



## Vena Energy and Quantum Mesh Sign MOU for Edge Green AI Infrastructure in Japan

[Japan; 14 February 2025] – Vena Energy (VENA) and Quantum Mesh Co., Ltd. (Quantum Mesh) announced today the signing of a Memorandum of Understanding (MOU) to jointly promote the development of a portfolio of scalable Edge Green AI Infrastructure in Japan. These next-generation edge data centre facilities may be co-located with, or partially powered by VENA’s renewable energy projects, delivering sustainable, high-performance computing solutions and contributing to Japan’s digital transformation.



With the rapid expansion of artificial intelligence (AI) and AI of Things (AIoT) applications, the global demand for secure and efficient green data centres continues to grow. VENA and Quantum Mesh intend to combine VENA’s expertise in the development, construction, and operation of large-scale energy and data centre projects with Quantum Mesh’s advanced designs and technology, including proprietary immersion cooling for high-efficiency computing. Together, the two companies will explore the feasibility of a portfolio of Edge Green AI Infrastructure projects, delivering integrated energy and computing solutions for next-generation edge data centres. This initiative contributes to Japan’s advancement toward becoming a leading AI computing hub in the region, providing secure, stable and scalable digital infrastructure in a country recognized for its robust regulatory framework, strong data protection standards, and a long-standing commitment to technological innovation.

VENA is a leading developer and operator of green AI infrastructure solutions, with an operating, construction, and development portfolio of approximately 40 GW of green energy projects and 1 GW of data centres across the Asia-Pacific region. Leveraging its expertise in green energy generation and infrastructure, VENA is committed to advancing low-carbon, high-efficiency AI computing solutions that support Japan’s energy transition and future AI-driven economy.

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Quantum Mesh specializes in the development and operation of portable edge data centres, providing secure data protection and advanced computational processing. The company has developed a proprietary immersion cooling technology that significantly reduces energy consumption while optimizing space efficiency compared to conventional air-cooled systems. This innovative approach enhances computational efficiency, sustainability, and security, making it ideal for high-performance AI applications.

“We are excited to partner with Quantum Mesh to advance the development of Edge data centres in Japan. By integrating our Green AI Infrastructure pipeline and expertise in development, construction, and operation with Quantum Mesh’s innovative technology and designs, we believe we can make a significant contribution to Japan’s race to develop an AI-driven digital ecosystem and establish itself as a leading hub in the region. This collaboration aims to create an innovative and scalable model for Green AI Infrastructure, aligning with our vision to support carbon-neutral AI computing while ensuring efficiency, reliability, and security in AI applications,” said Simone Grasso, Chief Investment Officer at VENA.

“We are delighted to announce our partnership with Vena. At Quantum Mesh, our mission is to drive the evolution of next-generation AI and IoT infrastructure by delivering cutting-edge immersion cooling data center technology and sustainable solutions. Through this partnership, we will integrate VENA’s renewable energy and green infrastructure business

with our innovative immersion cooling technology, enabling the development of high-efficiency, low-environmental-impact edge data centers. With this initiative, we aim to accelerate the advancement of sustainable digital infrastructure in Japan and contribute to the creation of a secure, scalable AI computing environment,” said Hiroyuki Shinohara, Chief Executive Officer at Quantum Mesh.

### **ABOUT VENA ENERGY**

Vena Energy, a leading green solutions provider in the Asia Pacific region, is accelerating the transition to sustainable and affordable renewable energy that delivers lasting economic, social, and environmental benefits to our host communities and stakeholders.

We provide green energy and AI infrastructure solutions to our customers, powered by a renewable energy portfolio of Onshore Wind, Solar, and Offshore Wind projects totaling 39GW[1] and a green infrastructure pipeline including 24GWh of BESS[2], 620MW DC of Data Centres, and 0.8MTPA of Green Hydrogen and Ammonia.

With an extensive local presence of over 1,000 employees across 80 corporate and site offices globally, Vena Energy endeavors to drive the broader adoption of low-carbon energy, thereby contributing to the goal of combatting climate change and engineering a greener future.

For more information, please visit [www.venaenergy.com](http://www.venaenergy.com), or follow us on [LinkedIn](#), [Facebook](#), [Instagram](#).

[1] as of 30 September 2024.

[2] Includes 0.2GWh BESS OCC portfolio

### **ABOUT QUANTUM MESH**

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Quantum Mesh develops and operates portable edge data centers designed to securely protect and process large volumes of information. Our systems safeguard massive data assets with world-class, advanced security measures, while enabling high-performance computing for efficient data utilization. Leveraging data centers as a foundation, we propose next-generation urban development through AI and IoT, aiming to achieve what we call “true DX.”

<https://quantummesh.jp/>

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