

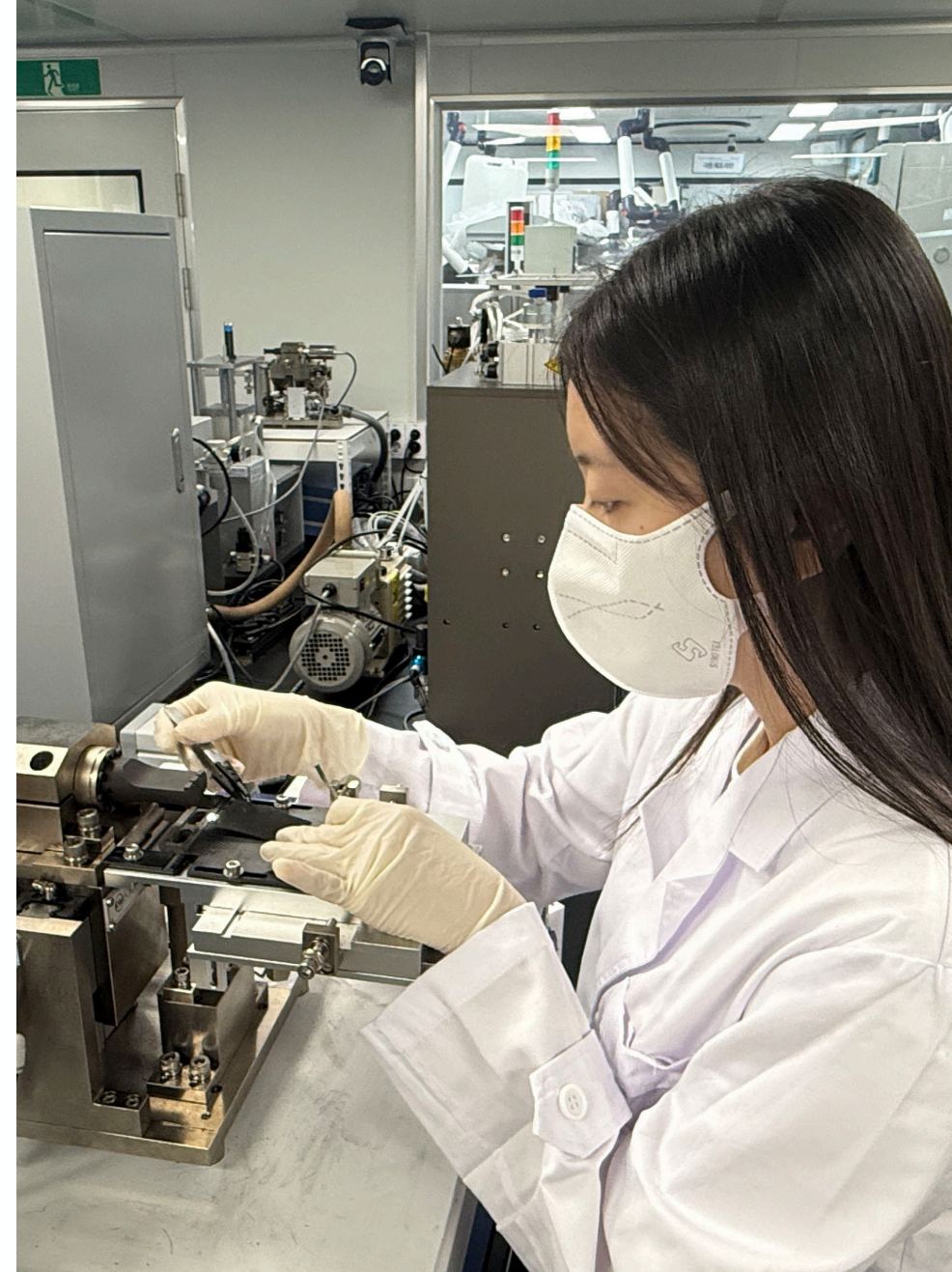
CATALYST AND ACADEMIC ACTIVATOR (A²) INFORMATIONAL WEBINAR

Presented by:

Catrina Damrell, Program Manager, Emerging Climatetech

Bethany Costanzo, Program Administrator, Emerging Climatetech

Priya Yadav, MassVentures, VP of Investments



THE CATALYST AND A² TEAM

MassVentures (MV)



Priya Yadav

VP of Investments

Point of Contact

for Catalyst / Academic Activator



Vinit Nijhawan

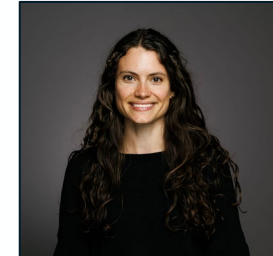
Managing Director

Mass Clean Energy Center (MassCEC)



Leslie Nash

Deputy Managing Director of
Emerging Climatetech



Catharina Damrell

Program Manager



Bethany Costanzo

Program Administrator

AGENDA

- **Introduction and Overview**
- **MassCEC Overview & Mission**
- **MassVentures Overview & Mission**
- **Catalyst Program Overview**
- **Academic Activator Program Overview**
- **Additional Funding Opportunities and Resources**
- **Q + A**

MASS CLEAN ENERGY CENTER



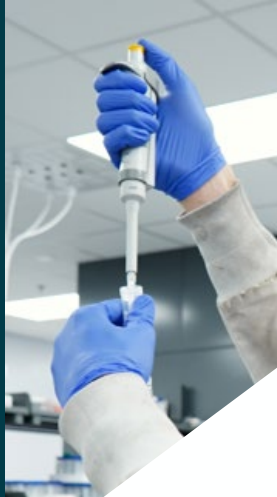


OUR MISSION

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.

INNOVATION

We nurture a globally competitive, sustainable clean energy industry rooted in Massachusetts. MassCEC invests early in high-potential startups, de-risks breakthrough technologies, and strengthens the innovation pipeline.



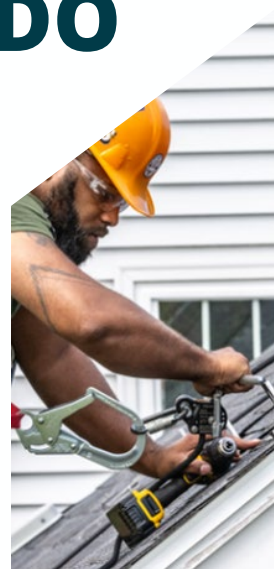
PROVE FOR SCALE

We advance solutions by piloting technologies and approaches that others will scale-up. Mass Clean Energy Center tests solutions in real-world conditions, generates market insights, and informs policy making.

WHAT WE DO

INFRASTRUCTURE

We build the infrastructure and support supply chain growth that anchors Massachusetts as a climate economy hub. MassCEC directs investments to unlock major industrial opportunities, fosters supplier ecosystems, and optimizes existing infrastructure.



WORKFORCE

We grow a skilled, diverse, and job-ready workforce that can meet the demands of a fast-growing climate economy. MassCEC provides funding, infrastructure, and partnerships to train workers and support career access, particularly in underserved communities.

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CLIMATE TECH

Technologies that reduce GHG emissions, reduce reliance on non-renewable energy sources, and/or help communities adapt to climate change through resilient infrastructure.



**Energy &
Electricity**



Transportation



Buildings



**Industry &
Manufacturing**



**Agriculture &
Water**



**Enabling
Solutions**

Mitigation

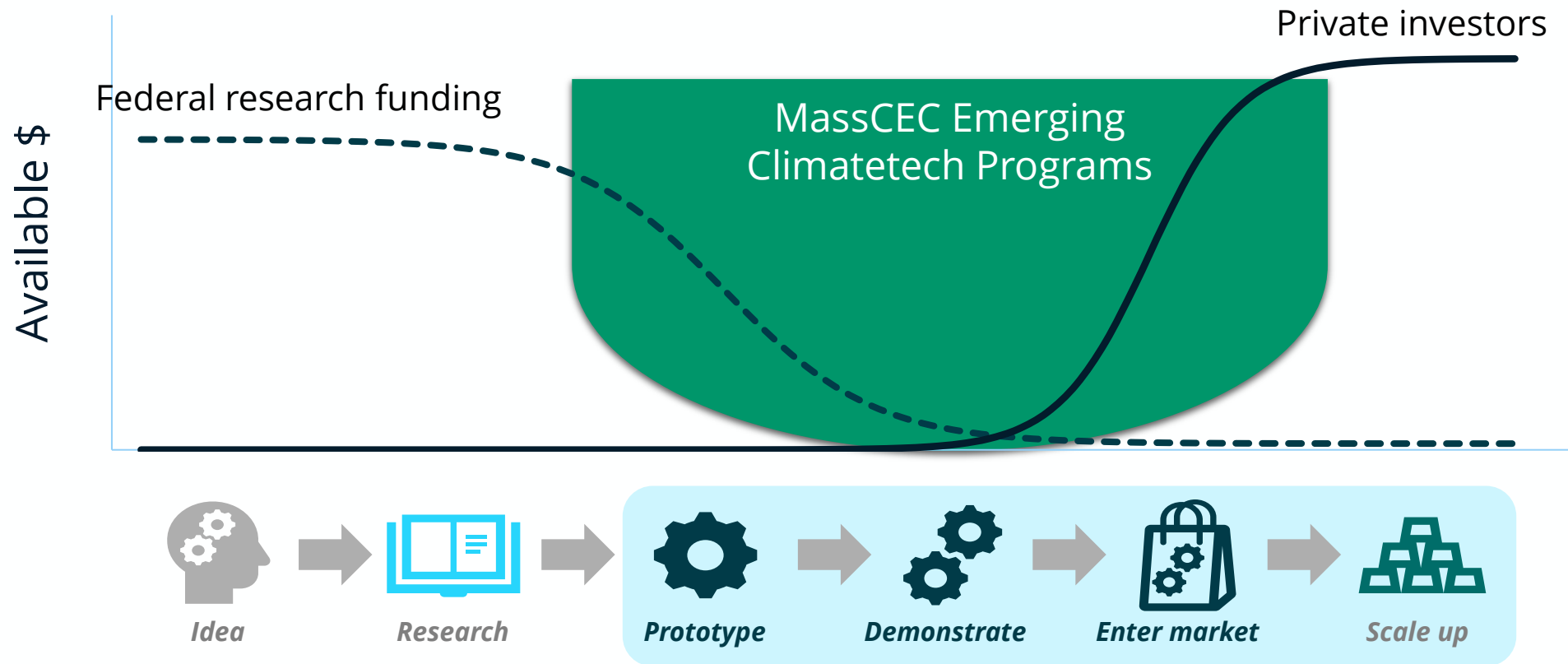


**Adaptation
& Resilience**

Prepare for and respond to
the impacts of climate change

Adaptation & Resilience

CHALLENGE



MassCEC Emerging Climatetech Funding Opportunities

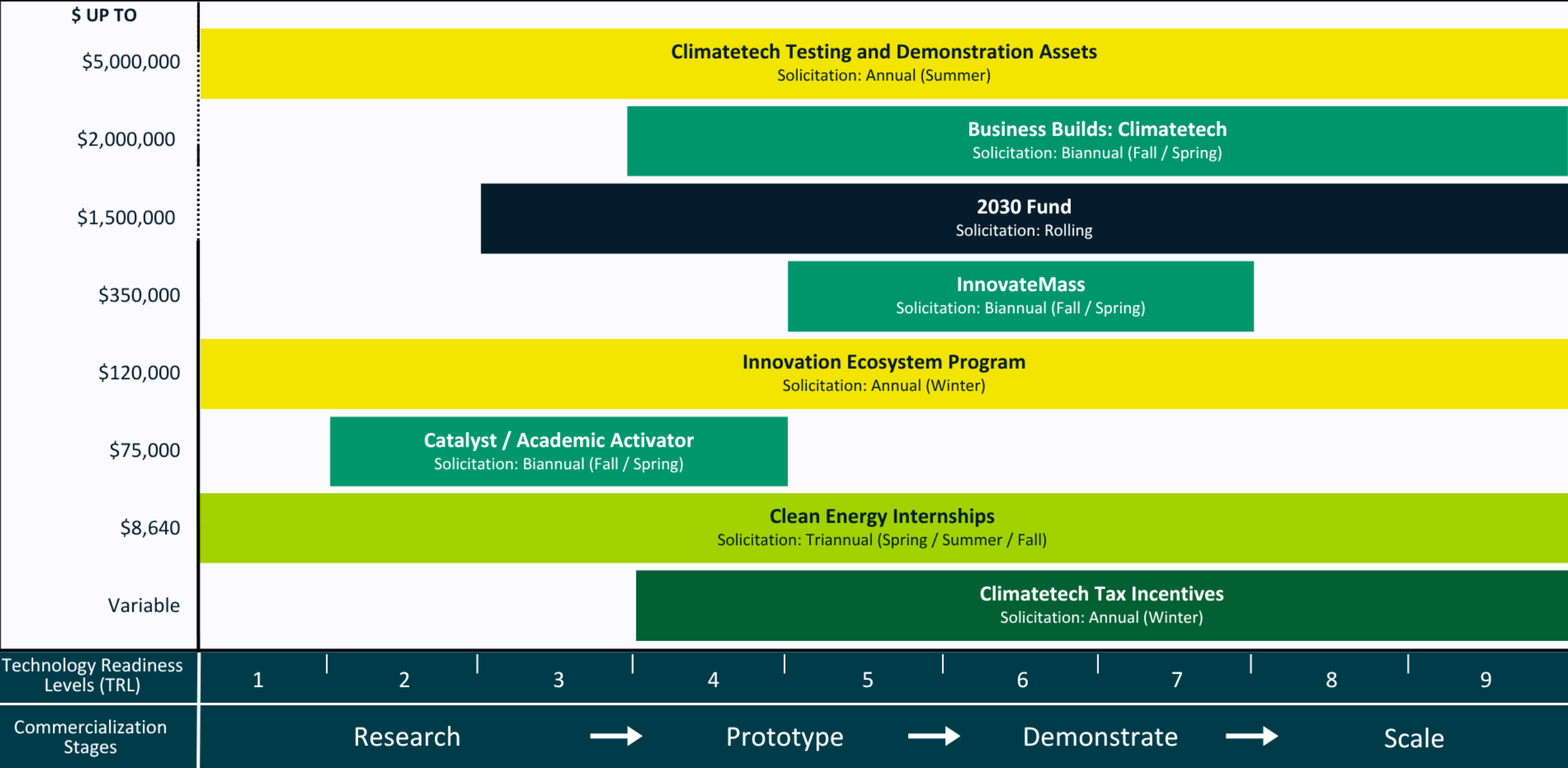
Grants for Startups/Academics

Workforce Program

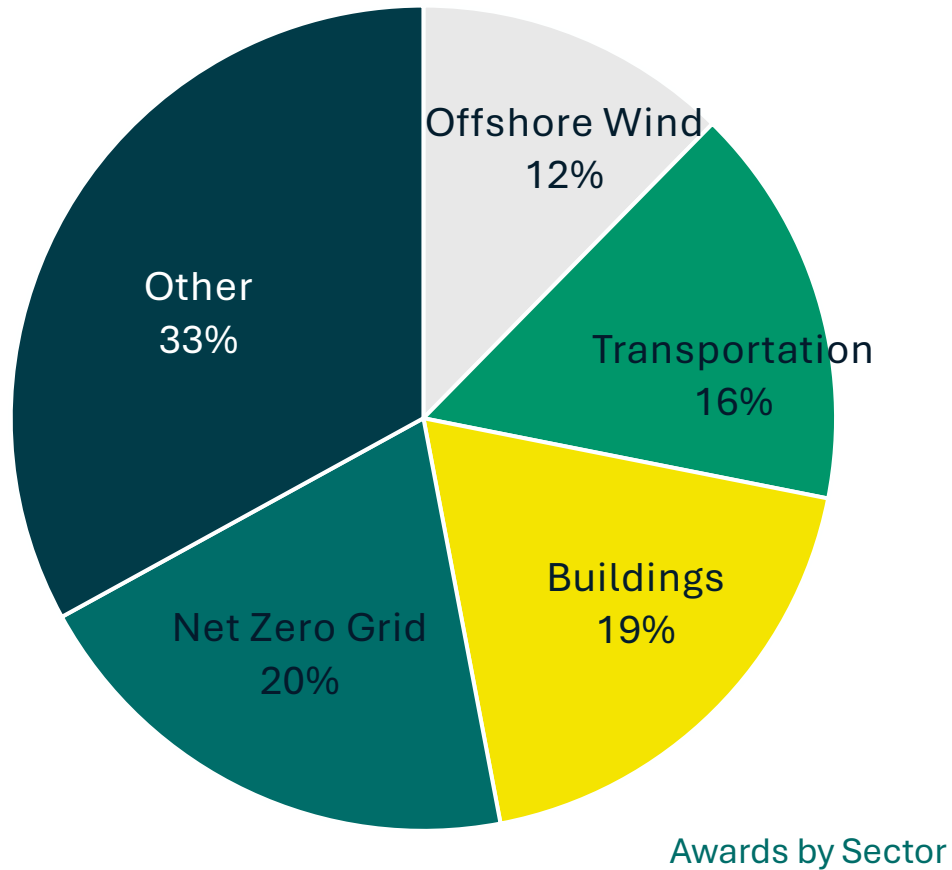
Tax Incentive for Startups & Companies

Investments Program

Grants for ESOs



GRANTS AWARDED TO DATE



530+ Awards
In Grants and Investments



\$66M+ Awarded



85% of Startups still in Business

MASS VENTURES

THE MASSVENTURES WINNING FORMULA



MISSION

MassVentures supports 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.



THESIS

Diverse Teams Outperform[®] is our investment thesis, and we are intentional about supporting founding teams with diverse backgrounds or from diverse geographies in the state.



STRATEGY

MassVentures provides catalytic funding and support for seed-stage deep tech enabled by university and hospital research centers. We offer financial capital, strategic direction, operational support and expertise with non-dilutive grants to help companies succeed.

FUELING ECONOMIC GROWTH

VENTURE DEVELOPMENT

We are a mission driven venture development firm with an emphasis on academic spinouts and building diverse teams that convert research into viable businesses and jobs.

FLEXIBLE FUNDING

We offer both equity investment and non-dilutive grants giving early-stage founders more flexibility in how they grow.

FILLING CAPITAL GAPS

We strive to identify capital gaps, investing where we're needed and crowding in other investors to grow the state's thriving tech sector.

MORE THAN CAPITAL

We don't just write checks. We show up, working shoulder to shoulder with founders on strategic, operational, and fundraising challenges after close.

A SCALABLE PLATFORM ENABLES GROWTH & DEVELOPMENT



MV Spinouts

Identifying and accelerating academic spinouts, bringing innovative technologies to market



MV Accelerate

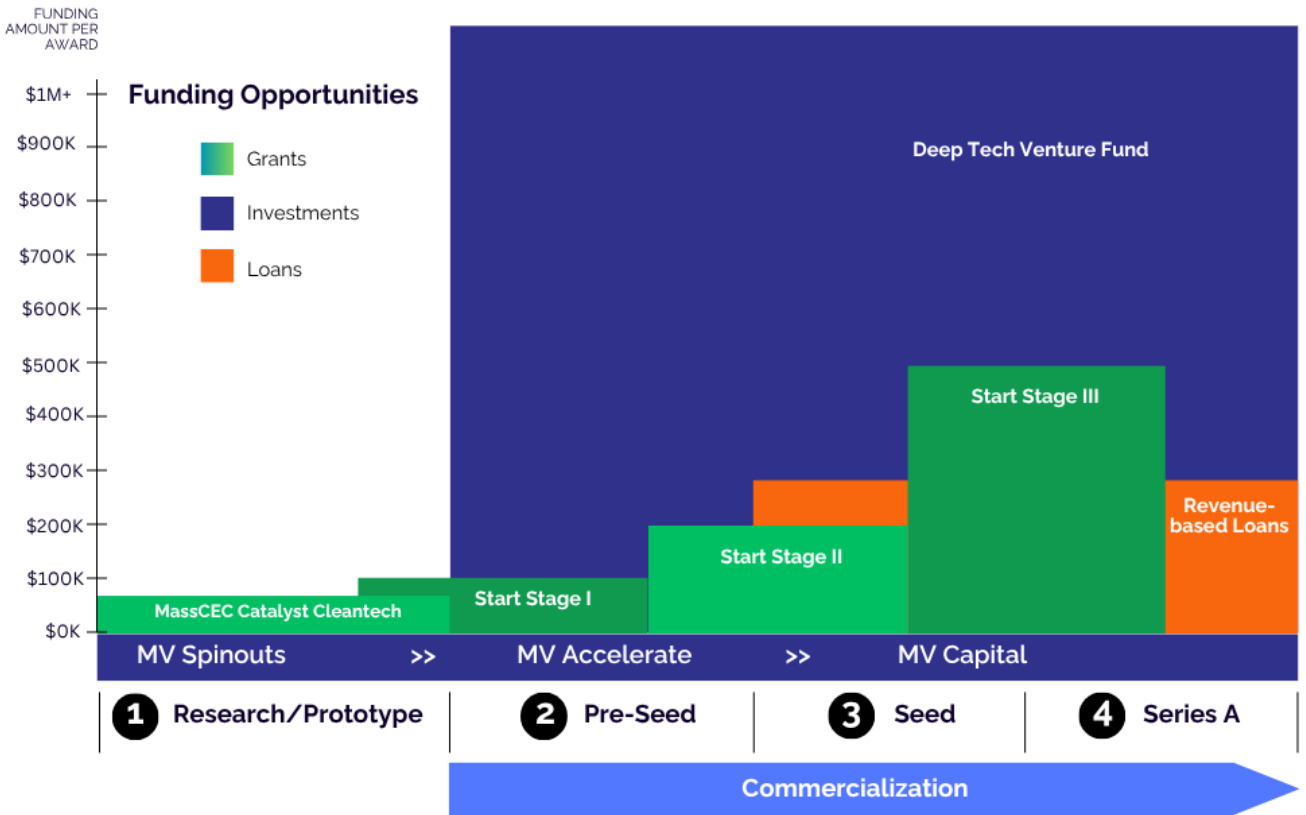
Building founding teams, supporting entrepreneurs in crossing the innovation chasm, and advancing go-to-market strategies



MV Capital

Identifying and converting research into businesses through non-dilutive grants and seed capital

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



MASSVENTURES' PROGRAMS



MV Capital

Investment

Deep Tech Venture Fund
RLF loans

Non-dilutive Grants

START grants
MassCEC Catalyst grants

MV Accelerate

Commercialization Accelerator
Founders School
MassCEC InnovateMass
SBIR Support
MALSI

MV Spinouts

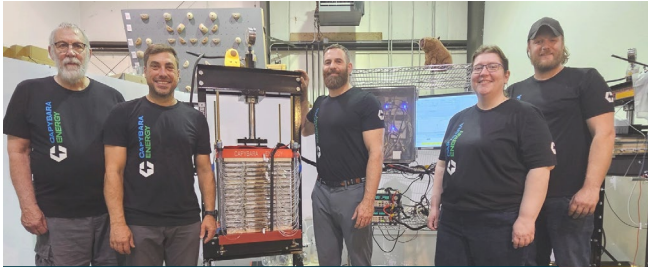
Mass Academic Spinouts Center
MATTO



CATALYST PROGRAM OVERVIEW

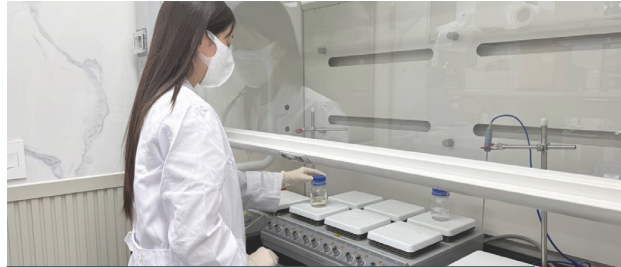
CATALYST

Up to \$75,000 to develop your prototype.



ELIGIBILITY

- MA-based startups
- TRL 2 – 4
- 4 or fewer full-time employees
- Have raised < \$2.5M in the past 5 years



AMOUNT

- \$75,000
- Build a prototype and test the feasibility of your technology
- Milestone-based payments

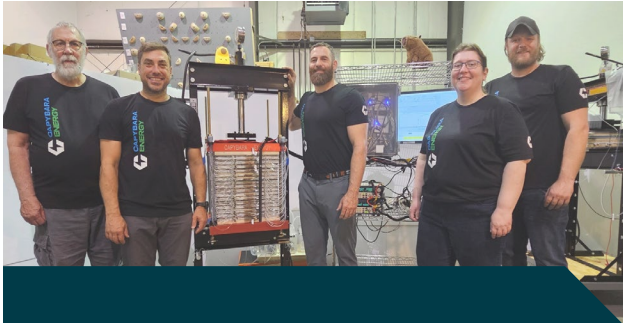


TIMING

- 2 solicitations per year (spring / fall)
- Next round **is open!**
- Two-step application process
- Decisions in 5 months

ACADEMIC ACTIVATOR (A²)

Up to \$75,000 to develop your prototype.



ELIGIBILITY

- Principal Investigators (PI) at MA-based non-profit research organizations or institutions
- MA-based students led by a MA-based PI
- TRL 2 – 4



AMOUNT

- \$75,000
- Build a prototype and test the feasibility of your technology
- Milestone-based payments



TIMING

- 2 solicitations per year (spring / fall)
- Next round **is open!**
- Two-step application process
- Decisions in 5 months

CATALYST AND A² 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 (GHG) emissions or
 - ✓ The achievable avoidance of future GHG emissions
 - ✓ Societal benefits for resilience and adaptation
- ✓ 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
- Knowledgeable team members
- Clear understanding on the steps needed for commercialization
- High likelihood of success

PROGRAMMATIC FIT

- Climate and clean energy benefits
 - Proposed technology demonstrates potential for measurable reduction of fossil fuel use
 - Reduce the impact of climate change through adaptation and resilience technology
- Potential for follow-on funding
 - Likelihood of market entry for university projects
 - Likelihood of attracting private investment for start-ups

ACADEMIC ACTIVATOR (A²)

MassCEC is committed to providing funding opportunities to Applicants advancing early-stage climatetech research within Massachusetts-based academic institutions/universities.

This Spotlight is intended to strengthen the academic research pipeline by supporting projects with strong potential to form new ventures, generate licensable intellectual property, or otherwise contribute to the commercialization of climatetech in the Commonwealth.

A² ELIGIBILITY

The Academic Activator spotlight provides funding within the Catalyst Program to **Principal Investigators ("PIs") and academic research teams at MA-based nonprofit research institution** working to demonstrate the feasibility of their technologies and advance projects from the research stage towards commercialization.

MA-based students led by a MA-based PI, whom would be the lead applicant on the application, are also eligible to apply for funding.

Companies are NOT eligible to apply under the Academic Activator spotlight.

HOW TO APPLY FOR A²

To apply for A² you must:

- Meet all existing requirements for Catalyst
- Fill out all the questions for the Catalyst application
- Select “YES” for the question “Is this a Research Institution?”
- Select “YES” for the question “Are you applying to the Academic Activator Program?”

TIMELINE AND LOGISTICS

AUGUST 2026

- Aug. 18 – Solicitation released; application opens; question period begins
- Aug. 26 – Program info webinar

SEPTEMBER 2026

- Sept. 15 – Deadline to submit questions
- Sept. 30 – Applications due by 5:00 PM

NOVEMBER 2026

- Mid-November – Applicants notified of finalist status
- Finalists receive pitch coaching from MassVentures

DECEMBER 2026

- Week of December 7 – Finalists pitch to a panel of judges

JANUARY 2027

- Late January – Decisions made and winners notified
- Non-selected finalists receive written feedback



Next round **is open!**

Catalyst | MassCEC

Recently Awarded Projects

HKG Energy

Developing Terra Silicon™, an advanced battery material that enables higher energy density, fast charging (15 mins or faster), and longer battery life while remaining compatible with existing lithium-ion manufacturing to support electric vehicles, electronics, and energy storage systems.

UMass Lowell (PI Zhang)

Developing a low-cost superhydrophobic coating to reduce friction draft on surfaces in highly turbulent flows, one use case being ship hulls.

FUNDING + SUPPORT FOR RESEARCHERS AND STARTUPS

WE SUPPORT ALL STAGES OF COMMERCIALIZATION

Catalyst & A²

- TRL 2-4
- MA-based startups and researchers
- Grants of \$75k for climatetech prototype development
- Solicitations 2x per year (spring & fall)

AmplifyMass

- TRL 2-8
- MA-based startups and researchers
- Cost share or adder grants of up to \$300k to support a federal or non-federal prime award
- Closed for FY27

InnovateMass

- TRL 5 - 8
- Trimester-based solicitation
- Grants of up to \$350k
- Demonstrations
- In-state startups with project locations anywhere

CriticalMass

- TRL 8+
- Annual solicitation
- Grants up to \$1M
- Project Partner Match-Making
- US-based startups with MA-based Commercial Deployments
- Closed for FY27

Prototype



Demonstrate & Deploy

**TECH-TO-MARKET
PROGRAMS**
(SINCE 2010*)



538
AWARDS



85%
STARTUP Awardees
still in business



950
JOBS SUPPORTED



\$66.3 M
AWARDED



\$231.M
LEVERAGED

*As of 2025

MASS CLEAN ENERGY CENTER

CLEAN ENERGY INTERNSHIPS

Employers are reimbursed for 12 weeks of an intern's work.



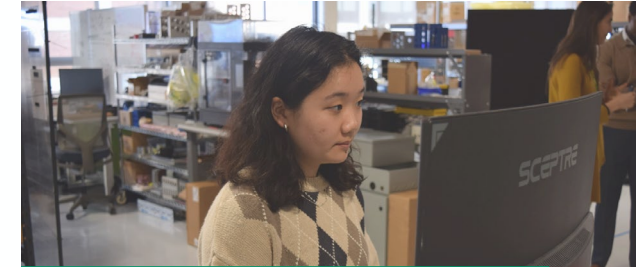
ELIGIBILITY

- Interns must be college or university students.
- International students are eligible.
- Interns must live in MA or attend a MA college/university.



AMOUNT

- Up to \$4,320 per spring or fall session.
- Up to \$8,640 per summer session.
- Up to 2 interns per session (1 extra for community college students)



TIMING

- Apply 2 months before a session start date:
- Spring (January – May)
 - Summer (May – August)
 - Fall (September – December)



Apply by **November**
for the **Spring Session**

masscec.com/register



7,100+

College & Vocational Internships
65% are Women and Minorities



1,100+

Have gained full or part-time
employment at their host
companies.

ADDITIONAL RESOURCES

BUSINESS DEVELOPMENT

Connecting climatetech companies to the right programs and partners.



Business Front Door

Online portal to identify statewide business programs and financing.

mass.gov/info-details/business-front-door



Climatetech Concierge

Warm introductions to customers, capital, and strategic partners.



Climatetech Tax Incentives

Job creation and capital investment tax credits.

masscec.com/program/climatetech-tax-incentives-program

INVESTMENTS: THE 2030 FUND

START-UP BENEFITS

- Able to invest countercyclically with founder friendly terms
- Value-add with other MassCEC programming (Grants, Workforce Development, Internship Funding)
- Connections to both government and private funding and resources
- Extensive co-investor network
- Follow-on capital through Series A, then handoff to later stage investors
- Business Development assistance

MASS CLEAN ENERGY CENTER
2030 FUND



\$50M
Total Fund Size

\$200K-\$600K
Typical First Check Size
with Follow-ons up to
\$1.5M total

**How We
Create
Value***

High Impact
Sustainable
Cost-Effective



62M+
Metric Tons
CO2e
Avoided



500+
Jobs
Created



\$1.3B
Leveraged
Capital

INVESTMENT THESIS

Stage

- Pre-Seed, Seed, A Rounds

Technology

- Mitigation
- Adaptation
- Resilience



Seeking funding? Contact us at
invest@masscec.com

[MassCEC portfolio page](#)

BUSINESS BUILDS: CLIMATETECH (B2C2)

Up to \$2M in CapEx to help companies scale or relocate in MA.



ELIGIBILITY

For-profit climatetech companies scaling in or relocating to MA.

- Expect 50% job growth
- Expect to make \$10M+ in capital investment



AMOUNT

\$500K - \$2M for capital expenses

50/50 match funds

Costs reimbursed after we receive invoices



TIMING

- 2 solicitations per year
(Oct 1 / Apr 1)
- Decisions in 3-4 months

ACCELERATOR AND INCUBATOR CONNECTIONS

Massachusetts Climatetech Startup Connections



ACCELERATORS

INCUBATORS

FY26
Grantees



Berkshire
Innovation
Center



Leading Cities



FORGE



A



MC
MASSCHALLENGE

FY26
Grantees



Greentown
Labs



UMASS
LOWELL
iHUB



THE ENGINE
Built by MIT



Berkshire
Innovation
Center



massrobotics



innoventure
labs
Go Further. Faster.

Additional
in MA*



CLEAN
TECH
OPEN
NORTHEAST



VALLEY VENTURE
MENTORS



techstars®



aspire



LEVER
ENTREPRENEURSHIP + INNOVATION



MIT



CLEAN
ENERGY
PRIZE



VENTUREWELL



GREENTOWN LAUNCH



MIT delta v

Additional
in MA*



CI WORKS



SeaAhead
Bluetech Innovation



IndusPAD
INDUSTRIAL INNOVATION HUB



Hi
Harvard
innovation labs



WORCLAB



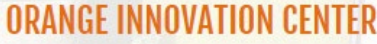
Worcester Roots



AUTODESK



CENTER FOR
Innovation &
Entrepreneurship
UMass Dartmouth



ORANGE INNOVATION CENTER



BLUE INCUBATOR

* There may be additional accelerators and incubators



QUESTIONS?

companycatalyst@masscec.com

APPENDIX

BUSINESS DEVELOPMENT: OUR OBJECTIVE

The primary objective of the Business Development team at MassCEC is to help MA climatetech companies quickly identify & engage with key programs and partners to accelerate the commercialization of their technologies and growth of their business.

For identifying and connecting with key programs, MassCEC partners with EOED on the Business Front Door initiative. For identifying and connecting with key partners, MassCEC offers a Climatetech Concierge service.



**For Programs:
Business Front Door**



**For Partners:
Climatetech Concierge**

BUSINESS DEVELOPMENT: BUSINESS FRONT DOOR

WHAT IS BUSINESS FRONT DOOR (BFD)?

BFD is an EOED-led initiative that streamlines the process of MA businesses identifying which state-funded grants, tax credits, and other financial programs they may be eligible for.

MassCEC partners with EOED to provide this navigation support to all MA climatetech companies.

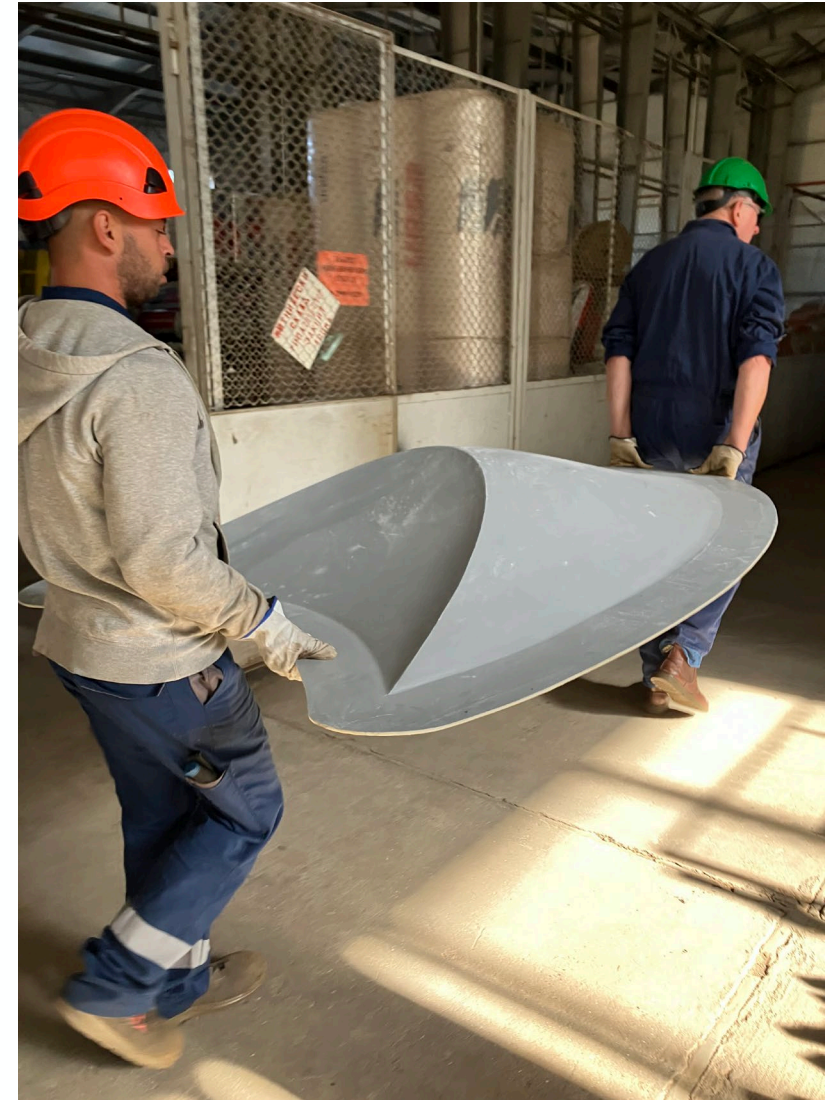
MORE TO KNOW...

MassCEC and partnering Team MA agencies offer financial programs in the following areas.

- R&D
- Commercial deployment
- Facility acquisition & upgrades
- Equipment purchasing
- Workforce development

HOW TO ACCESS

<https://www.mass.gov/business-front-door>



BUSINESS DEVELOPMENT: CLIMATETECH CONCIERGE

WHAT IS CLIMATETECH CONCIERGE?

Climatetech Concierge is MassCEC's white-glove commercialization support service. We help identify and make introductions to key commercialization partners for MA climatetech companies.

MORE TO KNOW...

Climatetech Concierge makes introductions to partners within the following themes along the path to commercialization.

- Deployment (pilots, demonstrations, offtakers, etc.)
- Financing (equity, lending, insurance, etc.)
- Site selection
- Manufacturing

HOW TO ACCESS

Email bizdev@masscec.com



CLIMATETECH TAX INCENTIVES PROGRAM OVERVIEW (CTIP)

MassCEC administers the CTIP program wherein partnership with the Massachusetts Department of Revenue (DOR) .

Note: A company may apply for more than one of the tax credits, but a company will not be awarded more than one of the tax credit types in any tax year.

Climatetech Job Creation Tax Incentive	Climatetech Facility (Renter) Tax Incentive	Climatetech Facility (Owner) Tax Incentive
➤ Up to \$20,000 credit per job created ➤ Companies apply for tax incentive in exchange for job creation commitment and maintaining those jobs for a total of 5 years. ➤ This credit is for the taxable year for which it is awarded only (i.e., 2026), and excess credit amounts cannot be carried forward to other taxable years.	➤ Tax credit up to 100% of the tenant's total lease payments for occupancy of the climatetech facility for the year ➤ Owner must make a capital investment of not less than \$5,000,000 in the climatetech facility ➤ Companies apply for award in exchange for job creation commitment and maintaining those jobs for a total of 5 years. Lessees must rent no less than 25% of the rentable square footage and employ no less than 13 FTE by year 5. ➤ The total amount of credit awarded will be distributed in equal parts over 5 (five) taxable years that correspond with its certification period (i.e., 2025 – 2029).	➤ Tax credit for up to 50% of its qualified total capital investment of not less than \$5,000,000 in the climatetech facility. ➤ Companies apply for award in exchange for capital investment in their climatetech facility and creating at least 50 net new full-time employees by the fifth year of its certification period. ➤ The total amount of credit awarded will be distributed in equal parts over 5 (five) taxable years that correspond with its certification period (i.e., 2025 – 2029).