

# ANTEOTECH ACHIEVES KEY TECHNICAL PERFORMANCE MILESTONE FOR 70% SILICON ULTRANODE<sup>™</sup> ANODE

**BRISBANE, AUSTRALIA, 18 July 2025:** AnteoTech Ltd (ASX: ADO), a leader in high-performance high silicon anodes for Lithium-ion Batteries is pleased to announce that a key battery performance milestone has been achieved.

## **Key Points**

- 890 cycles with 80% capacity retention have been achieved for a 70% Silicon Ultranode<sup>™</sup> X technology anode, with 1,070 cycles at 70% capacity also achieved.
- Ultranode<sup>™</sup> technology can deliver a step change in battery performance as well as cost and sustainability benefits.
- AnteoTech's expanded Ultranode<sup>™</sup> technology portfolio was announced in May 2025. AnteoTech can tailor anode configurations at a range of silicon content levels to suit diverse battery applications across EVs, drones, power tools and other specialty batteries including wearables.

# **Portfolio Strategy & Market Positioning**

**Ultranode**<sup>™</sup> is a fully integrated high-silicon anode technology which targets an over 30% increase in energy density on incorporation into commercial form cells, relative to traditional graphite anodes, to deliver benefits such as:

- o driving range extensions, from 500 to 650 km, with the same battery pack size in Electric Vehicles (EV).
- o the potential for 30% smaller batteries in consumer battery applications.
- o longer run time for miniature batteries with used in medical devices.

AnteoTech offering includes three configurations suited to different battery applications:

- 1. Ultranode<sup>™</sup> 95 targets high energy, low cycle-life applications e.g. Unmanned Aerial Systems (UAS) and drones in defence applications. This formulation is optimised for maximum energy storage, supporting:
  - Higher capacity anode coatings of 1,800-2,400mAh/g @C/20
  - Cycle-life up to 380 cycles @ 80% capacity retention
- 2. Ultranode<sup>™</sup> 70 targets medium energy and medium cycle-life applications suited to "3C" applications, namely Computer, Communications (mobile phone) and Consumer Electronics (including wearables) as well as in E-Mobility such as two- and three-wheeler applications. Ultranode<sup>™</sup> 70 is customisable across a range capacities starting at 600 mAh/g and has demonstrated up to 670 cycles at 80% capacity retention. It balances energy density with attractive cycle-life supporting:



- Medium capacity anode coatings of 600-1,200 mAh/g
- Intermediate cycle-life of up to 670 cycles @ 80% capacity retention
- **3.** Ultranode<sup>™</sup> **X** maximises cycle-life for high energy, high cycle-life applications such as that required for EVs.

Over 890 cycles at 1C/1C rates (at 80% capacity retention) for a 70% silicon **Ultranode<sup>TM</sup> X** configuration has been achieved, with 1,070 cycles at 70% energy capacity also achieved. Further improvements are targeted to deliver 1,000 cycles at 80% capacity retention.

The key features of the latest **Ultranode™ X** tests carried out at AnteoTech's Brisbane facility are:

- Longer cycle-life.
- Specification customisation capacity driven by customer/partner requirements.
- Coating capacities of between 900 and 1,100mAh/g @C/20.
- High first cycle efficiencies of >90%.

After an intense evaluation program of **Ultranode<sup>TM</sup> X** working with Mercedes-Benz the AnteoTech team has gathered an in depth understanding of anode requirements in the EV market. This knowledge is transferrable across the EV sector with OEMs seeking to use High Silicon Anodes to optimise energy density, lighten batteries and improve vehicle ranges. This experience is enabling the Company to target cell manufacturers supplying the EV market more effectively.

This multi-market Ultranode<sup>™</sup> offering allows customisation to meet customer technical requirements. It has opened up a range of market opportunities for AnteoTech, from high performance EV batteries, aerospace and robotics to wearables and consumer batteries.

# **Collaborations and Validation**

Following an order for evaluation material in October 2024 by Mercedes Benz Group AG (Mercedes) both company's technical teams completed intensive testing on a 70% silicon **Ultranode**<sup>™</sup> anode and exchanged test results leading to extensive insights and 'know-how' being gained.

Mercedes has acknowledged that they see value in AnteoTech's Ultranode<sup>™</sup> technology and will continue to engage with AnteoTech as they progress their battery technology strategy. AnteoTech has turned its sales focus to EV cell manufacturers supplying OEMs.

AnteoTech has recently announced an Ultranode<sup>™</sup> technology evaluation by Wyon AG with the potential to proceed into commercial production. This six-month evaluation of Ultranode<sup>™</sup> is for its use in high-precision medical device batteries (e.g. cochlear implants). With 30% higher energy capacity, lower cell weight, and cycle-life improvements expected.

# Merrill Gray, Managing Director & Chief Executive Officer of AnteoTech commented:

"Achieving this cycle-life and performance milestone, of nearly 900 cycles at 80% capacity retention, with 70% silicon content with our Ultranode<sup>™</sup> technology is another step forward for the Company. We are ready to enable tailored high silicon anode formulations, with sustainability benefits (Ultranode<sup>™</sup> is water based/doesn't contain PFAS) to Lithium-ion Battery manufacturing customers globally, not just



for EVs but for UAS and 3C customers as well.

We have learnt a great deal about Silicon supply for use in high silicon anodes on a global basis to date. We have sourced, priced and tested a wide range of silicon in **Ultranode**<sup>m</sup>. We can bring silicon market insights (surety of quantity, quality and cost effectiveness of supply) together with our Anteo  $X^{TM}$ product or Ultranode<sup>TM</sup> technology to customers as they transition to secure all the benefits higher silicon anodes offer – and this is exciting."

This announcement has been authorised for release by the Board of AnteoTech Ltd.

## - ENDS –

## Media and investor enquiries: on +61 7 3219 0085 or investors@anteotech.com

## Company and Partnering enquiries: Merrill Gray, CEO/MD, on + 61 7 3219 0085

#### For further information, please check our website www.anteotech.com

#### About AnteoTech - (ASX:ADO)

AnteoTech is a supplier of advanced material solutions to the battery materials and life sciences markets. We leverage our market leading binding chemical platform technology to develop and commercialise material solutions for our global customer base. From our patented cross linker and binder product AnteoX<sup>™</sup> to our next-generation high silicon anode formulations, Ultranode<sup>™</sup>, our Advanced Battery Technology division is applying its unique engineering expertise to address the growing demand for high performance, low cost, sustainable materials within the global battery market. Our Life Sciences division supplies advanced activation materials through our Anteobind<sup>™</sup> suite of products to leading developers of diagnostic tests which enable faster, more reliable and accurate test results wherever needed.

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