

FOR RELEASE: 05 JANUARY 2021

## C4V Selected to Supply Lithium-ion Battery for United States Government Department of Energy Funded Project

- Charge CCCV (C4V) selected in United States Department of Energy Project focused on solar powered hybrid system for grid stabilisation
- The project is led by Binghamton University and includes parties like New York Power Authority and National Renewable Energy Laboratory
- C4V to provide lithium-ion battery for the project

Magnis Energy Technologies Limited ("Magnis", or the "Company") [ASX: MNS] is pleased to announce that partner C4V has been selected to participate in a United States Government project for the Department of Energy (DOE) focused on grid stabilisation. Magnis has a 10% interest in C4V.

The project is to develop a two-stage solar plant control framework that will enable the coordination of multiple solar plants with generation uncertainty and enhance grid stability through grid-forming inverter controls which includes battery storage. To facilitate the high penetration of renewable generation into bulk power systems, the team will develop an Asynchronous Distributed and Adaptive Parameter Tuning (ADAPT) framework for hybrid solar power plants. The technology developed will enable grid services from curtailable solar and energy storage systems provided by C4V via grid-forming inverters.

The team will rely on state-of-the-art technologies, such as distributed control, dynamic state estimation, multi-agent reinforcement learning, distributed fault management, and GPU-parallel grid simulation. The framework will be demonstrated at a 1 megawatt hybrid solar power plant controlled by grid-forming inverters at Brookhaven National Laboratory and using a hardware-in-the-loop system with 70% renewable penetration that will demonstrate the scalability and replicability of the proposed controls at New York Power Authority.

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The project is led by Binghamton University - State University of New York, in collaboration with Stony Brook University, Brookhaven National Laboratory, National Renewable Energy Laboratory, New York Power Authority, Syndem LLC and C4V.

Charge CCCV [C4V] President Shailesh Upreti commented: "We are very excited to be selected in another US Government project and being the sole partner providing cutting edge lithium-ion battery technology immensely favourable to renewable energy adoption. We look forward to working with our partners to demonstrate the agility and robustness of our BMLMP technology for the grid stabilization market."

Principal Investigator of the Project Dr. Ziang (John) Zhang, Associate Professor at the Department of Electrical and Computer Engineering at Binghamton University commented: "C4V is a leading lithium-ion battery technology company and has developed a long cycle life BMLMP battery technology that could be a perfect match for renewable energy integration. We have previously used their batteries for another Solar-Storage project and quite excited to expand the usability of this technology in a much larger project."

Magnis Chairman Frank Poullas commented: "C4V's selection to participate in this US Department of Energy-funded project following a rigorous selection process speaks to the high quality of our technology."

This announcement has been authorised for release by the Board of Magnis Energy Technologies Limited (ACN 115 111 763).

## For further information:

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