

Massachusetts Grid Modernization Advisory Council

Meeting Presentation

January 30, 2025



Agenda & Roll Call



Item	Time
Welcome, Roll Call, Agenda	1:00 – 1:05
Public Comment Period	1:05 – 1:20
Administrative Items	
<ul style="list-style-type: none">• Meeting Minutes Review and Voting• Update on GMAC Summer Stakeholder Session	1:20 – 1:25
Updates on ESMP Activities	1:25 – 1:55
<i>Break</i>	<i>1:55 – 2:00</i>
Cost Recovery Presentations and Discussion	
<ul style="list-style-type: none">• Synapse presentation: Cost Recovery 101• EDCs presentation• GMAC discussion on ESMP Phase II	2:00 – 2:55
Close	2:55 – 3:00

Public Comment



- 15-minute period for public comment
- Speakers will have up to **3 minutes** to speak on any topics of interest related to the GMAC. Once everyone who has pre-registered has provided comment, others may speak, as time allows.
- Please state your name and affiliation before delivering your comment.

GMAC Minutes Review and Voting



Meeting Minutes

- Calling for vote to finalize:
 - December 17, 2024 GMAC minutes

Motion to approve the December 17th GMAC minutes [as distributed/as corrected]?

Update on GMAC Summer Stakeholder Session



- Thank you for providing feedback on the session proposal at the last GMAC meeting.
- GMAC staff are considering options for the scope and scale of an event.

ESMP Activities Updates



1. ESMP Phase II

- Interim ESMP Mechanism
- Metrics and Reporting

2. LTSP Working Group

3. CESAG

4. Joint Working Group

5. Other

1. D.P.U. 25-10/D.T.C. 25-1

1. On January 17th, DPU opened an [inquiry](#) to explore utility pole attachment, conduit access, double pole, and related considerations applicable to utility work conducted on public rights-of-way.

Do GMAC members have any updates to provide on these items?

Break

Please be ready to start again in ~5 minutes

Electricity Distribution Cost Recovery

Background

Electric Distribution Companies



Electric distribution companies (EDCs) build, maintain, and operate the electric grid



EDCs do not own or operate power plants

Instead, electricity in New England is generated by competitive energy suppliers and sold through wholesale electricity markets.



EDCs are regulated monopolies, meaning they are the only company that delivers electricity

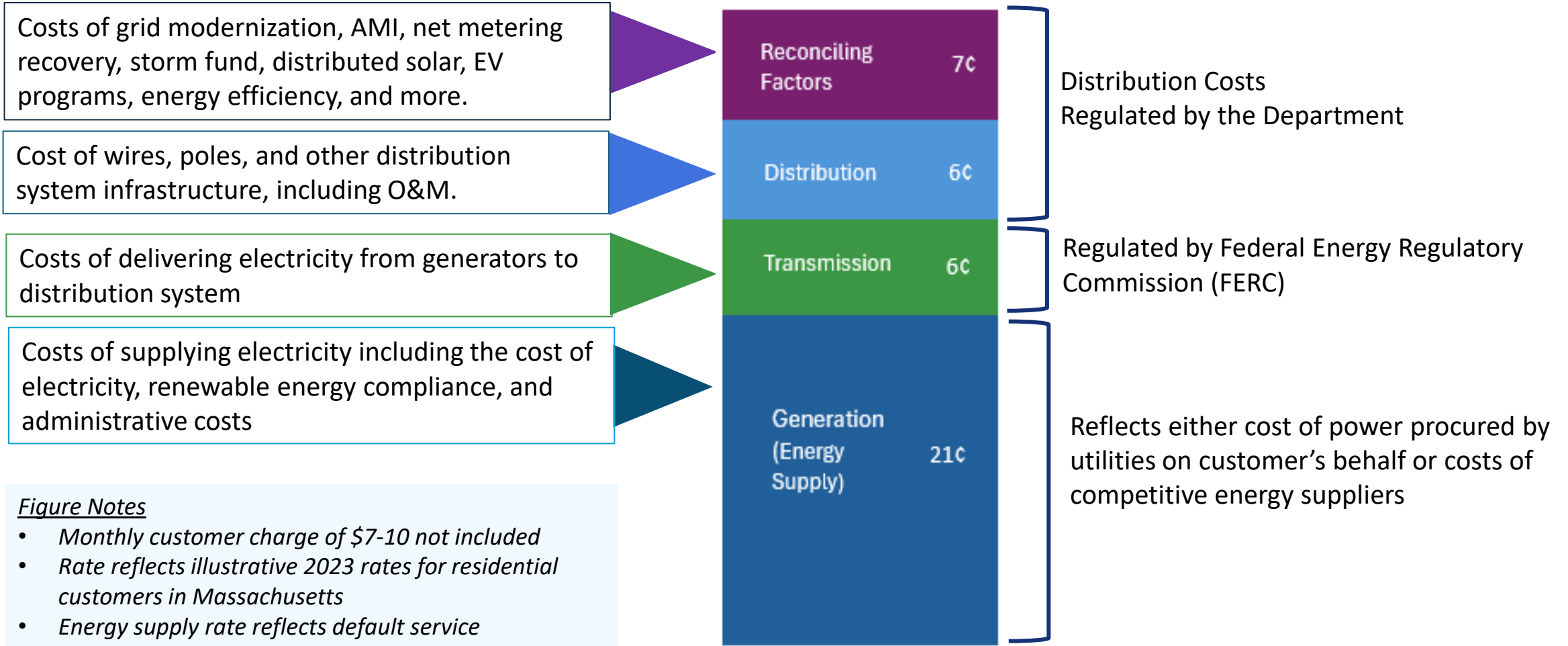
Therefore, the prices that EDCs charge for electricity is regulated by the Massachusetts Department of Public Utilities (the Department)



The Department's mission is to ensure that customers are protected, and that utility companies are providing the most reliable service at the lowest possible cost.

Costs Included in Electricity Rates

Total residential electricity volumetric rate:
39 cents/kWh



Distribution Costs

Some distribution costs are recovered through base distribution rates

- Other distribution costs are recovered through reconciling factors

Distribution rates are set based on the actual costs incurred by the EDC in a recent “test year”

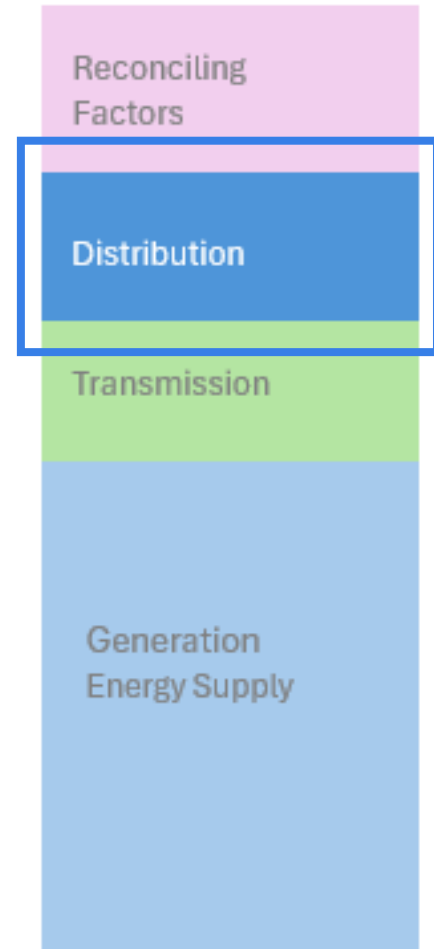
Base distribution rates are set using performance-based ratemaking (PBR)

PBR includes a formula that dictates cost recovery between rate cases:

- Allows EDCs to increase costs to account for inflation
- Requires EDCs to limit costs to promote productivity gains

A key distinction of base rates is that they do not allow EDCs to recover the exact amount of money spent

- If EDCs spend less than the allowed amount – they keep the difference
- If EDCs spend more than the allowed amount – they lose the difference



Rate Cases

Rate cases allow for detailed regulatory review of EDC's distribution costs and rates

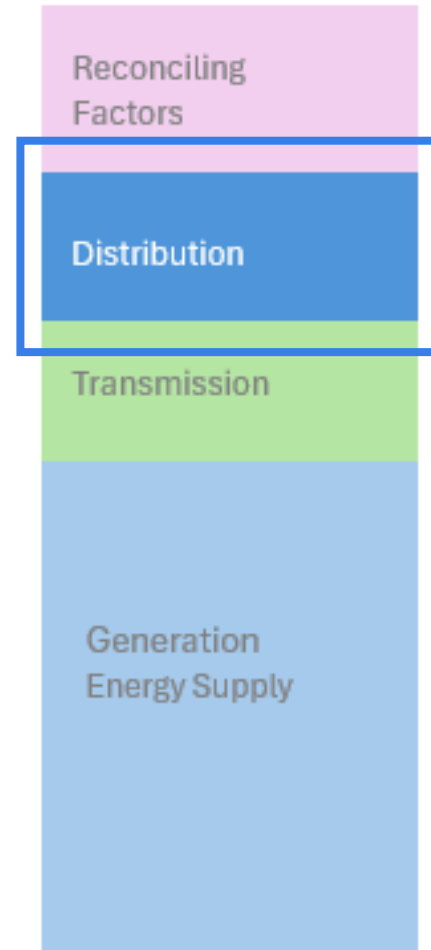
- With review and input from a variety of stakeholders (i.e., intervenors)

The Department reviews all proposed distribution costs to ensure that they are prudent, reasonable, used, and useful.

Rate cases are also used to ensure that

- Costs are allocated equitably across customer classes
- Rate designs are equitable across and within customer classes
- Rate designs are likely to promote efficient consumption levels
- Rates are overall just and reasonable.

EDCs have rate cases every five years



Reconciling Cost Recovery Factors

Reconciling factors are used to recover costs that are not well suited for recovery in base rates, including:

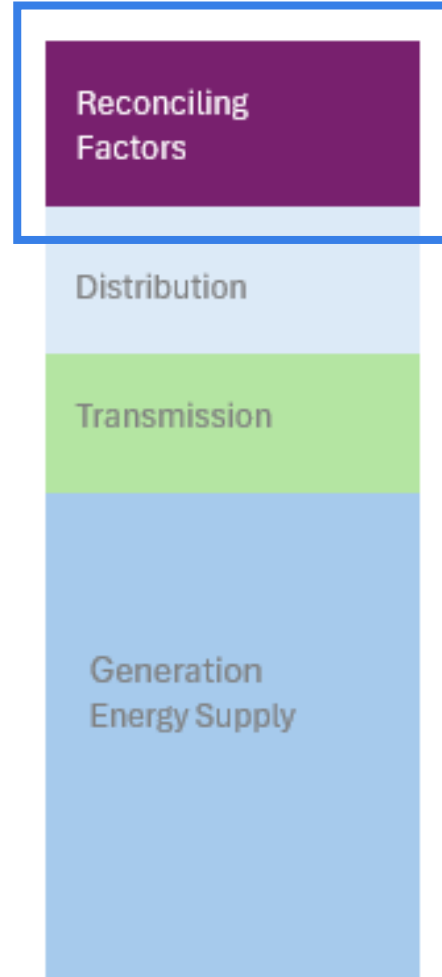
- Costs that are volatile and can change significantly between rate cases.
- Costs that are somewhat outside of the EDCs' control.
- Costs that are incurred to achieve specific policy goals.
- Costs that are likely to change significantly relative to the costs included in the test year.

Reconciling factors are typically determined at the beginning of a year based on forecasted costs for that year.

- At the end of the year, any differences between actual and forecasted costs are reconciled
- This allows EDCs to pass through ratepayers the amount of money spent

Some reconciling factors are subject to significant stakeholder and regulatory review prior to being put into rates

- Example: the energy efficiency programs are reviewed by the Energy Efficiency Advisory Council and approved by the Department before the costs go into rates



Reconciling Cost Recovery Factor Examples



Reconciling factors are used to recover a variety of costs

Examples include:

- Pension adjustment factor
- Residential assistance adjustment factor
- Net metering recovery surcharge
- Long-term renewable contract adjustment
- Solar cost adjustment factor
- Vegetation management factor
- Grid modernization factor
- Advanced metering infrastructure
- Storm cost recovery adjustment factor
- Revenue decoupling adjustment factor
- Distributed solar (SMART)
- Energy efficiency reconciling factor
- Renewable energy
- Electric vehicle program factor

Reconciling
Factors

Distribution

Transmission

Generation
Energy Supply

Base Distribution Rates vs. Reconciling Factors



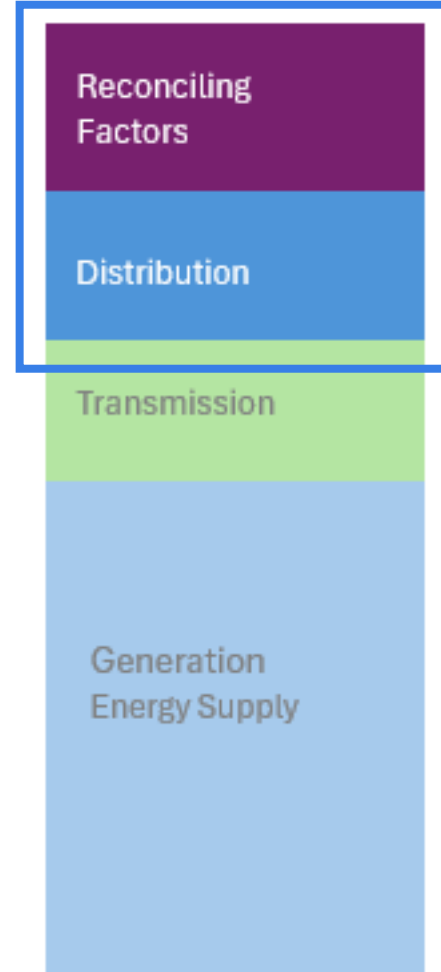
Base Distribution Rates

- Rates are set during a rate case
 - Rates are set every five years
- Regulatory review occurs after costs are spent
 - Includes extensive regulatory review
- Cost are based on historical test year costs plus PBR formula
- EDCs do not recover the exact amount of costs incurred
- Large increases in costs between rate cases are not recovered by the EDC



Reconciling Factors

- Rates are set outside a rate case
 - Rates are set every year
- Regulatory review typically occurs before costs are spent
 - Sometimes includes regulatory review
- Costs are typically based on forecast of next year's cost
- EDCs recover the exact amount of costs incurred
- Large increases in costs between rate cases are recovered by the EDC



EDC Update to GMAC on ESMP Phase 2 Cost Recovery

January 30, 2025



- 01 Background
- 02 ESMP Tariff Highlights
- 03 Annual Filings
- 04 Investment Summary

Agenda

Key Findings

- In the Phase 2 proceeding, the Department intends to establish parameters for a new short term cost recovery mechanism and explore a long-term recovery framework to eventually replace the short-term mechanism.
- **On November 21, 2024, the Department issued the Phase II Procedural Notice directing the EDCs to coordinate and jointly file a model ESMP tariff and for each EDC to submit a company-specific exemplar tariff with supporting documentation and testimony.**

ESMP Statute

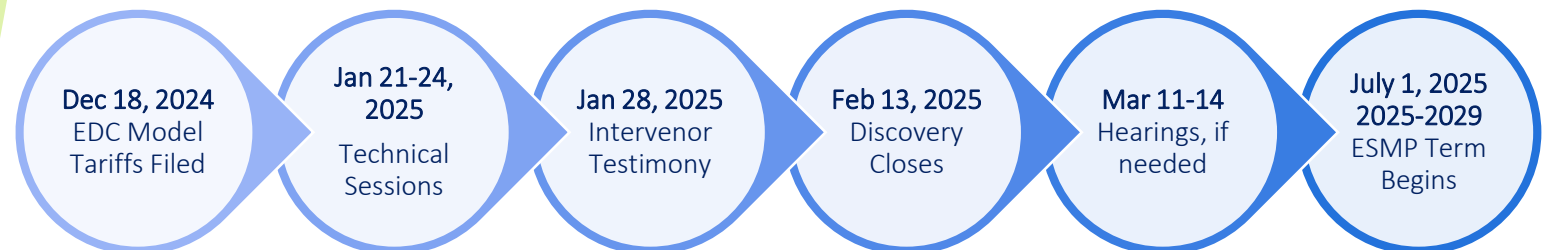
The approved ESMPs are the EDCs strategic plans for proactive investments consistent with G.L. c. 164, § 92B (the “ESMP Statute”). The ESMP Statute requires the EDCs to develop *proactive* plans to upgrade their respective distribution systems to accommodate various clean energy objectives.

Traditional Cost Recovery Standards

The Department’s standards for traditional cost recovery do not contemplate recovery of the proactive investments motivated by the ESMP Statute, particularly through base distribution rates. **The Company’s ability to meet its capital requirements *and* further the objectives of the Commonwealth’s clean energy future is dependent on timely and adequate recovery of its investments.**

Common Tariff Provisions for all EDCs

The companies worked collaboratively to file a model ESMP tariff to establish a short-term cost recovery mechanism consistent with the Department's directives and supporting testimony, along with company-specific exemplar tariffs on December 18, 2024. The procedural schedule is as follows:



ESMP Tariff Highlights

Key Findings

- In the Phase 2 proceeding, the Department intends to explore: (1) definitions of costs eligible for recovery; (2) cost containment provisions such as budget or revenue caps; (3) documentation required to support cost recovery; (4) the Companies' processes for evaluating alternatives and addressing changed circumstances during the five-year ESMP terms; (5) consideration of possible mechanisms to encourage innovative approaches designed to minimize costs for ratepayers; and (6) planned obsolescence of the ESMP mechanism.
- The Department directed the EDCs to consider the requirements established in the grid modernization proceedings applicable to the definitions for eligible investments.

Costs Eligible for Recovery

The ESMP Tariff specifies that the EDCs may recover ESMP capital and O&M expenses associated with the implementation of the Company's approved ESMP, including O&M costs incurred after January 1, 2025, necessary to implement the ESMP investments beginning July 1, 2025.

Cost Containment

The EDCs propose to implement an annual revenue cap and term spending cap as additional customer protections. The EDCs have identified opportunities for outside funding through federal grants.

Documentation

The ESMP Tariff lists specific filing requirements for the annual cost recovery filings, including full project documentation demonstrating that the costs sought for recovery for categories of Eligible ESMP Investments are incremental, prudently incurred, and, where applicable, in service, and used and useful. The annual filing requirements also include alternatives considered, including NWAs.

Planned Sunset

As long as the Commonwealth's clean energy goals require the EDCs to undertake proactive incremental ESMP investments above core capital expenditures, a cost-recovery path other than base rates is necessary for such investments. The EDCs proposed tariff is for investments arising from the first ESMP.

Key Findings

The Department directed the EDCs to consider and address other relevant factors including whether the Department should:

- (1) conduct annual prudency reviews for the filings rather than an end-of-term review;
- (2) align cost recovery filing dates for investments with the second biannual report filing date of September 30 established by the Department;
- (3) require at least 60 days between the annual filing date and the date that proposed revised ESMP rate factors would take effect;
- (4) require the EDCs to explain how they minimized the potential for stranded costs and identify and explain stranded costs in their annual cost recovery filings; and
- (5) the appropriate regulatory lag for ESMP investments.

Biannual reports detailing progress on ESMP implementation commence on September 30, 2025

Annual Prudency Reviews

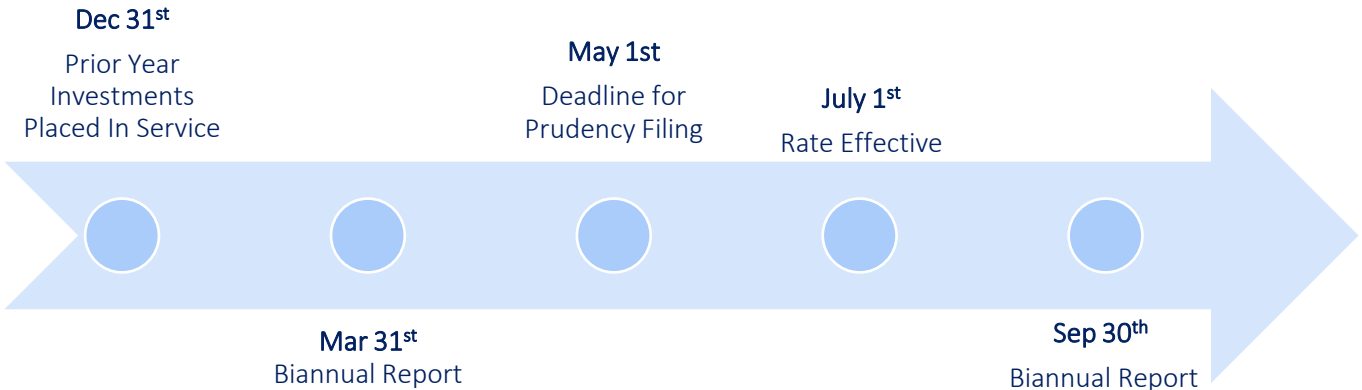
Companies support annual prudency reviews to provide timely feedback on investments and more regulatory certainty to encourage the Company's to pursue investments

Alignment with Biannual Reports

Support aligning cost recovery filing closer to March 31st biannual report which will reflect implementation for the same period that the Company seeks cost recovery, while maintaining regulatory lag.

Standard 60-day Review Period

Support filing at least 60 days before effective date of rate



Note: Electric Vehicle, CIP/Provisional Planning, and Affordable Solar programs are reviewed and approved in separate proceedings.

Eversource's 2025-2029 ESMP planned investments applicable to ESMP mechanism total \$339m

Platform Investments

- **DERMS Phase II.** Deployment of DERMS across eastern Massachusetts following western MA deployment in 2025 to cover all of MA service territory.

Customer Investments

- **Grid Services Compensation Fund.** Participating customers will be compensated for grid services, consistent with findings of MassCEC grid services compensation study
- **Southampton BESS.** Incorporate BESS with existing solar to increase Volt Var optimization schemes to reduce peak demand and lower carbon emissions
- **FERC Order 2222** – Necessary improvements to support FERC Order 2222 and DER access to the wholesale markets
- **Integrated Energy Planning.** Advanced system planning tools will prioritize DERMS opportunities in coordination with other regional projects (e.g., CIP, capacity upgrades, resiliency)

Resiliency

- **Resiliency.** Investments to increase resiliency based on historical experience and analysis of future risks.

Investment Summary

National Grid's 2025-2029 ESMP planned investments applicable to ESMP mechanism total \$2.2b

Network Investments

New substation and distribution line upgrades to support electrification load growth and DER interconnections, as well as investments to install and manage additional technology to improve network operations and management.

Platform Investments (IT, Data, Comms, and Digital)

Technology investments to accelerate and support the transition to a clean energy-heavy grid, including network management technologies (including DERMS), telecommunications, cybersecurity, data management, and new digital products to support asset management, technology, and operations.

Customer Investments

New programs and demonstrations to advance VPPs and use of DER for grid services, including the Grid Services Compensation Fund through which participating customers will be compensated for grid services, consistent with findings of MassCEC grid services compensation study, investments in new clean energy customer portals & enabling technologies and scale flexible connections for renewables, storage and EVs.

Program Administration

Stakeholder outreach (including CESAG), portfolio and program management, enduring bi-annual reporting, performance metrics and support for development of future five-year ESMP plans

Investment Summary



Unitil's 2025-2029 ESMP planned investments applicable to ESMP mechanism total \$52.2m

- **Network Investments**
 - **VVO** – Continued rollout of Volt-Var optimization across the service territory.
 - **Lunenburg Substation** – substation expansion
 - **South Lunenburg Substation** – new substation located in south Lunenburg
- **Platform Investments**
 - **ADMS/DERMS** - Expanding functionality of ADMS including DERMS
 - **Cyber Security** - Programs and technologies to address risks to field devices
 - **Automation** – Further expansion of automation within substations and on the distribution system
- **Customer Investments and Programs**
 - **Grid Services Compensation Study and Fund** - Participating customers will be compensated for grid services, consistent with findings of MassCEC grid services compensation study
 - **FERC Order 2222** – Necessary improvements to support FERC Order 2222 and DER access to the wholesale markets
- **Resiliency**
 - **Targeted Spacer Cable and Undergrounding** – Installation of spacer cable and undergrounding where traditional reliability improvements have not been successful
- **ESMP Program Administration**
 - **ESMP Program Administration** - Stakeholder outreach (including CESAG), measurement and verification, program management

QUESTIONS?



Appendix



Key Findings

The Department directed the EDCs to consider and address other relevant factors including whether the Department should:

- (1) conduct annual prudency reviews for the filings rather than an end-of-term review;
- (2) align cost recovery filing dates for investments with the second biannual report filing date of September 30 established by the Department;
- (3) require at least 60 days between the annual filing date and the date that proposed revised ESMP rate factors would take effect;
- (4) require the EDCs to explain how they minimized the potential for stranded costs and identify and explain stranded costs in their annual cost recovery filings; and
- (5) the appropriate regulatory lag for ESMP investments.

Annual Filings will include:

1. Full project documentation of all Eligible ESMP Investments, inclusive of capital investments recorded as in-service by the Company or its affiliate during the Prior ESMP Investment Year, and documentation of Allowed O&M Expense, with narrative providing justification that the costs meet the cost recovery eligibility requirements;
2. Supporting documentation demonstrating that the costs sought for recovery for categories of Eligible ESMP Investments are incremental, prudently incurred, and, where applicable, in service, and used and useful;
3. Any cost variances in relation to the budget estimates for that investment year and as defined in the Company's capital authorization policies;
4. A demonstration that the ESMP Mechanism adjustment does not exceed the cap on Eligible ESMP Investments and Allowed O&M expense
5. Details on alternative funding sources obtained for the investments and the associated offset for such funding;
6. A summary of (a) cumulative planned ESMP investments and estimated costs for the subsequent ESMP Investment Year, and (b) anticipated revisions to and reprioritization of proposed ESMP investments;
7. Discussion of the alternative investments considered, including but not limited to Non-Wire Alternatives;
8. The ESMP Reconciliation;
9. A demonstration that the proposed ESMPF is calculated appropriately; and
10. ESMPF-specific bill impacts

Discussion



Discussion facilitated by Councilors Sarah Cullinan, MassCEC and Chris Modlish, AGO

General

- After those presentations, what is confusing to you about cost recovery generally?
- What is confusing about the ESMP cost recovery proposals specifically?

Cost Containment

- Did you develop any thoughts on the proposed cost containment provisions?
- What other provisions could encourage cost containment? Review standards, review frequency, documentation requirements, incentive mechanisms?
- Should the GMAC be concerned with not only cost containment, but also cost efficiencies? How can a cost recovery mechanism encourage investments that provide the most benefits per dollar spent?
- What should an evaluation of alternatives look like? Could it help with cost containment?
- Brainstorming, what comes to mind as ideas for DPU's objective of incorporating "possible mechanisms to encourage innovative approaches designed to minimize costs for ratepayers"?

Questions continued on next slide

Budgets/Proposed Costs

- The amounts proposed for ESMP capital are very different between the companies. What are some reasons?
- Should these ESMP budgets be more consistent across the EDCs?
- Should investment categories eligible for recovery be consistent across the EDCs?
- Should network investments to serve load growth be recovered through the ESMP reconciling factor?

Other Considerations

- How can the administrative burden, on DPU and intervenors in particular, be balanced when designing cost recovery requirements?

Appendix

Base Rates Versus Reconciling Factors

	Base Rates	Reconciling Factors
Cost Categories	Can potentially include any relevant category of costs (e.g., O&M, capital, return on equity, depreciation, debt, taxes)	
Rationale for Recovery Mechanism	To recover core costs that are relatively stable and within EDC control	To recover costs that are relatively volatile, less within utility control, and/or are needed between rate cases
Basis of Costs Recovered	Historical costs spent in test year, with annual PBR adjustments for future years	Typically based on forecast of future costs by year
Timing of Regulatory Review	After costs are spent	Before costs are spent
Preapproval	No	Potentially
Prudence review	Potentially, when certain costs are called into question, after costs are spent	Potentially, when certain costs are called into question, after costs are spent
Costs reconciled	No	Potentially
Timing of Cost Recovery	Capital costs: after projects are in service. O&M costs: in year spent	Capital costs: after projects are in service. O&M costs: in year spent
Source of Incentive to Keep Costs Low	Rate case review, PBR formula, threat of prudence review	Regulatory oversight (where applied), performance incentive (where applied), threat of prudence review

Example: Substation Costs Recovered Through Base Rates



	Base Rates
Cost Categories	All relevant categories of substation costs (O&M, capital, return on equity, depreciation, debt, taxes)
Rationale for Recovery Mechanism	Substation costs are core elements of utility service, are relatively stable, and are within EDC control
Basis of Costs Recovered	Historical costs spent in test year, with annual PBR adjustments for future years. This means that the EDC might not recover the exact amount spent on each substation. Costs for projects implemented between test years are not recovered, to the extent they deviate from the test year.
Timing of Regulatory Review	After costs spent. In the rate case following the substation going into service.
Preapproval	No
Prudence review	Yes. The Department can review the prudence of a historical expenditure in a rate case - if there is reason to believe the relevant project was not prudent.
Costs reconciled	No
Timing of Cost Recovery	Capital costs: recovered after costs are spent and substation is in service O&M costs: essentially recovered in year spent
Source of Incentive to Keep Costs Low	Rate case review of costs, PBR formula, threat of prudence review

Example: Energy Efficiency Costs Recovered Through Reconciling Factor

	Energy Efficiency Reconciliation Factor (EERF)
Cost Categories	EE programs do not incur capital costs. EERF includes all O&M, labor, contractor costs, and other annual costs of EE implementation.
Rationale for Recovery Mechanism	To provide EDCs with predictable and timely recovery of costs that might change between rate cases
Basis of Costs	Forecast of costs incurred by EDCs to run EE programs
Timing of Regulatory Review	The EE Plans are reviewed by the Energy Efficiency Advisory Council and then the DPU prior to the year in which they are implemented
Preapproval	Yes. By approving the EE plans, the Department signals that the costs will be allowed for recovery as long as (a) they are consistent with the EE Plans, and (b) they are spent prudently
Prudence review	Potentially. The Department can review the prudence of EE costs if there is reason to believe the costs were incurred imprudently
Costs reconciled	Yes. EDCs are allowed to recover exactly the amount they spend.
Timing of Cost Recovery	EE costs are recovered during the year they are spent, with any reconciliation in the following year
Source of Incentive to Keep Costs Low	Detailed review of EE Plans by EEAC and the Department, performance incentive mechanisms, threat of prudence review

EDC Proposal: ESMP Costs Recovered Through Reconciling Factor



	ESMP Factor
Cost Categories	All categories of ESMP costs, including O&M, capital, return on equity, depreciation, debt, taxes. For example, the costs of platform investments or the costs of DERMS phase II.
Rationale for Recovery Mechanism	EDCs argue that ESMP costs (a) are driven by policy goals, (b) are increasing significantly and therefore will exceed test year costs, and (c) must be funded on a timely basis
Basis of Costs	Forecasts of annual ESMP costs
Timing of Regulatory Review	Before the costs are incurred. The ESMP investments were reviewed in DPU Dockets 24-10/11/12
Preapproval	The EDCs' proposal allows them to spend up to the cost amounts included in their ESMPs
Prudence review	Yes. The EDCs propose annual prudency reviews by the Department.
Costs reconciled	Yes. EDCs are allowed to recover exactly the amount they spend.
Timing of Cost Recovery	ESMP costs are essentially recovered during the year they are spent, with any reconciliation in the following year
Source of Incentive to Keep Costs Low	Department review of ESMPs, threat of prudence review

Consultant Memo on ESMP Phase II



- Synapse has offered to prepare a memo for the GMAC describing key items in the EDCs' short-term cost recovery proposal. The memo would include:
 - Background on recent DPU Order related to cost recovery
 - Describe Synapse's thoughts about the proposal
 - Offer recommendations on how the proposal could be improved

Would GMAC members like Synapse to prepare this memo?

Close and Next Steps

- The next **GMAC** meeting is February 27, 2025 from 1-3 PM
- The next **ExCom** meeting is February 13, 2025 from 9:30 – 10:30 AM
- The next **EWG** meeting is February 20, 2025 from 10 – 11:30 AM