Field Testing Saltwater Flow Battery Technology in the Netherlands







AQUABATTERY is an acid-base flow battery using reversible water dissociation by bipolar membranes, to store electricity. The membrane stack converts electrical energy into chemical energy by separating saltwater into acid and base solutions, each stored in dedicated tanks.





SAFETY Eliminating fire, explosion, and toxicity risks to ensure safe operations and protect surrounding environments

AFFORDABILITY Enabling energy capacity expansion at marginal cost through abundant, low-cost materials

FLEXIBILITY Adaptable to site-specific needs with flexible water storage solutions

SUSTAINABILITY Made in Europe from local resources, free from critical raw materials, and engineered for reuse with a significantly lower CO₂ footprint



Commercialisation

AQUABATTERY is suited for longduration energy storage, providing flexibility for 8 hours and beyond.

It supports decarbonisation in commercial, industrial, and critical infrastructure settings, as well as co-location with renewables on the grid—offering a safe, sustainable, and affordable solution.

The first standardised module is planned for production in 2027.



Since November 2025,

AQUABATTERY has operated a 10-hr pilot system to improve performance, optimise the technology, and explore long-duration storage for both frontand behind-the-meter use.

The 12-month field test is supported by the European Innovation Council and partners from the energy, housing, and real estate sectors.





