



# Office of Performance Management Oversight (OPMO)

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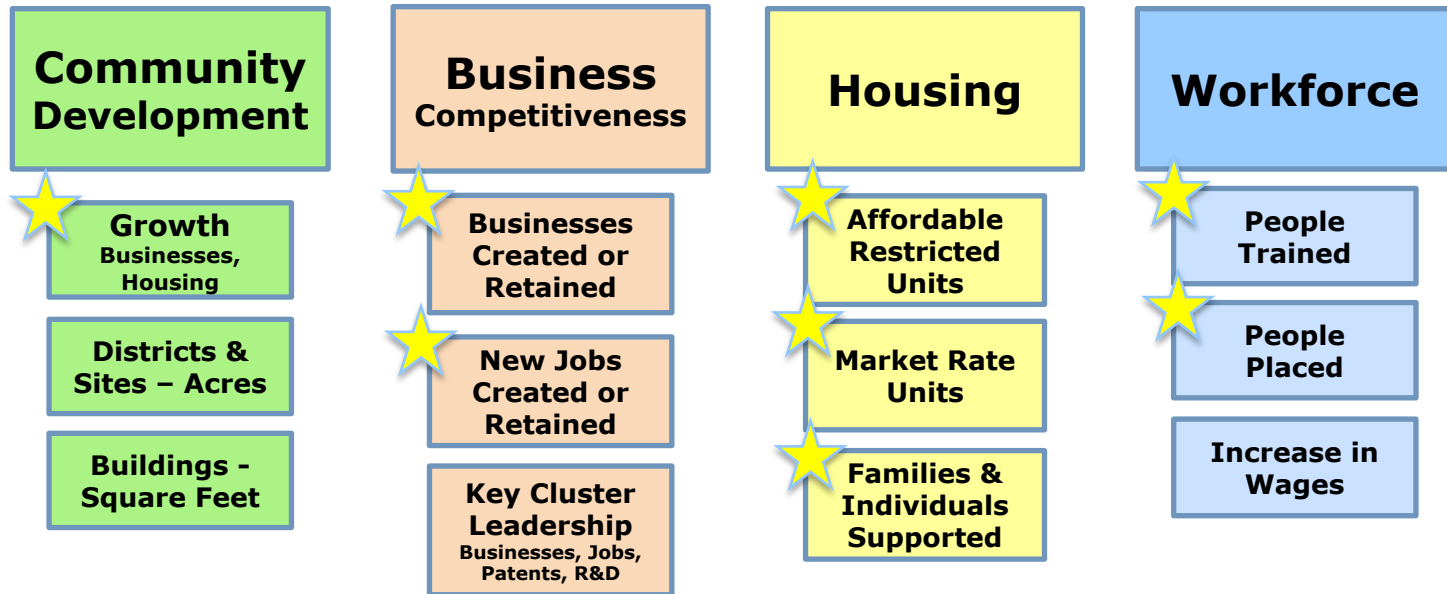
**Massachusetts Clean Energy Center**  
FY2023 Report



# Economic Development Plan

## Key Outcome Metrics

### Economic Development Plan Pillars & Principals



Investment Leveraged from Other Sources - \$

Engagement & Technical Assistance – Contact with Individuals & Companies



# Agency Mission

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- **Mission:** The Massachusetts Clean Energy Center's (MassCEC) 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.
- **Contribution to Partnerships for Growth:** MassCEC contributes to the pillars in many ways, including:
  - Tackling greenhouse gas emissions in the hard-to-reach areas of the buildings sector
  - Increasing access to clean energy for environmental justice and underserved communities
  - Increasing availability of healthy and energy efficient commercial and residential buildings including affordable housing
  - Supporting clean energy businesses with funding for working capital, technology development, demonstrating solutions, and interns
  - Creating jobs and providing workforce training in the clean energy sector
  - Supporting the burgeoning offshore wind industry with a focus on regional supply chain development and workforce training
  - Providing funding for projects that demonstrate solutions to the state's transportation emission barriers



# Agency Goals

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- **Agency Goal 1:** Innovation is a key driver that will enable the clean energy transition and maintain a successful clean energy sector. The acceleration and expansion of markets and technology adoption will unlock solutions that will lead to safer, more reliable and more resilient energy infrastructure. To this end, MassCEC drives innovation that includes, but is not limited to, catalyzing new business and finance models, mobilizing third-party investments, fostering the demonstration of technologies, accelerating opportunities for the commercialization of next generation technology, supporting the formation and growth of early-stage companies, and informing new policy and regulatory solutions. (Includes BETA Commercial, Triple Decker Retrofits, BETA Decarbonization Pathways, Embodied Carbon, Climate Finance Market Development, Investments, ACT School Bus, Innovate Mass, Catalyst Program, Amplify Mass, Accelerator Funding Program, IncubateMass, Clean Energy Innovation Network).
- **Agency Target for Goal 1:**
  - Funding Leveraged: \$67,000,000
  - Number of Private Entities Impacted: 452 businesses
  - Number of Public Entities Impacted: 14 public entities
- **Results of Goal 1:**
  - Funding Leveraged: > \$506 million
  - Number of Private Entities Impacted: > 386 private entities
  - Number of Public Entities Impacted: > 25 public entities



# Agency Goals

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- **Agency Goal 2:** Massachusetts has set ambitious energy and climate goals that require dramatic reductions in greenhouse gas (GHG) emissions, building a more resilient Commonwealth, meeting an energy storage deployment target and the state's procurement of additional megawatts of clean energy generation. MassCEC fosters innovation and the deployment of clean energy and resilient solutions that will drive emissions reductions and help Massachusetts achieve its 2030 and 2050 GHG reduction goals in an accelerated, equitable and cost-effective manner in all areas of the Massachusetts energy economy. (Includes all programs with a GHG emissions target impact.)
- **Agency Target for Goal 2:**
  - Metric Tons (MT) of Avoided Carbon Dioxide (CO<sub>2</sub>): 3,390 MT
  - Million Metric Tons (MMT) of Addressable CO<sub>2</sub>: 4,000 MMT
- **Results of Goal 2:**
  - Metric Tons (MT) of Avoided CO<sub>2</sub>: > 5,800 MT
  - Million Metric Tons (MMT) of Addressable CO<sub>2</sub>: 2,600 MMT



# Agency Goals

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- **Agency Goal 3:** The strength of Massachusetts' clean energy economy depends on the strength of its workforce. The future of clean energy - one powered by innovation, growth and sustainable companies, policies and technologies - requires employees with various levels of education, skills, and on-the-ground experience. MassCEC plays an important role in continuing to implement efforts that prepare workers to meet the needs of the clean energy industry. (Workforce Development programs)
- **Agency Target for Goal 3:**
  - Number of students/interns supported: 654
  - Number of women and minority students/interns supported: 446
  - Number of interns and companies supported from Gateway Communities: 155
  - Number of community college students supported: 43
  - Number of companies/community development organizations supported through programs: 325
  - Number of Minority and Women Business Enterprises supported: 80 Number of equity workforce program development planning and implementation grants awarded: 22
- **Results of Goal 3:**
  - Number of students/interns supported: 2,030
  - Number of women and minority students/interns supported: 472
  - Number of interns and companies supported from Gateway Communities: 105
  - Number of community college students supported: 13
  - Number of companies/community development organizations supported through programs: 397
  - Number of Minority and Women Business Enterprises supported: 101
  - Number of equity workforce program development planning and implementation grants awarded: 59



# Agency Goals

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- **Agency Goal 4:** Massachusetts is a national leader in the transition to a clean energy future and boasts a significant local industry as well as a global cleantech sector innovation hub that is launching some of the world's top clean energy companies and technologies. MassCEC is well positioned to advance job and business growth by leveraging the Commonwealth's world-renowned academic & innovation resources to accelerate clean energy development, promoting a pipeline of skilled workers capable of meeting industry needs, creating and expanding clean energy businesses and helping to build supply chains to support emerging industries. Innovation is also one of the hallmarks of the Massachusetts economy and MassCEC will continue to build an integrated ecosystem of support for innovation and entrepreneurship that allows the next generation of clean technology innovation to make its home in Massachusetts. (Note: targets based on 2021 Massachusetts Clean Energy Industry Report.)
- **Agency Target for Goal 4:**
  - Total clean energy jobs: greater than 101,208
  - Rebound in clean energy jobs after initial COVID-19 losses: greater than 6,889
  - Analysis of clean energy jobs by region: Northeast – 49,398; Central – 16,370; Southeast – 23,318; Western – 12,122
  - Analysis of clean energy gross state product: \$13.7 billion
  - Analysis of clean energy industry economic contribution: 202,431 jobs (direct, indirect, and induced); \$28.2B MA GSP; \$2.1B state and local taxes; \$4B federal taxes on production and imports



# Agency Goals

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- **Results of Goal 4:**
  - Total clean energy jobs: 104,290
  - Rebound in clean energy jobs after initial COVID-19 losses: 12,700
  - Analysis of clean energy jobs by region: Northeast – 50,657; Central – 17,257; Southeast – 24,031; Western – 12,346
  - Analysis of clean energy gross state product: \$14.2 billion
  - Analysis of clean energy industry economic contribution: 199,336 jobs (direct, indirect, and induced); \$28.4B MA GSP; \$1.8B state and local taxes; \$3.5B federal taxes on production and imports





# Offshore Wind Works

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- **Program Description:** Investments, technical support, and engagement to increase Massachusetts' workforce capacity to participate in offshore wind deployment and operations.
- **Program Budget:** \$3,500,000
- **Partnerships for Growth Goal Alignment:** Business, Workforce
- **Fiscal Year Goal 1:** Increase Massachusetts workforce capacity to participate in offshore wind manufacturing, deployment and operations.
- **Fiscal Year Target 1:**
  - New/Expanded Offshore Wind Workforce Training Programs: 8 programs
  - Programs/Projects focused on DEI/EJ initiatives: 4 programs
  - Labor Unions Supported: 2 unions
  - Number of students/workers trained: To be reported (Note: MassCEC does not have a target for number of students/workers trained but will report on the outcome at the end of FY23.)
- **Results of Goal 1 :**
  - New/Expanded Offshore Wind Workforce Training Programs: 10 programs
  - Programs/Projects focused on DEI/EJ initiatives: 6 programs
  - Labor Unions Supported: 2 unions
  - Number of students/workers trained: 1,606



# InnovateMass

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- **Program Description:** InnovateMass provides demonstration project grants of up to \$250k each to startup companies seeking to accelerate commercialization of innovative clean energy technologies and business models.
- **Program Budget:** \$2,090,000
- **Partnerships for Growth Goal Alignment:** Business
- **Fiscal Year Goal 1:** Support demonstration projects for innovative clean energy solutions, which help companies and their technologies move closer to commercialization.
- **Fiscal Year Target 1:**
  - MMT Addressable CO2 Supported: 3,000 MMT
  - Businesses Retained: 9
  - Public Entities Impacted: 2
  - Leveraged Funds: \$900,000
- **Results of Goal 1 :**
  - MMT Addressable CO2 Supported: 2,000 MMT\*
  - Businesses Retained: 8
  - Public Entities Impacted: 0
  - Leveraged Funds: \$1,340,635



# Catalyst Program

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- **Program Description:** The Catalyst Program provides prototyping grants of up to \$75k to Massachusetts based startup companies and academic researchers to seed commercial development of promising clean energy technologies.
- **Program Budget:** \$1,715,000
- **Partnerships for Growth Goal Alignment:** Business
- **Fiscal Year Goal 1:** Support academic researchers and early-stage companies looking to develop initial prototypes of their clean energy technologies
- **Fiscal Year Target 1:**
  - MMT Addressable CO2 Supported: 2,000 MMT
  - Businesses Retained: 14
  - Public Entities Impacted: 4
- **Results of Goal 1 :**
  - MMT Addressable CO2 Supported: Data no longer available for this program
  - Businesses Retained: 17
  - Public Entities Impacted: 1



# AmplifyMass

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- **Program Description:** AmplifyMass provides cost share grants of up to \$300k to Massachusetts-based startups and academic researchers receiving federal funding (e.g., from US DOE, NSF, or other federal funding agencies) for a clean energy project.
- **Program Budget:** \$3,141,000
- **Partnerships for Growth Goal Alignment:** Business
- **Fiscal Year Goal 1:** Supports startup companies and academic researchers secure federal funding for clean energy research and technology development projects.
- **Fiscal Year Target 1:**
  - MMT Addressable CO2 Supported: 2,000 MMT
  - Businesses Retained: 7
  - Public Entities Impacted: 4
  - Leveraged Funds: \$29,000,000
- **Results of Goal 1 :**
  - MMT Addressable CO2 Supported: 1,500 MMT\*
  - Businesses Retained: 11
  - Public Entities Impacted: 1
  - Leveraged Funds: \$22,288,623



# Investments

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- **Program Description:** Supports seed and early-stage companies in development and commercialization through seed investment funding, early-stage equity investments, and follow-on investments.
- **Program Budget:** \$5,000,000
- **Partnerships for Growth Goal Alignment:** Business
- **Fiscal Year Goal 1:** Support early-stage clean tech companies in development and commercialization stages.
- **Fiscal Year Target 1:**
  - MMT Addressable CO2 Supported: 1,000 MMT
  - Businesses Retained: 15
  - Leveraged Funds \$15,000,000
- **Results of Goal 1 :**
  - Note
  - MMT Addressable CO2 Supported: 1,000 MMT
  - Businesses Retained: 7
  - Leveraged Funds \$8,368,350



# On-the-Job Training (College Internship Program)

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- **Program Description:** The Clean Energy Internship Program facilitates the placement of Massachusetts community college students, four-year college students, and recent graduates who are considering career opportunities in clean energy. This program provides paid full-time summer internships, as well as paid part-time (20hrs/week) academic year internships across the state.
- **Program Budget:** \$4,214,000
- **Partnerships for Growth Goal Alignment:** Community, Business, Workforce
- **Fiscal Year Goal 1:** Facilitate the placement of Massachusetts college students and recent graduates in paid clean energy internships across the state.
- **Fiscal Year Target 1:**
  - Students Supported: 595 students
  - Companies Supported: 240 businesses
  - Women and Minority Participants: 418 women/minorities
  - Community College Participants: 23 students
  - Interns and Companies Supported from Gateway Communities: 95 interns/companies
- **Results of Goal 1 :**
  - Students Supported: 623 students
  - Companies Supported: 393 businesses
  - Women and Minority Participants: 472 women/minorities
  - Community College Participants: 12 students
  - Interns and Companies Supported from Gateway Communities: 104 interns/companies



# Vocational Internship Program

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- **Program Description:** The Vocational Internship Program places vocational high school students into paid internships with local clean energy employers. The internships cover the academic school year (September-June).
- **Program Budget:** \$216,000
- **Partnerships for Growth Goal Alignment:** Community, Business, Workforce
- **Fiscal Year Goal 1:** Facilitate the placement of Massachusetts vocational high school students in paid clean energy internships across the state.
- **Fiscal Year Target 1:**
  - Students Supported: 23 students
  - Companies Supported: 10 businesses
  - Women and Minority Participants: 13 women/minorities
- **Results of Goal 1 :**
  - Students Supported: 17 students
  - Companies Supported: 10 businesses
  - Women and Minority Participants: 8 women/minorities