

## PRESS RELEASE

# TURBODEN SECURES THE INSTALLATION OF THE FIRST ORC SYSTEM IN UAE FOR LEC – member of Holcim Group

*LEC, Holcim Group, chooses the Italian firm for the installation of a 10 MWe waste heat recovery system in its cement plant at Fujairah.*

**Brescia, Italy, 7 July 2023 - Turboden S.p.A.**, a Mitsubishi Heavy Industries Group Company, together with **ENGIE Solutions GCC**, was selected by LEC for the production and installation of a 10MWe WHR Organic Rankine Cycle system at the Fujairah cement plant.

Based on a **closed-loop thermodynamic cycle**, the **Organic Rankine Cycle system** will help LEC avoid **29 kilotonnes per year of CO<sub>2</sub> emissions** from the grid – representing a **reduction of 28% in power-related emissions**.

Traditionally, the cement industry involves heating raw materials to 1,500 degrees Celsius – the temperature of molten lava – to make clinker, the base of cement. Fossil fuels often provide the energy, giving the cement industry a bad reputation in sustainability circles. The waste heat recovery system based on the ORC technology, will **capture low-temperature waste heat, and operates without water**.

**Paolo Bertuzzi, Turboden CEO, stated:** "We are proud that the Holcim Group, already our customer with three other waste heat recovery plants, has again chosen Turboden for this first project in the United Arab Emirates. At COP 28, this year in the UAE, we will have the opportunity to present this energy-saving and CO<sub>2</sub> reduction project to raise awareness of energy-intensive industries."

**Ian Harfield, Managing Director, ENGIE Solutions GCC, said:** "Industrial decarbonization is critical if the region is to meet its CO<sub>2</sub> emissions reduction targets. With our partners, we can again demonstrate how large industrial sectors like cement manufacturing, can successfully transition to more energy-efficient systems without impacting production. As more such use cases emerge, we can establish an effective path to net-zero in the region."

The plant is scheduled to start up by the end of 2023.

Turboden counts 14 references in waste heat recovery from cement production and 35 in industrial processes.

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**Turboden S.p.A., Mitsubishi Heavy Industries group company**, is an Italian firm and a global leader in the design, manufacture, and maintenance of Organic Rankine Cycle (ORC) systems, highly suitable for distributed generation, that generate electric and thermal power exploiting multiple sources, such as renewables (biomass and geothermal energy), traditional fuels, and waste heat from industrial processes, waste incinerators, engines, or gas turbines. Today Turboden expands its technological solutions with gas expanders and large heat pumps to play a broader role in the decarbonisation of the district heating sector and of energy-intensive industrial processes. [www.turboden.com](http://www.turboden.com)

**ENGIE Solutions GCC** is the partner to cities, communities and industries for low carbon energy and services. Locally, we bring ENGIE's global and regional expertise in technical services, energy efficiency, digitalisation and renewables across all types of

infrastructure and sectors. The company is committed to investing in countries through empowering the local workforce, implementing smart technological solutions, and delivering financed and guaranteed energy efficient projects for our partners. ENGIE Solutions is part of the ENGIE Group, a global reference in low-carbon energy and services, present in 70 countries with more than 96,000 employees. [www.engiesolutions.me](http://www.engiesolutions.me)

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