

HEATED

A battery that charges itself using waste heat

THE PROBLEM

Our society faces an inevitable transition to clean energy—the only uncertainty lies in its timing.

Currently, an alarming 72% of energy is lost during conversion from primary sources to final use, highlighting critical inefficiencies in our systems.

Utilizing this waste heat by transforming it to electrical energy could significantly reduce the global energy consumption. Addressing these hurdles will be crucial for advancing our clean energy future.

CO-FOUNDER PROFILE WE ARE LOOKING FOR

Must-Have Qualifications/Background

Demonstrated experience with university-based startup development and commercialization processes.

Nice-to-Have Qualifications/Background

Market insight into energy and sustainability; prior experience with deep tech startups

Personal Fit

Strategic thinker with proactive mindset and demonstrated ability to motivate teams

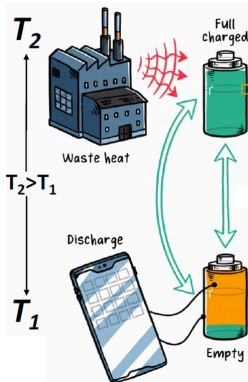
TASKS & RESPONSIBILITIES (FIRST 3 MONTHS)

Strategic planning & business development, market validation studies, fundraising preparation.

OUR SOLUTION

While thermoelectric conversion offers a promising path to reclaim waste energy, three key challenges limit its adoption: poor efficiency rates of 5-8%, reliance on temperature gradients, and sustainability concerns with current materials.

Our research team at the Technical University of Denmark (DTU) is developing a new solid-state battery system that harnesses thermal energy during heating cycles and converts it to electrical energy during cooling phases. Operating within 120-300 °C above ambient conditions, the system efficiently captures low-grade heat from previously untapped sources and convert it into electricity. This innovative technology enables energy recovery across various industrial applications while contributing to energy conservation and carbon emission reduction.



PATENT STATUS

We have started the IP process through DTU.

ACADEMIC BACKGROUND OF CURRENT CO-FOUNDERS

The team currently consist of a professor and a postdoc researcher at DTU energy.

ENTREPRENEURIAL BACKGROUND OF CURRENT CO-FOUNDERS

We have a strong startup incubator as a part of the project.

PHYSICAL ADDRESS

We are at DTU energy.

MILESTONES ACHIEVED

We have received a major EU grant and established a big research group with other universities in the EU.

TARGET MARKET & CUSTOMERS

The market could be anyone who generates a lot of waste heat, from the steel industry to data centers.

FINANCIAL OVERVIEW

This is still a research project at this stage, but we are aiming to kick it off with a commercial person.