

Blue Frontier Wins Prestigious R&D 100 Award for Breakthrough Air Conditioning with Energy Storage Technology

"Cooler Buildings, Stronger Grid: The World's First Energy Storing Efficient Air Conditioner" Recognized for Innovation and Impact

BOCA RATON, FL, UNITED STATES, September 4, 2025 /EINPresswire.com/ -- [Blue Frontier Inc.](#) today announced that it has been recognized with a [2025 R&D 100 Award](#) for its revolutionary air conditioning system.

The R&D 100 Awards celebrate the most significant technological innovations each year. Blue Frontier's winning air conditioning system, developed in collaboration with [NREL](#), a U.S. Department of Energy national laboratory, delivers unprecedented energy efficiency while also providing built-in energy storage capabilities. This allows buildings to maintain comfort while reducing strain on the electric grid during peak demand and grid congestion.



2025 R&D 100 Award Winner

Blue Frontier's case is proven in the field with customers such as Waffle House, Albertson's, CBRE, and the United States Department of Defense's Defense Innovation Unit, among others. NREL and Blue Frontier co-created the technology and have collaborated in its development since 2018, moving it from concept to products in the field.

A Game-Changing Approach to Cooling

Unlike traditional air conditioners, Blue Frontier's system uses a unique salt solution that dehumidifies and cools air, dramatically reducing energy consumption. This salt solution is stored within the system, creating a thermal battery that allows the unit to provide air conditioning with almost no electricity use during expensive, carbon-intensive peak hours. This strengthens grid resilience while lowering costs for customers.

Air conditioning currently accounts for nearly 40% of electricity usage in some regions during peak summer days. Blue Frontier's system addresses this challenge head-on, providing a high-quality solution that helps customers save money while reducing greenhouse gas emissions and supporting the clean energy transition.

"This recognition validates the extraordinary global impact of our technology," said Daniel Betts, Blue Frontier CEO. "Traditional units consume too much electricity, put too much pressure on the grid, and contribute to climate change. Our technology transforms air conditioners into the ultimate resilience, health, and climate adaptation tool."

"This is a huge step forward for air conditioning, and we're honored to be recognized with Blue Frontier," added Eric Kozubal, NREL senior engineer and co-inventor of the technology along with NREL senior engineer Jason Woods. "The technical groundwork developed by NREL was rapidly brought to life through Blue Frontier's hardware advancements and a novel business model—partnerships like this are crucial to innovation."

About Blue Frontier

Blue Frontier Inc. is a pioneering clean technology company developing transformative air conditioning solutions that combine energy efficiency, sustainability, and resiliency. By integrating energy storage into cooling systems, Blue Frontier is ushering in a new era of smarter, cleaner buildings. For more information and to review case studies, visit www.bluefrontierac.com.

Dinier Quiros



Technology inventors from Blue Frontier and NREL visiting manufacturing plant



Blue Frontier's ultra-efficient AC unit storing solar energy and providing cooling for an office building in Riviera Beach, FL

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