# Haixi (Luneng), China

## **50 MW**





### Haixi (Luneng), China | 50 MW

#### First John Cockerill Solar Receiver in China

#### **Project Description**

The renewable energy power plant of Haixi, located in the province of Qinghai (China), is part of the Chinese 23 multienergy projects and will combine a mix of CSP, PV and wind energy on the same site. It will be located in a high altitude desert environment with severe weather conditions and will feature 12 hours of thermal energy storage.

#### The contract

In December 2017, SEPCO III, one of the top Chinese EPC contractors, known for its interest in CSP technology both in China and overseas, chose John Cockerill Energy's central receiver for its 50 MWe Molten Salt solar tower for the Haixi project (also known as "Luneng project", after its owner name, the Luneng Company).

SEPCOIII Electric Power Construction Co., Ltd. (SEPCO III), founded in 1985, is a subsidiary of Power Construction Corporation of China, active in the construction of various types of power plants, including thermal, nuclear, gas, hydro, wind, biomass, photovoltaic, solar energy and sea water desalination. Since its founding, it has constructed various power plants with a single unit ranging from 12 MW to 1000 MW for a total installed capacity of 80,000 MW.

John Cockerill has a long commercial relationship with China, dating back to 1900 when a Chinese delegation visited John Cockerill's headquarters in Seraing (Belgium). This relationship continued throughout the 20th and 21st centuries with, among others, the supply of Heat Recovery Steam Generators and steel processing lines by John Cockerill.

Today, John Cockerill is proud to be trusted by SEPCOIII for the design and supply of one of its key equipment for their first solar tower in China and intends to be a solid partner in CSP for the many future solar projects in the coming years.

#### **Plant Operation**

The electric production has to be uninterrupted even when the sun does not shine. The use of molten salts enables a large energy storage capacity, which constitutes a major asset for electricity production.

#### **Characteristics**

Heat Transfer Fluid: molten salts

#### **Equipment**

| Absorbed power (MWth) | Molten Salt | Molten Salt    | Molten Salt      |
|-----------------------|-------------|----------------|------------------|
|                       | Flow        | Inlet/Outlet   | Inlet/Outlet     |
|                       | (t/h)       | pressure (bara | temperature (°C) |
| 280                   | 2500        | 26/8           | 298 / 565        |

#### **Schedule**

| 2017 |
|------|
| 2018 |
|      |
|      |
|      |



#### **CMI** becomes **John Cockerill**