



MASSACHUSETTS
**DEPARTMENT OF
ENERGY RESOURCES**

Massachusetts State Energy Office Engagement in Distribution Planning

**NASEO Distribution Planning Training for State
Energy Offices**

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Presented by

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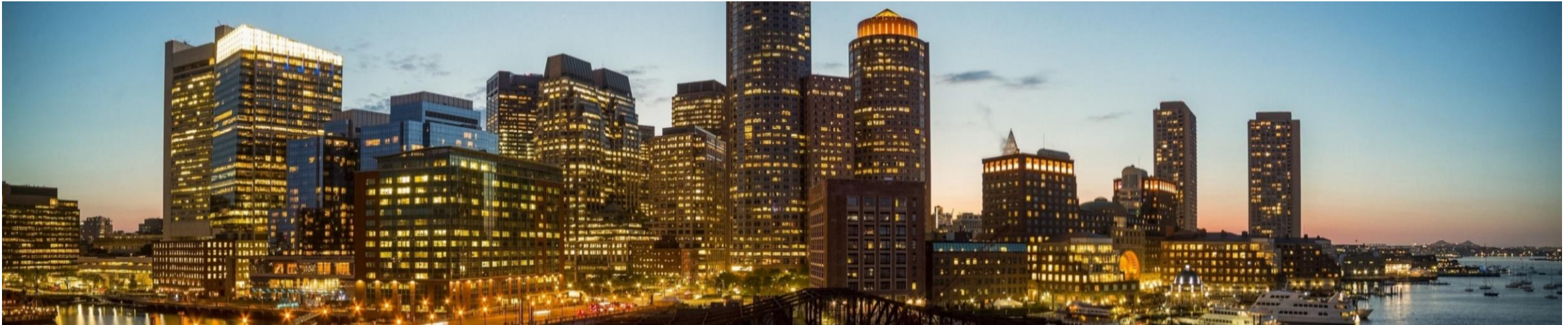
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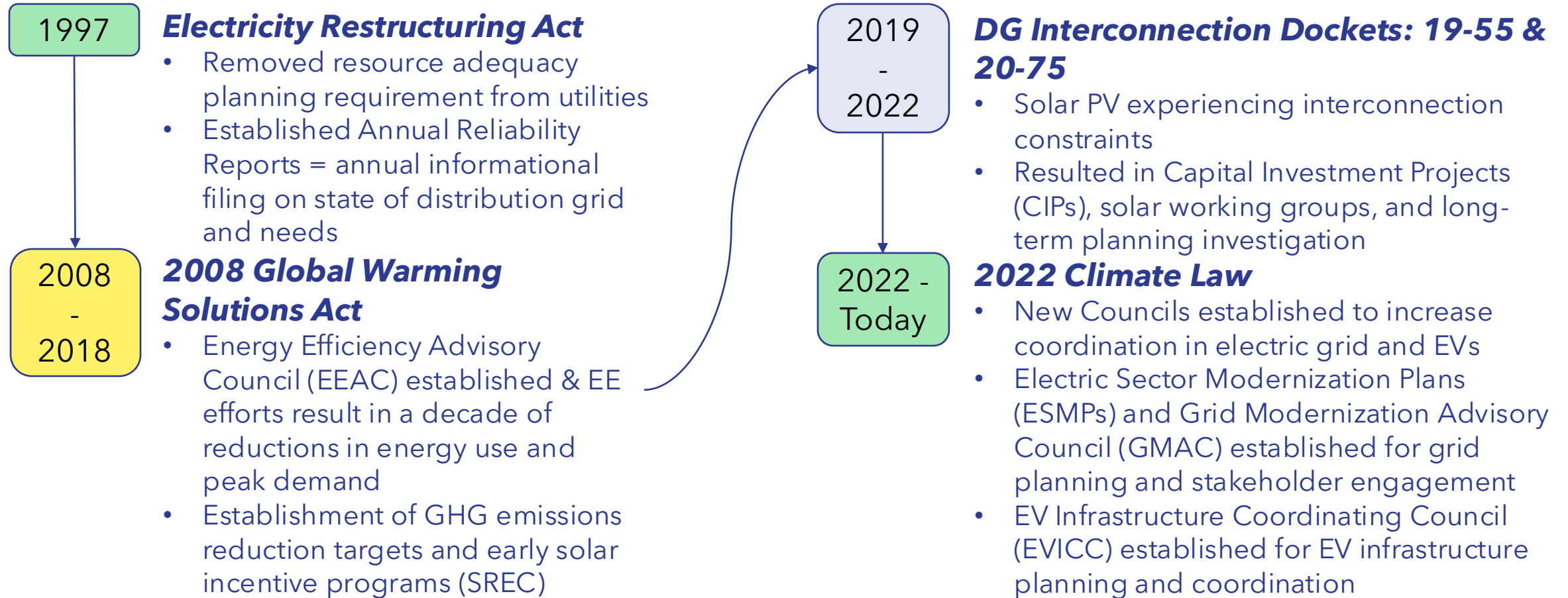
Our Mission

The Department of Energy Resources' (DOER) mission is to create a clean, affordable, resilient, and equitable energy future for all in the Commonwealth.

- **Who We Are:** As the State Energy Office, DOER is the primary energy policy agency for the Commonwealth. DOER supports the Commonwealth's clean energy goals as part of a comprehensive Administration-wide response to the threat of climate change. DOER focuses on transitioning our energy supply to lower emissions and costs, reducing and shaping energy demand, and improving our energy system infrastructure.
- **What We Do:** To meet our objectives, DOER connects and collaborates with energy stakeholders to develop effective policy. DOER implements this policy through planning, regulation, and providing funding. DOER provides tools to individuals, organizations, and communities to support their clean energy goals. DOER is committed to transparency and education, supporting the accessible access to energy information and knowledge.



Policy and Regulatory Changes in the Massachusetts Grid Space



Commonwealth Clean Energy and Climate Plan

MA's climate mandates drive the need for strategically planning the electric grid.

- The Global Warming Solutions Act requires Massachusetts to achieve Net Zero emissions in 2050.
- The Clean Energy and Climate Plan for 2050 states that Massachusetts' path to economy-wide decarbonization relies on an expanded role for the power system.
- Power sector grid planning is essential for realizing a 2050 future in which heating our homes, powering our vehicles, and operating our grid minimally relies on fossil fuels.

2050 CECP Key Benchmarks

TRANSPORTATION

97%
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 sources



NON-ENERGY AND INDUSTRIAL

52%
of industrial energy use electrified

90%
reduction in solid waste disposal

Source: Clean Energy and Climate Plan for 2050

The GMAC and the ESMPs were established by the 2022 Climate Law, "An Act Driving Clean Energy and Offshore Wind".

What are the Electric-Sector Modernization Plans (ESMPs)?

The ESMPs are strategic plans created by the electric-distribution companies (EDCs) that must contain:

- Plans to upgrade the distribution system to:
 - improve reliability and resiliency,
 - enable adoption of renewable energy and distributed energy resources,
 - promote energy storage and electrification technologies,
 - prepare for climate-driven grid impacts,
 - accommodate increased transportation and building electrification,
 - minimize or mitigate impacts on ratepayers.
- Descriptions of distribution grid improvements to meet the strategic plan elements noted above, identify availability and suitability of new technologies for grid applications, facilitate achievement of statewide emissions limits, and identify alternatives to investment proposals.
- 5- and 10-year forecasts and a demand assessment through 2050.



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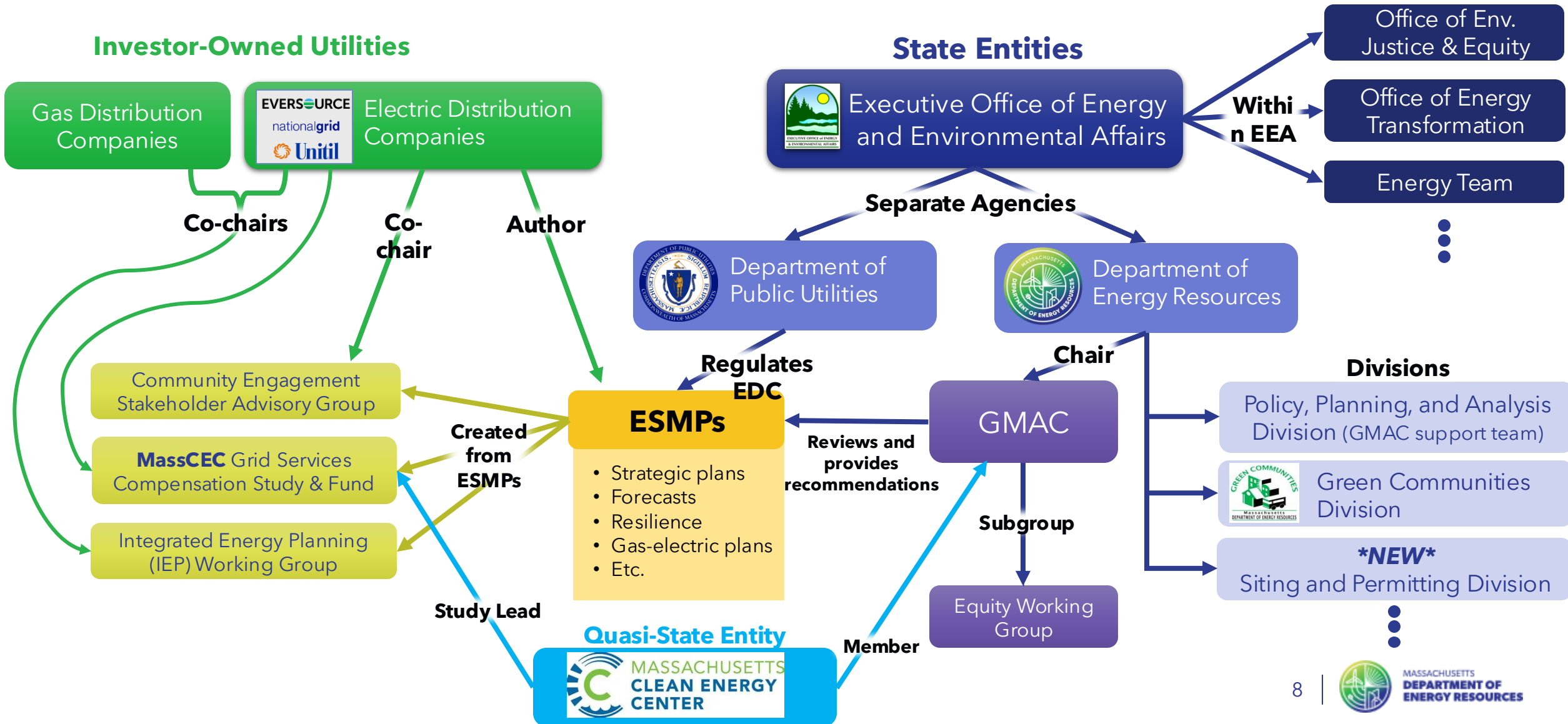
What is the Grid Modernization Advisory Council (GMAC)?

The GMAC is an 18-member stakeholder council chaired by the DOER and charged with:

- encouraging least-cost investments in the electric grid,
- alternatives to investments or to financing investments that facilitate meeting emissions reductions limits,
- increasing transparency and stakeholder engagement in grid planning processes.
- reviewing and providing recommendations to the electric distribution companies (EDCs) regarding their electric-sector modernization plans (ESMPs).

Stakeholders Involved in ESMPs

Players within the grid planning landscape collaborate across many different topics, including gas and electric system planning, interconnection, stakeholder engagement, and ratepayer programs.



ESMP & GMAC Process

2022	2023	2024	2025	2026	2027	2028	2029	2030
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2022 Climate Law
ESMPs and GMAC established

ESMP & GMAC Process: 2023

2022	2023	2024	2025	2026	2027	2028	2029	2030
2022 Climate Law ESMPs and GMAC established	Monthly summer GMAC meetings							
	9/01: EDCs submit draft ESMPs to GMAC							
	GMAC review							
	11/20: GMAC provides feedback on ESMPs to EDCs (80 days to review)							

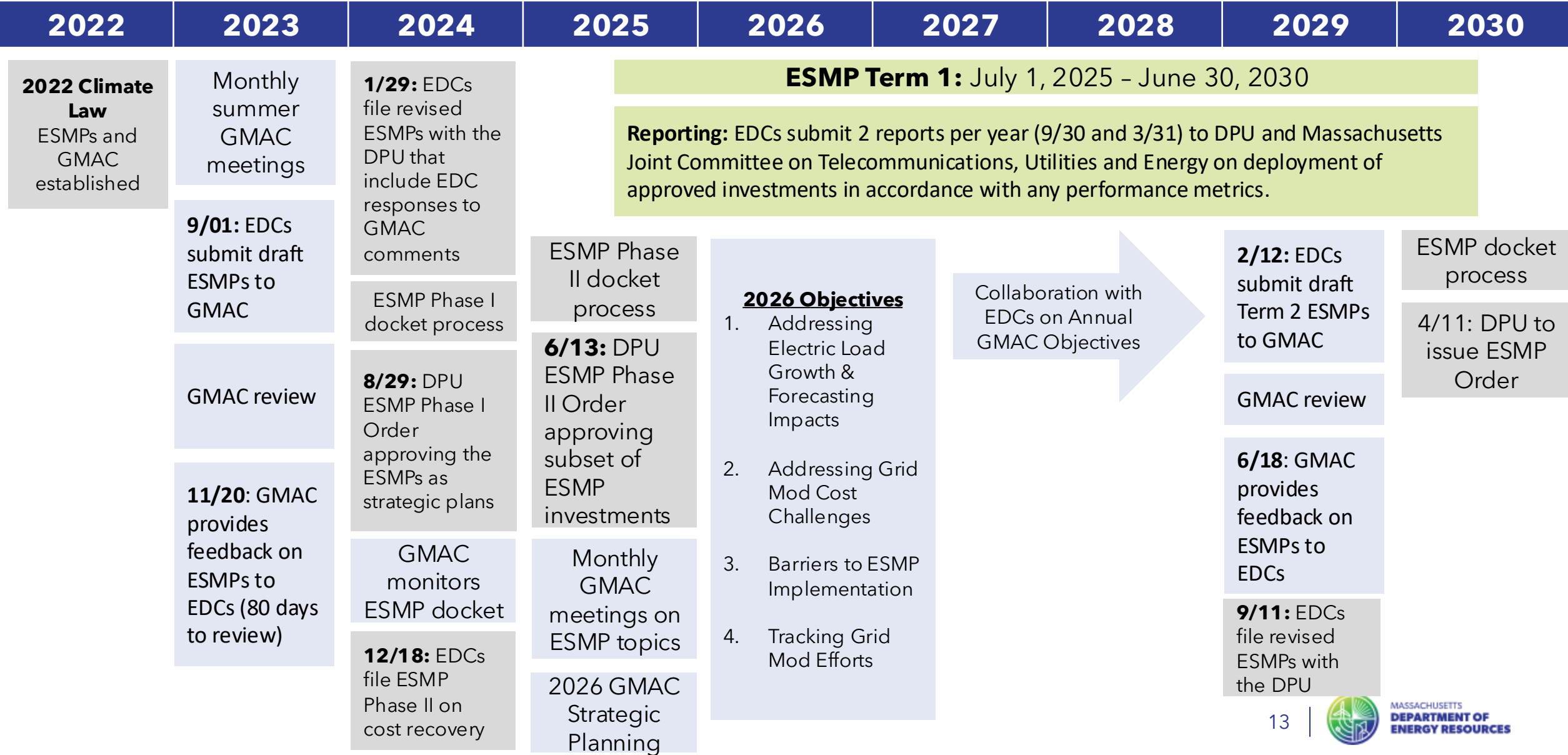
ESMP & GMAC Process: ESMP Phase I

2022	2023	2024	2025	2026	2027	2028	2029	2030
2022 Climate Law ESMPs and GMAC established	Monthly summer GMAC meetings	1/29: EDCs file revised ESMPs with the DPU that include EDC responses to GMAC comments						
	9/01: EDCs submit draft ESMPs to GMAC	ESMP Phase I docket process						
	GMAC review	8/29: DPU ESMP Phase I Order approving the ESMPs as strategic plans						
	11/20: GMAC provides feedback on ESMPs to EDCs (80 days to review)							

ESMP & GMAC Process: ESMP Phase II

2022	2023	2024	2025	2026	2027	2028	2029	2030
2022 Climate Law ESMPs and GMAC established	Monthly summer GMAC meetings	1/29: EDCs file revised ESMPs with the DPU that include EDC responses to GMAC comments	ESMP Term 1: July 1, 2025 – June 30, 2030					
	9/01: EDCs submit draft ESMPs to GMAC	ESMP Phase I docket process	Reporting: EDCs submit 2 reports per year (9/30 and 3/31) to DPU and Massachusetts Joint Committee on Telecommunications, Utilities and Energy on deployment of approved investments in accordance with any performance metrics.					
	GMAC review	8/29: DPU ESMP Phase I Order approving the ESMPs as strategic plans	ESMP Phase II docket process					
	11/20: GMAC provides feedback on ESMPs to EDCs (80 days to review)	GMAC monitors ESMP docket	6/13: DPU ESMP Phase II Order approving subset of ESMP investments					
		12/18: EDCs file ESMP Phase II on cost recovery	Monthly GMAC meetings on ESMP topics					

ESMP & GMAC Process: Looking Ahead



What was Approved in the First ESMPs?

- **Phase I ESMP Order (August 2024): approved the EDCs' 2025-2030 ESMPs as strategic plans.**
- **Phase II ESMP Order (June 2025):**
 - Established an interim, annually reconciling cost recovery mechanism for ESMP investments.
 - States that “grid modernization and resiliency planning must ultimately become a part of each company’s standard business practices”.
- **Phase II ESMP Memo (September 2025):**
 - Established biannual reporting requirements and near-term reporting metrics (before the first report was released September 30, 2025).
- **To Come:**
 - DPU investigation into long-term cost recovery (DOER and other intervenors provided comments to inform investigation).

Electric Company	Proposed Company Spending	Approved Company Spending	Denied Company Spending
Eversource	\$336 Million	\$144 Million	\$192 Million
National Grid	2,153 Million	698 Million	1,455 Million
Unitil	51 Million	21 Million	30 Million

Approved

- Technology hardware upgrades for improved network operations and system management
- VPPs and DERs for grid services; clean energy customer portals
- Platform investments to leverage data to optimize infrastructure and better serve customers
- Targeted resiliency upgrades for undergrounding, reconductoring, & storm hardening
- Integrated energy planning
- Community Engagement Stakeholder Advisory Group (CESAG) implementation
- 3 National Grid EV highway charging substation projects

Denied

- Reduced **Eversource** resiliency investment due to lack of rationale for increased undergrounding investment
- **National Grid** and **Unitil** substation and distribution feeder projects
- **National Grid** private fiber expansion & analog replacement projects, TVR billing engine, medium- and heavy-duty fleet vehicles projects

Lessons Learned from the First ESMPs



ESMP Order Recommendations

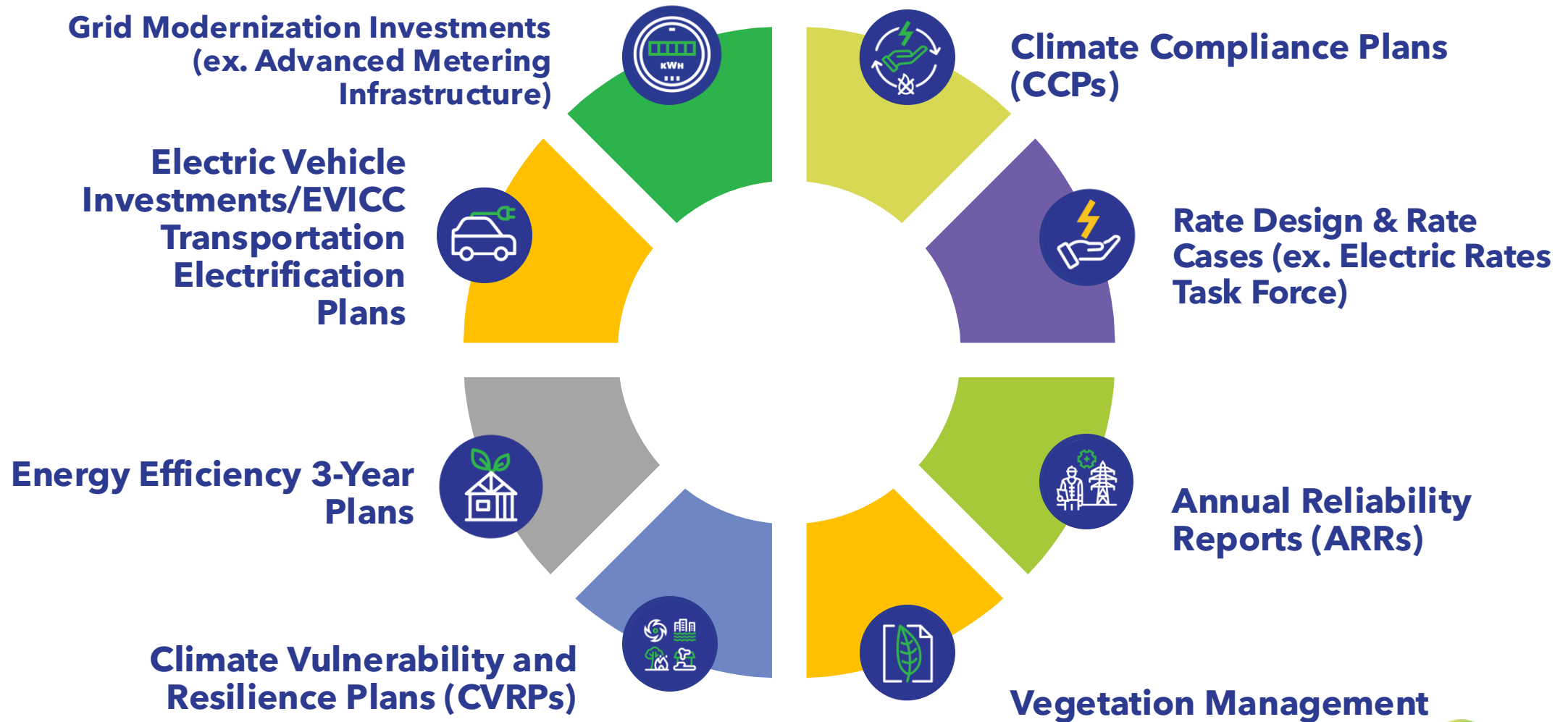
- **The review timeline was challenging. The Department of Public Utilities (DPU)** extended the draft ESMP review period to give GMAC 125 days to review and EDCs 85 days to update their plans.
- In the ESMP Order, the DPU recommended several areas for GMAC & EDC collaboration between draft plan filings.
 - EDC presentations on their **forecasting method**, including differences in assumptions and methods
 - Discussion of **least-cost investments** in electric distribution systems
 - Identifying **alternatives to investments or financing** to minimize or mitigate impacts on ratepayers
 - Discussion of **sensitivity analyses** for 2050 long-term demand assessments
 - GMAC should explore each company's **investment reprioritization process** based on updating forecasts



GMAC Actions

- **In 2025, the GMAC's objectives included:**
 - Engaging in productive dialogue and collaboration
 - Developing shared understanding of grid planning topics
 - Increasing transparency and stakeholder engagement in broader grid planning activities
 - Preparing the Council for more in-depth collaboration in 2026 and 2027
- **In 2026, the GMAC's objectives include:**
 - Identifying and Addressing Electric Load Growth and Impacts on Forecasting
 - Identifying and Addressing the Cost Challenges of Grid Modernization
 - Understanding Challenges of ESMP Implementation and Biannual Reports
 - Tracking Grid Modernization Efforts in MA

Additional Distribution System Planning Engagement



Learn More About the GMAC

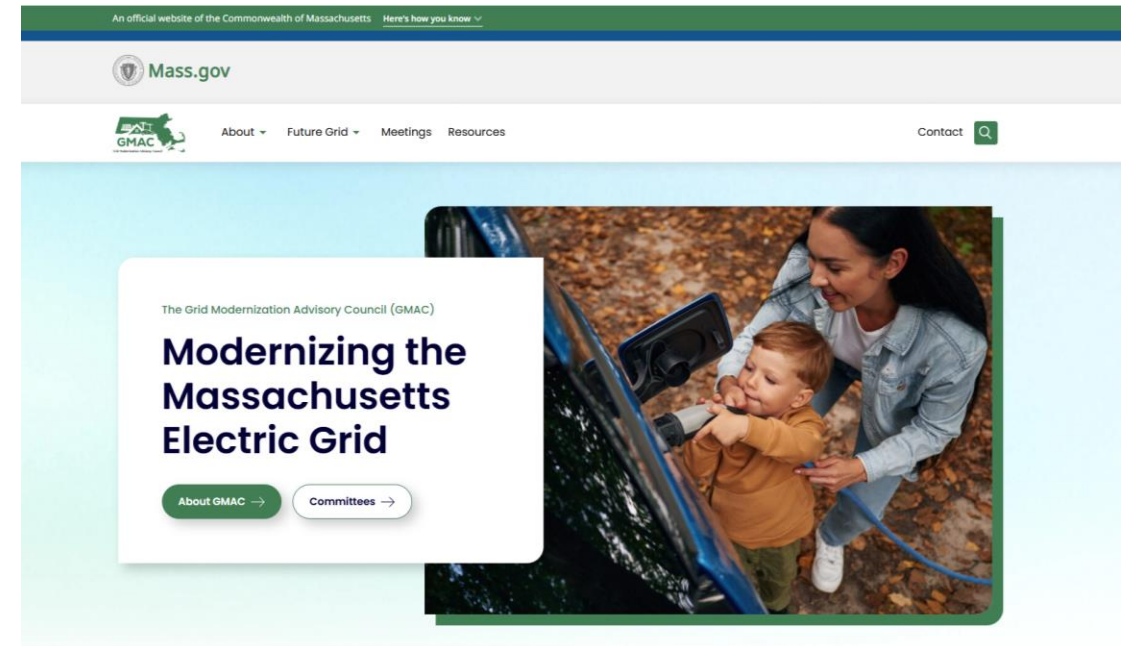
Check out GMAC's brand-new website:
<https://electricgrid.mass.gov>



Learn more about the GMAC's work and how the grid is being modernized to meet the needs of Massachusetts consumers.



Use our site to find educational resources, meeting materials, and upcoming events.





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Thank You!