

Load Forecast Committee (LFC) Update

Kick-off of the 2026 Forecast Cycle



Today's Presentation

 Provide the Reliability Committee (RC) with a preview of the current plan for the upcoming Load Forecast Committee (LFC) cycle to develop the long-term energy and demand forecasts that will be published in the 2026 Capacity, Energy, Loads, and Transmission (CELT) report

Annual Forecast Advancements

- Recent advancements implemented during the 2025 forecast cycle represented a significant step in advancing the long-term forecast methodology to meet the needs of an increasingly dynamic and evolving power system
 - Hourly modeling
 - Expanded weather, including climate-adjusted weather
 - Hierarchical forecasts with zonal modeling
 - 20-year forecast horizon
 - ... and more
- Continuous improvements are central to the ISO's forecasting mission and success
 - New England's policy environment, weather, and customer trends are dynamic
 - Best forecasting practices/methods used by the power industry
 - New data need to be incorporated each year, and can provide new insights
 - Downstream use of forecasts within studies can spur need for improvements

Annual Forecast Advancements

Considerations for Decision-Making and Prioritization

- Decisions about what elements of the ISO's forecast to advance or develop are based on:
 - Known gaps or issues based on research and analysis
 - Areas of internal/external stakeholder concern
 - Needs of downstream users (e.g., Transmission Planning, Economic Studies, etc.)
 - Staging of near-term work to support future requirements/use cases
- Improvements are prioritized based on a combination of relative need, magnitude of impact, and availability of tools and resources
- Priorities can shift mid-cycle due to unexpected events or feedback
 - E.g., recent forecast performance during June 2025 heat wave suggests a potential need to refine forecast modeling

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Ongoing Work for CELT 2026

Category	Item	Rationale	Objective
Base Load	Improvements to statistically- adjusted end use (SAE) inputs	Incorporate updated SAE data	Updated base load modeling
	Explore accounting for retail-based active DR (ADR) program impacts	ADR programs are reducing loads on high demand days; historical event data of one utility ADR program is available	Establish initial capability for ADR accounting
	Revisit modeling	Need to evaluate last year's forecast modeling relative to 2025 weather and demand, especially during peak load conditions	Ensure base load forecast accuracy
Heat Pump	Continue reassessing HP demand modeling	More recent studies/data suggest current HP demand modeling may need refinements Refined HP forecast	
Electric Vehicles	Convert EV adoption forecast process to Bass diffusion modeling	Need a repeatable, data-driven adoption forecast methodology rooted in observed EV adoption trends EV forecast that adapts to real-world adoption trends	
DER	Develop a hybrid PV + battery (HSB) adoption forecast	Ongoing trend of DER HSB and battery adoption; existing tools can support this improvement	Establish initial capability for DER forecasting and accounting
	Develop scenario-based adoption forecasts	Existing tools can support scenario development to reflect uncertainty in key drivers such as policies, future retail rates, technology costs	Insight into likely degree of uncertainty

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Step Loads

Areas of Research and Future Work

- Step loads (also known as "large loads") may include data centers, crypto mining, industrial agriculture, MDEV/HDEV charging depots, biotechnology labs
 - Step loads are often highly uncertain in terms of relative timing to build out and their electric demand characteristics
- To date, New England has not seen the extent of data center proposals as seen in other regions of the country
 - ISO is aware of some interest in large load development, and will track this issue closely and propose adjustments if needed
- Other than ISO's existing electrification forecasts, which arguably include some impact of EV/HP growth that may end up becoming future step loads, ISO's longterm load forecast does not explicitly consider step loads at this time
 - ISO is in the process of researching methods, data sources, policy incentives, and regulatory activity for understanding the potential magnitude, timing, and likelihood of future impacts of step loads in New England
 - ISO is engaging with Transmission Owners regarding potential large load interconnections, including those which might occur at distribution voltages

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Outlook for the 2026 Forecast Cycle

- Progress and results will be discussed in greater detail at upcoming meetings of the <u>Load Forecast Committee (LFC)</u>
 - September 26, 2025
 - November 7, 2025
 - December 12, 2025
- Interested NEPOOL Reliability Committee members are encouraged to attend these meetings to provide feedback and to learn more about load forecast development

Questions





Acronyms

ADR	Active Demand Response	НР	Heat pump
BTMPV	Behind the meter photovoltaic	HSB	Hybrid-battery storage
CELT	Capacity, Energy, Load, and Transmission	LFC	Load Forecast Committee
DER	Distributed energy resource	SAE	Statistically-adjusted end-use
EV	Electric Vehicle		