

The flow battery farm in Hokkaido, built by Sumitomo Electric, was the largest in the world at the time of its opening in 2022. However, China soon surpassed it by implementing a project eight times larger. Analysts believe that China's interest could lead to cost reductions and accelerate the adoption of the technology worldwide.

Despite their advantages, flow batteries face challenges. Ironically, vanadium, a key material, is mainly supplied by China and Russia, and there are supply issues due to sanctions. Additionally, these batteries are expensive to produce and cost at least twice as much as lithium-ion systems. However, their longevity and low operating costs could make them a more affordable option in the long term.