

# Salgenx Introduces Solutions for Data Center Efficiency with Grid Scale Saltwater Battery Storage and Waste Heat Power

Through the combined power of waste heat recovery and saltwater energy storage, data centers can optimize their operations while reducing environmental impact.

MADISON, WI, UNITED STATES, October 10, 2024 /EINPresswire.com/ -- Salgenx, a leader in sustainable energy storage solutions, has partnered with Infinity Turbine to address the pressing energy challenges facing modern data centers. By combining the innovative Grid Scale Salgenx Saltwater Battery with Infinity Turbine's Cluster Mesh Power Generation system, the partnership offers a powerful solution for improving energy efficiency, reducing costs, and promoting sustainability in data centers.

Addressing Data Center Challenges with Cutting-Edge Technologies

As data centers continue to grow, their operational complexity and energy demands rise. Issues like energy consumption, heat management, and the need for reliable backup power



Infinity Turbine Cluster Mesh Power Generation



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

have created an urgent demand for efficient, scalable, and environmentally friendly solutions. The combination of Salgenx's Saltwater Battery and the Cluster Mesh Power Generation system aims to directly address these issues.

### Revolutionary Solutions for Energy Efficiency and Sustainability

#### Salgenx Saltwater Battery

The Salgenx Saltwater Battery is an eco-friendly, <u>grid-scale energy storage solution</u> that uses non-toxic saltwater as its electrolyte. The battery provides a safe and non-flammable and sustainable way to store energy, allowing data centers to integrate renewable sources like solar and wind while reducing reliance on fossil fuels. This scalable energy storage system offers:

- Reliable backup power during outages.
- Energy cost savings by storing off-peak energy for use during peak demand.
- Sustainable energy storage, free from hazardous chemicals or materials.

# Infinity Turbine's Cluster Mesh Power Generation System

The Cluster Mesh Power Generation system by Infinity Turbine leverages waste heat produced by data centers and converts it into usable electricity. This innovative system utilizes multiple supercritical CO2 turbines arranged in a mesh to recover low-grade waste heat, enhancing both power generation and cooling capabilities. Key benefits include:

- Reduced energy consumption by recycling waste heat.
- Enhanced cooling efficiency for server rooms and hardware with a COP up to 20.
- Scalable solutions for data centers of all sizes, enabling them to optimize performance as they grow.

#### The Benefits for Data Centers

By combining these two powerful technologies, data centers can overcome many of the most pressing challenges they face today, including:

- Energy Consumption: The Cluster Mesh system reduces external energy reliance by converting waste heat into power, while the Salgenx Saltwater Battery stores energy for peak demand periods.
- Cooling and Heat Management: The Cluster Mesh system not only generates electricity but also improves cooling efficiency, helping data centers manage heat more effectively.
- Sustainability: Both solutions support data centers in reducing their environmental footprint, from cutting carbon emissions to integrating renewable energy sources.
- Backup Power and Grid Independence: The Salgenx Saltwater Battery provides reliable backup power, ensuring data center continuity during grid outages.

# Future-Proofing Data Centers for Scalability

As data centers continue to expand, the ability to scale energy storage and power generation solutions is critical. Both the Cluster Mesh system and the Salgenx Saltwater Battery are modular and scalable, allowing data centers to grow while maintaining high efficiency and reliability.

About Salgenx (a division of Infinity Turbine LLC)

Salgenx is at the forefront of developing innovative, sustainable energy storage solutions.

Saltwater batteries provide a safe, non-toxic, and cost-effective alternative to traditional lithium-based energy storage systems. Committed to advancing green technology, Salgenx continues to explore and develop cutting-edge renewable materials and methods to meet the growing global demand for renewable energy storage.

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