

Catalyst & DICES Informational Webinar



MASSACHUSETTS
CLEAN ENERGY
CENTER®



Introductions and Agenda

1. Introduction and Overview

Maddy Zelif, *MassCEC, Program Administrator*

2. Diversity In Cleantech – Early Stage (DICES)

Maddy Zelif, *MassCEC, Program Administrator*

3. Catalyst

Priya Yadav, *MassVentures, Vice President of Investments*

MassCEC's Mission

Grow the state's clean energy industry while helping to meet the Commonwealth's clean energy, economic development and climate goals.

INVEST

Invest in programs that increase renewable energy adoption by residents, businesses and communities.

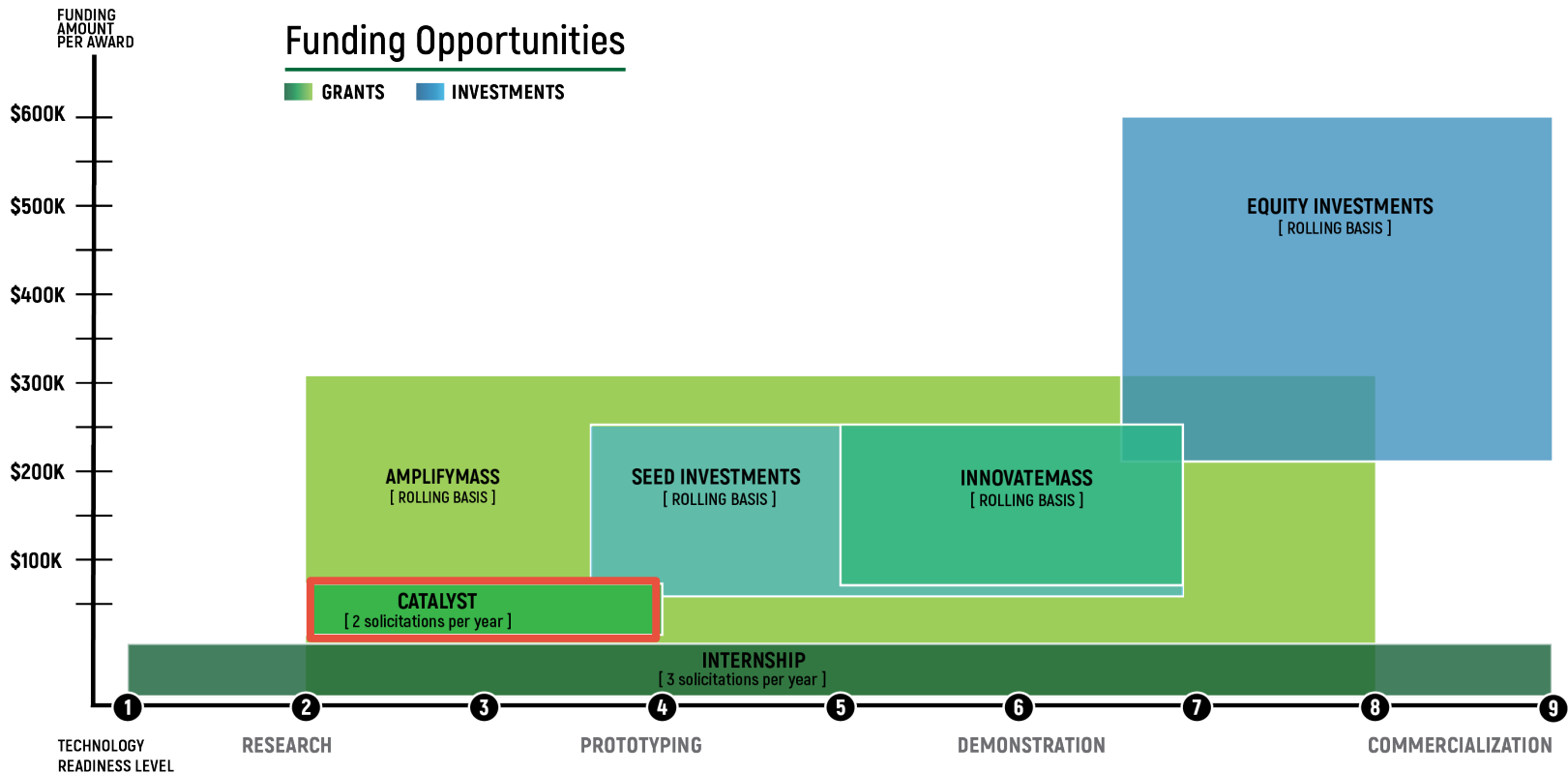
CONNECT

Connect employers, job seekers, students, communities and investors to the clean energy industry.

INNOVATE

Help to spur innovation through infrastructure, funding and technology development support.

FUNDING OPPORTUNITIES BY TECHNOLOGY STAGE AND FUNDING AMOUNT PER AWARD



MassVentures: Mission & Activities

The mission of MassVentures is to 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 Capital

Investment

- Venture investment
- RLF Loans

Non-dilutive Grants

- START grants
- MassCEC Catalyst grants
- Acorn Innovation grants

MV Accelerate

Technical Support/Expertise

- Board participation
- Partner Program
- MassVX
- Commercialization Acceleration
- InnovateMass

Celebrating the Ecosystem

- MALSI+
- MATTO

Catalyst and DICES Program Benefits

- The chance to receive a \$75k one-year prototype development grant
- All finalists receive complimentary pitch coaching and business mentoring
- All awardees will gain access to a vast network of partners, expert insight into the clean energy policy environment in Massachusetts and the region, and mentoring from MassCEC and MassVentures

Diversity In Cleantech – Early Stage (DICES)

DICES

Enabling eligible woman- and minority- owned early-stage companies to develop prototypes and proof-of-concept studies



Up to 2 Grants of up to
\$75,000

Technical Support from
MassVentures



Solicitations 2x / year
Spring & Fall

OPEN NOW
Until October 11th



- Eligible woman- and minority- owned MA-based early-stage companies
- Clean energy innovation prototypes

Eligibility

All applicants to the DICES Program are subject to the eligibility requirements and processes outlined for the Catalyst Program, in addition to the requirements outlined on the subsequent slides

Eligibility - DICES

Applicants who are interested in applying for the DICES Program must complete the following additional steps [PRIOR to applying:](#)

PART OF [Certification Program for SDO](#)

OFFERED BY [Supplier Diversity Office \(SDO\)](#)

1. [Follow this link to complete the 30-second self assessment](#) as part of the Certification Program for the Supplier Diversity Office of MA

<https://www.mass.gov/forms/take-the-certification-self-assessment>

Take the certification self-assessment

This interactive tool will ask you a few questions about your business and will recommend the next steps for SDO and third-party certifications your business may be eligible for.

You will need:

Disclaimer: This self-assessment provides general guidance on whether your company/organization may qualify for the Supplier Diversity Office (SDO) programs. However it does not guarantee eligibility for inclusion in the Small Business Purchasing Program (SBPP) or in any of the diversity categories overseen by SDO. Eligibility for the SBPP is made through the COMMBUYS SBPP registration process and eligibility for SDO certification is determined through a certification investigation conducted by the SDO.

General Questions

Are you a

- ☒ for-profit business
- ☐ non-profit organization
- ☐ government organization

Eligibility - DICES

2. Submit a screenshot/download of the results page as an attachment to your Catalyst application

Woman Business Enterprise (WBE) Certification

Your company should **apply for WBE certification**. As a Massachusetts-based new applicant, start the process by registering for and attending a **Pre-Certification Workshop**. The workshop covers our certification criteria, process and required documents. Once you complete the workshop, you will receive a copy of the certification application form to complete.

If you have questions please contact the Supplier Diversity Office at webmaster.sdo@mass.gov or 617-720-3129.

Let us help you get started! Click "Next" to enter your contact information.

« Previous



Progress

Next »

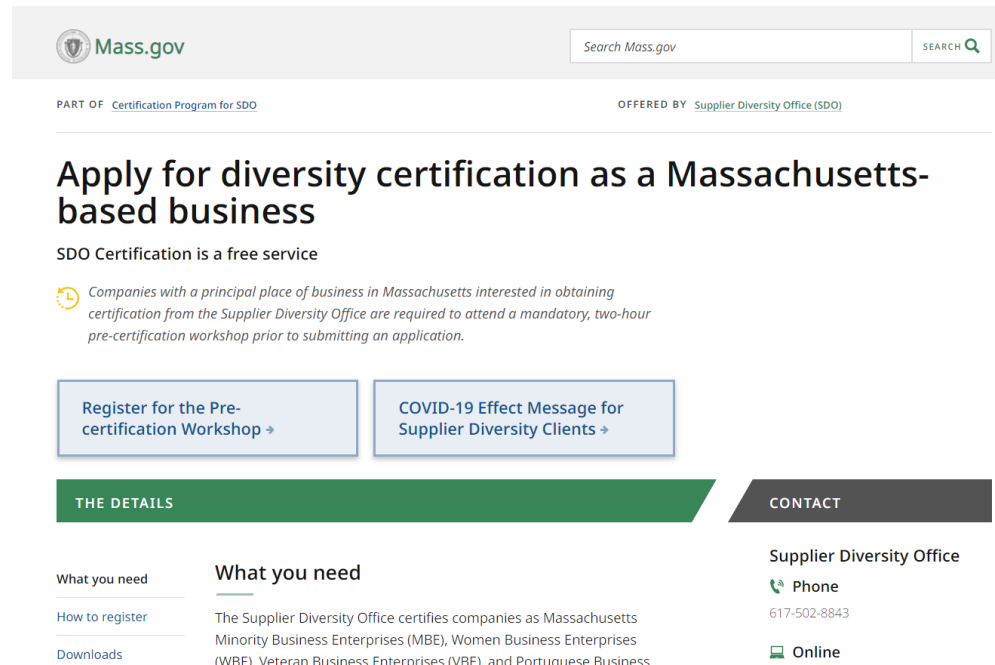


Eligibility - DICES

If your application is selected for an award under the program, MassCEC reserves the right to require awardees achieve woman- or minority- owned certification (through the SDO or another certification body).

The SDO certification process is further detailed on the [SDO website](#), but entails attending a [Pre-Certification Workshop](#), submitting a Certification Application, and receiving certification.

MassCEC *strongly encourages* potential DICES applicants to attend a Pre-Certification Workshop either before submitting an application to the Program or shortly thereafter.



The screenshot shows the Mass.gov website page for SDO Certification. At the top, there is a search bar and the Mass.gov logo. Below the header, the page is titled "Apply for diversity certification as a Massachusetts-based business". It states that SDO Certification is a free service and that companies with a principal place of business in Massachusetts interested in obtaining certification from the Supplier Diversity Office are required to attend a mandatory, two-hour pre-certification workshop prior to submitting an application. There are two buttons: "Register for the Pre-certification Workshop" and "COVID-19 Effect Message for Supplier Diversity Clients". Below these, there are two columns: "THE DETAILS" and "CONTACT". The "THE DETAILS" column has links for "What you need", "How to register", and "Downloads". The "CONTACT" column lists the "Supplier Diversity Office" with a phone number (617-502-8843) and an "Online" link.

Mass.gov

Search Mass.gov

PART OF Certification Program for SDO

OFFERED BY Supplier Diversity Office (SDO)

Apply for diversity certification as a Massachusetts-based business

SDO Certification is a free service

Companies with a principal place of business in Massachusetts interested in obtaining certification from the Supplier Diversity Office are required to attend a mandatory, two-hour pre-certification workshop prior to submitting an application.

Register for the Pre-certification Workshop →

COVID-19 Effect Message for Supplier Diversity Clients →

THE DETAILS

What you need

How to register

Downloads

What you need

The Supplier Diversity Office certifies companies as Massachusetts Minority Business Enterprises (MBE), Women Business Enterprises (WBE), Veteran Business Enterprises (VBE), and Portuguese Business

CONTACT

Supplier Diversity Office

Phone

617-502-8843

Online

Catalyst

Catalyst

**Enabling researchers and young companies to
develop prototypes and proof-of-concept studies**



**Up to 7 Grants of up to
\$75,000**

**Technical Support from
MassVentures**



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- **MA-based early-stage companies & MA-based nonprofit research institutions & students**
- **Clean energy innovation prototypes**

Application Requirements

- ✓ Overview of technology and merit
- ✓ Clean energy impact
 - ✓ GHG avoidance from cost declines, efficiency improvements, etc.
- ✓ Commercialization potential and proposed business model
- ✓ Project plan (what, when, where, how much)
- ✓ Project budget summary
- ✓ Information on team members

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

- ✓ Clean energy impacts
 - ✓ Proposed technology demonstrates potential for measurable climate impacts through reduction of fossil fuel use
- ✓ Particular emphasis on:
 - ✓ Building-level energy usage
 - ✓ Clean transportation
 - ✓ Offshore wind
 - ✓ Integration of carbon-free generation on electric grid
- ✓ 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**

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 do we mean by “clean energy impact”?

M.G.L. c. 23J § 1, as amended pursuant to [Chapter 179 of the Acts of 2022 “An Act Driving Clean Energy and Offshore Wind”](#) defines this as ...advanced and applied technologies that significantly reduce or eliminate the use of energy from non-renewable sources including, but not limited to: (i) energy efficiency; (ii) demand response; (iii) energy conservation; or (iv) technologies powered, in whole or in part, by the sun, wind, water, geothermal energy, including networked geothermal and deep geothermal energy, hydrogen produced by non-fossil fuel sources and methods, alcohol, fuel cells, fusion energy or any other renewable, non-depletable or recyclable fuel...”

- Must show a clear path to reducing greenhouse gas emissions
- Examples include:
 - Reducing cost or improving performance of carbon-free generation
 - Energy efficiency (on the demand side) and process energy reduction
 - Grid modernization for easier integration of renewables
- Examples without a clean energy impact:
 - Projects that improve the economics of using fossil fuels
 - Projects that have no or minimal impact on reducing GHGs compared to business-as-usual
 - Water treatment technologies that have no substantial energy impact
 - Projects that reduce pollution and improve the environment but have no fossil fuel reduction

Application Tips

Application Section	Tips for Success	What to Avoid
Technical merit	<ul style="list-style-type: none"> • In layman's terms, clearly and concisely explain what you're proposing • If applied research, demonstrate you are solving a problem • What is the <i>specific application</i> of your technology? 	<ul style="list-style-type: none"> • Writing for an academic journal audience • General research with a lack of application and direction • Using too many acronyms • No one proofreads the final copy
Commercialization potential	<ul style="list-style-type: none"> • Know your customer(s) and what they need/want • How large is your target market and who are your competitors? • Is your innovation protectable? • Business model exists and it delineates a clear path to commercialization 	<ul style="list-style-type: none"> • Target market/potential customers are either too general/too vague, or not appropriate • Not listing any customers or target market
Strong project plan	<ul style="list-style-type: none"> • Plan is meaningful and will contribute to commercialization • Project plan shows next steps beyond initial prototyping 	<ul style="list-style-type: none"> • General milestones without measurable items • Unrealistic given the 1-year term
Knowledgeable team members	<ul style="list-style-type: none"> • Do you have someone with business experience as well as technical experience? 	<ul style="list-style-type: none"> • Lack of resume submissions • Insufficient expertise

FAQs

Who's eligible?

PI at a Massachusetts-based research institution
(including students), or Massachusetts-based early-stage
clean energy company with no more than 4 employees*

**How many awards will
be given? How much \$?**

Awards of up to \$75k
Maximum of 7 Catalyst & 2 DICES awards

**What qualifies as
“clean energy”?**

General Laws of Massachusetts
Section 1, Chapter 23J

**What is the expected
duration of the project?**

Maximum of 12
Months

Recently Awarded Projects

SpadXTech (DICES)

Developing innovative, biologically sourced, cellulose-based, sustainably produced, highly effective insulation materials that will meet the increasing demand for environmentally friendly building materials in the construction industry and replace toxic spray foam insulation.

Prezerv (DICES)

Building an innovative platform that combines artificial intelligence (AI), ground penetrating radar (GPR) and cloud technologies to provide automated, accurate 3D underground maps and analytics that accelerate and save costs for a wide range of large-scale infrastructure projects for utility companies

SilarTek (Catalyst)

Developing a high-purity silicon from natural pure quartzite (SiO_2) in only one step, utilizing molten salt electrolysis with a state-of-the-art molten salt composition.

ZERO (Catalyst)

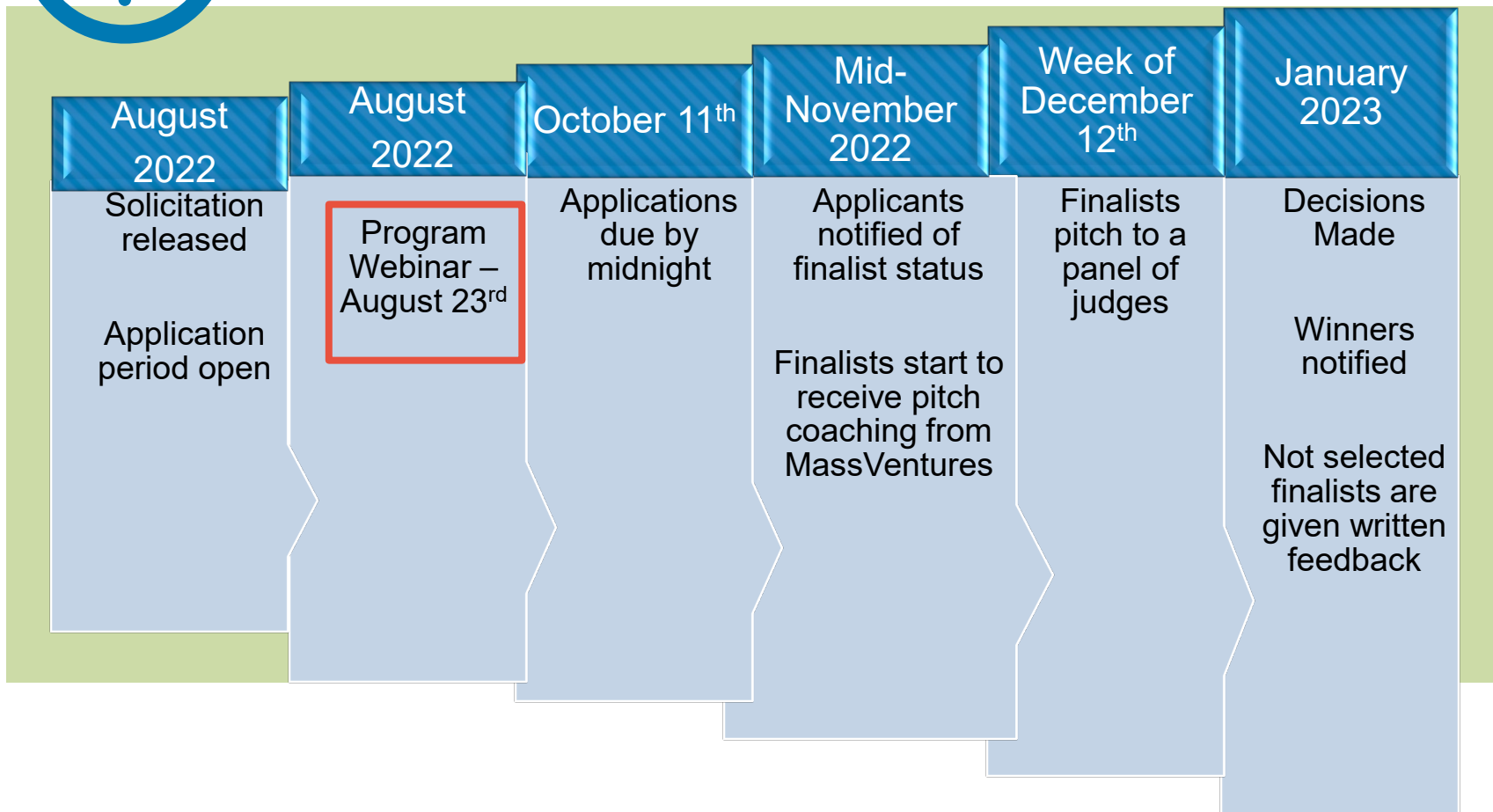
ZERO is aiming to develop a software, Zero Emissions Retrofit Optimization (ZERO), that can produce a data-driven plan to improve comfort and put homeowners on a cost-effective path to eliminate their buildings' emissions.

Dr. Cappillino from UMD (Catalyst)

Is aiming to demonstrate a proof-of-concept for a vanadium extraction technology based on a bio-inspired, vanadium-binding molecule known as hydroxyiminodiacetic acid (HIDA).



Timeline and Logistics



Questions?

Thank you for attending!

Catalyst Program information and materials can be found at:

<http://www.masscec.com/catalyst>

Questions? companycatalyst@masscec.com