

December 23, 2024
ENEOS Corporation

ENEOS and XING Mobility Sign MoU to Collaborate on Joint Business Development of Immersion Cooling Battery Systems

ENEOS Corporation (Representative Director, President: Yamaguchi Atsuji, hereinafter “ENEOS”) is pleased to announce today that on December 13, it signed a Memorandum of Understanding (MoU) with XING Mobility Inc. (Founder and CEO: Royce YC Hong, hereinafter “XING Mobility”) for a strategic partnership aimed at the joint business development of immersion cooling battery systems.*1 This is the first time that ENEOS and Xing Mobility have signed a strategic partnership for joint business development related to immersion cooling battery systems. The two companies will strengthen their collaboration and commence specific initiatives for the expansion of the immersion cooling battery systems market in Japan and overseas.



Signing of MoU

Left: Royce YC Hong, CEO of XING Mobility

Right: Ihara Minoru, Senior Vice President, Company President, Lubricants Company, ENEOS Corporation

In recent years, as electrification has become more widespread, the amount of heat generated by batteries has increased due to high output and fast charging speeds. Concerns over the impact of excessive heat generation on battery safety and lifespan have made battery thermal management^{*2} a pressing issue. Compared to cooling technologies such as air cooling and indirect water-based liquid cooling used for conventional battery cooling, immersion cooling, which has high cooling efficiency, is expected to establish a high level of safety and contribute to energy conservation (reduce environmental load).

In line with the ENEOS Group Long-Term Vision, ENEOS continues to take on the challenge of achieving both a stable supply of energy and materials and the realization of a carbon-neutral society. As part of its initiatives to realize a carbon-neutral society, in April 2024, it launched the Immersion Cooling Fluid “ENEOS IX Series”^{*3} for servers in data centers, and by leveraging its knowledge of immersion cooling technology cultivated through the development of this series and additive formulation technology acquired through many years of manufacturing lubricants, it will continue to develop and propose cooling fluids that are optimal for immersion cooling battery systems.

XING Mobility has conducted verification trials for its immersion cooling battery systems in various fields, including automotive applications, and has achieved excellent cooling efficiency, high safety, and reliability. Leveraging the knowledge cultivated through these verification trials, XING Mobility and ENEOS will work together to propose optimal immersion cooling battery systems to customers who have issues with cooling their battery systems.

With the signing of this strategic partnership, ENEOS, together with XING Mobility, aims to realize a sustainable future through innovative initiatives related to immersion cooling battery systems.

*1 Immersion cooling battery system: A system that conducts direct cooling by completely immersing battery cells in an insulating cooling fluid. Compared to conventional air cooling or indirect water-based liquid cooling, this system significantly improves the efficiency of battery heat dissipation and enables not only increased cooling performance but also high safety, maintenance of stable battery performance, and longer lifespan.

*2 Thermal management: Technologies and methods to effectively control and disperse the heat generated during the operation of electronic equipment, power devices, automobiles, etc. It aims to maintain the performance and extend the lifespan of equipment through optimal cooling technology, selection of thermally conductive materials, heat dissipation design, etc.

*3 [“Commencement of Sale of Immersion Cooling Fluid “ENEOS IX Series” Which Contributes to Reducing Environmental Load”](#) published on February 5, 2024

【ENEOS Group and ENEOS Corporation】 <https://www.eneos.co.jp/english/>

ENEOS Group is Japan's leading energy company with manufacturing and sales facilities throughout the world. ENEOS Holdings, which manages the Group companies, is selected as a Fortune Global 500 energy conglomerate. The Group has developed businesses in the energy and non-ferrous metals segments, from upstream to downstream. As stated in the ENEOS Group's Long-Term Vision, ENEOS is taking on the challenge of achieving both a stable supply of energy and materials and the realization of a carbon-neutral society. As a part of this effort, ENEOS will accelerate the development and sale of lubricant products with high energy-saving performance.

【XING Mobility】

Founded in 2015, XING Mobility is a global leader in immersion cooling battery technology, with a production facility in Taipei, Taiwan. Over nearly a decade, XING has perfected its immersion cooling system, enabling superior cooling efficiency, unmatched fire safety, and reliable performance in extreme climates. Proven across a wide range of applications, including passenger and commercial vehicles, agricultural and industrial machinery, energy storage systems, and the world's first immersion-cooled ESS for wind farms, XING's innovations are empowering the global transition to electrification.