Press Release: World's First Microgrid-ina-Box

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World's First Microgrid-in-a-Box Sets New Standards for Energy Independence and Local Manufacturing

Brisbane, AUSTRALIA – 2 June 2025 — China's Nebula Electronics Co., Ltd., Germany's ambibox GmbH, and Australia's Red Earth Energy Storage Ltd. today announced a global strategic partnership to jointly develop the world's first residential "Microgrid-in-a-Box" (MIB) solution. The MIB is an integrated hardware and energy management system that combines solar, storage, bidirectional EV charging.

This partnership spans Asia, Europe, and Oceania, and aims to connect the convergence of distributed energy with the electric mobility market. The MIB will redefine the future energy grid by enhancing the local utilisation of renewable energy and supporting grid stability at the same time.



The collaboration builds scalable and affordable energy management and distribution systems that seamlessly integrate both V2H (Vehicle-to-Home) and V2G (Vehicle-to-Grid) functionalities, reducing the size or need for a home battery. Real-world testing shows that this can reduce overall energy costs for users by up to 60%, while generate revenue for homeowners who are providing grid services through market participation and trading, resulting in zero energy cost for households.

The partnership will leverage each party's core competencies in technology innovation, industrial manufacturing, and localised market operations. Besides that, the agreement will support each of the company's expertise for the joint product development:

ambibox GmbH will provide its commercially proven power electronics and energy management technologies, already validated in European markets with ambibox granted patents for the MIB.

Nebula Electronics will take charge of integrating and mass-producing power electronics and battery systems, drawing on its strong R&D and manufacturing capabilities.

Red Earth Energy Storage will contribute its expertise in off-grid energy systems, cloud-based platforms, and end-user applications to accelerate deployment in Australia and New Zealand.



"This is more than a technical alliance—it's a cross-cultural, cross-market innovation model," said the Nebula Electronics project lead. "This groundbreaking partnership not only ushers in a new era of commercial V2G applications but also offers critical support for global energy transition and carbon neutrality goals. Centered on the concept of "local manufacturing + global coordination, this tri-national alliance is laying the foundation for a smarter, more efficient, and sustainable energy future."

Manfred Przybilla, CEO of ambibox, said "ambibox has been working on the Microgrid-in-Box for almost a decade. With EVs that are V2G ready to be used as a battery on wheels, we are ready to deploy the technology into the markets. We've demonstrated our experience in the field with the launch of over 200 commercial V2G pilot projects in Sweden, validating the system's reliability under demanding conditions."

Marc Sheldon, CEO of Red Earth Energy Storage said, "The partnership with ambibox and Nebula Electronics will deliver new opportunities for households to realise their potential to be truly energy independent. Using their electric vehicle as a battery means they can use the energy on their vehicles to power their home instead of relying solely on a home battery or grid electricity."

The first batch of jointly developed products is expected to enter the markets of China, Europe, and Australia/New Zealand in 2026, with plans to expand to other regions.

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<u>Previous</u> <u>Next</u>

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