

8 April 2026

ASX:14D

SINTL SILICON ANODE PROGRAM RECORDS CONTINUED CYCLE LIFE PROGRESS

Highlights

- SiNTL™ test cells demonstrate sustained capacity retention across extended cycling, a key requirement for OEM qualification
- Program progressing through cycle life validation phase following 530 mAh/g result, with next capacity target of 550 mAh/g
- Results support progression from performance demonstration to commercial pathway
- Silicon anode battery market projected to grow from USD 0.4 billion (2025) to USD 25.8 billion (2035) at a CAGR of 51.7%¹
- SiNTL positioned as a drop-in solution compatible with existing battery manufacturing infrastructure

1414 Degrees Ltd (ASX: 14D) ("1414 Degrees" the "Company") is pleased to provide an update on the SiNTL silicon nanoparticle battery anode program, with laboratory testing at George Washington University (GWU) demonstrating continued capacity retention across sustained charge/discharge cycling.

These results mark progress through the critical cycle life validation phase, following previously announced capacity milestones, and support the program's advancement toward OEM qualification and commercial engagement.

From Performance to Commercial Readiness

The SiNTL program has consistently delivered specific capacity improvements ahead of schedule, most recently achieving 530 mAh/g. The program continues to advance toward the 600 mAh/g capacity target while accumulating the cycle life data required for OEM evaluation. The latest results confirm that capacity retention remains stable as cycling progresses, indicating that the material is maintaining structural integrity under repeated lithium insertion and extraction. This phase is essential in building the data package required by OEMs to evaluate integration into commercial battery systems.

Positioned for Adoption — Not Reinvention

While silicon offers a theoretical capacity of approximately 3,600 mAh/g compared to approximately 372 mAh/g for graphite, widespread adoption has historically been constrained by volume expansion and cycle degradation. SiNTL addresses this through a low-temperature (125–180°C), single-step synthesis process that produces aluminium-coated silicon nanoparticles with in-situ protective coating to manage volume expansion, air- and water-stable material properties, approximately 97% demonstrated yield, and compatibility with standard slurry-based anode manufacturing.

Unlike many competing approaches reliant on chemical vapour deposition and specialised infrastructure, SiNTL is designed as a drop-in solution, removing a key barrier to adoption and enabling battery manufacturers to integrate the material without retooling existing production lines.

Integrated Materials Advantage

A further point of differentiation is the potential integration of SiNTL with the Company's SiPhyR® methane pyrolysis technology. SiPhyR produces solid carbon as a co-product, which may be combined with SiNTL silicon nanoparticles to form silicon-carbon composite anodes widely used in commercial battery systems. This creates a pathway for 1414 Degrees to control both key material inputs, with potential to reduce production costs and strengthen its position in the battery materials value chain.

A Market Moving Quickly

Global investment in silicon anode technologies continues to accelerate, with more than USD 4.5 billion deployed in 2024. The silicon anode battery market is projected to grow from USD 0.4 billion in 2025 to USD 25.8 billion by 2035, reflecting a shift from research-driven development to commercial deployment¹.

Beyond electric vehicles, the Company sees additional applications in high-growth sectors such as drones, where energy density and rapid recharge capability are critical performance requirements across both commercial and defence applications.

Next Steps

Testing at GWU is ongoing, with a focus on extending the cycle life dataset, progressing toward the next capacity milestone of 550 mAh/g, and supporting OEM engagement and evaluation pathways. Further updates will be provided as results are confirmed, including progression toward the 550 mAh/g milestone.

Peter Yaron, Chief Technology and Operations Officer, said:

"The SiNTL program has consistently delivered ahead of schedule on capacity. We are now focused on building the cycle life dataset that underpins commercial credibility. The retention we are observing as cycling progresses is encouraging, and we will continue to report results as they become available."

AUTHORISED BY:

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

For investor enquiries or further information, please contact:

info@1414degrees.com.au or +61 8 8357 8273

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.

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 firm 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.

Core Platforms:

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.

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

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

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

¹ Fact.MR, *Silicon Anode Battery Market Global Market Analysis Report – 2035*

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.