TITAN and Orcan Energy join forces for clean energy innovation towards net zero in cement



- TITAN and Orcan Energy started a partnership to exploit the benefits and explore the scale up potential of new modular technology pioneered by Orcan Energy which holds the potential to convert large waste heat volumes into clean and affordable energy.
- The flexible and modular approach could be one of the answers to accelerate the decarbonization of cement plants, especially in view of uncertainties regarding future challenges and framework conditions.
- The Waste heat recovery solution, if successful and applied at full scale, has the potential to reduce a significant percentage of TITAN's overall scope 2 emissions.

TITAN, an innovative and fast decarbonizing cement producer, and Orcan Energy, the leading cleantech company turning waste heat into clean electricity, announced an innovation partnership today. This partnership brings together TITAN's expertise in cement production and decarbonization, and Orcan Energy's proven track record in sustainable energy solutions. Together, the partners will explore the development and deployment of an innovative modular clean energy solution that will convert waste heat into clean and affordable electricity. This efficient solution has the potential to accelerate project implementations and at the same time reduce costs.

Samir Cairae, Chief Technology Officer of TITAN, said: "We have a strong ambition to reduce specific Scope 2 emissions by ca. 58% by 2030 from a 2020 base year. The collaboration with our waste heat recovery partner Orcan Energy has the potential to transform waste heat into zero-carbon clean energy, with a novel but well-proven modular approach, aiming at a significant reduction of emissions coupled with immediate financial gains. Additionally, the innovative business model

could be a step towards a partnership-driven ecosystem, in the face of rapid changes in decarbonization and digitization technologies."

Dr Andreas Sichert, CEO of Orcan Energy, said: "We are thrilled to partner with TITAN for utilizing their vast and valuable waste heat resources. Our technology will help not only to reach the Group's extraordinary decarbonization ambitions but also to significantly save electricity expenses. TITAN is a remarkable player in the cement industry, constantly building the business while at the same time proactively pushing sustainability initiatives. We are here to combine both worlds: business and sustainability. Our modular approach will allow TITAN to flexibly respond to outside changes in uncertain times."

This collaboration aims to undertake a comprehensive assessment of deploying Orcan Energy's waste heat-to-power solutions across TITAN Group's facilities as a first step. The assessment encompasses a thorough pilot site evaluation, starting with several plants of the Group. Orcan Energy's modules can be installed in several applications. In the first step, the focus will be on the pre-heater and the clinker cooler – either combined or without any link between the two heat sources to stay flexible towards future developments. Additionally, both parties will explore other potential areas of cooperation and the development of a more strategic alliance.