

# Ratemaking and Massachusetts Electric Utilities

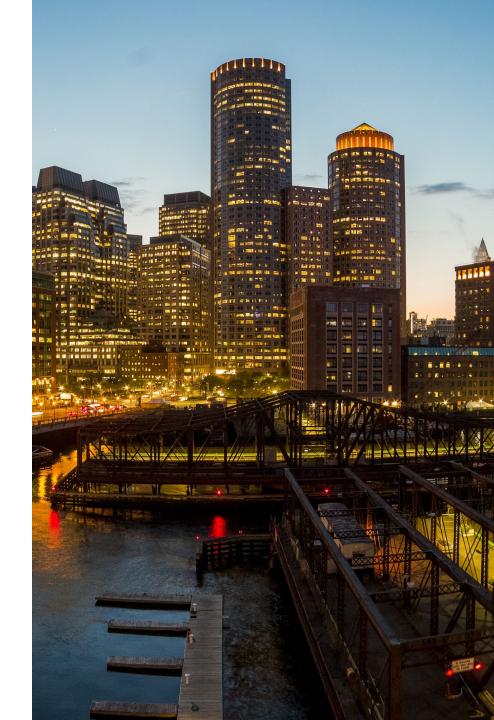
**Targeted Conversation | September 3, 2025** 

This presentation will be used to guide the Massachusetts Electric Rate Task Force's targeted conversation, designed to facilitate an open, inclusive dialogue and frame critical questions and opportunities.

Note: The contents of this presentation do not necessarily reflect the views or positions of the Massachusetts Department of Energy Resources.

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# **Ground rules & engagement**

## This work is complex – and your insight matters; let's focus on learning, listening, and shaping together!

#### Participation, Engagement, & Respect

- <u>Everyone's perspective is valuable this space works best</u> when all voices are heard
- Respect differences in background, experience, and priorities
- Bring curiosity ask questions and offer potential answers
- Focus on understanding others' goals and values, not just their positions
- It's okay not to have a solution help us shape the right questions

#### **Collaboration, Not Consensus**

- This body is deliberative, it is not a decision-making space
- We don't need to agree on everything, but we should work toward shared understanding
- Where we disagree, help clarify what the tension is and why it matters

#### **Transparency & Trust**

- We'll be clear about how input is used
- Share what you can; identify when you're speaking on behalf of your organization or personally
- Materials, summaries, and key findings will be shared openly to support accountability

#### **Focus & Productivity**

- Stay on topic and honor the scope of the Task Force
- Raise related concerns, but help us stay anchored in the rate design and regulatory issues at hand
- Use the structures provided (i.e., expert sessions, targeted conversations, office hours) to deepen discussion
- Avoid discussion about open and ongoing proceedings at the DPU



# **Targeted Conversations**

The Rate Task Force brings together diverse stakeholders to reimagine how electric rates and the regulatory framework can drive an affordable, equitable, and decarbonized energy future.

- Targeted conversations are intended to facilitate open, inclusive dialogue and frame critical questions and opportunities
- The Rate Task Force will use the Massachusetts Interagency Rates Working Group's Long-Term Ratemaking Study and Recommendations as a starting point for discussion and knowledge building on rate designs, ratemaking, and regulatory mechanisms.

#### Facilitate open, inclusive dialogue

Engage in **open, inclusive dialogue** about complex ratemaking and regulatory issues outside of a regulatory proceeding

### Frame critical questions and opportunities

Empower stakeholders to identify **critical questions and opportunities** for the advancement of rate design and ratemaking reform



# **Expert Presentations**

## I. Massachusetts Electric Regulatory Framework

#### **Massachusetts Department of Energy Resources, Austin Dawson**

Present an overview of existing Massachusetts regulatory framework for electric distribution companies, based on the Massachusetts Regulatory Framework Primer

## **II. Utility Operations and Challenges in Massachusetts**

#### **Massachusetts Electric Distribution Companies**

Present on the current and future demands of the electric power system and the challenges to electric utilities as we decarbonize and electrify

# III. Electric Sector Modernization Plans, Grid Modernization Advisory Council, and Distribution System Planning

#### Massachusetts Department of Energy Resources, Aurora Edington

Present on the current landscape of distribution system planning and grid modernization activities and proceedings in Massachusetts, focused on the Electric Sector Modernization Plans (ESMPs) and the Grid Modernization Advisory Council (GMAC)

## IV. Utility Regulatory Innovation for the Energy Transition

#### **Analysis Group, Daniel Stuart**

Present on policy innovations to support the electric distribution system transition (e.g., integrated distribution system planning, pre-authorization of investments, future test years, etc.), based on Massachusetts Energy Transition: Innovation for Electric Utility Regulation

#### Reminder

Expert presentation sessions are not for substantive deliberation amongst participants. Questions for each speaker will be taken as time allows.



#### **Develop shared understanding**

Converge towards **shared understandings** of the challenges and priorities



# Phase two is focused on broader regulatory framework

# Ratemaking and regulatory mechanisms need to support an affordable transition to a decarbonized energy future

The IRWG explored regulatory and ratemaking mechanisms to support Commonwealth's clean energy and climate goals and statutory mandates to prioritize affordability, equity, and emissions reductions, in addition to safety and reliability of service. The mechanisms explored include test years, cost-of-service studies, capital cost recovery mechanisms, reconciling mechanisms, revenue decoupling, formula-based rates, multi-year rate plans, earning sharing mechanisms, and performance mechanisms.

#### 1. Ratemaking and Massachusetts Utilities

Overview of current and evolution of ratemaking in MA

#### **Expert Presentation: Aug 25, 2025**

- MA DOER, Austin Dawson
- MA Electric Distribution Companies
- MA DOER, Aurora Edington
- Analysis Group, Daniel Stuart

**Targeted Conversation: Sep 3, 2025** 

#### 2. Tools of Utility Regulation

Reconciling mechanisms, cost studies, test years, and capex-opex equalization mechanisms

#### **Expert Presentation: Sep 8, 2025**

- MA DOER, Austin Dawson
- MA Electric Distribution Companies
- Wisconsin Public Service Commission
- RMI & Current Energy Group, Gennelle Wilson & Dan Cross-Call

**Targeted Conversation: Sep 17, 2025** 

#### 3. Multi-Year and Formula Rates

Multi-year rate plans and formulabased rates

#### **Expert Presentation: Sep 29, 2025**

- MA Electric Distribution Companies
- Pacific Economics Group, Mark Newton Lowry
- · Current Energy Group, Matthew McDonnell
- Maryland Offic of People's Counsel

**Targeted Conversation: Oct 8, 2025** 

#### 4. Decoupling and Capital Recovery

Revenue decoupling and capital recovery mechanisms

#### **Expert Presentation: Oct 22, 2025**

- Synapse Energy Economics, Tim Woolf
- MA Electric Distribution Companies
- MA DOER, Austin Dawson
- MA DOER, Liz Reichart

**Targeted Conversation: Oct 27, 2025** 

#### **5. Performance Mechanisms**

Performance incentives and earning sharing mechanisms

#### **Expert Presentation: Nov 10, 2025**

- MA Electric Distribution Companies
- Synapse Energy Economics, Melissa Whited
- RMI, Carina Rosenbach
- MA DOER. Charles Dawson

**Targeted Conversation: Nov 19, 2025** 





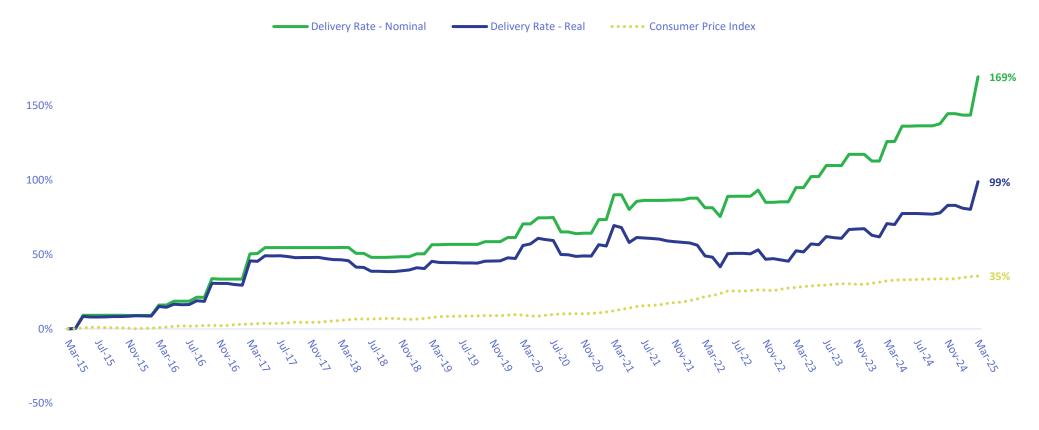
# Revenue Requirement, Rate Base, and Rate of Return

## Delivery electricity rates have outpaced inflation

## Consumers are experiencing larger electric bills and increasing energy burdens

#### **Residential Electric Delivery Rate and Inflation**

% Change, Relative to March 2015



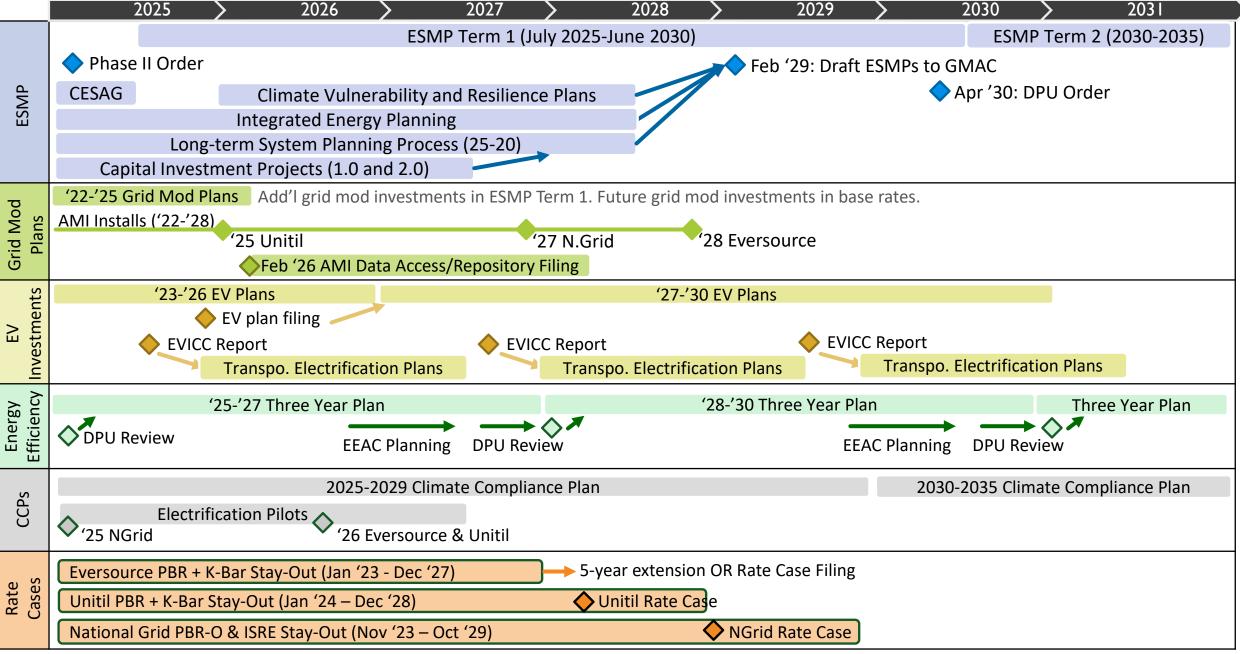
Source: National Grid Delivery Rates

# **Utility operations and challenges**

## Regulatory mechanisms must acknowledge these pressures and ensure consumers are protected

- Together, the electric distribution companies (EDCs) expert presentations highlighted the following pressures on operations:
  - Aging and stressed grid infrastructure, including asset condition, capacity limitations, power quality
  - Climate change, including storm response and resilience planning
  - Capital and operating costs, including supply chain and inflationary pressures on equipment, siting and permitting costs
  - **Technological advancements**, including investment and operation of new technologies
  - Policy and regulation evolution, including focus on targeted affordability, rate design, and evolution of regulatory paradigm
  - Stakeholder engagement, including increased outreach, education, and transparency for customers



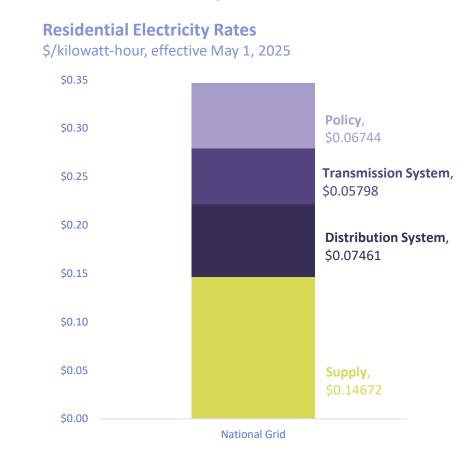


# Break: 5-10 minutes (if time allows)

# **Components of retail electric rates**

Existing retail electric rates include over twenty separate charges, but can be summarized by components that generally reflect the different elements of electricity service

- Supply rates or products reflect the costs of supplying energy, including costs of wholesale energy, capacity, and other supply-related requirements
- Distribution charges recover the costs associated with the existing distribution system
- Transmission charges recover the costs associated with the existing transmission system
- Other policy & program charges recover the costs associated with state policies or utility programs (e.g., energy efficiency, net metering, solar incentives, lowincome assistance, etc.)



# Revenue requirement represents a utility's cost of service

Revenue requirement, rate base, and rate of return

Revenue requirement is often represented by the following formula:

Revenue Requirement (\$)

Operation & Maintenance (\$)

Costs of operating the company, including labor, healthcare, insurance, uncollectible accounts, enterprise information technology, etc.

\$)

**Taxes** (\$)

Taxes including income taxes, FICA, Medicare, federal unemployment, state unemployment, property taxes, franchise tax, federal income tax, etc. Depreciation (\$)

Depreciation (tangible property) and amortization (intangible property) allow a utility to recover investments in a timely manner over the investment's useful life

Rate Base (\$)

Utility's net investment current in service (i.e., utility plant less accumulated depreciation)

Rate of Return (%)

Weighted average cost of capital (WACC), determined based capital structure and the authorized return on debt and equity

In other words, revenue requirement is the calculation of the total annual revenue an EDC needs to recover from its ratepayers to account for the costs the company incurs to operate its electric system; to invest in additional capital to maintain and expand its system; and to earn a reasonable return, or profit, on capital investments.



# Distribution system charges

Charge	Category	Definition
Customer Charge	Distribution System	Covers a portion of fixed costs to provide electricity, including meters, billing, and customer service
Base Distribution	Distribution System	Covers cost of wires, poles, and other distribution system infrastructure, including the operation and maintenance necessary to support the operation of the distribution utility's system

- The final and approved revenue requirement determined in a rate case generally is reflected in the customer charge and base distribution rates, which reflects the utility's costs of the distribution system
- Other charges may have their own total costs or revenue requirements reviewed and approved by the DPU outside of a rate case (Topic 2 will explore reconciling mechanisms, riders, or trackers)

# Base distribution revenue requirement

## Revenue requirement, rate base, and rate of return

Revenue requirement for base distribution costs (i.e., excluding reconciling mechanisms, riders, or trackers) is reviewed, modified, and approved by the DPU during a rate case

## Revenue requirement, \$million

	Eversource	National Grid	Unitil
Operation & maintenance expense	\$428	\$610	\$15
Taxes	\$234	\$141	\$4
Depreciation & amortization	\$218	\$189	\$7
Return on rate base	\$277	\$222	\$6
Total	\$1,158	\$1,163	\$32

### Taxes, \$million

	Eversource	National Grid	Unitil
Property	\$142	\$89	\$1
MA income tax (8%)	\$23	\$16	\$0.5
Federal income tax (21%)	\$56	\$38	\$1
Payroll	\$13	\$16	\$0.3

## Return on Rate Base, \$million

	Eversource	National Grid	Unitil
Return on debt (i.e., interest expense)	\$72	\$67	\$2
Return on equity (i.e., shareholder profit)	\$206	\$155	\$4

Note: As approved in EDCs' most recent base distribution rate case (D.P.U. 22-22; D.P.U. 23-80, D.P.U. 23-150), numbers may not add due to rounding and omission of nominal expenses categorized as other



# Changes in base distribution revenue requirement

Table 1: Summary of Non-Settlement, DPU-Approved Revenue Requirement, \$ million

National Grid	D.P.U. 09-39	D.P.U. 15-155	D.P.U. 18-150	D.P.U. 23-150
O&M Expenses	\$315.1	\$394.0	\$431.2	\$609.6
Depreciation and Amortization	\$95.9	\$133.4	\$147.5	\$189.2
Taxes other than Income Taxes	\$43.4	\$69.5	\$78.2	\$104.6
Income Taxes	\$40.0	\$56.0	\$37.1	\$36.2
Return on Rate Base	\$119.4	\$135.2	\$162.7	\$221.7
Other	(\$1.3)	\$2.2	\$1.4	\$1.6
Total Revenue Requirement	\$612.2	\$790.2	\$858.2	\$1,162.8

Eversource	D.P.U. 17-50 (NSTAR)	D.P.U. 17-50 (WMECO)	D.P.U. 22-22 (NSTAR & WMECO)
O&M Expenses	\$293.9	\$62.7	\$428.2
Depreciation and Amortization	\$169.7	\$28.4	\$218.0
Taxes other than Income Taxes	\$100.6	\$19.2	\$154.7
Income Taxes	\$102.0	\$18.9	\$79.1
Return on Rate Base	\$200.3	\$31.7	\$277.3
Other	\$0.1	\$0.3	\$0.5
Total Revenue Requirement	\$866.5	\$161.0	\$1,157.8

Unitil	D.P.U. 07-71	D.P.U. 11-01	D.P.U. 13-90	D.P.U. 15-80	D.P.U. 23-80
O&M Expenses	\$7.7	\$6.8	\$9.7	\$10.6	\$15.0
Depreciation and Amortization	\$4.0	\$4.5	\$8.6	\$8.7	\$7.4
Taxes other than Income Taxes	\$0.9	\$1.4	\$1.6	\$1.7	\$2.1
Income Taxes	\$1.4	\$1.4	\$1.6	\$1.9	\$1.6
Return on Rate Base	\$4.5	\$4.5	\$4.3	\$4.8	\$6.3
Other	-	\$1.6	-	-	-
Total Revenue Requirement	\$18.3	\$20.2	\$25.7	\$27.6	\$32.3

- All components of revenue requirement have increased over time (all figures in \$million, nominal)
- Each utility's total rate base has also grown over the same period; contributes to increased revenue requirement for several components
- Revenue requirement represents the cost to serve customers and will be paid for by customers
- Customers pay bills; however, those bills are based on energy use and rates, the latter of which is determined in a rate case and driven by revenue requirement



# Annual growth of rate base is increasing for all companies

## Revenue requirement, rate base, and rate of return

Rate base refers to the utility plant or investments in service, less offsetting liabilities like accumulated depreciation and accumulated deferred income taxes

## **Eversource**, \$million

	D.P.U. 17-50	D.P.U. 22-22
Rate base (rates effective)	\$3,169 <i>(2018)</i>	\$3,930 (2023)
CAGR from last rate case	-	4.4%

Note: As approved in EDCs' applicable base distribution rate case; CAGR = compound annual growth rate

## National Grid, \$million

	D.P.U. 09-39	D.P.U. 15-155	D.P.U. 18-150	D.P.U. 23-150
Rate base (rates effective)	\$1,521 (2009)	\$1,783 <i>(2016)</i>	\$2,151 (2019)	\$3,127 (2024)
CAGR from last rate case	-	2.3%	6.5%	7.8%

## Unitil, \$million

	D.P.U. 07-71	D.P.U. 11-01	D.P.U. 13-90	D.P.U. 15-80	D.P.U. 23-80
Rate base (rates effective)	\$50 (3/2008)	\$56 (2/2011)	\$52 <i>(6/2014)</i>	\$57 <i>(5/2016)</i>	\$84 (1/2024)
CAGR from last rate case	-	3.7%	(2.3)%	4.9%	5.3%

# Rate of return on debt and equity has been slowly declining

## Revenue requirement, rate base, and rate of return

- Rate of return, or the weighted average cost of capital (WACC), and the capital structure (i.e., balance of debt and equity financing) is reviewed, modified, and approved by the DPU during a rate case
- Cost of debt represents the interest expense on borrowed funds, while the allowed return on equity is a proxy for the return required to attract and retain shareholder investment in utility

## **Eversource, %**

	Debt	Equity	WACC
D.P.U. 17-50*	4.23%*	10.00%	7.32%
D.P.U. 22-225	3.93%	9.80%	7.06%

## **National Grid, %**

	Debt	Equity	WACC
D.P.U. 09-39	5.96%	10.35%	7.85%
D.P.U. 15-155	5.21%	9.90%	7.58%
D.P.U. 18-150	5.22%	9.60%	7.56%
D.P.U. 23-150	4.56%	9.35%	7.09%

Unitil, %

	Debt	Equity	WACC
D.P.U. 07-71	6.99%	10.25%	8.38%
D.P.U. 11-01	6.99%	9.20%	7.93%
D.P.U. 13-90	6.99%	9.70%	8.28%
D.P.U. 15-80	7.01%	9.80%	8.46%
D.P.U. 23-80	5.34%	9.40%	7.46%

• Return on rate base, which is a component of the utilities' revenue requirements, has grown despite lower rates of return due to the growth in rate base; the growth in rate base also drives increases in other revenue requirement components such as property tax and depreciation expense

Note: As approved in EDCs' applicable base distribution rate case, preferred stock excluded; \*weighted average cost of debt and rate of return between NSTAR Electric and WMECO

# Closing

## **Next Steps**

**Expert Series: Tools of Cost of Service Regulation** 

• September 8, 2025 from 1:00-3:30pm

In-person option available – email Chris Connolly at <a href="mailto:chris.connolly2@mass.gov">chris.connolly2@mass.gov</a> by EOD Friday, September 5