



ISO New England Regional Update

2026 New Hampshire Energy Summit

Eric Johnson

EXECUTIVE DIRECTOR, EXTERNAL AFFAIRS



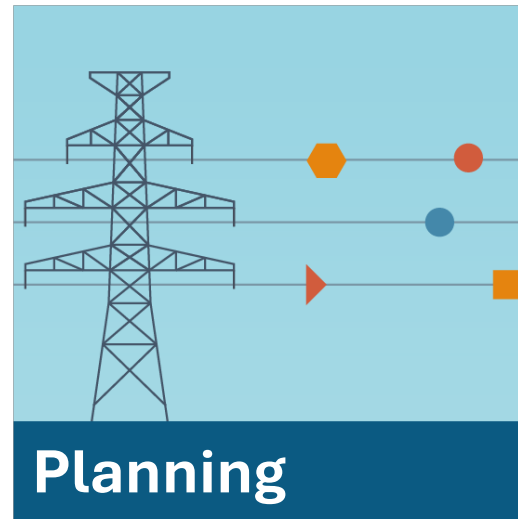
ISO New England Performs **Three Critical Roles** to Ensure Reliable Electricity at Competitive Prices



Coordinate and direct the flow of electricity over the region's high-voltage transmission system



Design, run, and administer the billion-dollar markets where wholesale electricity is bought and sold



Study, analyze, and plan to make sure New England's electricity needs will be met over the next 10 years

Things We Don't Do



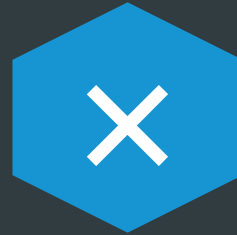
Handle
retail electricity



Own power grid
infrastructure



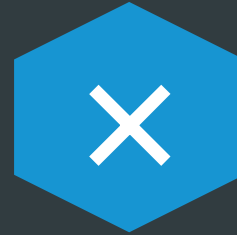
Have a stake in
companies
that own grid
infrastructure



Have
jurisdiction
over fuel
infrastructure



Have control
over siting
decisions

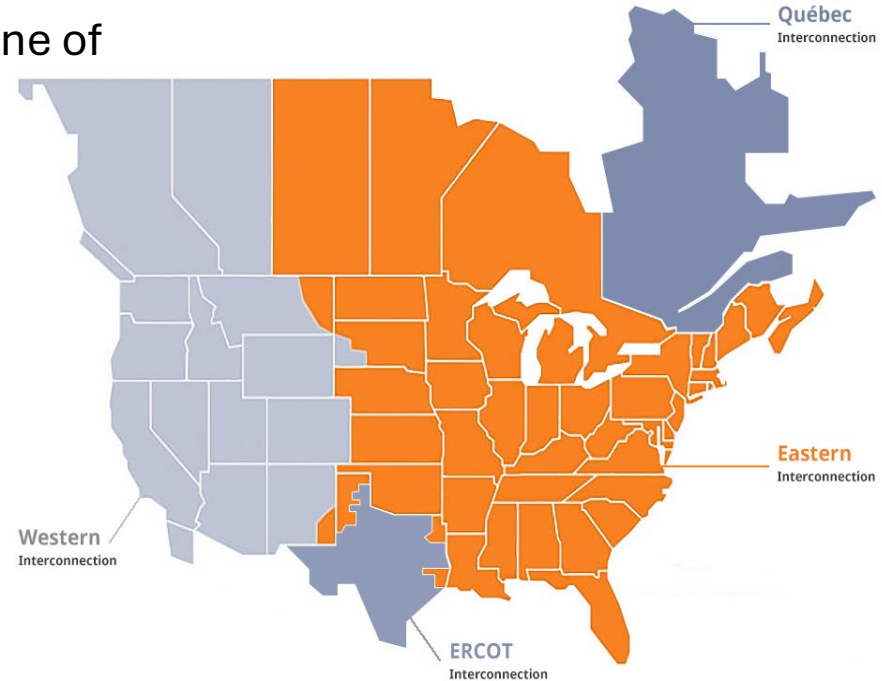


Plan the
resource mix



New England's Power Grid Is Part of a Larger Electric Power System

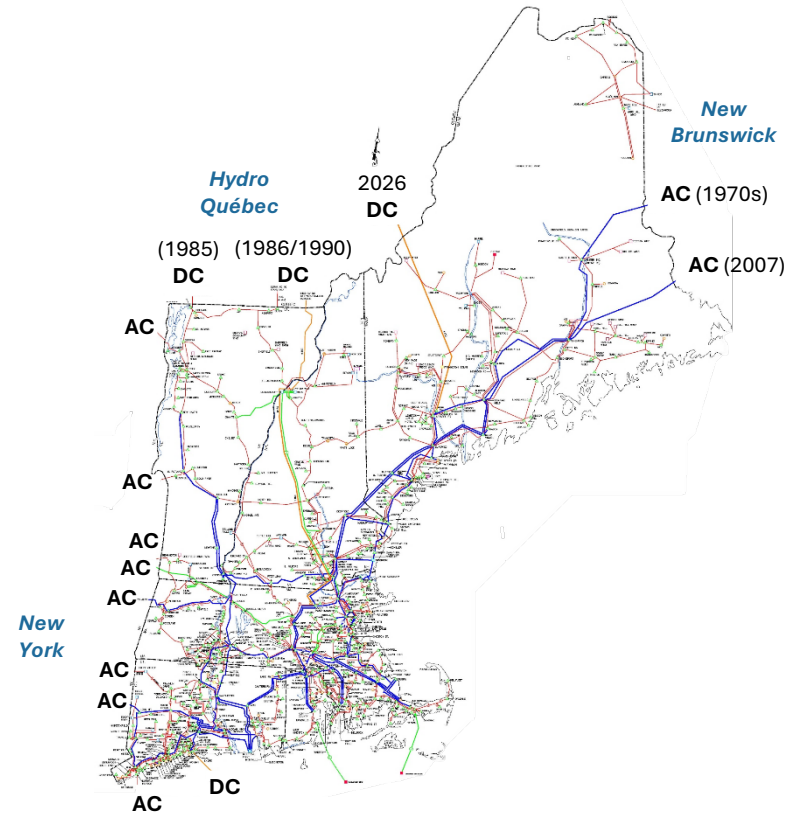
- Part of the **Eastern Interconnection**, one of four large power grids in North America
 - Interconnected through primarily alternating current (AC) transmission
- Tied to **Québec** only through direct current (DC) transmission
- 2003 blackout ushered in wide-area monitoring and **mandatory** reliability standards
- Subject to reliability standards set by **NERC** and **NPCC***



* North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council (NPCC)

New England Has Multiple Ties to Neighboring Regions

- Transmission system is tied to neighboring power systems in the U.S. and Eastern Canada:
 - New York (8 AC ties, 1 DC tie)
 - Hydro Québec (3 DC ties)
 - New Brunswick (2 AC ties)
- **7%** of the region's energy needs were met by imports in 2025



GROWING DEMAND FOR ELECTRICITY

*Electrification, Seasonal Shifts, Impact of Resources
Behind the Meter, and Large Loads*



2026 CELT Shows Growing Demand Through 2035

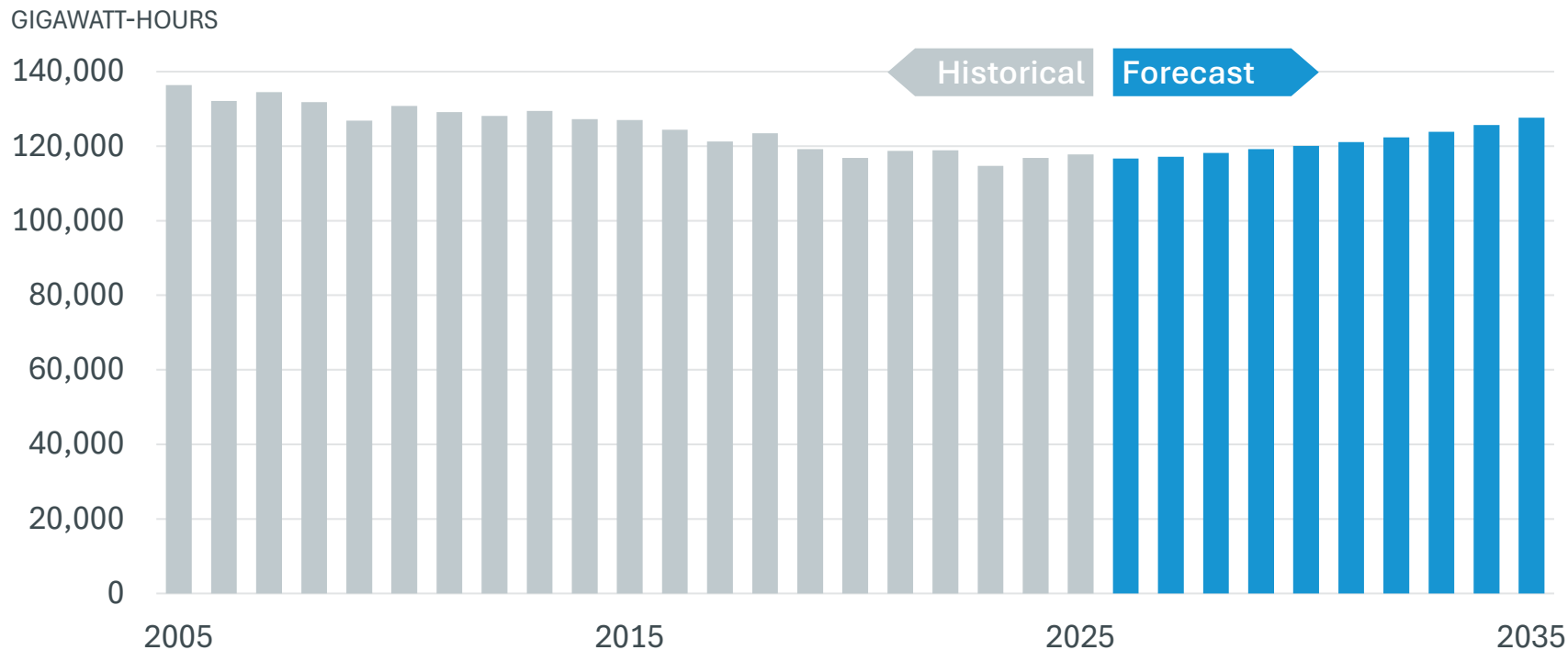


2026-2035 Capacity, Energy, Loads, and Transmission Report

Sustained load growth and changing seasonal dynamics will increase focus on winter reliability and system planning

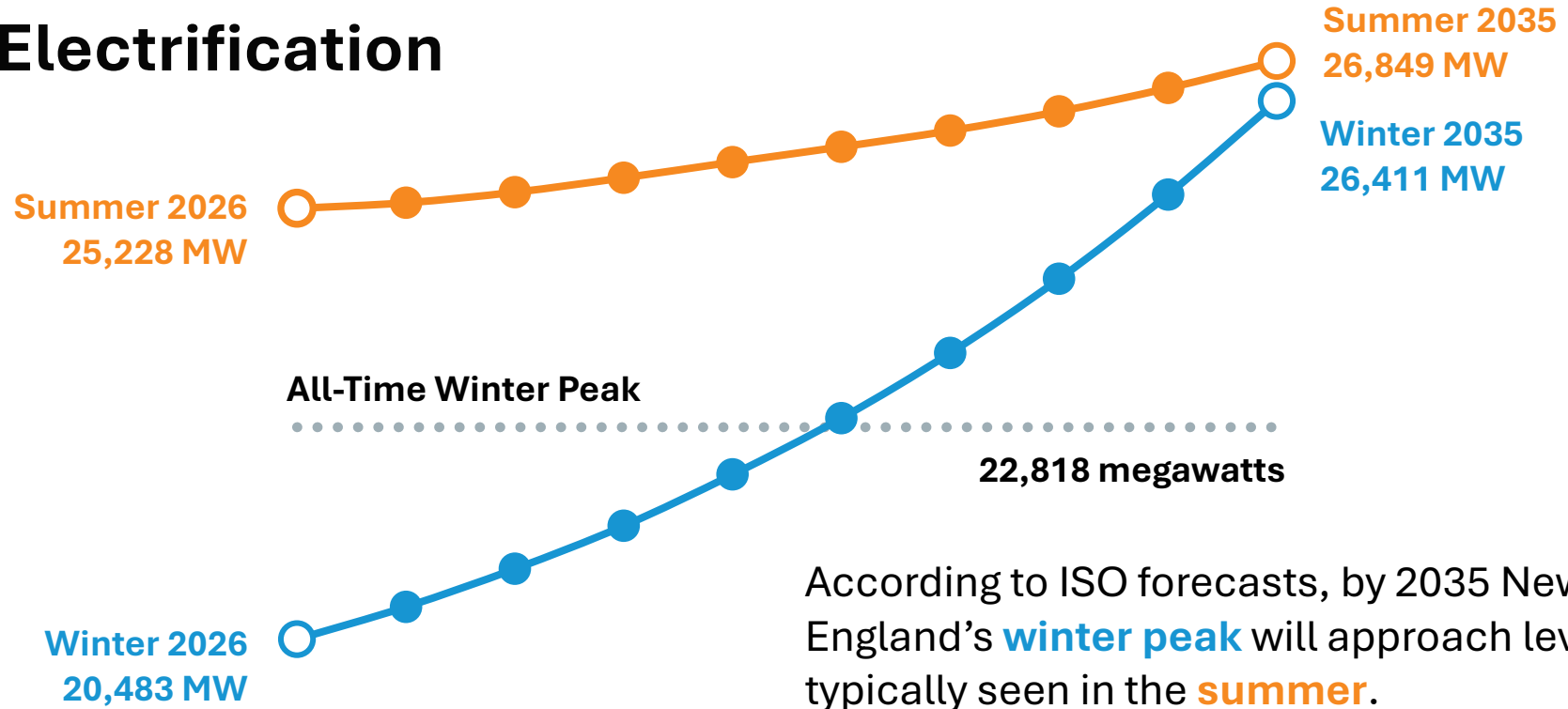
- **Demand ↑ ~9% by 2035 (~1% annually)**
 - Reverses long-term decline
 - Driven by electric vehicles and electric heating adoption tied to states' decarbonization goals
- **Winter demand ↑ faster**, could approach summer peaks by 2035 = **new reliability considerations**
- Behind-the-meter **solar reduces grid demand**, but **doesn't fully offset electrification** impacts
- **Enhanced forecasting** (e.g. hourly usage patterns, emerging large loads) **improving planning precision**
- Growth outlook moderated vs. prior forecasts due to **evolving policy and adoption assumptions**

Net Energy Use Set to Rise After Decades of Decline



Source: [ISO New England 2026-2035 Forecast Report of Capacity, Energy, Loads, and Transmission](#) (2026 CELT Report) (May 2026)

Peak Demand is Growing, Driven by Electrification

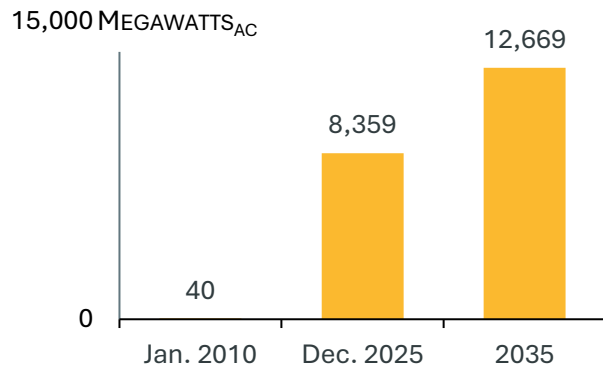


Source: [ISO New England 2026-2035 Forecast Report of Capacity, Energy, Loads, and Transmission \(2026 CELT Report\)](#) (May 2026)

Growth in the Region's Distributed PV Produces Extreme 'Duck Curves' on Some Days

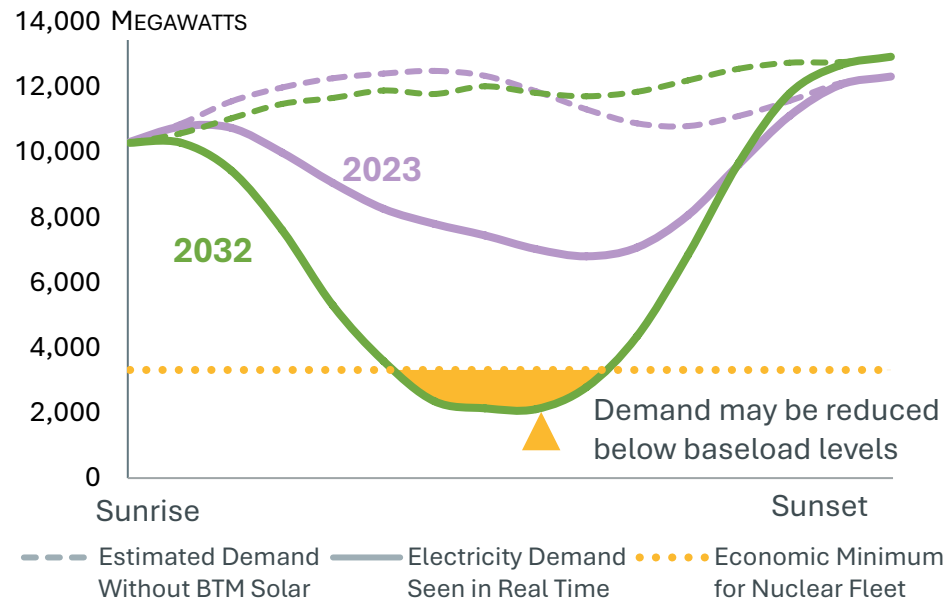
Balancing, flexible resources will be crucial to ensure equilibrium as intermittent resources see swings in energy production

Cumulative Growth in Solar PV



Source: [2026 Photovoltaic \(PV\) Forecast](#);
MW values are AC nameplate.

Potential Impact of Behind-the-Meter Solar



Source: [Economic Planning for the Clean Energy Transition: Illuminating the Challenges of Tomorrow's Grid](#) (October 2024)

New BTM Battery Forecast Shows Growth is Visible but System Impacts Remain Modest

KEY TAKEAWAYS



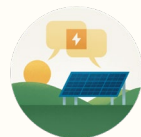
Net Annual Energy: effect remains minimal before 2028; the primary value is shifting when electricity is drawn from the grid



Summer Peak: Reductions become meaningful longer term, but remain around 100 MW today



Winter Peak: Little to no reduction projected by 2035



Visibility: Forecasting captures batteries not directly seen by the control room

111 MW

REPORTED TODAY



+173 MW

EXPECTED OVER 10 YEARS

(includes projects <1 MW that are co-located with rooftop solar panels)

Source: [ISO Newswire \(May 11, 2026\)](#); [Final 2026 DER Forecast](#)

ISO-NE is preparing for the potential of large load additions, including through:



Engagement with **New England Transmission Owners** regarding potential large load interconnections

Communication with **state policymakers, legislators and regulators** to understand any potential policy incentives for data centers

Research of methods and data sources to understand the potential magnitude, timing, and likelihood of future impacts of step loads in New England

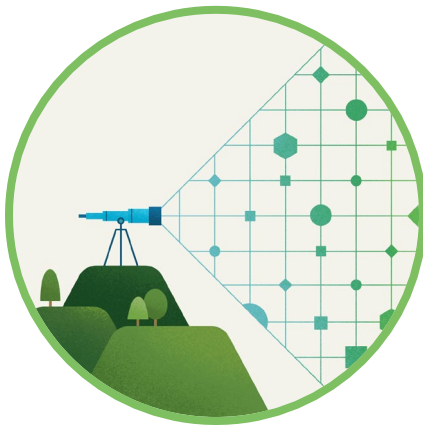
ISO-NE's 2026 CELT Includes Large Load Forecast

Current Status

- Limited, but potential for growth
- Only a few projects in formal study (<300 MW)

Near-Term Impact

- Minimal impact before **2027-2028**



Long-Term Outlook

- **~110–130 MW** impact to peak demand by 2030s–2040s
- Large loads expected to consume **~800 GWh** from 2030 to 2035, rising to **~1,000 GWh** in the 2040s

Large loads are **not yet a major driver of load growth in New England**, but **ISO-NE is proactively planning** for potential acceleration

Learn more: [2026-2035 Capacity, Energy, Loads, and Transmission Report](#); ISO-NE establishes forecast framework for data centers, other 'large loads' - ISO Newswire

FERC Show Cause Order on Large Load Integration June 2026

- **FERC action** directed all RTOs/ISOs to justify or reform tariff rules governing large load integration; existing tariffs may be unjust and unreasonable due to lack of clear large load provisions
- **Actions & Next Steps**
 - **Jun. 20:** ISO-NE filed report on resource adequacy for large load growth
 - **Nov. 16:** deadline to file changes to the region's interconnection processes to account for large and co-located loads



FERC'S 5 KEY REFORM AREAS

Transmission Study & Application

Processes: faster, standardized + scalable for large loads

Cost Allocation & Transparency: prevent cost shifting to other customers

Co-Location & BTM Generation: clarify treatment of load paired with generation

Flexible Load Transmission Services: new service models for controllable demand

Generator Interconnection Reforms: pathways for load-serving and proximate generation

A CHANGING RESOURCE MIX

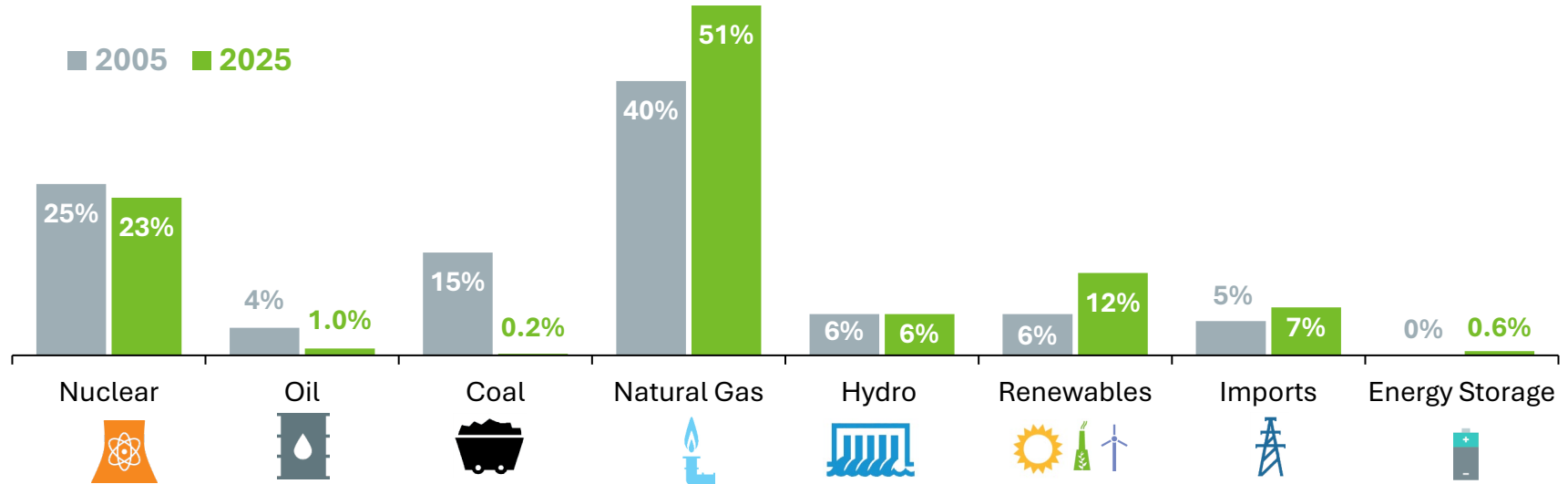
Retirements, Emissions Trends, and New Resources



Changes in the Energy Mix Over Time

The fuels used to produce the region's electric energy have shifted as a result of economic and environmental factors

Percent of Total **Electric Energy** Production by Fuel Type (2005 vs. 2025)



Source: ISO New England [Net Energy and Peak Load by Source](#); data for 2025 is preliminary and subject to resettlement

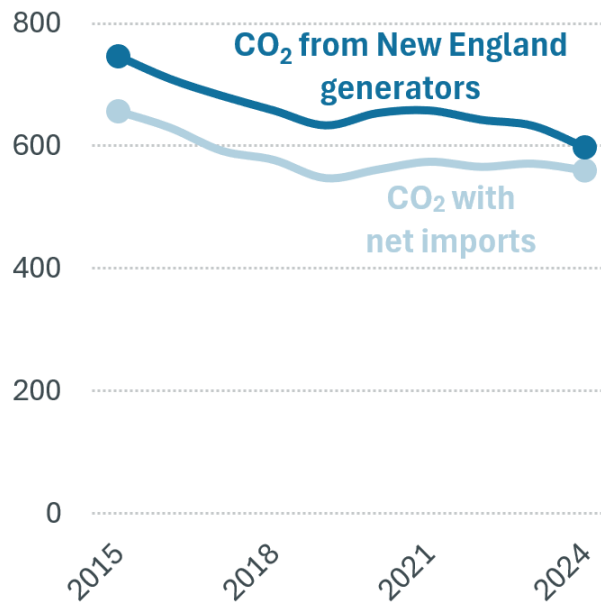
Renewables include landfill gas, biomass, other biomass gas, wind, grid-scale solar, municipal solid waste, and miscellaneous fuels.

This data represents electric generation within New England; it does not include imports or behind-the-meter (BTM) resources, such as BTM solar.

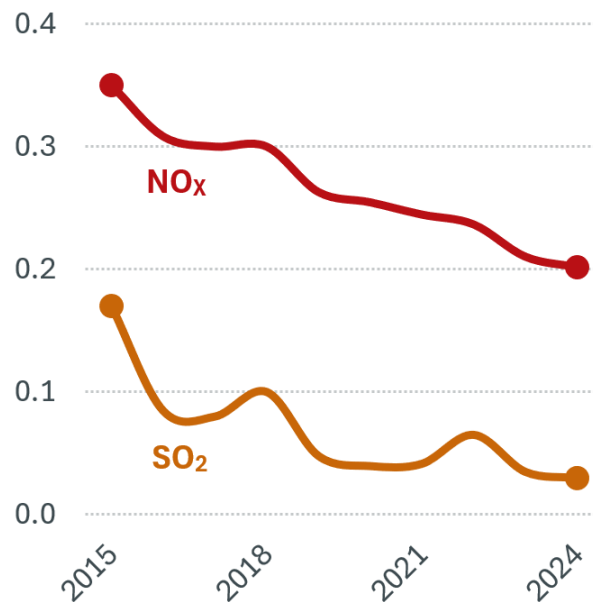
Major Emissions Reductions in Last Decade

Annual Emission Rate, 2015–2024

POUNDS PER MEGAWATT-HOUR (lbs/MWh)

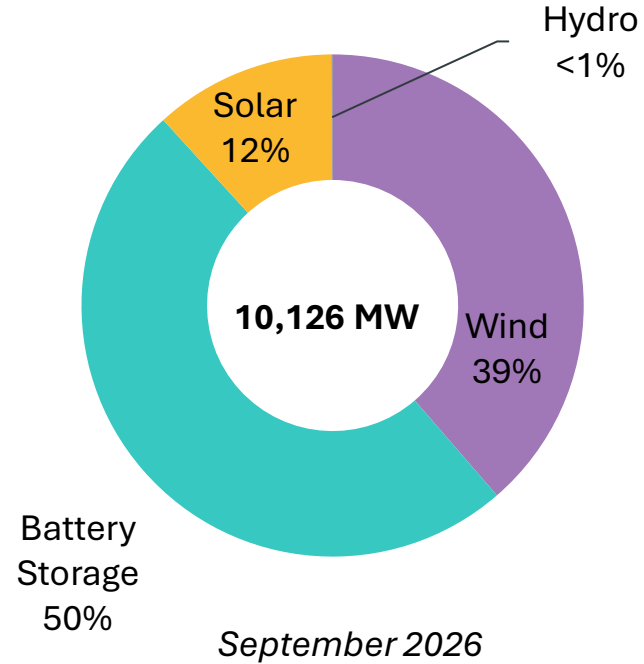
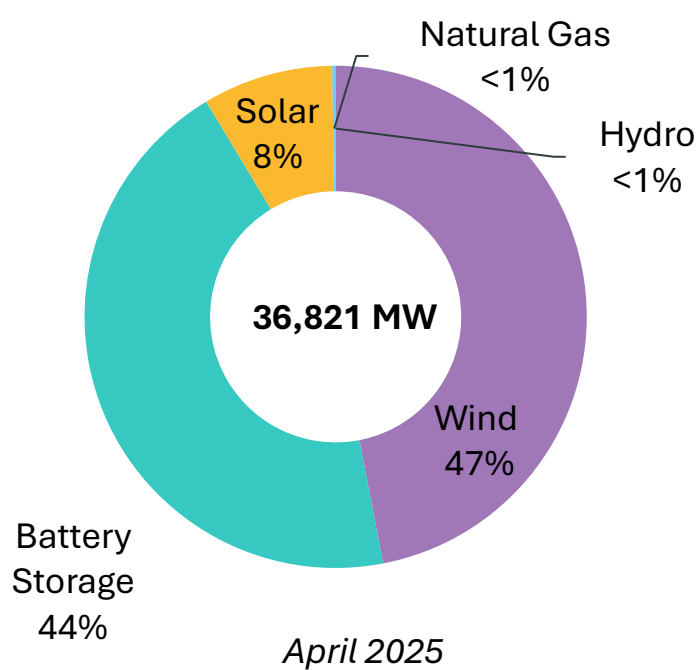


POUNDS PER MEGAWATT-HOUR (lbs/MWh)



Source: ISO New England, *New England Electric Generators Air Emissions Report*

Today's Queue Reflects the Changing Interconnection Process



Source: ISO Generator Interconnection Queue, FERC Jurisdictional Proposals; Nameplate Capacity Ratings.

Batteries are Moving from the Queue into Real-time Operations

TODAY'S RESOURCE MIX

<1%

of New England's
energy today

Current output is modest, but the project pipeline points to a much larger role in New England's future resource mix

PROJECT PIPELINE

50%

of 10,126 MW proposed
generation capacity

Battery storage leads the Sept. 2026 interconnection queue

Most batteries operating today, and most in the queue, are **short-duration** resources

Queue projects are proposals – not commitments

MARKET & PUBLIC VISIBILITY

A clearer operating
signal

Real time: ISO Express and ISO to Go now identify battery output in Resource Mix charts

Day ahead: State-of-charge and duration parameters became available for the Jan. 2, 2026 operating day

Short-duration batteries help manage brief peaks and rapid system changes; longer-duration storage could provide added reliability during sustained periods of high demand or tight supply

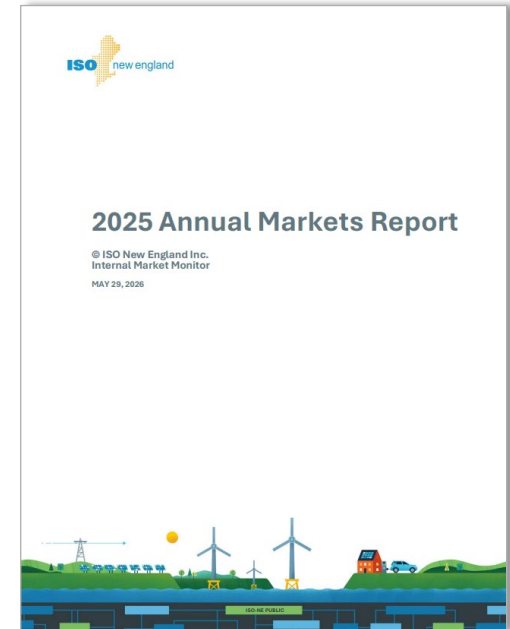
WHOLESALE ELECTRICITY MARKET UPDATE

Market Results and Coming Changes



2025 Annual Markets Report Overview

- In May, ISO New England's **Internal Market Monitor (IMM)** issued the *2025 Annual Markets Report (AMR)*
 - The IMM functions **independently** of ISO management and reports directly to the ISO Board of Directors
- The AMR assesses the **state of competition** in the wholesale electricity markets administered by the ISO during the most recent operating year
- The AMR also presents the **most important findings, market outcomes, and market design changes** of New England's wholesale electricity markets for 2025



The *2025 Annual Markets Report* is available on the [Internal Market Monitor webpage](#).

Interested in learning more? The IMM has published a primer that explains the fundamentals of New England's wholesale energy markets, which readers may find a useful companion to the IMM quarterly and annual markets reports: [An Overview of New England's Wholesale Electricity Markets \(2025 Update\)](#)

Market Monitor Issues 2025

Annual Markets Report

- Markets remain **competitive** but more expensive natural gas, tighter supply conditions, and changes to the resource mix and market design **drove prices higher**
 - Carbon pricing programs** increased average load-weighted energy prices by an estimated \$9/MWh in 2025 contributing about \$1.1 billion in total energy costs
 - Up \$8/MWh vs 2024
 - Net imports declined** and as a result, higher-cost resources inside New England more frequently set the marginal price



2025 ANNUAL MARKETS REPORT INTERNAL MARKET MONITOR

WHOLESALE ELECTRICITY COSTS

\$15 Billion

▲ **48% vs 2024**

DAY-AHEAD ENERGY MARKET*

\$71.81/MWh

▲ **73% vs 2024**

REAL-TIME ENERGY MARKET*

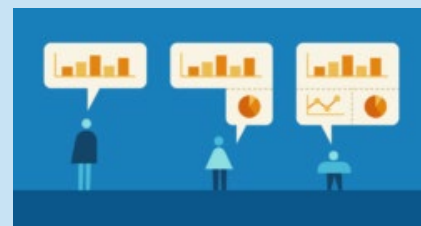
\$65.89/MWh

▲ **67% vs 2024**

** Avg. Hub Price*

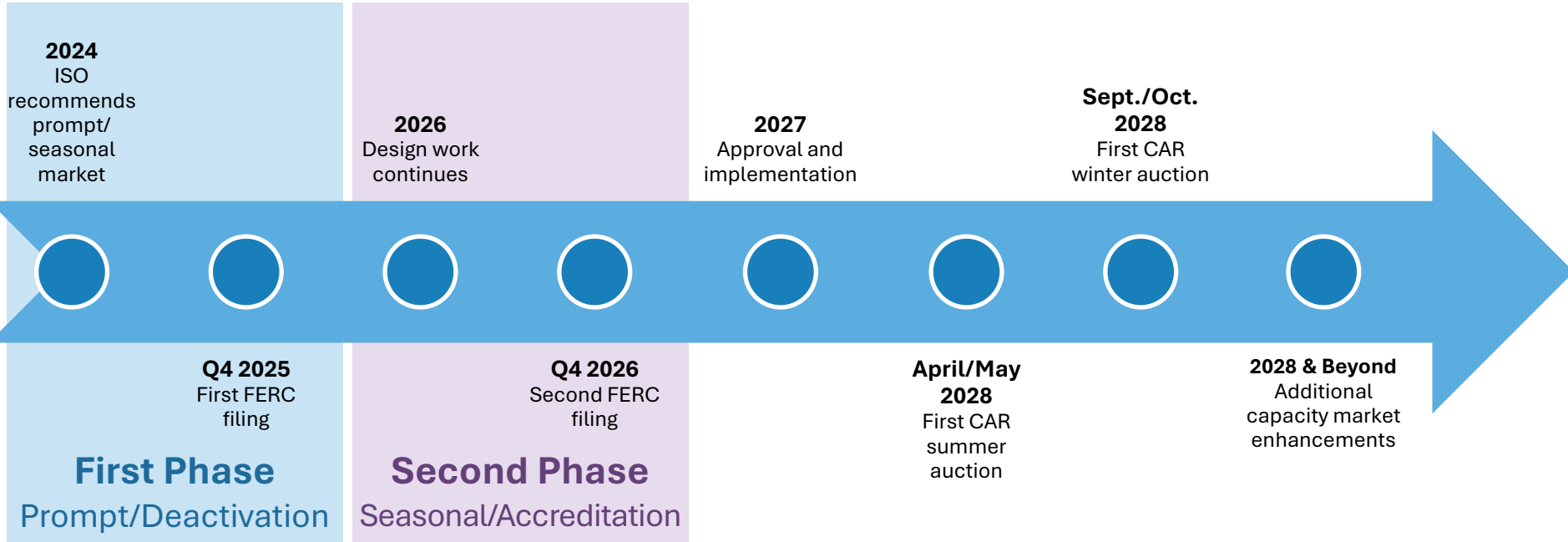
Next Steps for the Capacity Market

- The **Capacity Auction Reform (CAR) Key Project** addresses system reliability and affordability as electricity demand and the resource mix change:
 - **First Phase ([accepted March 2026](#))**
 - Transitions the capacity market from a three-year forward auction to a **prompt auction** that runs shortly before the capacity commitment period (CCP) and updates the process for resources exiting the capacity market
 - **Second Phase (ongoing – 2027)**
 - Restructures the CCP from **annual to seasonal** commitment periods
 - Reshapes capacity market accreditation to more accurately reflect **resource adequacy contributions** from an evolving resource mix, from season to season



Learn more about the
[CAR Key Project](#)

CAR Timeline and Next Steps



CHANGES IN SYSTEM PLANNING

New Processes to Review Transmission Infrastructure



ISO Files Tariff Revisions at FERC to Establish Asset Condition Reviewer Role

AUG 2026

**Tariff revisions
filed**

ISO [filed](#) with FERC to
establish the formal
AC Reviewer role

UNANIMOUS

**Regional support
of revisions**

Approved by the
NEPOOL Participants
Committee and PTO
Administrative
Committee

THROUGH 2026

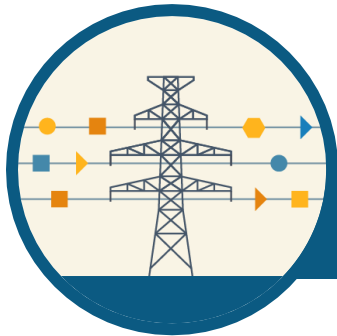
**Interim reviews
continue**

ISO and its
consultant will review
select asset
condition projects

JAN 2027

**Formal role
targeted**

Expected start date,
subject to FERC
approval



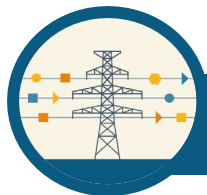
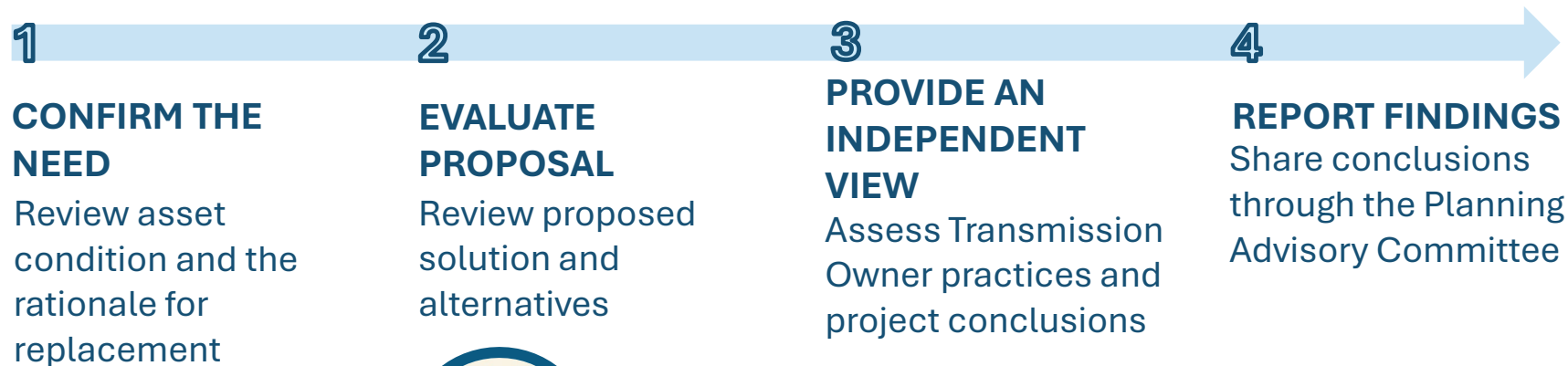
The filing formalizes the role while interim reviews continue during FERC consideration

Asset Condition Reviewer

Purpose and Process

ISO will provide **oversight and independent review** of Transmission Owner's proposed asset condition projects to replace deteriorating transmission facilities

SCOPE • Select projects, generally $\geq$ \$25M • Advisory only • Findings reported through PAC



Learn more: [Asset Condition Reviewer Key Project](#)

Multi-Year Effort Leads to Longer-Term Transmission Planning (LTTP) Process, Study, and First Procurement

2020: New England States Committee on Electricity (NESCOE) [vision statement](#) recommends ISO-NE undertake transmission planning beyond 10 years

2022 & 2024: FERC approves ISO Tariff revisions to establish longer-term transmission planning (LTTP) process

2024: ISO-NE publishes the first longer-term transmission study (LTTS), the [2050 Transmission Study](#)

2025: ISO-NE issues the 2025 LTTP Request for Proposals, at the request of NESCOE, and receives [six proposals](#)

2026: ISO-NE [announces selection](#) of a preferred solution, proposed by Central Maine Power and Eversource

External Affairs will be hosting a **Longer-Term Transmission Planning & Procurement Public Webinar** on Oct. 1

***Selected Proposal from Central
Maine Power (CMP) & Eversource***



- ISO-NE PUBLIC

NEWS, RESOURCES & EVENTS



Regional Electricity Outlook Highlights ISO-NE's Work Amid Changing Energy Landscape

AUG. 2026

2026 Regional Electricity Outlook

9% projected rise in annual grid energy use

2026–2035

Dynamic graphics and plain-language explanations make the region's changing grid accessible to a wide audience

Source: ISO New England, 2026 REO and CELT Report

ONE PLACE TO UNDERSTAND THE WORK AHEAD



Demand outlook

Energy use and seasonal peaks



Future scenarios

Resource needs through 2050



Grid planning

Transmission for a dispersed resource mix



Markets & operations

Capacity reform and daily reliability



Technology & security

Modernization, resilience, and risk

Explore the full outlook at iso-ne.com/reo →

Annual Open Meeting of ISO-NE Board of Directors

- The ISO-NE Board of Directors will hold an open board meeting on **November 10** to give the public an opportunity to observe the Board's discussions firsthand
 - The meeting will take place virtually and in person in Boston, MA
 - Additional details will be available soon
- There will be an opportunity to address the Board directly, and submit written comments prior to and after the meeting



Opportunities to Learn and Engage



Planning for the Energy Transition

Aug. 21, External Affairs staff [presented](#) to the American Planning Association on how New England's grid planning processes support reliability, infrastructure investment, and regional resilience



ISO-NE will host a **Longer-term Transmission Planning Public Webinar** on Oct. 1

The [webinar](#) will build on an earlier webinar on the ISO's first longer-term transmission study, the 2050 Transmission Study

There will be time for questions, and a recording will be posted afterwards



ISO-NE will host **virtual office hours** on Oct. 23

The [online event](#) will provide an opportunity for members of the public to ask questions about ISO-NE

For More Information



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[ISO to Go](#) is a free mobile application that puts real-time wholesale electricity pricing and power grid information in the palm of your hand



Questions



About the Presenter



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