

## ULTRANODE™ 95 VALIDATED IN COMMERCIAL CELL FORMAT SUITED FOR DRONE AND UAV USE

**BRISBANE, AUSTRALIA, 21 May 2026:** AnteoTech Ltd (ASX: ADO) ('AnteoTech' or 'the Company') advises the following:

### Key Points:

- Independent third-party validation of Ultranode™ 95 in 5 Ah Multi-Layer Pouch (MLP) commercial-format cells has been completed at the Battery Innovation Centre (BIC)<sup>1</sup> in the United States.
- This follows validation of Coin and Single Layer Pouch (SLP) cells at BIC in March of this year.
- The Ultranode™ 95 MLP configuration can enable >390 Wh/kg<sup>2</sup> at battery cell level. This represents a more than 40% higher specific energy density than traditional anodes enabling access to energy with significantly reduced weight and/or volume.
- This combination of battery cell characteristics is highly suited to applications that require powerful, lightweight batteries such as drones, Unmanned Aerial Vehicles (UAV) as well as robotics, medical devices and consumer devices such as laptops.
- BIC testing achieved more than 300 cycles at 70% capacity retention<sup>3</sup>, exceeding target performance levels for many defence drone applications of 200 cycles.
- This independent validation that Ultranode™ 95 is commercially scalable is an important step towards commercial deployment.
- Ultranode™ 95 high silicon anodes incorporate low cost, micro-silicon which is readily available from multiple sources within a secure global supply chain (see Table 2 below) bringing a bottom quartile cost base for top quartile performance.
- Multiple potential customers have received Ultranode™ 95 for internal evaluation with positive feedback received to date. Additional roll-to-roll (R2R) Ultranode™ 95 samples produced at BIC are currently undergoing QA/QC assessment prior to dispatch to USA-based drone battery manufacturers.
- AnteoTech is also in discussions with companies who supply drones and drone-related systems and UAV into the Australian defence sector regarding a future cell evaluation program.
- Ultranode™ 95 has delivered anode coating capacities of between 2,000 – 2,500 mAh/g in AnteoTech's in-house testing programs, with further optimisation work underway to bring this to commercial cell formats.
- The next step in the BIC validation program is the fabrication of 18650 cylindrical cells incorporating Ultranode™ 95 for testing. These cells are currently being produced at BIC following the "positive electrochemical and manufacturing scale-up results achieved"<sup>1</sup> to date.

<sup>1</sup> BIC Third-Party Validation Progress Report for AnteoTech's Ultranode™ 95 dated 20 May 2026. Refer Appendix 1 a) for further information on BIC.

<sup>2</sup> Specific Energy (Wh/kg) is the nominal battery energy per unit mass. It is a characteristic of the battery chemistry and packaging.

<sup>3</sup> First silicon active material discharge capacity of 1,966 mAh/g was achieved as set out in the BIC Third-Party Validation Progress Report for AnteoTech's Ultranode™ 95 dated 20 May 2026

**MERRILL GRAY, MANAGING DIRECTOR & CHIEF EXECUTIVE OFFICER OF ANTEOTECH COMMENTED:**

*“The successful independent third-party validation of Ultranode™ 95 in a commercial-format Multi-Layer Pouch cell is an important milestone in our scale-up and commercialisation pathway.*

*The validation completed by BIC supports our ongoing engagement with drone battery manufacturers in the United States and demonstrates both the manufacturability and performance potential of Ultranode™ 95 in commercial battery formats.”*

*“Equally we have gained considerable commercial scale up insights for Ultranode™ 95. We are now moving forward with cylindrical cell format production, a big step forward for the Company. In parallel with testing, we have produced Ultranode™ 95 R2R samples which will shortly go to the two USA based companies with whom we are in JDA discussions so they can complete their own in-house testing and validation. We have agreed that this step establishes the basis for us to move forward with the JDAs.”*

*“We are also excited to be engaging with Australian drone and battery ecosystem participants regarding potential future testing and integration opportunities involving Ultranode™ 95 cylindrical cells, based on highly positive BIC test results.”*

## **Background**

AnteoTech engaged BIC, a specialised battery technology scale-up and testing organisation located in Indiana, USA, to undertake an independent third-party validation and commercial scale up program for Ultranode™ 95. The program commenced in January 2026 (refer March 2026 Quarterly Report, ASX announcement dated 20 April 2026). Further information on BIC is provided in Appendix 1.

A key objective of the program was to successfully incorporate Ultranode™ 95 into commercial-format 5 Ah Multi-Layer Pouch (“MLP”) cells suitable for drone and broader high-performance battery applications. Cylindrical format cell production is also targeted in order to cater for all customer cell format demands.

For context, a 5 Ah battery capacity is comparable to the capacity used in Apple’s current iPhone 17 Pro Max device (5.088 Ah)<sup>4</sup>.

In BIC’s independent report to AnteoTech dated 20 May 2026, the organisation stated:

***“From a broader technology assessment perspective, the Ultranode™ 95 technology was successfully scaled up and represented one of the most straightforward scale-up efforts observed by BIC. In particular, the combination of strong first-cycle efficiency, stable cycling performance, and successful scale-up from single layer to multilayer pouch cell formats provides strong confidence in the manufacturability and scalability of the technology.”***<sup>5</sup>

Figure 1 below shows a series of 5 Ah MLP cells incorporating AnteoTech’s Ultranode™ 95 technology assembled and ready for testing at BIC.

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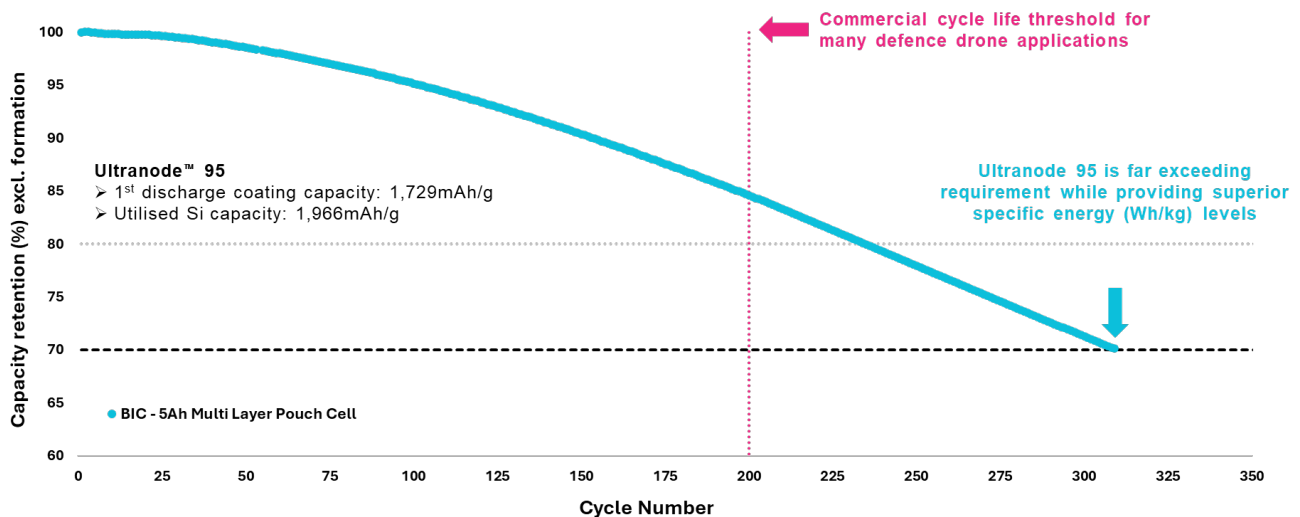
<sup>4</sup> <https://www.cnet.com/tech/mobile/which-iphone-has-the-best-battery-ive-crowned-a-new-power-winner/>

<sup>5</sup> BIC Third-Party Validation Progress Report for AnteoTech’s Ultranode™ 95 dated 20 May 2026.



**Figure 1:** MLPs with Ultranode™ 95 anodes assembled for testing at BIC

Figure 2 below shows the results achieved at BIC for the cells in Figure 1, showing validation of Ultranode™ 95 in 5 Ah Multi-Layer Pouch cells



**Figure 2:** Example of cycle life graph of Ultranode™ 95 containing 5 Ah MLP tested at BIC at charge/discharge rate of 1C/1C

## Ultranode™ 95 Competitive Advantage

Ultranode™ 95 can deliver:

1. Superior Wh/kg at anode/cell level of 2,000 - 2,500 mAh/g, in anode coating capacity
2. Supply chain security whilst simplifying anode manufacturing processes
3. Longer cycle life suited to next generation Drone and UAV applications.

Overall, Ultranode™ 95 leverages the significantly higher theoretical energy capacity of silicon in anodes compared with graphite, enabling the development of lighter, smaller and higher-energy Lithium-ion Batteries (LiB) suited to drone and other weight-sensitive applications.

As outlined in Appendix 1, the global drone battery market, currently estimated at approximately US\$9.5 billion annually in sales,<sup>6</sup> is forecast to grow at a CAGR of ~18% through to 2034.

<sup>6</sup> E Source 2024 – The State of Silicon (S. Miller & B. Campbell 2024)

Table 1 below compares the estimated energy-density potential of various silicon anode chemistries/technologies and graphite anodes, paired with a nickel-rich NMC cathode chemistry in large-format pouch cells. It shows the elemental micro silicon (mSi) and proprietary formulation used in Ultranode™ 95 comes closer to the theoretical specific capacity of silicon. This delivers significantly improved overall cell capacity compared to traditional graphite anode-based batteries.

Cell	% Active material in anode	Example source	Specific Active Material capacity (mAh/g)	Anode thickness	Cell capacity, 80µm thick NMC-900505 cathode
Silicon (theoretical)	100%	Literature	3600	15	450 Wh/kg
Silicon, elemental mSi	<b>100%</b>	<b>AnteoTech</b>	<b>2,000-2,500</b>	<b>20</b>	<b>&gt;390 to &lt;450 Wh/kg</b>
Silicon-carbon composite	15%	Group 14, Sila	1,600-2,000	90	335 Wh/kg
Graphite, high quality	100%	BTR	370	120	300 Wh/kg*

**Table 1:** Ultranode™ 95 anode coating capacities and estimated cell-level specific energy Wh/kg (table adapted by the addition of AnteoTech data from E Source 2024)<sup>7</sup>

\* Note: Figures represent modelled and idealised cell configurations. Commercial graphite cells, including Tesla 4680-type cells, typically achieve approximately 270 Wh/kg specific energy.

## Commercial Progress

As outlined in the Company's March 2026 Quarterly Report released on 20 April 2026, discussions continue to progress on non-exclusive Joint Development Agreements (JDAs) with battery manufacturers supplying, or seeking to supply, battery systems into US defence drone programs and broader drone markets.

AnteoTech is currently engaged with multiple prospective customers undertaking internal testing and evaluation of Ultranode™ 95. To date positive feedback and test results have been received.

In addition to high specific energy (Wh/kg) and expected power performance (W/kg), Ultranode™ 95 offers potential cost advantages relative to many existing silicon-anode alternatives.

AnteoTech's qualified micro-silicon suppliers currently maintain industrial-scale production capacity in the hundreds to thousands of tonnes annually. This provides AnteoTech with access to silicon active materials at significantly lower cost (US\$ 10 to US\$ 25 per kg, in ready to use form) than many silane-derived silicon-carbon composite alternatives (Refer to Table 2).

Table 2 below outlines a calculation of \$/Wh for anodes on a m<sup>2</sup> basis. It compares Ultranode™ 95, graphite anodes and conventional silane-based Si/C materials, with price points provided by various industry sources<sup>7</sup>.

Ultranode™ 95 can achieve a \$/Wh cost metric of up to 85-95% lower when compared to an equivalent anode produced with the most expensive Si/C materials sourced from Western companies. These figures are based on active material costs only, were modelled using internal assumptions and are not full cell production costs<sup>4</sup>.

<sup>7</sup> E Source 2024 – The State of Silicon (S. Miller & B. Campbell 2024)

Cell	\$/kg	Example source	Estimated cost in \$/Wh of produced anode on a per m <sup>2</sup> basis*	Active material %
<b>Elemental micro-silicon</b>	<b>10 to 25</b>	<b>ANTEOTECH Ultranode 95</b>	<b>15 to 40</b>	<b>95</b>
Graphite, high quality	7.50 to 12.50	China	65 to 110	97
Silicon-carbon composite (silane type)	80 to 100	China	135 to 170	95
Silicon-carbon composite (silane type)	150 to 200	Ex China	255 to 340	95

**Table 2:** Ultranode™ 95 anode level \$/Wh cost comparison  
 \* \$/Wh based on active material fractions only

## Next Scale-Up Steps

Following the successful progression through coin cell, SLP and MLP validation, production and testing of initial 18650 cylindrical cells incorporating Ultranode™ 95 has commenced at BIC.

In its MLP progress report, BIC stated:

***“Based on the positive electrochemical and manufacturing results achieved thus far, BIC is confident in progressing to cylindrical cell builds, and work in this area is currently underway.”***

AnteoTech is continuing discussions with well-established drone and battery pack manufacturers regarding the future incorporation and evaluation of Ultranode™ 95-containing cylindrical cells within their product platforms, with MLP cells intended to be offered as well, depending on their requirements.

Figure 4 below illustrates where AnteoTech is heading in its commercial scale up and validation program with BIC. Further updates on progress will be provided when available.



**Figure 3:** Illustrative representation of Ultranode™ 95 cylindrical cell format

## Appendix 1

### a) About the Battery Innovation Centre, Newberry, Indiana, USA

Established in 2014, located in Newberry, Indiana in the USA the Battery Innovation Center (BIC) is an independent, not-for-profit organization that brings together leadership from world-class universities, commercial enterprises, and government partners to accelerate the development, testing, and commercialization of safe, reliable, and lightweight energy storage systems for both commercial and defence applications. Unlike many similar organizations, BIC provides its services without taking a cut or equity position in companies or technology it assists. Instead, it operates as a nonprofit supporting battery-related businesses as a means to strengthen Indiana's economy. Seeking to accelerate battery innovation and to drive industry expansion, BIC provides everything from product R&D to low-volume manufacturing space in a 40,000-square-foot facility.

More than 500 customers have engaged BIC over its 12 years of operation. Customers are ranging from established automotive and heavy-equipment companies to start-ups.

BIC is funded through a public-private partnership model. It operates as a not-for-profit organisation and is primarily funded by fee-for-service contracts and corporate memberships. It has also successfully secured workforce development grants from the Indiana Economic Development Corporation, and collaborative grants from the likes of the U.S. Department of Energy.

Source: <https://conexusindiana.com/case-study/battery-innovation-center/>

BIC provides critical third-party validation services, including independent performance verification, safety testing, and pilot-scale cell production. This enables clients to replicate processes, de-risk technologies, and generate credible, unbiased data that supports investor confidence, customer adoption, and successful transition to full-scale commercialisation

Co-located at BIC (Incubated which includes using BIC's state-of-the-art facilities and being part of BIC's innovation acceleration programs) is Ateios Systems. Ateios was awarded "2025 Battery Manufacturer of the Year" at The Battery Show North America in October 2025. Cementing its leadership in combining high performance, sustainability, and industrial scalability.

Source: <https://bicindiana.com/ateios-systems-from-lab-to-leader/>

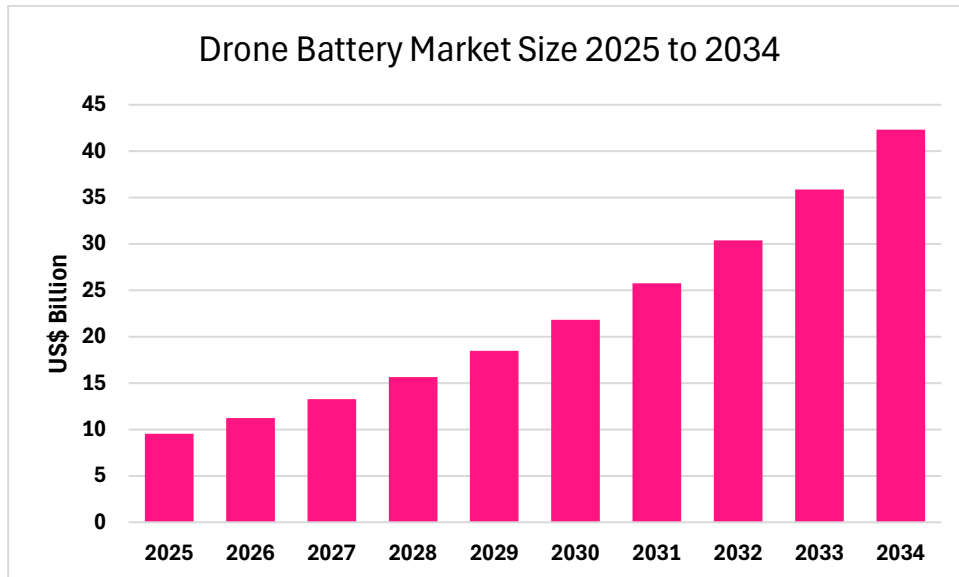
### b) Drone Market Overview

Shifting geopolitical conditions are a major factor driving the strong interest AnteoTech is now attracting for its Ultranode 95 technology. Notable examples include the US SkyFoundry Act of 2025, which seeks to rapidly scale domestic drone production to one million units annually and is already enacted into law in the National Defence Authorization Act. Meanwhile, in October 2025 the European Union announced plans for what is now known as the European Drone Defence Initiative — a flagship continental defence project designed to protect Europe from foreign threats using a so-called "drone wall."

Both of these defence initiatives share a common requirement: advanced battery technology capable of extending drone flight time and, by extension, operational range.

The combined drone battery market was valued at US\$8.07 billion and is forecast to expand at a compound annual growth rate exceeding 18%, reaching approximately US\$42 billion by 2034. The United States is expected to account for roughly one-third of total global battery demand over this period.

This evolving market landscape presents a distinctive opportunity for AnteoTech's Ultranode™ 95 technology, which can offer geographically sovereign access to inexpensive silicon powders, rather than imported composite highly processed high silicon powders, while delivering meaningful gains in energy density (Wh/kg) at the cell level — directly translating to longer flight times and greater payload capacity for drones.



**Figure 4:** Drone battery market size forecast (2025 to 2034), CAGR of ~18%

A second promising defence application for Ultranode™ 95 lies in soldier-worn systems, portable communications equipment, and lightweight power solutions, where battery weight is a critical factor in user selection. The superior energy density potential of Ultranode™ 95 means more energy can be delivered without adding weight. The total addressable market for portable and wearable defence battery systems is projected to reach US\$10.3 billion by 2030.

#### **Sources**

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

- ENDS -

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## 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 chemistry platform technology to develop and commercialise solutions for our global customer base. From our patented high silicon anode cross linker product Anteo X™ to our ceramic coated separator product Anteo S™ to our next-generation high silicon anode formulations Ultranode™ 70,95 and X our Advanced Battery Technology business is applying its world-leading engineering expertise to address the growing demand for high performance, low cost, sustainable materials within the global Lithium ion Battery market. Our Life Sciences business supplies advanced activation materials to leading developers and manufacturers of vaccines and diagnostic tests, through our AnteoBind™ suite of products. Our products deliver more sensitive and reproducible results and on incorporation in ‘point of care’ and immunoassay diagnostic tests, enable faster, more reliable and accurate test results wherever they are needed.

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