enabled them to timely overcome technical challenges.

## ABB steers CTL operation

With ABB as its main automation vendor (MAV), Lu'an Group lowered risk, optimized timing, and enhanced safety and security, while providing training for operators in a safe environment using digital technologies. A range of distributed control systems, safety instrumented systems and gas detection systems, with 60,000 I/O (input/output), were delivered to the project. These systems can be further integrated into ABB's digital platform – ABB Ability™. An operation training simulator was also supplied to upskill. ABB interfaced with local EPCs to install the integrated automation and safety systems throughout the project.

### Building by numbers

800xA control systems	13
I/O devices	60,000
Redundant controllers	130
Servers	48
Workstations	215
Cabinets	550