

Catalyst and DICES Informational Webinar

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The Catalyst/DICES Team

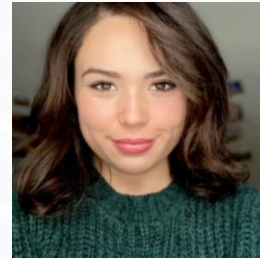
Massachusetts Clean Energy Center (MassCEC)



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AGENDA

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



MASSACHUSETTS
CLEAN ENERGY
CENTER®



Our Mission

The Massachusetts Clean Energy Center's mission is to accelerate the clean energy and climate solution innovation that is critical to meeting the Commonwealth's climate goals, advancing Massachusetts' position as an international climate leader while growing the state's clean energy economy.

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.



MASSCEC'S WORK BY FOCUS AREA

EMERGING CLIMATE TECH

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.



LARGE SCALE DEPLOYMENT: OFFSHORE ENERGY

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



CLEAN ENERGY & CLIMATE WORKFORCE DEVELOPMENT

We're growing a diverse and talented clean energy workforce by supporting a dynamic network of community-based organizations, labor, training providers, schools and employers committed to a sustainable future for all.



Our Impact

Since 2010 MassCEC Has:¹



Awarded **\$788M** through clean energy programs and investments, and attracted over **\$2.8B** in private and federal capital.



Developed the **1st** purpose-built port in the U.S. for staging and deployment of offshore wind projects.



Supported **6,500+** internships for college and vocational students with **670+** clean energy employers, **67%** of which were women and minority interns.



Supported the verification of **23M** renewable, solar, thermal, and clean peak certificates, accounting for transactions exceeding **\$5.6B** in revenue to Massachusetts residents and business owners.

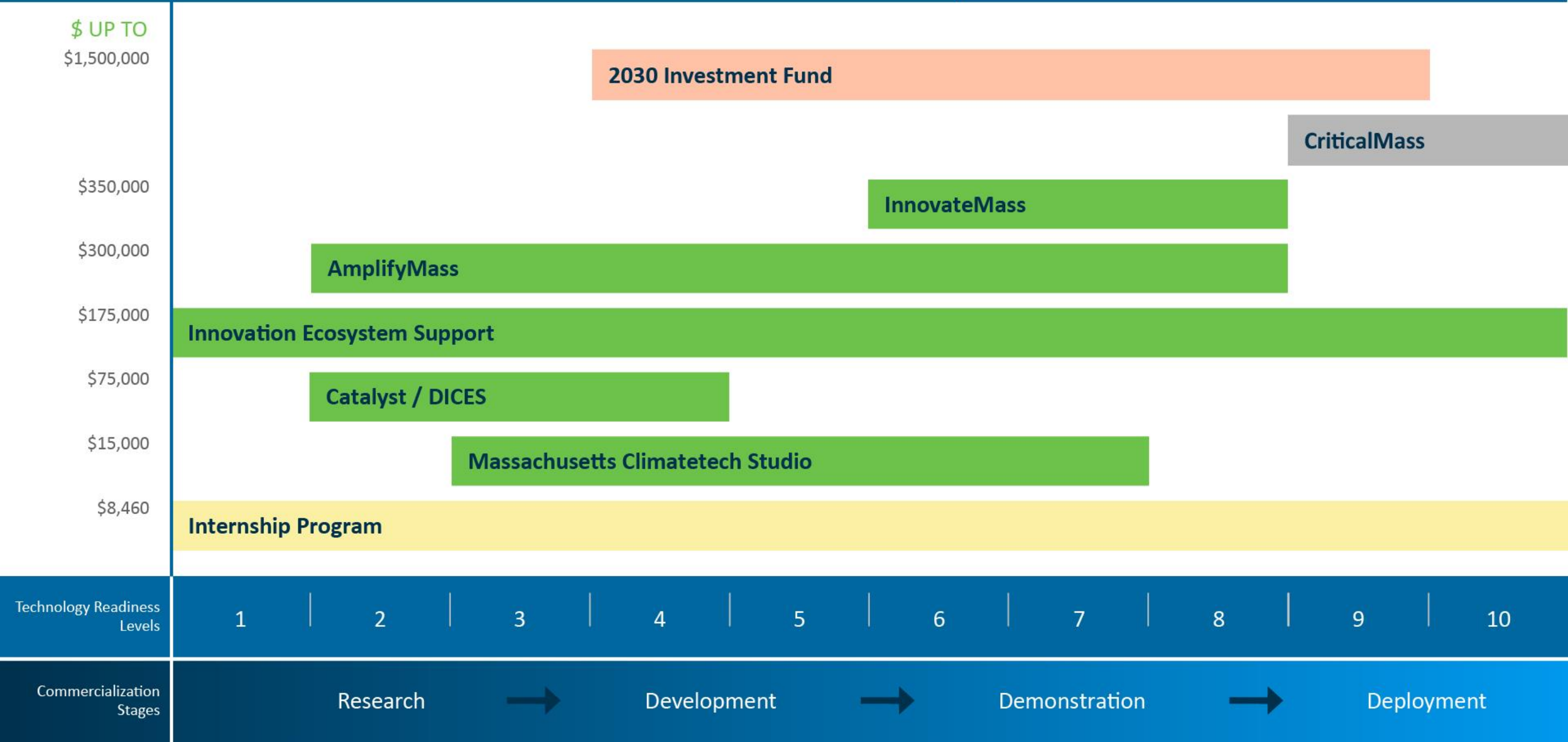


Tested **57** wind turbine blades at the Wind Technology Testing Center, generating over **\$28M** in revenue.

Support Across All Startup Development Stages

TECHNOLOGY TO MARKET PROGRAMS

Tech-to-Market Program Investments Program Workforce Program



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 academic Spinouts
Center
MATTO

MV Accelerate

Commercialization Accelerator
MALSI
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

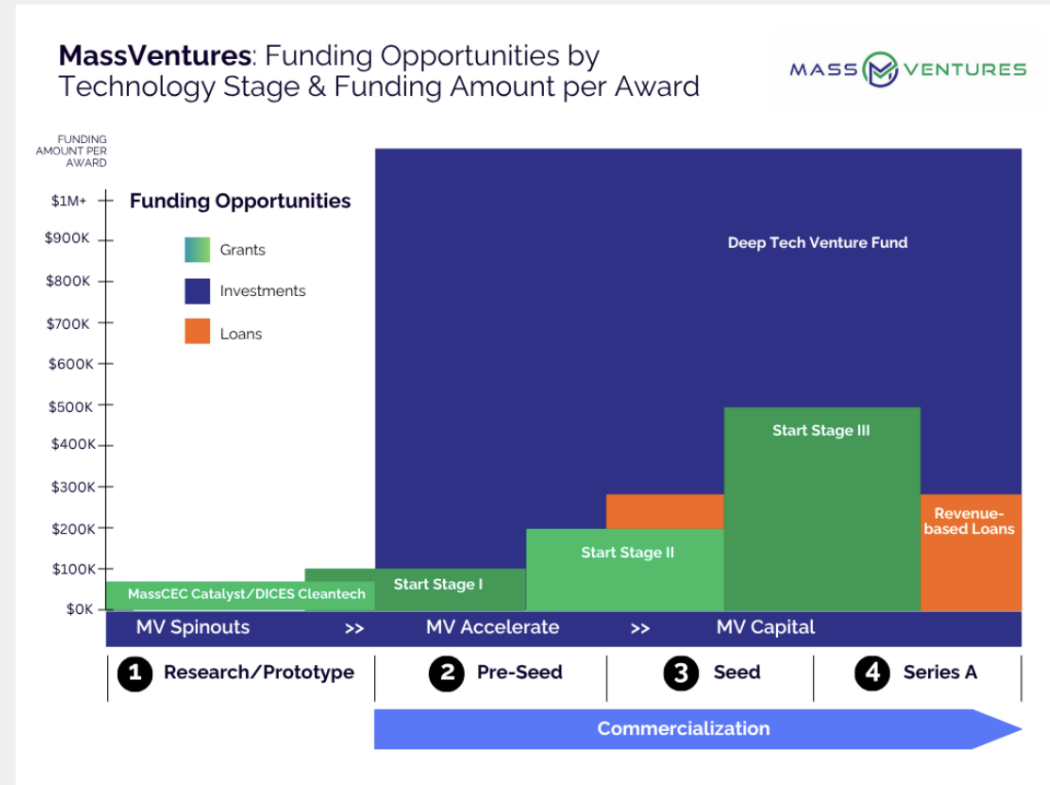
From pre-investment to exit, offer mentoring & business guidance, grants, investments and follow on funding. Intentional in supporting founders who have diverse backgrounds or are from diverse geographies in the state.

SCALABLE PLATFORM ENABLES GROWTH AND DEVELOPMENT

MV Spinouts - identifying, licensing and accelerating academic spinouts

MV Accelerate - building founding teams, supporting entrepreneurs in crossing the innovation chasm, advancing go-to-market strategies, and creating jobs

MV Capital - identifying and converting research to businesses, accessing non-dilutive grant funding, providing seed and growth capital



Catalyst & DICES

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

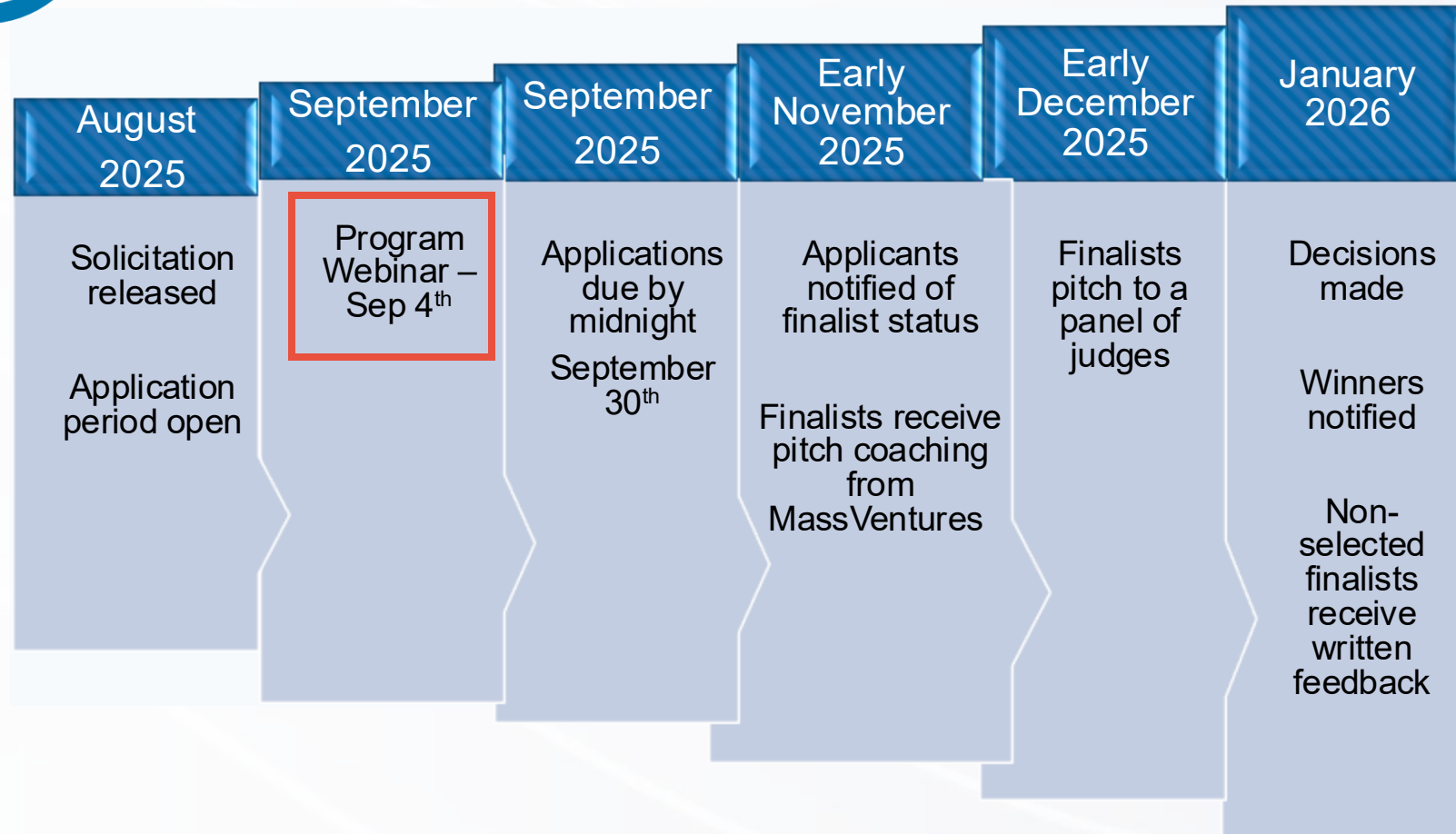
- Direct underrepresentation in the climatetech ecosystem in Massachusetts
- Less support towards the commercialization of a climatetech project or research
- Economic barriers to accessing or receiving capital for seed funding

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

Andros Innovations

Andros Innovations designed a new thermochemical method for producing ammonia that reduces the energy usage in ammonia production by over 80% compared to the Haber-Bosch method.

Vertical Horizons

Vertical Horizons technology is redesigning advanced circuit topologies to create high-density power delivery architecture for Graphics Processing Units (GPUs) which are the power supply units for AI data centers.

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.

Prospect Growth

Prospect Growth creates food-safe nanoparticle-based fertilizers ("nanofertilizers") to increase crop yields while decreasing nutrient inputs and environmental losses.

Other MassCEC Programs

INNOVATEMASS



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: October 20th



Eligibility

- MA-based climatetech startups with a demo site anywhere
 - Non-MA-based (but US-based) climatetech startups with a demo site in MA
- 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





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

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.

rStream

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

GridEdge

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

Triton System, Inc.

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



CRITICALMASS

CriticalMass

Scaling climate technologies & accelerating commercialization



Support

- Up to \$1,000,000
- Support Service Advisor & Entrepreneur in Residence
- Matchmaking with Corporate, University, & Municipal Deployment Partners



Timing

- Annual solicitation
- New program, first round Summer 2025
- Applications due September 22



Eligibility

- US-based startups with MA-based projects
- Startups - anywhere in U.S.
- TRL 8+

**Competitive Two-Step
Application Review Process**

Partner Matchmaking

Award Projects

Ecosystem Support Grant Programs

Innovation Ecosystem Program

Supporting MA climatetech incubators, accelerators, and other entrepreneur support organizations.



Support

- Grants of up to \$175,000
- Collaborative relationships between grantees & MassCEC & startups



Timing

- Applications are accepted on an annual basis in response to an RFP



Eligibility

- MA-based ESOs
- Some or all startups in the program/incubators must be climatetech

One step application
process

Award grantees

Collaborate and
network

Accelerators

- Fixed duration
- Typically growth-based
- Intense programming
- Cohort-based
- Typically offers prizes/awards

Training
Mentoring
Business support
Selective/Competitive

Incubators

- Open-ended duration
- Typically fee-based
- Technical facilities
- Physical space
- Rolling admission

Massachusetts Climatetech Startup Connections



ACCELERATORS

INCUBATORS

FY24
Grantees



FY24
Grantees



Additional
in MA*



Additional
in MA*



* There may be additional accelerators and incubators

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

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

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

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

[MassCEC portfolio page](#)

Workforce Funding Opportunities

The MassCEC Clean Energy Internship Program

TAP INTO THE NEXT GENERATION OF THE CLIMATETECH WORKFORCE!

Spring 2026 enrollment
starts in November

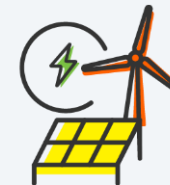
Apply online: masscec.com/user



**EMPLOY STUDENT WORKERS
FUNDED BY MASSCEC**



**MENTOR A NEW GENERATION
OF CLEAN ENERGY PROFESSIONALS**



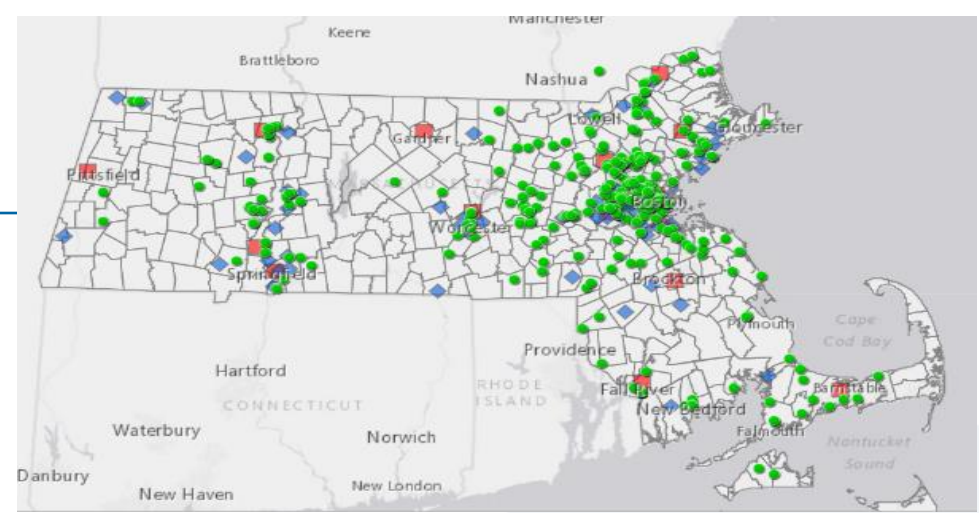
**FIND AND HIRE YOUR NEXT
STAR EMPLOYEE!**

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
- 3 sessions per year
 - **Spring 2026 session will open in November**
- 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.

Questions?

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