



# JOULES ACCELERATOR IMPACT REPORT 2023

[www.joulesaccelerator.com](http://www.joulesaccelerator.com)

# NOTE FROM THE EXECUTIVE DIRECTOR

Though COP28 may not be yielding necessary global action on curbing anthropogenic climate change, the science is clear: 2023 marks yet another hottest year on record. But despite the discouraging news, the past decade has seen a 40x growth in investment in the cleantech sector. Today, investment in cleantech opportunities accounts for more than \$0.11 of every dollar invested through venture capital and private equity markets, globally. Ongoing macro challenges include elevated interest rates and a 50% year-over-year retreat of all venture and private equity investments.

The investment landscape is not the only one changing, as we are also seeing the wide-reaching impact of geopolitics on energy markets, supply chains, security, and trade. Within the US, aggressive federal investments in new cleantech technologies and projects have created a renewed era of public-private partnerships through tech hubs, hydrogen, and DAC hubs, and Earthshots. Collectively, these efforts have resulted in attracting top talent to the cleantech space from big tech, fintech, aerospace, and media.

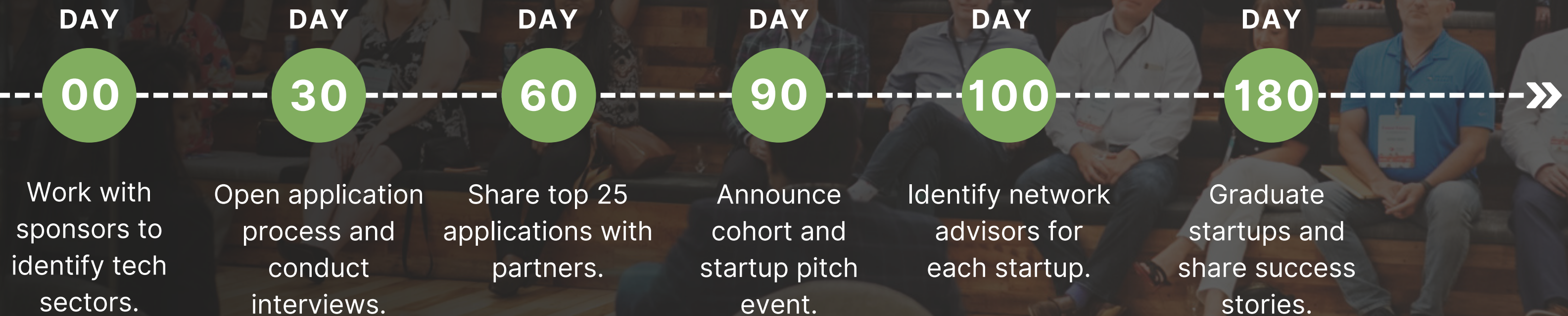
At Joules, we firmly believe in the clean energy transition and the role that new technologies must play in lighting the path forward for decarbonization and sustainability for the Carolinas.

*Statistics Source: The Climate Tech Opportunity (Oxford Climate Tech Initiative)*  
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Handwritten signature of Robert J. ... in white ink.

# ABOUT JOULES ACCELERATOR

**Joules Accelerator** is a 501(c)(3) nonprofit startup accelerator collaborating with industry, municipal, and university partners to identify, advise, connect, and deploy clean technology startups within the Carolinas. Joules will become the primary hub for Southeast climate tech entrepreneurship, and drive decarbonization through partnerships and commercialized pilot projects.



# OUR SUCCESS TO DATE

**\$850MM**

raised in early-stage  
venture funding.

**12**

cohorts with over 90  
graduates.

**55%**

underrepresented  
founders, last four  
cohorts.

**2300**

new jobs created.

**250**

high-paying, tech-  
focused, local jobs.

**15%**

of all portfolio  
companies are local.

**15**

cohort startup exits  
to date (\$67M  
average).

**500+**

advisors to support  
market traction.

**1**

startup achieving a  
\$1B valuation (7  
\$100M+ valuations).

# COHORTS ELEVEN & TWELVE

Joules Accelerator selects two cohorts of six to seven startups each per year. Joules is currently getting ready to announce its 13th cohort, which will be the first cohort of 2024.

**71%** of the last two cohorts were between Seed and Series A funding levels.

**70** jobs created over the last year.

**\$20M** in funding raised over the last year.



POWER to HYDROGEN

**ELECTRIC ERA**



it's electric

specifx  
DATA INC

GRANULAR



moduly

Gridware

**Kanin Energy**

Cache  
nergy



EarthEn

Carbon Negative, Climate Positive Energy

OKOVATE  
SUSTAINABLE ENERGY



ZippiAi

CIVIL GRID

THE COHORT

# ELECTRIC CHARGING

**Cohort 11's** itselectric is an ev charging venture that “partners with city property owners to unlock access to untapped electricity supply while they earn passive income.” Winner of Fast Company’s 2023 Next Big Things in Tech for Sustainability, itselectric recently announced partnerships with local and national organizations to help accelerate electrification in the city of Detroit, Michigan.

“GHG emissions from the transport sector have more than doubled since 1970, with 80% of this rise stemming from road vehicles.”

*The Climate Tech Opportunity*



it's electric

# WASTE HEAT TO POWER

**Cohort 11's** Kanin Energy is a waste heat to power venture that helps companies decarbonize at no cost by capturing a company's waste heat and turning it into a revenue stream. Founder Janice Tran was recently featured in 2023 Forbes' 40 under 40, and believes in their technology's capacity to execute on "high-value energy generation and emissions reduction projects "too small" for large industrials and utilities to manage internally."

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**Kanin» Energy**

The global market for Organic Rankine Cycle technology (used by Kanin Energy) saw an estimated \$298.8M market in 2022 with a projected growth to \$1.3B by 2030. The waste heat recovery segment is "estimated to grow at an 18% CAGR for the next 8 years."

*PR Newswire*



THE SUCCESS STORIES

The Bipartisan Infrastructure Law has pushed \$7.5B into supporting the expansion of EV charging, with the presidential administration calling for “a national network of 500,000 chargers along highways.”

*GeekWire*



**ELECTRIC ERA**

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# FAST CHARGING

**Cohort 12's** Electric Era developed “PowerNode,” a revenue-generating EV charging station that allows convenience stores to provide “premium EV fast charging without costly grid upgrades and high utility bills.” In 2023 the team announced \$11.5M in new funding, a Series A round led by HSBC Asset Management.

THE SUCCESS STORIES



# DROP-IN SOLUTIONS

**Cohort 12**'s Cache Energy is coming out of 2023 with momentum, recently raising an oversubscribed \$4.5M seed round, winning the Department of Energy's Energy Innovation Prize, and close to making their first pilot project live. Cache is ultra long-duration energy storage, a solid fuel that is "non-toxic, non-explosive, and stores energy at room temperature." This solution can be transported anywhere, installed anywhere, and complements existing energy workforce and infrastructure.

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Cache  
energy

At COP28, John Kerry, President Biden's special envoy for climate change said that "the US supported a phaseout of fossil fuels, his clearest statement yet on America's position on one of the most intractable issues under debate at the UN climate talks."

*The New York Times*

THE SUCCESS STORIES



# OUR GLOBAL COMMUNITY

Across seven countries and over twenty different tech sectors, Joules sources innovation from around the world that would benefit from the Southeastern regional entrepreneurship ecosystem.



THE GLOBAL REACH

# OUR LOCAL IMPACT



01

## Climate Innovation

Identify Joules startup innovation from existing portfolio.

02

## Community Engagement

Select communities that will benefit from cleantech innovation.

03

## Corporate Sponsorships

Fund pilot projects and receive marketing engagement.

04

## Pilot Project

Deploy startup tech and share success stories.

# JOULES CAMP

Joules Camp is a project based community outreach program designed to energize North Carolinians about climate tech innovation, while promoting public-private partnerships in pursuit of sustainability goals.



## Ribbit Network

Ribbit Network is a global network of open-source, low-cost, CO2 detection sensors. The first Joules Camp project will bring sensors and climate data analysis training to rural high school students in the Carolinas.

# OUR 2024 VISION

As we move into the new year, we continue to push for Southeast climate tech entrepreneurship and decarbonization through partnerships and commercialized pilot projects.



## DIVERSITY, EQUITY & INCLUSION

Joules continues to explore more avenues for supporting underrepresented founders & advancing equity in the climate tech space. Ribbit Network pilot project will be the second success out of Joules Camp.



## COHORTS 13 & 14

Cohort 13 will focus on Transmission, Distribution, Grid Edge Hardware, Industrial Heat Solutions, Industrial Decarbonization.



## ECOSYSTEM ENGAGEMENT

Joules will be hosting pitch events in Charlotte, NC for both Cohorts 13 & 14, as well as presenting Cohort 13 startups at the annual EPRI Electrification event in March.

# OUR NETWORK

Joules has carefully curated a network of partners & sponsors who support our mission and vision. We work together to find business development opportunities for portfolio startups.



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THE NETWORK



# GET IN TOUCH

## CONTACT US

[joulesaccelerator.com/contact](https://joulesaccelerator.com/contact)

[info@joulesaccelerator.com](mailto:info@joulesaccelerator.com)

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