



PRESS RELEASE

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Orient and Ricardo to jointly develop nextgeneration battery management system

The next generation energy storage system – to be designed, developed and manufactured by Singapore-based Orient Technology – will incorporate elements of the advanced battery management and control algorithm technology from Ricardo

Established since 1994, Orient Technology (S) Pte Ltd is a leading provider of energy storage solutions. It is known for providing solutions for safe, reliable and high-performance battery pack design and manufacturing, and has developed products across a wide range of applications for customers worldwide.

Ricardo's wide-ranging experience in the field of hybrid and electric vehicle battery pack development has led Orient Technology to partner with the company to support the development of its next-generation energy storage systems.

The battery pack development support offered by Ricardo ranges from applying new cell chemistries and battery architectures to designing and building prototype packs and supporting customers through to full-scale manufacturing implementation. Among the key areas of Ricardo expertise that Orient Technology will utilize are in the incorporation of advanced battery state and parameter prediction: this will be based on Ricardo-developed condition monitoring, modelling and control algorithms that have been proven robust across different cell chemistries and in challenging applications.

"The automotive industry has over the past five years invested over USD10 billion in the developing Li-ion technology to meet safety, performance, durability, and warranty targets," commented Ricardo Asia president Gary Tan. "Ricardo's extensive experience in the development of energy storage enables the company to offer expert assistance in bringing forward further battery system innovations. We are also able to deploy our virtual engineering toolset to this challenge, which enables rapid design, simulation and analysis of a wide range of battery design concepts. We are proud to partner Orient Technology and look forward to supporting the development of its next-generation energy storage system."



"Orient is pleased to partner Ricardo in this project," commented Jonathan Colim, project manager of Orient Technology. "We have a team of highly experienced engineers specializing in battery pack design, but we also value the ability to utilize the expertise, knowledge and technical know-how of leading international partners such as Ricardo. This will further help Orient Technology deliver the speed and ingenuity to meet even the most stringent requirement from our global customers. This project is just the beginning and we look forward to a long and fruitful collaboration between both companies."

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NOTES TO EDITORS:

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. With a century of delivering excellence and value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. Ricardo is listed in the FTSE4Good Index, which identifies global companies that demonstrate strong environmental, social and governance (ESG) practices. For more information, visit www.ricardo.com.

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