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ASX:14D

Strategic Partnership to Trial Mass Manufacture of SiBrick™ Latent Heat Bricks

Highlights

- Strategic partnership agreement signed with leading European developer and manufacturer of refractory products, Refratechnik-Steel GmbH
- Refratechnik to trial manufacture 14D's innovative latent heat storage solution, SiBrick™ with subsequent rigorous cycling in air at 1414 Degrees facilities to test performance
- Each brick will store at least 1 kWh of usable energy at maximum output temperature

1414 Degrees Ltd ("1414 Degrees" the "Company") is pleased to announce it has strengthened its collaboration with Refratechnik-Steel GmbH ("Refratechnik") to conduct manufacturing trials of the Company's groundbreaking latent heat SiBrick™, which has the potential to decarbonise high-temperature industries through electrifying industrial processes.

Headquartered in Munich, Refratechnik is part of a group of industry leading worldwide companies that develops, manufactures, and installs high grade refractories for high temperature industrial processes. Refratechnik specialises in products for the cement, lime, aluminium, ceramics, chemicals and iron & steel industries among others.

Refratechnik has collaborated to develop a mass producible SiBrick and will manufacture 600 of 14D's bricks, in batches, to determine the feasibility of mass production. Manufacturing and quality control testing is expected to take 4 months.

Future SiBox® models, as currently envisaged, will utilise up to 100,000 SiBricks™ per module, thus demonstrating production of commercial volumes at a lower cost per unit will expedite 14D's commercialisation strategy.

The partnership will now focus on manufacturing methods and costs for production at scale following several years of close research and development collaboration for SiBrick™ under a Technology Partnership Agreement signed in 2020. Under the original agreement 10 bricks were manufactured at Refratechnik's research facility which are now undergoing testing in 1414 Degrees' furnaces.

Each mass-produced thermal energy storage brick will store 1 kWh of usable energy at maximum output temperature. Following manufacturing, the bricks will be subjected to rigorous cycling in air in 1414 Degrees facilities to test performance and ensure they are sufficiently robust. Some may be installed in the SiBox® Demonstration Module and under the partnership, Refratechnik will have first right to manufacturing SiBrick™ for commercial scale SiBox® installations.

Kevin Moriarty, Executive Chairman of 1414 Degrees commented *"at 1414 Degrees, we pursue achievable goals from a robust business model designed to partner with leading players across our target industries to support decarbonisation efforts and deliver continuous growth. Strategic partnership agreements are a key element of our commercial model."*

Licensing of existing refractory plants to manufacture our proprietary SiBrick™ will allow us to expand production with minimal capital investment while simultaneously ensuring we can remain at the forefront of technology for the energy transition.

Our competitive advantages are anticipated to lie not only in harnessing the exceptional energy density and high temperatures of molten silicon but also in the ability to achieve economies of scale through SiBrick™ mass production. These would allow us to participate in and foster the new thermal energy storage market with major growth potential driven by emissions reduction for high-temperature industries.”

1414 Degrees remains committed to advancing the boundaries of thermal energy storage, and is excited about the potential impact of its SiBrick™ technology in the global Long Duration Energy Storage (LDES) market.

The Company looks forward to updating its shareholders and the industry as it progresses through this pivotal stage of trials and testing.

Pictured below is one of Refratechnik’s refractory brick manufacturing facilities in Germany.



ABOUT THE REFRASTECHNIK GROUP

Founded in 1950 and headquartered in Munich, Bavaria, the Refratechnik Group is a global network of companies, active in the refractory and raw material business.

Their advanced products as well as their service and processing expertise are applied worldwide in all high-temperature industrial processes, for example in the cement, lime, ceramics, iron and steel, aluminium and non-ferrous metals industries.

For more information on Refratechnik (which is part of the Refratechnik Group), please visit www.refra.com/en/Refrastechnik-Steel/

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ABOUT 1414 DEGREES LIMITED

1414 Degrees is an innovative clean energy company focused on the development and commercialisation of thermal energy storage solutions. Its proprietary silicon thermal storage, SiBrick™, is the key component in its SiBox® thermal energy storage solution. SiBox delivers high temperature carbon free industrial heat by harnessing silicon’s extremely high latent heat capacity. This enables intermittent renewables to provide flexible, ultra-high temperature heat 24/7 for large industrial applications.

The Company commissioned a module of the SiBox technology in 2023 to accelerate the commercialisation of its silicon storage media as a competitive clean energy solution.

In 2019 the Company made the strategic purchase of the Aurora Energy Project (AEP) located near Port Augusta, South Australia. The project is a long-term renewable energy initiative to deliver reliable electricity to the region and National Electricity Market. The AEP has approval for 14D to pilot and demonstrate a large commercial scale version of the SiBox technology.



Forward-looking statements

This announcement includes forward-looking statements which may be identified by words such as 'anticipates', 'believes', 'expects', 'intends', 'may', 'will', 'could', or 'should' and other similar words that involve risks and uncertainties. These forward-looking statements are based on the 1414 Degrees' expectations and beliefs concerning future events as at the date of this announcement. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of 1414 Degrees, which could cause actual results to differ materially from such statements. 1414 Degrees makes no undertaking to update or revise the forward-looking statements made in this announcement to reflect any change in circumstances or events after the date of this announcement.

For more information, please visit www.1414degrees.com.au