

**FOR IMMEDIATE RELEASE**

## **JEEVAN WINS DOE GRANT FOR OCEAN-BASED CARBON REMOVAL**

Bethlehem, PA — August 23, 2023 — Jeevan Climate Solutions, an innovative climate technology and carbon removal company, and Advanced Cooling Technologies, Inc. (ACT) announced they have jointly been awarded a Department of Energy SB Innovation Research Phase I grant. The two companies will develop and deploy a novel ocean-based abiotic carbon capture technology based on Jeevan's groundbreaking DeCarbonHIX technology.

The DeCarbonHIX-based capture system utilizes seawater to capture and store carbon dioxide (CO<sub>2</sub>) with minimal energy use, while simultaneously reversing CO<sub>2</sub>-induced seawater acidification.

"We are excited to work with ACT, a top engineering partner, to design and deploy our DeCarbonHIX technology," said Dr. Arup SenGupta, Jeevan Chief Executive Officer. "Based on our existing prototype and research, we are confident our process will play a substantial role in mitigating climate change and restoring our environment."

Jeevan Climate Solutions' carbon removal technology can remove CO<sub>2</sub> from the atmosphere at substantially less than \$100 in energy cost per ton, while also converting the CO<sub>2</sub> to safely storable minerals that enhance the quality of ocean water.

The ACT and Jeevan teams will design and model a full-scale, offshore DeCarbonHIX system, demonstrating the proposed capture bed's air-side pressure drop and CO<sub>2</sub> capture abilities and the weak-acid regeneration system's efficiency, operation, and electrical consumption. The Phase I project will result in a pilot-scale system design, which will be manufactured and demonstrated in a follow-on Phase II effort in collaboration with the Department of Energy.

Based in Bethlehem, Pennsylvania, Jeevan previously deployed an operational Direct Air Capture prototype in July 2023, following earlier funding from the Department of Energy, Department of Interior, and Pennsylvania Infrastructure Technology Alliance.

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About Jeevan Climate Solutions:

Jeevan Climate Solutions is a leading climate technology startup based in Bethlehem, PA. Founded by Dr. Arup SenGupta, an internationally acclaimed chemical, biomolecular, and

environmental engineer, the company specializes in direct air capture (DAC) technology. Leveraging the DeCarbonHIX resin technology from the HIX Technology Platform, originally developed for water purification, Jeevan Climate Solutions is pioneering an innovative and highly-efficient carbon capture process to combat climate change and secure a sustainable future.

About Advanced Cooling Technologies, Inc. (ACT)

ACT is a developer and manufacturer of system-level thermal solutions. They combine heat pipes, pumped liquid and two-phase loops, chiller technology, and thermal storage systems to manage excess heat in systems. Their technologies are used in applications from spacecraft thermal management to medical surgery temperature control and mission-critical applications, at temperatures ranging from -150 to 1,100°C. They serve customers worldwide in Aerospace, Military, Industrial Products and Government R&D sectors.