

Salgenx Introduces Salflex: A Revolutionary Energy Smart Fluid That Builds Itself

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MADISON, WI, UNITED STATES, February 3, 2025 /EINPresswire.com/ -- [Salgenx](#) LLC, a leader in



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*Greg Giese / President of
Salgenx LLC*

next-generation energy storage solutions, is proud to unveil Salflex, a groundbreaking battery technology that not only stores energy but self-assembles, self-heals, and self-optimizes while charging. This patented innovation redefines energy storage, integrating hydraulic power, flow battery technology, and in-situ material generation for a wide range of industrial and robotic applications.

A Paradigm Shift in Energy Storage

Salflex is more than just a battery fluid electrode—it's an intelligent energy system capable of dynamically adapting

to operational demands. It operates through multiple functional modes:

- Hydraulic Mode (Electrolysis Charging) – Converts energy into stored potential while enabling material transformation.
- Energy Storage Mode – Functions as a static or fluid-based battery, supporting both stationary and flow-based applications.
- Self-Assembly Mode – Uses step-fluid processes to reconfigure and optimize its own structure dynamically.
- Discharging Mode (Power Mode) – Supplies stored energy on demand, ensuring reliable power output.
- Pumping & Cycling Mode – Facilitates efficient movement of materials and ions for continuous operation.
- Solid-State Static Step Mode – Enables robust, stable energy storage without traditional electrode degradation.
- In-Situ Gas Production – Generates hydrogen, oxygen, chlorine, and other useful gases as byproducts.
- Ion & Material Classification – Enhances charge efficiency and longevity by dynamically sorting ions and materials during operation.

Revolutionizing Applications Across Industries

Salflex's self-regenerating and adaptive energy flow capabilities open new frontiers for industrial automation, robotics, and smart fluidics. Key applications include:

- Grid-Scale Energy Storage – Advanced flow battery systems for renewable energy integration.
- Robot Actuators & Smart Hydraulics – Enabling efficient, energy-dense motion control systems.
- In-Situ Robotic Energy Systems – Self-sustaining power for autonomous machines.
- Smart Fluid Valves & Gas Generators – Revolutionary designs for industrial processing and automation.

A New Era of Sustainable Energy

“The launch of Salflex marks a transformative moment in energy storage,” said Greg Giese, President at Salgenx LLC. “This is not just a battery—it’s a self-evolving energy system that merges electrochemical storage, material synthesis, and intelligent reconfiguration. The ability to self-assemble and adapt in real time brings a new level of efficiency, durability, and sustainability to energy storage.”

About Salgenx LLC

Salgenx LLC specializes in cutting-edge energy storage, flow battery, and electrochemical technologies that drive innovation in grid-scale power, automation, and robotics. The company is committed to developing sustainable solutions that redefine how energy is stored, managed, and utilized in the modern world.

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