CLEAN INDUSTRIAL HEAT™

8 July 2025 ASX:14D

AEA IGNITE GRANT TO ADVANCE SiPHyR™ HYDROGEN PROJECT

1414 Degrees Ltd (ASX: 14D) ("1414 Degrees" or the "Company") is pleased to announce that its proprietary SiPHyR™ (Storage integrated Pyrolytic Hydrogen Reactor) technology has been awarded an Australia's Economic Accelerator (AEA) Ignite grant of $492,526 for catalyst development by the Universities of Adelaide and Queensland.

SiPHyR is designed to produce low-cost turquoise hydrogen and valuable solid carbon co-products from methane pyrolysis. This innovative approach combines 1414 Degrees' high-temperature silicon-based thermal energy storage with advanced reactor technology to deliver clean hydrogen without carbon dioxide emissions, while also creating a new supply of carbon-based feedstocks

The Catalytic Hydrogen Production via Pyrolysis (CHyPP) grant funding will accelerate development of second-generation catalysts for the SiPHyR process, designed to increase hydrogen yields and enable carbon co-products to be tailored to meet specific market demands. This work builds on earlier catalyst and reactor development, with the aim of improving performance, stability, and commercial viability.

SiPHyR development is further supported by a $2.5 million contribution from the Cooperative Research Centres Projects (CRC-P) program, as part of a $5.2 million collaborative project with the University of Adelaide, Woodside Energy, RMIT and Vulcan Steel, announced on 12 February 2024. https://1414degrees.com.au/1414-degrees-secures-2-5m-grant-for-siphyr-clean-hydrogen-technology

SiPHyR is a key part of 1414 Degrees' strategy to decarbonise natural gas on-stream. It aims to offer a practical, cost-competitive, low-emissions hydrogen production solution that leverages existing gas infrastructure while creating new value streams from carbon co-products. This positions SiPHyR as a commercially relevant technology for hard-to-abate industrial sectors, such as iron and steel, cement, and manufacturing.

The grant was awarded under the Australia's Economic Accelerator (AEA) Ignite program, administered by the Australian Government Department of Education. The AEA Ignite program supports university–industry collaboration to accelerate the commercialisation of research in national priority areas, including renewables and low-emissions technologies. The grant is milestone-based, with payments released progressively upon achievement of agreed project milestones and reporting obligations, in line with program conditions.

Executive Chairman Dr Kevin Moriarty said:
"This grant highlights the Government's recognition of our SiPHyR technology's potential to deliver a commercially viable, low-emissions hydrogen solution for Australian industry. By combining innovative catalyst research with our proven silicon-based energy storage, SiPHyR can reduce emissions from existing gas networks while creating valuable carbon-based materials for new markets. We look forward to working with our partners to advance this important technology."

This latest grant strengthens 1414 Degrees' pathway to commercialise SiPHyR as a practical, cost-competitive, low-emissions solution for industrial decarbonisation, backed by government and leading industry partners.

The Company will keep shareholders informed of progress throughout the project.

AUTHORISED BY:

Dr Kevin Moriarty, Executive Chairman on behalf of the Board of Directors

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ABOUT 1414 DEGREES LIMITED

1414 Degrees is a leader in industrial decarbonisation with its cutting-edge silicon-based solutions, enabling the alignment of energy supply with demand, fostering the widespread adoption of renewable energy. Our key technologies include:

SiBrick®: thermal energy storage technology safely and efficiently stores renewable electricity as latent heat, available for use on demand.

SiBox®: facilitates the transition to sustainable industrial processes, SiBox delivers consistent, high-temperature heat. It can be seamlessly retrofitted into heavy industry processes, offering a viable alternative to conventional energy sources.

SiPHyR™: methane pyrolysis reactor with integrated storage. SiPHyR will produce low-emission hydrogen and solid carbon using renewable energy sources.

1414 Degrees has showcased its capabilities through successful pilot projects that highlight the reliability and effectiveness of its solutions. SiBox has proven its ability to deliver high-temperature air or steam on demand from stored heat. The development of SiPHyR underscores our commitment to innovation and sustainability.

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.

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

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.