

# Catalyst/DICES Spring 2025 Webinar

**Presented by:**

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# The Catalyst/DICES Team

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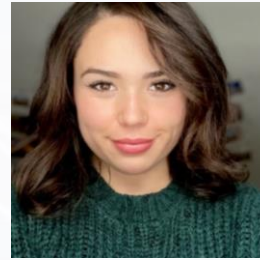
## Massachusetts Clean Energy Center (MassCEC)



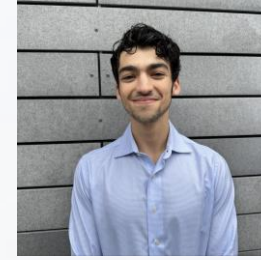
**Leslie Nash**  
Senior Program Director



**Catrina Damrell**  
Program Manager



**Marianna Miller**  
Program Administrator



**Reis Bloch**  
Fellow

## MassVentures (MV)



**Vinit Nijhawan**  
Managing Director



**Priya Yadav**  
VP of Investments

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# AGENDA

- ▶ **Introduction and Overview**
- ▶ **MassCEC Overview & Mission**
- ▶ **MassVentures Overview & Mission**
- ▶ **Catalyst**
- ▶ **Diversity in Climatetech – Early Stage (DICES)**
- ▶ **Other Funding Opportunities**



# MassCEC Overview

# Massachusetts Clean Energy Center

MassCEC is a state economic development agency dedicated to accelerating the growth of the clean energy and climatetech sector in the Commonwealth

*We are training tomorrow's clean energy workforce, funding climatetech innovation to meet the state's emission reduction goals, and growing the state's clean energy economy*



Awarded **\$654M** and attracted **\$2.6B** in private and federal capital



Enabled an **80%** increase in clean energy jobs



Supported over **900** companies



Provided funding and technical assistance to over **47,000** clean energy projects



Supported over **6,100** college and vocational internships



Built the **1st** U.S. offshore wind port in New Bedford



Assisted **620+** employers to offer clean energy internship opportunities



Supported **two-thirds** of all electric school buses in Massachusetts

# MassCEC's Work Spans Four Main Areas of Climate Impact for MA

## Emerging Climatetech



We help new climate-focused businesses grow faster by backing a vibrant community of researchers, startups, and established industry players - creating an ecosystem where they connect and thrive.

## Accelerating Decarbonization



We contribute to meeting our state's ambitious climate goals by tackling barriers to widespread use of clean energy and climate technology in buildings, transportation, and the grid.

## Large Scale Deployment: Offshore Wind



We're building a cutting-edge offshore wind industry, marshaling world-class ports while addressing supply chain and workforce development challenges.

## Clean Energy & Climate Workforce Development



We partner with schools and other education partners to build a skilled and diverse workforce, essential for achieving our climate goals.

# Support Across All Startup Development Stages

## TECHNOLOGY TO MARKET PROGRAMS

Tech-to-Market Program

Investments Program

Workforce Program

\$ UP TO  
\$1,500,000

\$1,500,000

\$350,000

\$300,000

\$175,000

\$75,000

\$15,000

\$8,460

Technology Readiness Levels

1

2

3

4

5

6

7

8

9

10

Commercialization Stages

Research



Development



Demonstration



Deployment

2030 Investment Fund

InnovateMass

AmplifyMass

Innovation Ecosystem Support

Catalyst / DICES

Massachusetts Climatetech Studio

Internship Program

CriticalMass

# MassVentures Overview



# MassVentures' Mission & Activities

Support the innovation economy and economic growth initiatives of the Commonwealth by helping to transfer research and early-stage innovations to viable technology businesses and jobs.

## MV Spinouts

Mass Tech Transfer Center  
MATTO

## MV Accelerate

Commercialization Accelerator  
MALSI  
MassVX  
MassCEC InnovateMass post-grant mgmt.  
SBIR Support  
The Fundable Founder Podcast  
Founders School

## MV Capital

### Investment

Deep Tech Venture Fund

- Academic Researchers & Spinouts (Converter Venture Studio)
- Early-Stage Companies

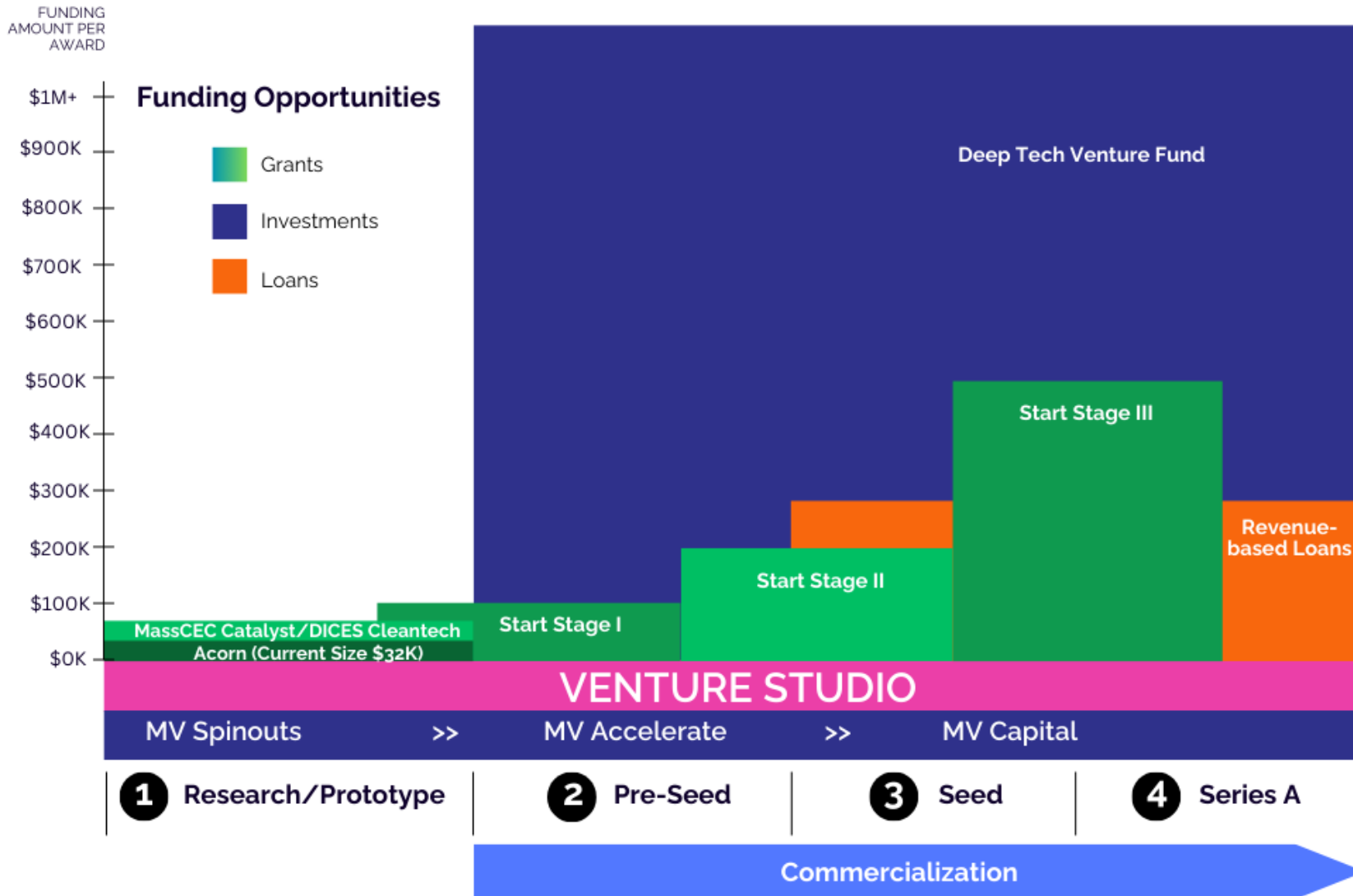
RLF loans

### Non-dilutive Grants

SBIR START grants  
MassCEC Catalyst & DICES grants  
Acorn Innovation grants

From pre-investment to exit, offer mentoring & business guidance, grants, investments and follow on funding. Intentional in supporting founders who have diverse backgrounds or are from diverse geographies in the state.

# MassVentures: Funding Opportunities by Technology Stage & Funding Amount per Award



# Catalyst & DICES

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Windows lose  
**\$200B/yr**  
in thermal energy  
worldwide



# Catalyst & DICES

Enabling researchers and young companies to develop prototypes



## Support

- Grants of up to \$75,000 for climatetech prototype development
- Technical and business support from MassCEC and MassVentures



## Timing

- Solicitations 2x/year.
- Spring & Fall
- Open now!



## Eligibility

- TRLs 2-4
- Catalyst: MA-based startups & MA-based researchers
- DICES: MA-based underrepresented founders

**Competitive  
Two-Step  
Application  
Review Process**

**Award Projects**

**Business &  
Technical  
Support**

# Catalyst and DICES Program Benefits

**ALL Finalists** receive complimentary pitch coaching and business mentoring

**Grantees** receive:

- Access to a vast network of partners
- Expert local market and policy insights
- Mentoring from MassCEC and MassVentures

# Application Requirements

- ✓ Overview of technology and merit
- ✓ Commercialization potential and proposed business model
- ✓ Climatetech benefits
  - ✓ potential reduction in greenhouse gas emissions or the avoidance of future GHG emissions achievable
- ✓ Project plan (what, when, where, how much)
- ✓ Project budget summary
- ✓ Information on team members

# What do we mean by “prototype”?

“a first, typical or preliminary model of something, especially a machine, from which other forms are developed or copied” (*Dictionary.com*)

- NOT basic research
- Early-stage technology design, development, and validation
- Test a concept, use to evaluate your design
- You are creating a “thing” – not an idea
- Real, working system or product
- Generating data to show the invention works

# What are we looking for?

## STRENGTHS OF THE PROJECT ✓

- ✓ Technical merit
- ✓ Technology is promising, new, and disruptive!
- ✓ Commercialization potential
- ✓ Market is large and/or growing, strong value proposition
- ✓ Market need exists
- ✓ Strong project plan
- ✓ Achievable within timeline and budget
- ✓ Will result in meaningful product development progress
- ✓ Knowledgeable team members
- ✓ Clear understanding on the steps needed for commercialization
- ✓ High likelihood of success

## PROGRAMMATIC FIT



- ✓ Climate and clean energy impacts
- ✓ Proposed technology demonstrates potential for measurable climate impacts through reduction of fossil fuel use
- ✓ Potential for follow-on funding
- ✓ Likelihood of market entry for university projects
- ✓ Likelihood of attracting private investment for start-ups
- ✓ High likelihood of success mattering



# About- DICES

- MassCEC is committed to providing funding opportunities to Applicants who are underrepresented in the climatetech industry or faced economic barriers entering the environmental or entrepreneurial landscape.
- The DICES Program seeks to provide access to funds and opportunities for those who can speak to how their lived experiences or economic context has caused barriers when entering the climatetech industry.

# Eligibility - DICES

## Examples of Eligibility

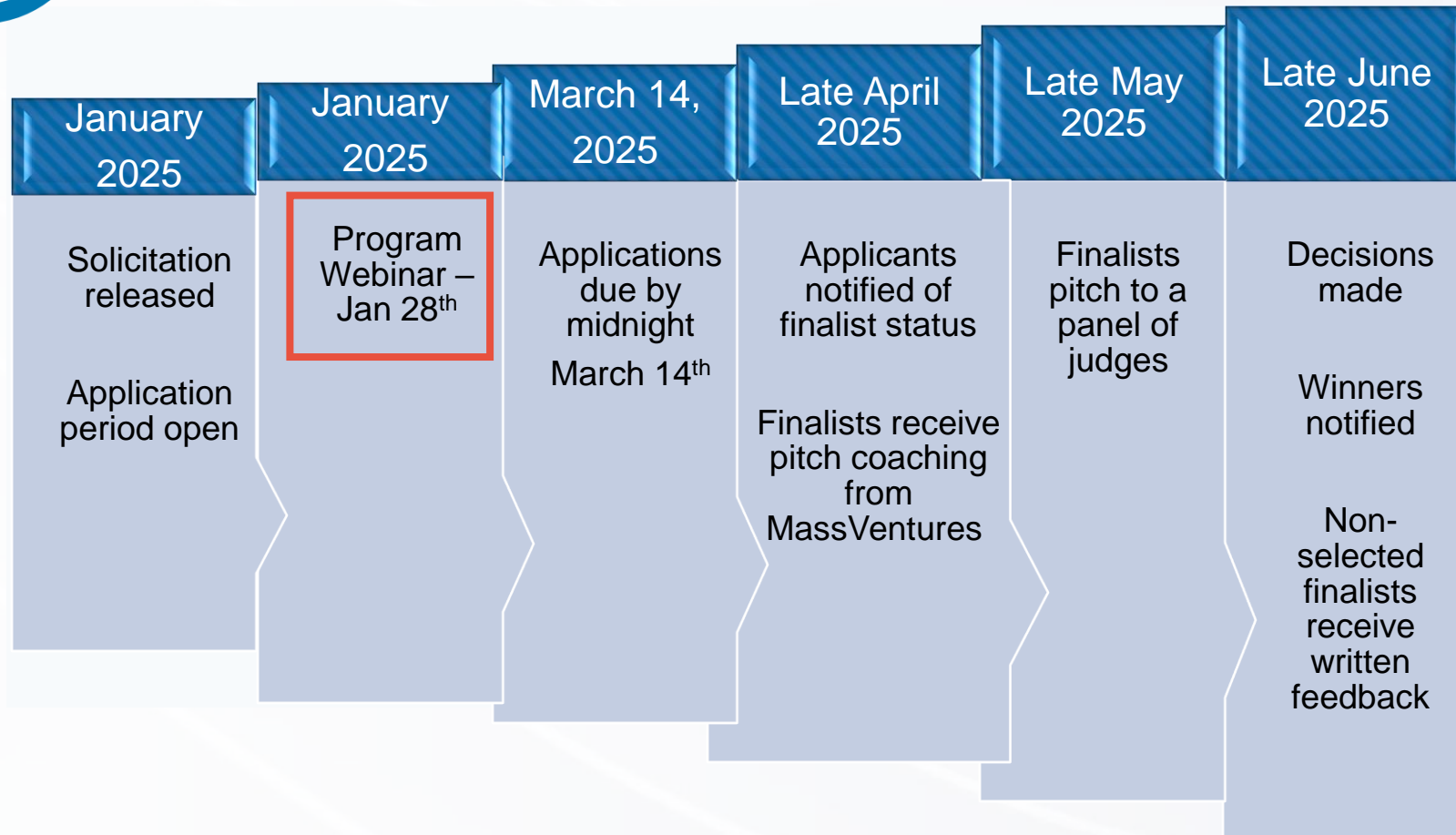
- Direct underrepresentation in the climatetech ecosystem in Massachusetts
- Less support towards the commercialization of a climatetech project or research
- Economic barriers to accessing or receiving capital for seed funding

# How to Apply to DICES

- Meet all of the existing requirements for Catalyst
- Fill out all of the questions for the Catalyst Application
- Fill out Section II on the application form to be considered for the DICES program
- Meet the intention of the DICES Program as described in the RFP



# Timeline and Logistics



# RECENTLY AWARDED PROJECTS

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## **Atacama Bio**

Atacama is an MIT spinout developing plastic alternatives that can be made cost-effectively from diverse, local biomass. Their flagship offering called WPK is a paper-recyclable, consumer-friendly, zero-carbon packaging solution.

## **Feon Energy**

Feon invents novel electrolyte molecules that unlock next-generation battery chemistries promising higher energy density, enhanced safety, lower costs, and seamless scalability.

## **Benchmark Labs, Inc.**

Benchmark Labs combines grid level weather data with site-based internet of things (IoT) sensors and uses their proprietary AI software to provide precise asset-located weather forecasting to optimize installation of renewable energy infrastructure projects such as offshore wind.

## **Haystack Ag**

Haystack Ag takes a systems-first approach to reduce soil carbon testing costs for growers and markets while maintaining high-accuracy measurements.

# Other MassCEC Programs

# INNOVATE MASS

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Providing support to startup companies as they deploy early **demonstration** projects



## Support

- Grants of up to \$350,000
- Company must provide 25-50% cost share (of award)
- Technical and business support from MassCEC and MassVentures



## Timing

- Applications are accepted on a rolling basis, but with 3 cohort deadlines per year until the earlier of funding is exhausted or June 30, 2025
- Next due date: March 17th



## Eligibility

- MA-based startups with a demo site anywhere
  - Non-MA-based (but US-based) startups with a demo site in MA with a tech in a MassCEC focus area
- TRLs 5-8

**Competitive  
Two-Step  
Application  
Review Process**

**Award Projects**

**Business &  
Technical  
Support**



# RECENTLY AWARDED PROJECTS

## **Adept Materials**

Adept Materials will be demonstrating its combined primer and paint system that enhances the energy efficiency, durability, and comfort of buildings with unique climate-regulating capabilities.

## **AmPLY Energy**

AmPLY Energy will be demonstrating their streamlined process for evaluation, design, proposal and performance of HVAC systems with heat-pump installers.

## **Mantel Capture, Inc.**

Mantel Capture, Inc. will be demonstrating its molten salt-based carbon capture technology to reduce emissions from the industry sector.

## **SeaDeep, Inc.**

SeaDeep, Inc. will be demonstrating its AI-powered subsea vision technology for monitoring of offshore assets and ecosystems.

# AMPLIFYMASS

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Supporting MA young companies and researchers on federal and non-federal awards via cost share



## Support

- Cost-share or adder grants for a prime award
- Up to \$300,000



## Timing

- Applications are accepted on a rolling basis
- Applications must be submitted to MassCEC before the primary funding is contracted



## Eligibility

- Companies must be a small business and be based in MA
- MA-based universities or non-profits
- TRLs 2-8

**Competitive  
Two-Step  
Application  
Review Process**

**Award Projects**

**Leverage  
Federal Funding**

# RECENTLY AWARDED PROJECTS

## **Electrified Thermal Solutions, Inc. GridEdge**

Electrified Thermal Solutions, Inc. (ETS) is developing the innovative Joule Hive™ Thermal Battery to provide high temperature heat to several hard-to-abate sectors, such as cement and steel industries.

GridEdge has developed a turnkey system solution named DERCOM that enables distributed energy resources flexible integrations and grid services.

## **rStream**

rStream is developing hardware and software to automate disposal decisions to supply waste haulers with premium recyclables.

## **Triton System, Inc.**

Triton Systems, Inc. aims to develop and commercialize an innovative floating offshore wind anchoring system and installation tool.

# Workforce Funding Opportunities

## The MassCEC Clean Energy Internship Program

# TAP INTO THE NEXT GENERATION OF THE CLEAN ENERGY WORKFORCE!

Summer 2025  
enrollment starts in  
mid-February

Apply online: [masscec.com/user](https://masscec.com/user)



EMPLOY STUDENT WORKERS  
FUNDED BY MASSCEC



MENTOR A NEW GENERATION  
OF CLEAN ENERGY PROFESSIONALS



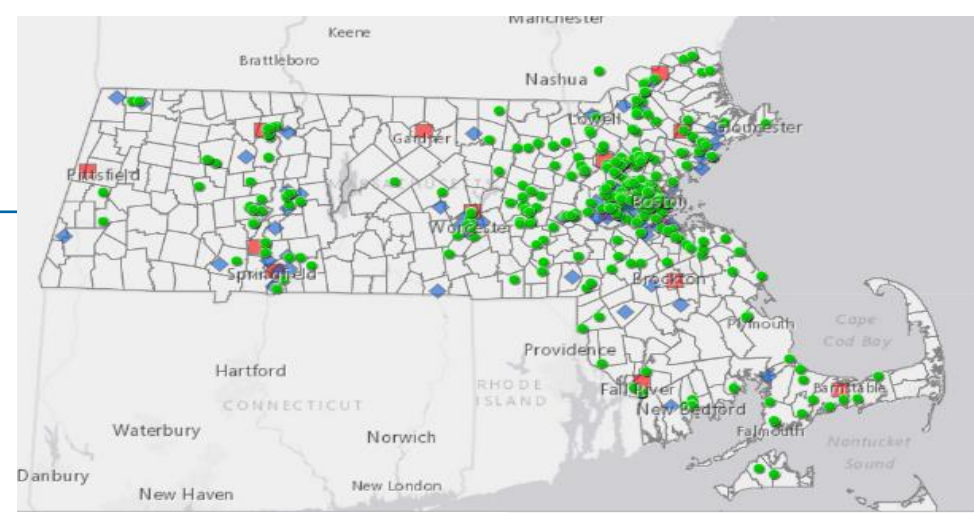
FIND AND HIRE YOUR NEXT  
STAR EMPLOYEE!

# MassCEC Clean Energy Internship Program

Paid internship opportunities for college students at Massachusetts-based clean energy companies

## PROGRAM LOGISTICS

- Students and Employers apply via [www.masscec.com/user/login](http://www.masscec.com/user/login)
- 3 sessions per year
  - **Summer 2025 session will open in mid-February**
- Companies may host up to 3\* interns per session
- 30 spots reserved for students & companies located in Gateway Cities
- Employers reimbursed for 12 weeks of an intern's work at the host company
- MassCEC reimburses employers at the conclusion of the session. Cap is \$4,320/intern (spring/fall) \$8,640/intern (summer)



## SUCCESSES TO DATE

- Placed over **5,000 interns at 600+ companies** since 2011
- Over 1,000 **students** have gained full or part-time employment at their host companies
- 283 companies and 1,100 students applied for the summer 2023 session
- Overwhelming participant satisfaction with the program to-date
- International students are eligible to participate.

# Investment Opportunities



# MassCEC Investments: The 2030 Fund

Strategically investing in MA-based startups  
Providing funding for teams solving critical climate problems

## How We Invest

Stage	Technology	Purpose
<ul style="list-style-type: none"><li>Pre-Seed &amp; Seed:</li><li>Formal company incorporation</li><li>Post-prototype</li><li>Pre-commercial</li><li>Focus on R&amp;D, first customer</li></ul>	<ul style="list-style-type: none"><li>Clean transportation</li><li>Offshore wind</li><li>Net Zero grid</li><li>High performance buildings</li><li>Other decarbonization areas</li></ul>	<ul style="list-style-type: none"><li>Countercyclical</li><li>Drive climate impact</li><li>Catalyze private capital</li><li>Strategic and financial returns</li><li>Return value to MA ratepayer</li><li>Create MA jobs, export MA innovation</li></ul>

## What We Offer

- High risk tolerance, early investor
- Extensive in-house expertise
- Value-add with other MassCEC programming (Grants, Workforce Development, Internship Funding)
- Intersection of public and private innovation
- Support through Series A, then handoff to later-stage investors
- Patient, longer-term capital
- Strategic advisor
- Extensive co-investor network
- Connections to other government funding and resources

**2030**  
Fund

**\$50M**  
Total Fund Size

**\$250K-\$500K**  
Typical First Check Size

### Investment Types:

- Simple Agreement for Future Equity (SAFE)
- Convertible Note
- Equity
- Venture Debt

## How We Create Value

High Impact  
Sustainable  
Cost-Effective



**62M+**  
Metric Tons  
CO2e Avoided



**500+**  
Jobs Created



**\$1.3B**  
Leveraged  
Capital



Seeking investment or partnership?  
Contact us at [invest@masscec.com](mailto:invest@masscec.com)

[MassCEC portfolio page](#)

# Questions?

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