

Salgenx Unveils Revolutionary Saltwater Battery for Home Energy Storage

Innovative Energy Storage Solution Harnesses the Power of Saltwater for Home and Remote Energy Storage

MADISON, WISCONSIN, USA, January 5, 2024 /EINPresswire.com/ -- Salgenx, a pioneer in sustainable energy storage solutions, today announced the launch of its groundbreaking saltwater battery, designed for home energy storage, on or off the grid. The Salgenx saltwater battery, is a non-flammable redox flow energy storage system which uses Sodium Chloride (NaCl) to charge and recombine for power usage, offering a sustainable and safe alternative to conventional batteries.

Eco-Friendly and Safe Energy Storage

The Salgenx saltwater battery stands out with its eco-friendly approach, using Earth-friendly materials and repurposed shipping containers for



Salgenx Home Power Storage Stacked



Salgenx S3000 Salt Water Battery Energy System

modular assembly. The battery operates on a redox flow system, eliminating the need for a membrane, and utilizes non-flammable saltwater, ensuring unparalleled safety.

Revolutionary Flow Battery Design with Historical Roots

This redox flow battery concept, rooted in technology first explored in 1884 and rediscovered over the past decade, has been validated with a independent \$7 million investment from the United States government for testing through a university and the Pacific Northwest Laboratory. The Salgenx battery's design includes three main components: large bulk liquid containers, a dry container for electrolysis cells, and disc pumps for distributing liquid electrolytes. The system is

built using shipping containers, enabling modular assembly from home use up to grid-scale battery storage.

Versatile and Powerful

The home version boasts 126 kWh of storage capacity, expandable by adding more electrolyte liquid and cathode materials, the battery boasts 91% efficiency and a 20 kW power output without using ultracapacitors (available in the future for additional output). The system's versatility extends to electrical and thermal storage capabilities using the Cavgenx heat pump turbine. The system can be used for gridbased arbitrage, solar PV, solar thermal, and windgenerated power storage.

Grid Balancing

In regions where excess renewable energy is curtailed, this battery can store surplus power and release it back into the grid when needed, potentially generating profits.

Ideal for Diverse Settings

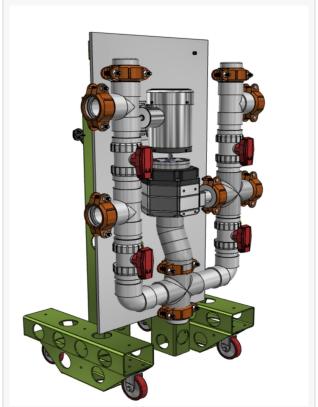
Despite its larger footprint making it impractical for electric vehicles, the Salgenx battery is ideal for stationary energy storage, trains, marine applications, and can be installed in garages, underground, or integrated into building foundations or walls.

Future Developments

Salgenx is committed to continuous innovation and will fully develop more features when funding becomes available. These include a desalination module (for seawater) including electrodialysis (without a membrane) and desalination using the Cavgenx heat pump turbine to provide pressurized pumping for reverse osmosis (RO) systems, a graphene production module, and a heat pump for thermal (hot/cold) storage.

Licensing Opportunities

Salgenx is a self-funded technology development company that sustains their research and development efforts through licensing sales, and offering exclusive territories. They do not



The Salgenx Lift Pump System is design to pump saltwater and viscous fluids. For the saltwater flow battery application, it has piping and fixtures which are electrolyte material compliant to resist corrosion from environmental conditions from saltwater.

accept government funding, taxpayer dollars, or investments from external sources.

USA Federal Tax Credits

Licensed builders can capitalize on Federal tax credits of up to \$35 per kWh. This tax credit can be used or sold to an unrelated party. For the 126 kWh battery, the tax credit is \$4,375, and for the 3,000 kWh battery, it amounts to \$105,000. The Federal tax credit has a sunset date in 2030, providing an additional six years of incentive. A small production facility can realize substantial tax credits using the Salgenx platform.

About Salgenx (a division of <u>Infinity Turbine</u> LLC):

Salgenx is a pioneering force in renewable energy solutions, dedicated to providing cost-effective and environmentally friendly solutions to provide renewable energy storage and combat global water scarcity challenges. With a resolute commitment to innovation and sustainability, Salgenx develops cutting-edge technologies that enhance the accessibility of clean and fresh water for communities worldwide.

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