

Salgenx Unveils Revolutionary Grid-Scale Saltwater Battery Technology to Replace Peaker Plants

Salgenx Unveils Grid-Scale Saltwater Flow Battery Technology to Replace Peaker Plants and Enhance Grid Reliability and Response

MADISON, WI, USA, May 13, 2024 /EINPresswire.com/ -- Salgenx, a pioneering division of Infinity Turbine LLC, today announced the launch of its innovative grid-scale saltwater flow battery, set to transform the utility industry by replacing conventional gaspowered peaker plants. This announcement follows the footsteps of



Salgenx S12MW 12,000 kWh Grid Scale Thermal and Electrical Energy Storage Battery

successful demonstrations by industry leaders like Tesla, showcasing the effectiveness of grid-scale batteries in managing peak electricity demands, especially in California and the country of Australia.



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Greg Giese, CEO, of Salgenx

Peaker plants, often activated during periods of maximum electricity demand, are typically powered by fossil fuels and contribute significantly to environmental pollution. Salgenx's new saltwater flow battery technology offers a groundbreaking alternative, providing reliable energy storage while supporting the transition to sustainable power solutions.

"Our saltwater battery system represents a crucial step forward in energy storage technology," said Greg Giese,

CEO, of Salgenx. "With this technology, utilities can effectively manage peak loads with zero emissions, aligning with global environmental goals and reducing reliance on fossil fuels."

The Salgenx saltwater battery utilizes a unique, non-toxic natural saltwater electrolyte, which is

inherently safer and more eco-friendly than traditional battery chemistries. This innovation is particularly advantageous for urban and densely populated areas where safety and environmental impact are paramount. Moreover, the technology is scalable, offering flexibility to meet various utility needs, from small-scale operations to large grid applications.

The introduction of Salgenx's saltwater flow battery is poised to revolutionize how utilities approach peak power demands, offering a cleaner, more sustainable, and cost-effective alternative to upgrading aging fossil fuel plants. Utilities adopting this technology can expect not only to see improvements in environmental performance but also enjoy enhanced grid reliability and operational efficiency.

Over the past few decades, the U.S. energy and utilities (E&U) sector has operated under a system where utilities and other load serving entities (LSEs) depend on a mix of power generation resources to meet energy demand. This mix traditionally includes several large baseload



Salgenx Wind Power Grid-Scale Energy Storage

power plants that operate continuously throughout the year, often non-stop, along with intermediate plants for regular demand fluctuations, and numerous rapid-ramping units. The latter, commonly referred to as peaker plants or peakers, are designed to quickly activate, often within minutes, and operate briefly during unexpected demand spikes when baseload or intermediate plants are insufficient. Typically, peaker plants are active for less than 10 percent of the year and usually do not operate beyond four hours at a stretch.

Currently, the U.S. E&U sector relies on roughly 1,000 peaker plants, predominantly powered by natural gas, to handle occasional peaks in electricity demand. Recent studies suggest that an additional 20 GW of peaking capacity will be necessary within the next decade, with 60 percent of this capacity required between 2023 and 2027 in states like California, Texas, and Arizona. Despite their essential role, peaker plants are costlier and less efficient than baseload generators. Moreover, because they typically use fossil fuels, they produce higher levels of greenhouse gas emissions per hour of operation.

Peaker plants also play a crucial role in peak-load shifting, which helps alleviate the burden on the electrical grid during periods of heavy demand. This process involves using peaker plants as a temporary solution to support the grid until it can handle additional loads. Changes in peak load can arise suddenly due to weather fluctuations and other variables, requiring grid operators, utilities, and LSEs to always be ready to address these short-term, intensive demands. While peaker plants offer the advantage of rapid deployment, their operational costs and

inefficiency make them a less favorable option when considering long-term alternatives that balance operational benefits against costs and emissions.

Salgenx, in collaboration with Infinity Turbine LLC, is committed to leading the shift towards renewable energy adoption. The company looks forward to working with utility partners worldwide to integrate this advanced storage solution into the energy grid. Deployments of the Salgenx grid-scale battery are expected to commence in select regions soon, with plans for wider distribution in the coming years.

About Salgenx and Infinity Turbine LLC

Salgenx, a division of Infinity Turbine LLC, focuses on innovative energy storage solutions designed to enhance grid stability and support the integration of renewable energy sources. Infinity Turbine LLC is dedicated to developing technologies that facilitate the transition to a more sustainable energy landscape.

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