CLEAN SCALABLE ENERGY STORAGE™

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SiNTL™ DEMONSTRATES CAPACITY RETENTION BEYOND 640 CYCLES

Key Highlights

- A 550 mAh/g SiNTL silicon-anode formulation has successfully completed more than 640 charge-discharge cycles within target capacity
- A second formulation, targeting approximately 600 mAh/g, has performed well through initial cycling; capacity retention to be tested in extended cycling
- Multiple SiNTL formulations have now exceeded 400 charge-discharge cycles, with testing continuing
- SiNTL is a silicon-anode material being developed using a comparatively simple, low-temperature manufacturing process designed to reduce production cost relative to more complex silicon-anode manufacturing routes
- Results strengthen SiNTL's technical data package for existing UAV, space and battery manufacturing programs, where demonstrated capacity retention over extended cycling is an important step toward cell qualification, design-in and potential production

1414 Degrees Ltd (ASX: 14D) ("1414 Degrees" or the "Company") provides an update on its ongoing SiNTL™ silicon-anode research programme, conducted in partnership with George Washington University (GWU).

A SiNTL formulation targeting a specific capacity of approximately 550 mAh/g has now completed more than 640 charge-discharge cycles while maintaining acceptable capacity. Testing on this formulation continues. The result sits within a broader development program in which multiple SiNTL formulations are demonstrating sustained cycling performance, with several now exceeding 400 cycles.

A newer, higher-capacity formulation has demonstrated a specific capacity of approximately 600 mAh/g in early-stage testing. This result is preliminary, with fewer than 100 cycles completed to date, and further cycling is required before capacity retention can be assessed.

The Company is investing in advanced equipment at GWU to support development and testing of higher-capacity SiNTL formulations, including cells with fast charge and discharge. It is also expanding SiNTL material production capability to provide increased quantities for anode development and third-party evaluation.

Why this matters to the SiNTL strategy

SiNTL is being developed around two linked commercial objectives: increasing anode capacity while reducing the complexity and cost of silicon-anode manufacture. The technology uses a comparatively low-temperature production process and is designed to avoid several of the costly processing steps and materials used in more complex silicon-anode manufacturing routes.

Lower manufacturing cost alone, however, is not enough. The resulting material must also retain its capacity through repeated charging and discharging. The extended cycling results therefore test an important part of the SiNTL commercial proposition: whether a potentially lower-cost silicon-anode material can also deliver the sustained performance required by battery manufacturers and end users.

This is directly relevant to the applications 14D is already pursuing:

- UAVs and drones, where weight and flight time are the key commercial drivers. The Company's evaluation agreement with Energia 2000, a Ukrainian government-approved manufacturer of over 72,000 UAVs per year, targets exactly this application, and cycle-life durability is an important qualification parameter for any UAV battery moving from evaluation into deployment.
- Aerospace and space, where every kilogram launched carries a cost premium. The Company's agreement with Space Industries (Turin) and Orbit Boy targets satellite battery qualification, where energy density, reliability and cycling performance are important qualification parameters.
- Battery manufacturing partnerships, following the Company's Letter of Intent with JR Energy Solution (JRES) in South Korea to jointly develop SiNTL electrodes and battery cells. Cycling data of the kind reported today forms part of the technical evidence required as manufacturing partners assess formulations for further cell development and potential scale-up.

Durability data of this kind forms an important part of the technical evidence required as battery materials progress from laboratory evaluation through cell development, qualification and potential production. The Company will continue to report cycling results as testing across these formulations and commercial programs progresses.

Kevin Moriarty, Executive Chairman of 1414 Degrees, said:

> *"The commercial opportunity for SiNTL is not simply about achieving higher capacity. We are developing a silicon-anode material that is designed to be simpler and substantially lower cost to manufacture than many competing approaches, while still delivering the performance battery customers require. Passing 640 cycles at around 550 mAh/g adds important evidence that those objectives can come together. At the same time, we are continuing to push capacity higher, with a newer formulation now demonstrating approximately 600 mAh/g in early testing."*

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ABOUT 1414 DEGREES LIMITED

1414 Degrees (ASX:14D) is advancing an integrated clean-energy and industrial decarbonisation platform spanning grid-scale storage, industrial heat, hydrogen and advanced battery materials.

1414 Degrees' technologies are unified by a single materials platform — leveraging silicon to store, convert and enhance energy across multiple sectors.

Core Platforms:

SiNTL™: A silicon-enhanced anode material designed to increase lithium-ion battery energy density while remaining compatible with existing manufacturing processes.

SiBrick®: Silicon-based thermal energy storage media forming the foundation of the Company's long-duration energy storage systems.

SiBox® (Industrial Heat-as-a-Service): Long duration energy storage technology that converts low-cost renewable electricity into dispatchable high-temperature heat, supporting industrial decarbonisation across energy-intensive sectors.

SiPHyR®: A silicon-based methane pyrolysis reactor integrating thermal storage to produce low-emissions hydrogen and solid carbon using renewable energy sources.

The Company's strategy combines near-term infrastructure revenue with scalable technology commercialisation, underpinned by deep expertise in energy-dense silicon systems and materials engineering. 1414 Degrees owns the Aurora Energy Precinct in South Australia, a development-ready energy and industrial site spanning 16km² within the Upper Spencer Gulf Renewable Energy Zone. Aurora is designed for firmed renewable electricity and co-located high-demand users, with grid access, development approvals and proximity to fibre infrastructure supporting global connectivity. The site is strategically positioned to support data centre operators and other energy-intensive industries requiring reliable, low-emissions power at scale. The Stage 1 140 MW / 280 MWh Battery Energy Storage System (BESS) represents a near-term revenue opportunity, with expansion potential aligned to customer demand.

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.