

Massachusetts filed the nation's first grid-modernization plans. Now they have to be funded — and defended.

A binding 2050 net-zero law is pushing heat and transport onto a grid where natural gas still fuels 51% of New England's power and winters are the reliability pinch point. Offshore wind slips, electrification climbs, and each shift reorders the projects on your list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision.

51%¹ Natural gas's share of New England's electricity in 2025 — the root of the region's winter fuel-security risk.	\$26.5B² Eversource's capital investment plan for 2026–2030.	+2.9%/yr³ ISO New England's forecast winter peak-demand growth through 2035, as heating and transport electrify.	806 MW⁴ Vineyard Wind offshore capacity (~400,000 homes) — central to the transition, and repeatedly delayed.
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THE MASSACHUSETTS LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

DEMAND — LOAD GROWTH**Winter load is the new growth curve**

ISO New England projects regional electricity use rising about 1.0% a year through 2035 — but the *winter* peak is forecast to climb roughly 2.9% a year as heating and transportation electrify, far outpacing the 0.7% summer trend.³

The ISO now plans around the electrification of heat and transport and the national surge in data-center load as core demand drivers,⁵ all pushed by a state mandate to cut emissions at least 50% below 1990 levels by 2030.⁶ Every heat pump and EV charger is new load your plan has to serve.

RELIABILITY — WINTER & GAS**A gas-heavy grid, squeezed in the cold**

Natural gas fueled about 51% of New England's electricity in 2025.¹ In cold snaps most of that gas is committed to heating homes first, so power plants can be left short of fuel — the constraint behind the region's recurring winter price spikes and ISO New England's Operational Fuel Security analysis.⁷

With the winter peak now the fastest-growing slice of demand,³ reliability increasingly rides on getting new resources and grid capacity built on schedule.

GENERATION — THE TRANSITION**Net-zero on a clock, offshore wind in flux**

Massachusetts' 2050 net-zero law — with an 85% floor below 1990 emissions — is rewriting the resource mix while gas still supplies 51% and nuclear 23% of regional generation.⁶

Offshore wind is central and turbulent: Vineyard Wind's 806 MW (about 400,000 homes, roughly \$4 billion) was set back by a July 2024 blade failure before construction wrapped in 2026,⁴ and Eversource exited offshore-wind development in 2023 at a loss.⁸ Each schedule slip reshuffles the capital plan.

CAPITAL — GRID MODERNIZATION**First-in-the-nation plans, multi-billion price tags**

Massachusetts utilities filed the country's first Electric Sector Modernization Plans in January 2024; the DPU approved them with modifications in August 2024 as multi-year roadmaps to ready the grid for clean-energy interconnection and electrification.⁹

The dollars are large and rising: Eversource alone plans \$26.5 billion of capital investment for 2026–2030,² with its ESMP recovered through a dedicated cost mechanism established in 2025,¹⁰ while National Grid invests more than \$3.5 billion a year across its U.S. system.¹¹ New mandates don't replace the backlog — they stack on top of it.

WHO RUNS MASSACHUSETTS'S GRID

Three DPU-regulated utilities, and dozens of municipal light plants

Massachusetts's grid sits inside ISO New England, which coordinates a bulk power system serving about 6.5 million customers across the region.¹² In-state, delivery is carried by three investor-owned distribution utilities regulated by the Department of Public Utilities, plus a large set of publicly owned municipal light plants. The pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the DPU

Eversource (NSTAR Electric) ~1.4M electric customers · 140 communities⁸

National Grid (Massachusetts Electric Co.) Eastern & central MA · Massachusetts Electric & Nantucket Electric¹¹

Unitil (Fitchburg Gas & Electric) ~30,700 electric customers · north-central MA¹³

Eversource alone plans \$26.5 billion of capital investment over 2026–2030.²

Municipal light plants

Publicly owned — local boards set rates, not the DPU

Braintree Electric Light Dept. Municipal light plant

Taunton Municipal Lighting Plant Municipal light plant

Reading Municipal Light Dept. Municipal light plant

Holyoke Gas & Electric Municipal light plant

Massachusetts's municipal light plants are publicly owned and set their own rates and capital budgets through local boards, outside DPU rate regulation.

Every capital dollar has to be defensible

Whether you answer to the Department of Public Utilities or a municipal board, the question is the same: why this project, why now, why at this cost?

Department of Public Utilities (DPU) regulates rates, capital cost recovery, and the Electric Sector Modernization Plans for Eversource, National Grid, and Unitil.⁹

Eversource / NSTAR Electric rate framework — a five-year performance-based ratemaking (PBR) plan approved in November 2022 and effective January 1, 2023, adjusts base distribution rates annually for inflation and capital additions.¹⁰

First-in-the-nation ESMPs were approved with modifications in August 2024, putting each utility's multi-year grid-upgrade plan under active DPU review.⁹

Municipal light plants set their own rates and capital plans through local boards — public capital decisions made outside DPU rate regulation.

The money is moving — can your plan absorb it?

Massachusetts utilities have more grid capital in motion than in a generation, from ratepayer-funded capex to federal grid grants and clean-energy tax credits. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

Eversource: \$26.5 billion capital plan (2026–2030) — grid modernization, resiliency, and clean-energy interconnection²

ESMP cost recovery — Eversource's DPU-approved ESMP is recovered through a dedicated mechanism established in 2025, funding clean-energy interconnections and resiliency.¹⁰

DOE GRIP program: \$10.5 billion nationally, with \$7.6 billion already committed across 105 projects in all 50 states and D.C. — a pool New England utilities are actively tapping for grid resilience.¹⁴

Vineyard Wind: ~\$4 billion, 806 MW of offshore wind feeding the Massachusetts grid, plus its onshore interconnection.⁴

IRA elective-pay (direct-pay) tax credits extend federal clean-energy incentives to public power and municipal light plants that historically could not monetize tax credits.

MASSACHUSETTS'S GRID, IN BRIEF

Questions Massachusetts utility leaders are asking

Short, sourced answers — the same facts we dig into with utilities looking at their capital programs.

How fast is Massachusetts's electricity demand growing?

ISO New England projects regional demand up about 1.0% a year through 2035, but the winter peak roughly 2.9% a year as heating and transport electrify. The ISO cites electrification and national data-center growth as core drivers, under a mandate to cut emissions 50% below 1990 levels by 2030.

Why are New England winters a grid-reliability risk?

Natural gas fueled about 51% of New England's electricity in 2025, but in cold weather most gas is committed to heating first, leaving some power plants short of fuel — the recurring constraint behind winter price spikes and ISO New England's fuel-security analyses.

What are the Electric Sector Modernization Plans (ESMPs)?

They are first-in-the-nation, multi-year grid-upgrade roadmaps required of Eversource, National Grid, and Unitil. The utilities filed them in January 2024 and the DPU approved them with modifications in August 2024. Eversource's is now recovered through a cost mechanism established in 2025.

What's happening with Massachusetts offshore wind?

Vineyard Wind's 806 MW (about 400,000 homes, roughly \$4 billion) was delayed by a July 2024 blade failure before construction finished in 2026, and Eversource exited offshore-wind development in 2023 at a loss — a reminder that transition timelines, and the capital tied to them, can move.

Does the DPU set my utility's rates?

The DPU regulates rates, cost recovery, and the ESMPs for the investor-owned utilities — Eversource, National Grid, and Unitil. Massachusetts's municipal light plants are publicly owned and set their own rates through local boards, outside DPU regulation.

How does Invizion help Massachusetts electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a winter load surge, an ESMP directive, a federal grant, or an offshore-wind slip reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the DPU or your board.

REFERENCES

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Every figure in this briefing is tied to a primary or authoritative source.

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ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See how utilities keep capital plans current and defensible with Invizion.

Explore Invizion →