

Office of Energy Transformation: Enabling Sustainable Economic Development Informational Webinar

March 31, 2025



Agenda

Time	Topic
10 mins	Welcome, Introductions, Agenda Review
15 mins	Overview of Office of Energy Transformation, Context, and Focus Area Work Group (FAWG) Process
15 mins	Massachusetts' Economic Development Goals and Plan
10 mins	Interconnection Work
10 mins	What Other States Are Doing
5 mins	Next Steps
10 mins	Q&A



Overview of Office of Energy Transformation and Context for Focus Area Work Group

Melissa Lavinson, Executive Director, Office of Energy Transformation



Massachusetts Policies, Programs, and Focus

Mandates to mitigate greenhouse gas emissions, drive efficiency, and deploy clean energy

Programs
and regulations
that implement
mandates and
achieve climate, clean
energy, and
consumer-focused
outcomes

A focus on equity, affordability, economic opportunity, and environmental justice

2050 CECP pathways to accomplishing the Commonwealth's net zero greenhouse gas emissions goals¹

Transportation



of light-duty vehicles (5 million) electrified 93%

of medium- and heavy-duty vehicles (over 350,000) electrified or non-emitting

Buildings

80%



of homes (over 2.8 million) heated and cooled by electric heat pumps (including those with on-site fuel backups) 87%

of commercial space heated by either electricity or alternative fuels

Electric Power



2.5-fold

increase in electric load compared to 2020 97%

of electricity consumed is from clean and renewable source

Non-Energy and Industrial



52%

of industrial energy use electrified



Office of Energy Transformation

- Established May 1, 2024, this first-in-the-nation Office of Energy Transformation (OET) is charged with:
 - Enabling the hands-on execution of the clean energy transition, including:
 - gas-to-electric transition coordination,
 - electric grid readiness, and
 - a just and equitable transition for workers, businesses, and communities.
 - Establishing an Energy Transformation Advisory Board ("ETAB" or "Advisory Board") to accelerate cooperation, understanding, and action among all stakeholders to transform the energy ecosystem.



OET Mission and Structure

Energy Transformation Advisory Board

To provide guidance and recommendations on strategic direction to the OET and focus areas work groups to execute the energy transition, including gas-to-electric transition, electric grid readiness, and the just and equitable transition for workers, business, and communities.

Transitioning Away from EMT

To develop a coordinated strategy to reduce or ultimately eliminate the local gas distribution companies' reliance on the Everett Marine Terminal (EMT) Liquified Natural Gas (LNG) facility aligned with DPU Order 20-80 and the state's climate and clean energy mandates, including those established in the Global Warming Solutions Act.

Decarbonizing the Peak

To demonstrate pathways to reduce reliance on and expeditiously eliminate fossil fuels from peaking power plants and combined heat and power facilities and deploy alternative demand and supply side options to meeting peak load needs in the Commonwealth, in alignment with the electric sector sublimit and clean energy goals established in the 2050 Clean Energy and Climate Plan.

Financing the Transition

To identify alternative mechanisms for financing/funding electricity distribution system infrastructure upgrades necessary to achieve the Commonwealth's clean energy and climate mandates that minimizes impacts on consumers' electricity bills, while providing an affordable, sustainable and timely source of revenue to support investments.

Enabling Sustainable Economic Development

To advance clean energy-ready economic development zones that enable key business sectors to grow in Massachusetts, in alignment with the state's interconnection, land use planning, environmental justice and equity, housing, and economic development initiatives.



Governance, Responsibilities, and Expectations of Participants

Governance

- Participation is open, with membership affirmed by Advisory Board
- Meet at least bi-monthly, or more often, depending on need
- FAWGs will conduct work via individual workstreams, which will meet as necessary
- FAWG participants can select workstreams
- Workstream and full FAWG meetings are Chatham House Rules; all materials provided the Advisory Board will be made public
- Deliver consensus work products and recommendations to the Advisory Board; where consensus is not possible, note participant positions

Responsibilities

- Execute workplans approved by the Advisory Board and deliver recommendations for Advisory Board deliberation and approval
- Establish workstream teams to advance workplans, establish milestones, and make recommendations
- Review and seek consensus on deliverables and recommendations
- Align around options to be presented to the Advisory Board; where consensus is not possible, participant positions are to be noted and accurately reflected

Expectations

- Commit to a one-year term and actively participate in and attend meetings (all meetings will have a virtual option)
- Are subject matter experts/have a command of the topic
- Have a level of decision-making authority, if participating on behalf of an organization
- Follow the workplans and process adopted by the Advisory Board
- Work in good faith to seek consensus
- Adhere to the Ground Rules and Remote Participation policies adopted by the Advisory Board; failure to comply can result in removal

Issue: Grid Capacity Can be a Barrier to New Business Interconnection and Economic Development



- Massachusetts is focused on growing its economy by expanding and attracting business in multiple sectors, including climatetech, life sciences, advanced manufacturing, AI, while keeping aligned with climate and clean energy goals and other priorities.
- The process for connecting new customer load to the electric grid can be a barrier to economic development, including the timeframes for connecting new load and making necessary grid upgrades.
 - The load interconnection process includes several cost and time intensive steps.

 The timing of today's interconnection process and the timing of business development and expansion is not always aligned, which could impact the state's ability to meet its objectives.

 The administration and several Advisory Board members identified the nexus of energy transformation and economic development as an area of focus and necessary coordination.

Proposal for FAWG Addition: Enabling Sustainable Economic Development



- Pre-identified, electric ready sites could address barriers to business attraction and expansion and ensure alignment with climate and clean energy imperatives.
- "Ready" development zones were identified as an area for focus in a compendium report prepared by Boston Consulting Group (BCG), issued by Mass Clean Energy Center, Executive Office of Economic Development, EEA, and Office of Climate Innovation and Resilience.
- EEA launched an effort to coordinate across key workstreams to comprehensively address grid interconnection challenges, including:
 - Long-Term System Planning Process (LTSPP).
 - Development of transportation and building electrification load projection.
 - New load customer interconnection process and policy improvements.
 - Policy-driven transmission procurements and ISO-NE engagement.
 - DER process changes and flexible interconnection solution development.
 - Clean energy-ready development zone planning.
- Other states have similar/adjacent efforts underway or in place to align energy/climate and economic development efforts, including in New York, Ohio, California, and North Carolina.



Approved FAWG Addition: Enabling Sustainable Economic Development (ESED) FAWG



At its January 22nd meeting, the Advisory Board approved the proposal to add **an Enabling Sustainable Economic Development FAWG** to explore the concept of clean energy ready economic development zones, aligned with existing and ongoing efforts on interconnection, land use planning, environmental justice and equity, housing, and economic development initiatives in the state.

The Advisory Board agreed that the FAWG was necessary to enable the following:

- Expand grid capacity and streamline the process for connecting new customer economic developmentenabled load to the electric grid.
- Attract more advanced manufacturing, life sciences, climatetech, and AI.
- Maintain/increase competitiveness with other jurisdictions that provide energy-focused support/amenities.
- Additional focus on and coordinated stakeholder input into EEA's ongoing work to meaningfully improve
 the interconnection of new load and energy resources to the electric grid.

At the meeting, the Advisory Board **affirmed** that an ESED FAWG would **provide a unique opportunity** to bring together current efforts in MA, best practices from other jurisdictions, and leading companies/organizations to **develop a compelling sustainable economic development offering that achieves multiple public policy, environmental justice, equity, and growth objectives.**



ESED FAWG Workstream – Overview

Phase 3

Phase 2

Phase 1

Assessment of Barriers and Priority Businesses

- Siting barriers
- Interconnection and other energy related barriers
- Business engagement
- Economic development goals

Assessment of Business Needs by Sector

- Energy supply, resilience, and other attributes
- Location
- Workforce
- Transportation
- Amenities
- Financial

Identification of **Priority Locations**

- Grid capacity
- Planned grid/resilience upgrades
- Alignment with business needs
- Alignment with state policy goals/priorities
- Existing site opportunities
- Community impact

Implementation Recommendations

- Administrative
- Policy
- Regulatory
- Cost recovery
- Financing
- Community engagement/benefits

Alignment with Interconnection, Land Use, Housing, EJ & Equity, Econ Development Efforts



ESED FAWG Workstream – Phase 1 Focus and Proposed Timelines

Phase 1
Assessment of
Barriers and Priority
Businesses
(Spring/Summer

2025)

Phase 2 Identification of Priority Locations and Assessment (Summer/Fall 2025)

> Phase 3 Implementation Recommendations (Fall/Winter

> > 2025 - 2026)

<u>Assessment of Barriers and Priority Businesses</u>

- Sector Assessment
 - Identify target company types within priority sectors
 - Understand business, energy and site needs by sector/representative business
- Determine current barriers to energy/interconnection and development
- Identify opportunities to address barriers

<u>Identification of Priority Locations and Needs</u>

- Grid capacity and existing/planned upgrades
- Alignment with other policy goals, including land use policies
- Alignment with business needs
- Alignment with municipal efforts/priorities

Assessment Framework

 Develop approach to assess options to address barriers, ensure energy accessibility/availability, and align with broader state and local priorities



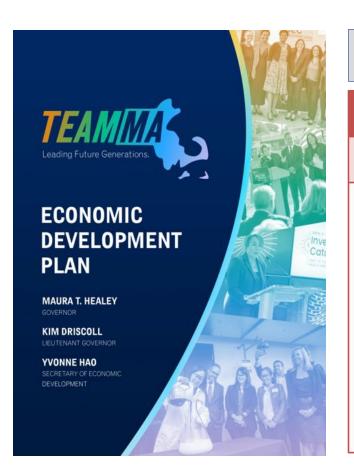
Massachusetts' Economic Development Goals and Plan

Ashley Stolba, Undersecretary at Executive Office of Economic Development

Planning Process Informed Our Strategy



In 2023, the Healey-Driscoll Administration developed a new economic development vision.



Vision: Massachusetts is the BEST place for talent and for businesses!

Focus on: Equity, Affordability, Competitiveness - across all regions and humans

Fundamentals

Investing in the fundamentals to enable economic growth



Address Housing and Transportation Challenges



Invest in Infrastructure and Competitiveness

Talent

Retaining and attracting the world's best talent across all backgrounds



Be the Global Talent Magnet



Tell Our Story

Sectors

Supporting businesses that power the state's economy



Lengthen Our Lead

- Life Sciences/Healthcare (3.0)
- Advanced Manufacturing & Robotics
- Al for "X"



Catalyze New Leadership Sectors

- Climatetech
- Tourism & Culture



Make Things Easy for Businesses

Now, the Mass Leads Act is law!





- \$4 billion in capital authorizations
- ~330 outside section policy provisions
- 10-year visions for global leadership in life sciences and climatetech
- Tax incentive updates and reforms

"Massachusetts is the best state in the nation to live, work, go to school, raise a family and build a future. That's in large part due to our commitment to investing in cutting-edge industries that produce transformative innovations and make life better for people."

Investing in the Fundamentals to enable economic growth through key initiatives like the One Stop for Growth



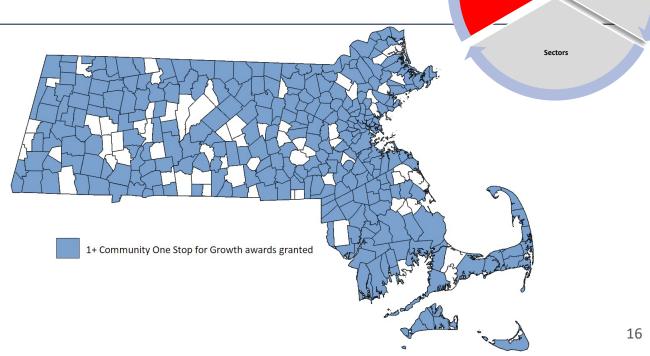
Capital Highlights:

- MassWorks Infrastructure Program: \$400M
- Mass Impact: \$250M
- Rural Development Fund: \$100M
- Seaport Economic Council: \$100M
- Underutilized Property Program (UPP): \$90M
- Brownfields Redevelopment Fund: \$30M

Policy Provisions:

- Rural Designation
- Permitting Modifications
- Broadband
- Devens Regional Enterprise Zone





Retaining and attracting the world's best Talent is critically important for the state's economy

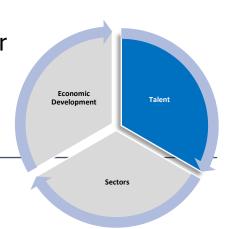


Capital Highlights:

Massachusetts Educational Financing Agency: \$85M

Tax Credits

- Statewide Internship Pilot Program¹: This \$10 million per year pilot program would reward companies for taking on interns from Massachusetts-based colleges.
 - The program would provide an incentive of \$5,000 or 50% of wages paid, whichever
 is less, per intern from a MA-based college with a maximum cap of \$100,000 for
 employers.



Policy Proposals

- Foreign-Trained Physicians
- Workforce Training Investment Trust Fund
- Nonprofit Boards

Supporting key sectors of the economy so that MA can lengthen its lead and catalyze new leadership



Key Highlights

- \$1 billion, 10-year **climatetech initiative** to make Massachusetts the climate innovation lab for the world.
- \$1 billion, 10-year reauthorization of the **life sciences initiative** to ensure MA remains the global epicenter for the industry.
- \$440+ million in capital authorization for new and existing programs to support advanced manufacturing, robotics, the Applied AI Hub, Massachusetts TechHub Program, and Small Business Technology Grants.
- \$45 million for small business support through **Community Development Financial Institutions** and **Biz-M-Power**.
- \$250+ million for capital programs to support the tourism and creative economy, including **Destination Development** Grants and the Cultural Facilities Fund.

Policy Proposals

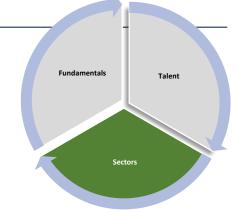
- **Economic Development Incentive Program (EDIP)** reforms
- **Live Theater Tax Credit**

Microbusinesses

- **Qualified Data Center Tax Exemption**
- **MassTech R&D Matching Grant Fund**
- **Small Business Workers Compensation Payment Plans**

- **Public Construction**
- **Home Improvement Contractor Program Updates**







Interconnection

Josh Ryor, Assistant Secretary of Energy at the Executive Office of Energy and Environmental Affairs



Grid Connection Barriers

- The process for **connecting new customer load to the electric grid can be a barrier** to economic development, including the timeframes for connecting new load and making grid upgrades.
 - The load interconnection process includes several costly and time-intensive steps, and can be difficult for customers to navigate.
 - The timing of today's interconnection process and the timing of business development and expansion is not always aligned, which could impact the state's ability to meet its objectives.
- The Administration has received **increasing numbers of complaints about grid capacity issues** and the grid connection process from new load customers like businesses and housing developments.
- Additionally, interconnection barriers and delays for distributed generation like solar projects inhibit Massachusetts' ability to deploy clean energy at the scale and on the timeframe necessary to achieve our climate requirements.



Interconnection Action Plan

To address these concerns, the Office of Energy and Environmental Affairs (EEA) developed an internal "Interconnection (IX) Action Plan" to **urgently and comprehensively improve the interconnection of new load and energy resources to the electric grid**, with a goal of making meaningful progress by the end of 2025.

The priority workstreams included in the IX Action Plan are organized around the following three categories:

- 1. Proactive incorporation of public policies, such as economic development load, the deployment of clean energy resources, and electrification of transportation and buildings, into electric grid planning processes.
- 2. Interconnection process improvements developed based on customer insights, including both improving the customer experience with and understanding of the interconnection process and addressing common, discrete technical or policy barriers encountered by customers.
- 3. Systemic, technical modifications intended to improve the interconnection process at scale.



Relevant Interconnection Action Plan Workstreams

Economic Development Zones Planning

Exploring the concept of creating clean energy-ready economic development zones was identified as a
workstream in the plan, and will now be moved forward through the ESED FAWG.

Informal Load Investigation

- To identify any potential technical / policy barriers, EEA is meeting with stakeholders and other state agencies to complete an informal investigation of complaints related to load connection, and will engage with customers on barriers and knowledge gaps.
- EEA hopes to supplement this investigation with learnings from the ESED FAWG.

Customer Experience Improvements Collaboration

 EEA is meeting monthly with the electric utilities to identify ways to improve the customer experience, including developing additional customer resources, establishing a process to identify new developments, and coordinating utility approaches to customer processes.



Overview of What Other States Are Doing

Katherine O'Malley, Deputy Executive Director, Office of Energy Transformation



What Other States Are Doing Related to Energy

Economic Development Energy Rates

- Utilities in states like Florida, Colorado, and Virginia offer discounted energy rates for large commercial or industrial customers to attract investment and job creation.
- Grid infrastructure alignment can foster the creation of economic development energy rates in Massachusetts.

Certified Sites Programs

Many states like Ohio, Florida, North Carolina, Texas, and others have formal site certification programs
to pre-approve industrial or commercial sites for development, ensuring infrastructure like power, water,
and roads are ready on day one.

Energy Ready Sites

- States like Tennessee and Georgia are advancing energy-ready certification to promote shovel-ready industrial locations with sufficient grid capacity, often coordinated with utilities.
- Massachusetts currently faces opportunities to better align grid infrastructure planning with site development efforts.

Overview Matrix of Economic Development Initiatives in Other States

Forbes Best to Start a Business	Forbes Best to Do Business	State	Econ Dev/Tax Incentives	Workforce Dev Incentives/ Tailored Support	"Certified Sites"	Energy Ready Sites	Econ Dev Energy Rates	Concierge Service	Clean Energy Requirements
5	1	North Carolina	•	~	•	~			⊗
32	2	Texas	•	✓	•	~			⊗
9	3	Utah	•	~		~			⊗
16	4	Virginia		✓	•	~	•	•	⊗
46	5	Florida	•	~	•	~	•	•	⊗
35	6	Georgia	•	~	•	~	•	•	Solar Ready Zones – Single and multifamily
25	7	Tennessee	•	~	•	~	•	•	⊗
48	8	Washington	•	~	•	⊗			Solar Ready Zones – single and multifamily
14	9	Colorado	•	✓		⊗		•	Solar Ready Zones – Commercial and multifamily
33	19	Massachusetts	•	~	•	※	•	•	Building Codes and Standards
6	29	Ohio	•	✓	•	✓	•	•	Solar Ready Zones - school buildings

- Moderate



- Limited



Examples of Certified Sites in Other States

- A **certified site** is a plot of land "shovel-ready" for building new development. The site has detailed information on utility availability and transportation access and is typically approved by a committee made up of economic development agencies, utility companies, and developers.
- **Ohio**, with industries like Aerospace and Defense, Bioscience and Healthcare, Education, Agriculture, Iron and Steel, Motor Vehicle Assembly, has:
 - 23 move-in ready sites with 30 to 240 acres of contiguous developable acres.
 - Public utilities ready on-site on day one with adequate capacity for industrial/commercial use for quick start of service.
 - Site authentication by JobsOhio (Ohio's economic development agency).
- **Florida**, with industries like Advanced Manufacturing, Aerospace & Defense, CleanTech, Information Technology and Life Sciences, has:
 - 39 certified industrial/commercial sites, all with 88+ acres of contiguous developable acres.
 - Public utilities ready on-site on day one with adequate capacity for industrial/commercial use for quick start of service.
 - Site certification through Florida Power and Light Office of Economic Development.

Examples of Economic Development Energy Rates or Special Tariffs in Other States

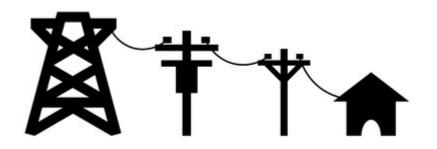


Florida Power & Light – Economic Development Rider (EDR)

 EDR is designed to help attract new investment and create more jobs in Florida. Eligible companies receive financial incentives or discounts on new electric demand for up to five years.

Colorado Xcel – Economic Development Rate

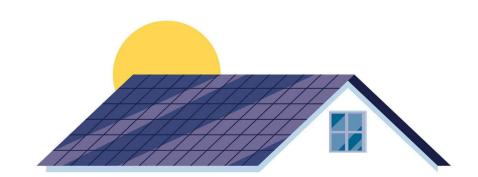
- Eligible companies receive a lower price on their electric rates for up to 10 years. Tiered pricing will gradually step down over a multi-year term.
 - To qualify, a new or expanding business must:
 - Add 3 to 20 megawatts of new electric load.
 - Agree to locate or expand commercial operations within Colorado service territory.
 - Demonstrate that the cost of electricity is a critical consideration in location or expansion.
 - Show that this economic development rate is a substantial factor in their decision.





Examples of Clean Energy Requirements in Other States

- Some states with economic development initiatives also have clean energy related requirements to:
 - Create zones for clean energy,
 - Require new loads to have clean energy on-site,
 - Provide incentives to encourage demand response to reduce grid and supply-side investment needs and/or have building codes and standards.



- **Delaware** requires designated roof areas for future solar (PV or thermal) installations for new commercial buildings with 50,000+ sq. ft. and up to 5 stories high.
- **New Jersey** requires any newly constructed warehouse (100,000+ sq. ft. used primarily for storage of goods for sale) must be a solar-ready building if its construction permit was not completed before July 1, 2022.
- California requires Solar-Ready Zones for non-residential buildings: Hotels, office buildings, clinics, restaurants, retail, grocery stores, convention centers, schools, and theaters.
- **New York** has the Build-Ready Program, which prioritizes previously developed sites, existing or abandoned commercial sites for renewable energy projects.



Issue Overview and FAWG Mission

- Massachusetts is focused on growing its economy by expanding and attracting business in multiple sectors, including climatetech, life sciences, advanced manufacturing, and AI, aligned with climate and clean energy goals and other priorities.
- The process for connecting new customer load to the electric grid can be a barrier to economic
 development, including the timeframes for connecting new load and making necessary grid upgrades.
 - The load interconnection process includes several cost and time intensive steps
 - The timing of today's interconnection process vis-a-vis timing of business development and expansion is not always aligned, which could impact the state's ability to meet its objectives.
- The administration and several Advisory Board members have identified the nexus of energy transformation and economic development as an area of focus and necessary coordination.

Mission

To advance clean energy-ready economic development zones that enable key business sectors to grow in Massachusetts, in alignment with the state's interconnection, land use planning, environmental justice and equity, housing, and economic development initiatives.



Phase I – Planned Meetings

- March 31st FAWG Launch w/ Informational Webinar
- Last Week of April First FAWG meeting to discuss clean energy-ready development zones concept, efforts in other states, and policy background
- May 2025 FAWG meets to discuss foundational electric grid concepts, connection process for new load, ongoing grid modernization and interconnection efforts, impacts of interconnection barriers and grid capacity on economic development
- June 2025 FAWG meets to discuss state economic development goals, desired business sectors to target
- July 2025 FAWG meets to discuss business sector needs and results of engagement with businesses
- September 2025 Update Energy Transformation Advisory Board on ESED FAWG efforts
- October 2025 FAWG meets to discuss Phase I final recommendations and finalize workplan and timing for Phase II

PHASE 2 BEGINS



Next Steps

- **Sign up** if you would like to participate in the Enabling Sustainable Economic Development Work Group
 - A link is provided in the chat and will be on the Office of Energy Transformation website
- Review the Bylaws, Ground Rules, and approved workplans available on the Office of Energy Transformation website
- Registration to participate will close on April 7th
- Confirmation will be sent by April 14th
- The first convening of the FAWG will be last week of April





Adjourn – Thank You