

MINTIA, Romania

1740 MW

**Vertical
Once Through
behind H-Class GT**



energy.johncockerill.com



MINTIA, Romania | 1740 MW

2 John Cockerill Once Through Boilers behind the latest generation of Siemens gas turbines for enhanced efficiency

Context of the Project

The Romanian government has partnered with private investors and technology providers to accelerate the energy transition in the Transylvania region. They have decided to build a new combined cycle power plant in Mintia, about 7 km from Deva, replacing the outdated coal-fired facility and aiming to reduce CO₂ emissions by over 50%.

With a total investment of €1 billion, the project, led by Mass Group Holding (MGH), will establish a natural gas and renewable energy power station compliant with European standards, targeting carbon neutrality by 2050.

MGH awarded the EPC contract to the Avax Group, in charge of the engineering, construction and commissioning of this 1,740 MW combined cycle power plant.

Expected to be completed by 2026, the plant will run on natural gas and will include two gas turbines, two heat recovery steam generators, one steam turbine and three generators. The needed cooling water will be pumped from the nearby Mureş River.

The Contract

Avax entrusted John Cockerill Energy with the design and supply of two ‘Once Through’ vertical boilers which will be associated with the latest generation of Siemens SGT5-9000HL gas turbines, high-performance turbines of over 550 MW. John Cockerill Energy seized the opportunity to join the very exclusive club of boiler manufacturers who master the technology of vertical Once Through Boilers, which is a true benchmark in the market.

With this seventh consecutive awarded contract, MGH once again renews its confidence in John Cockerill since our engineers are designing the 37th and 38th boilers for this end-customer.

Plant Operation

The John Cockerill boilers are designed to withstand unlimited daily start-ups and shutdowns. They will allow superior operational flexibility of the power plant.

With a maximum power generation efficiency of over 64%, the plant of Mintia will be the most efficient gas-fired power plant in Romania and one of the most efficient gas-fired plants in Europe.

Gas Turbines

- SGT5-9000HL gas turbines
- Fuel: natural gas

Heat Recovery Steam Generators

- 2 John Cockerill Vertical Once Through Boilers
- Triple pressure + Reheat

Performances

Steam	°C	barA	t/h
HP	599	177	549
IP	355	43	52
LP	261	5	43
Reheat	610	41	588

Schedule

- | | |
|----------------------|------------|
| • Notice to proceed | March 2024 |
| • Contract signature | April 2024 |
| • Expected PAC | May 2027 |