

July 25th, 2022

## DEWA solar power plant (UAE): first molten salts injected into the receiver designed and supplied by John Cockerill

*The DEWA solar thermal power plant in the Dubai desert reached another major milestone on 14 July 2022: the first salts were injected into the receiver designed and supplied by John Cockerill. Commissioning is continuing in order to reach 565°C at the receiver outlet. This molten salt technology, used as a heat transfer fluid, enables electricity to be generated 24 hours a day. Once the temperature of 565°C has been reached, thanks to 70,000 heliostats reflecting the sun's rays to heat exchangers, the salts are stored for 15 hours, enabling electricity to be produced day and night at a stable and continuous power of 100 MW.*

In Dubai's desert (United Arab Emirates), at the top of a 260-meter-high tower, stands a John Cockerill solar thermal receiver. This state-of-the-art thermo-solar technology designed by John Cockerill makes it possible to produce solar electricity 24 hours a day, thanks to the use of molten salts as a heat transfer fluid. These salts are heated up to a temperature of 565 °C into John Cockerill's receiver. These molten salts can then be stored for 15 hours, thereby making it possible to produce electricity day and night: electrical power is stable and continuously at 100 MW.

In 2018, John Cockerill signed a contract for the design and supply of a thermo-solar receiver with Shanghai Electric Brightsource Solar Energy Limited for the owner Noor Energy 1 PSC. This *DEWA IV 700MW CSP + 250MW PV Hybrid Project* has just passed a key milestone as the first salts have been injected into the receiver at a temperature approaching 290°C. Commissioning is continuing in order to optimize the plant settings and to progressively increase the heating of the salts by focusing more and more heliostat in order to reach 565°C at the receiver outlet.

This technology is impressive both in terms of its dimensions and its capabilities: a giant interlacing of pipes, tanks and heat exchangers, the element weighs 1 500 tons and is itself about forty meters high. As the technological heart of the plant, it enables the supply of electricity to 320 000 households and the avoidance of 1.6 million tons of CO2 emissions per year.

As the world's leading supplier of molten salt solar receivers, John Cockerill confirmed its position as market leader in 2021 with the signing of a contract for the design and supply of a thermo-solar receiver in South Africa. With now 5 reference projects for this 100% green electricity production technology around the world, John Cockerill is more than ever positioning itself as a major player in the energy transition.

### **John Cockerill, enabler of opportunities**

Driven since 1817 by the entrepreneurial spirit and passion for innovation of its founder, the John Cockerill Group develops large-scale technological solutions to meet the needs of its time: preserving natural resources, contributing to greener mobility, manufacturing sustainably, building security and facilitating access to renewable energy.

Its offer to businesses, governments and communities consists of services and associated equipment for the sectors of energy, defence, industry, the environment, transport and infrastructures.

John Cockerill achieved a turnover of 947 million euro in 22 countries on five continents in 2021.  
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