2026 Final Draft Load Forecast

Energy and Seasonal Peak Forecasts

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Introduction

- The ISO annually develops long-term forecasts of energy and demand that are published as part of the Capacity, Energy, Loads, and Transmission (CELT) report and on the Load Forecast website
- For CELT 2025, ISO implemented a new hourly forecast methodology, representing foundational improvements to long-term forecast capabilities
  - The hourly long-term load forecast methodology was discussed at the September 2025 LFC meeting
- The CELT 2026 final draft results were initially shared at the March 27, 2026 Load Forecast Committee (LFC) meeting
  - Since that meeting, further updates have been made to the zonal forecasts shown in plots on slides 24 and 27
  - ISONE forecast values are unchanged

Updates for CELT 2026

- Two new forecast components
  - Behind-the-meter (BTM) Battery Energy Storage System (BESS) forecast
  - Large load forecast
- Updated electrification adoption forecasts
  - Impact of federal policy support expiration for HPs and EVs
  - Reduced support and expectations for existing state EV programs
  - Converted EV adoption to a Bass diffusion-based process
- Updated electrification demand modeling assumptions
  - Updated EVMC starting values to reflect recent state program data
  - Updated HP demand modeling assumptions to account for weatherization and reduced reliance on resistance backup heating

CELT 2026 Load Forecast Timeline

Working Group and Committee Meetings

- Load Forecast Committee (LFC)
  - September 26, 2025 – Ongoing work for CELT 2026, overview of the long-term forecast methodology, and CELT 2025 forecast performance
  - November 7, 2025 – Update on heat pump forecast enhancements and updates to the EV adoption forecast methodology
  - December 12, 2025 – Draft 2026 electric vehicle forecast and draft 2026 heat pump forecast
  - February 20, 2026 – Draft annual energy and peak demand forecast, update on large loads in the 2026 forecast
  - March 27, 2026 – Final draft large load forecast, final draft annual energy and seasonal peak forecasts, gross load forecasts for ARAs
- Distributed Generation Forecast Working Group (DGFWG)
  - October 24, 2025 – 2026 DER forecast enhancements
  - December 8, 2025 – State DG policy updates from MA, CT, RI, VT, NH, and ME, DER Forecast Updates
  - February 9, 2026 – Draft 2026 DER forecast (including BESS forecast) and DER BESS hourly modeling
  - March 23, 2026 – Final draft 2026 DER forecasts, end of 2025 DER installations update

FINAL DRAFT COMPONENT FORECASTS

CELT 2026 Forecast Components

- Component forecasts are developed separately, and combined to form the gross and net forecasts
- Peak demand and energy impacts are derived via the “waterfall” process

Base Load Forecast

- Statistically modeled based on historical load reconstituted for BTM PV
- Combined with large load and electrification forecasts to yield the gross and net load forecasts

Large Load Forecast — NEW

- Large load additions based on Transmission Owner surveys
- Profiling based on operational characteristics provided via surveys, or similar class-based characteristics

Heat Pump (HP) Forecast

- Adoption forecast along possible heating pathways
- Demand based on weather-dependent building heating needs and HP coefficient of performance (COP) curves

Electric Vehicle (EV) Forecast

- Diffusion-based adoption forecast (5 vehicle types)
- Demand based on weather-sensitive battery efficiency curves and daily charging profiles

BTM PV Forecast

- Adoption forecasting based on NREL’s dGen™ tool
- Demand reductions derived using zonal, historical hourly capacity factors

BTM BESS Forecast — NEW

- Adoption forecasting based on NREL’s dGen™ tool
- Profiling based on retail-based seasonal peak shaving framework

New Component: Large Load Forecast

1. **Gather Information on Prospective Large Loads**
   Use TO surveys and follow-up discussions to determine which projects are sufficiently mature for inclusion in the forecast

2. **Develop Effective Project Nameplate Values**
   Determine derate factors to each project's proposed nameplate using project maturity, type, and supplementary considerations

3. **Develop Nameplate Forecast**
   Develop a projection of project realization spanning the 20-year forecast horizon, for each project

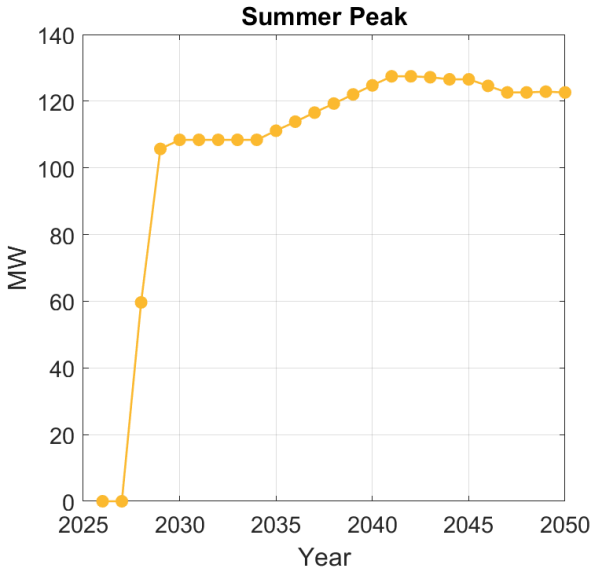
4. **Develop Hourly Profiles**
   Develop profiles based on high-level usage patterns, reflecting daily demand and calendar effects

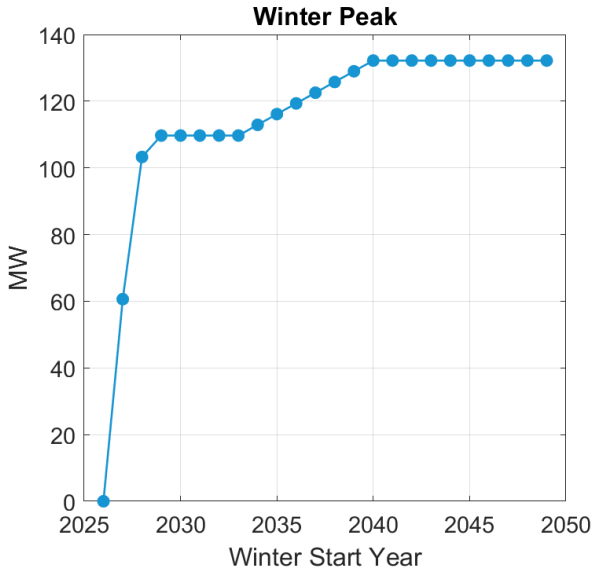
Hourly profiles are integrated into the comprehensive load forecast "waterfall" process, to determine final peak and energy impacts

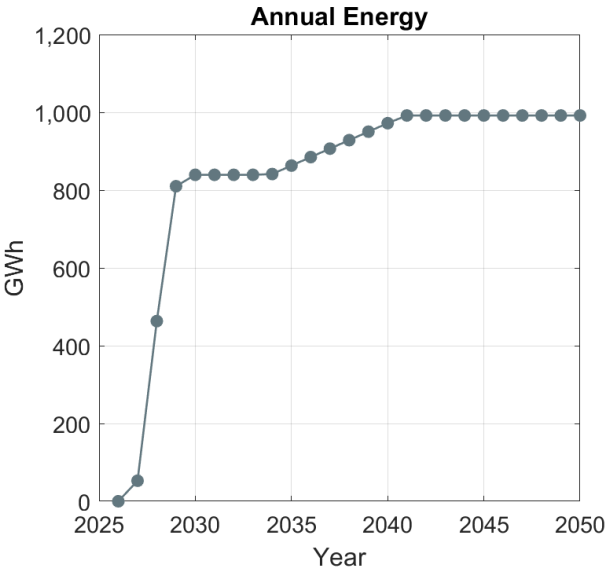
See the March 27, 2026 LFC for further details on methodology and forecast

Final Draft Large Load Forecast

50/50 Peak Demand and Annual Energy





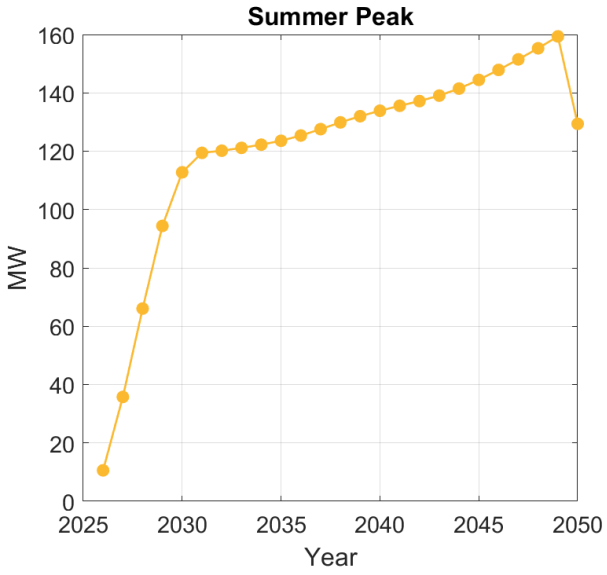


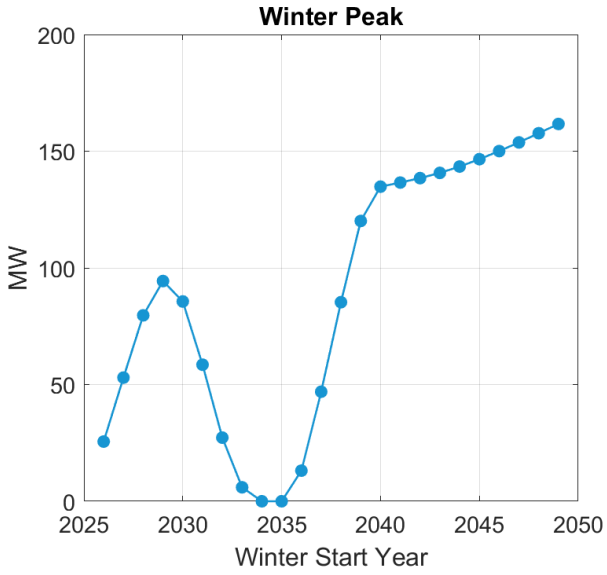
New Component: Battery Energy Storage Systems

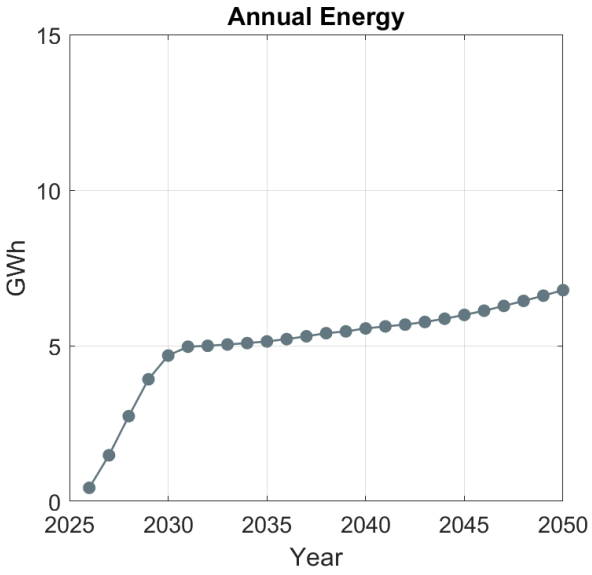
- The BTM BESS forecast focuses exclusively on behind-the-meter batteries that are co-located with rooftop PV, and assumed to participate in retail-based peak-shaving programs
  - Modeled battery behavior is generalized from existing programs (*e.g.*, ConnectedSolutions) to reflect impacts of peak-shaving strategies on regional peak load characteristics over time
  - Existing BESS state policies aim to reduce electricity demand during peak or high load conditions
- Battery adoption forecast
  - Based on NREL's dGen™ tool
  - Considers incentives supporting adoption and technology costs
- Battery charging and discharging
  - Battery dispatch events target reductions in coincident, system-wide seasonal peaks, during non-holiday weekdays only
  - Battery charging targets lowest load hours following a dispatch event
- Forecast and methodology details were discussed at the March 23, 2026 DGFWG

Final Draft BTM BESS Forecast

50/50 Peak Demand and Annual Energy

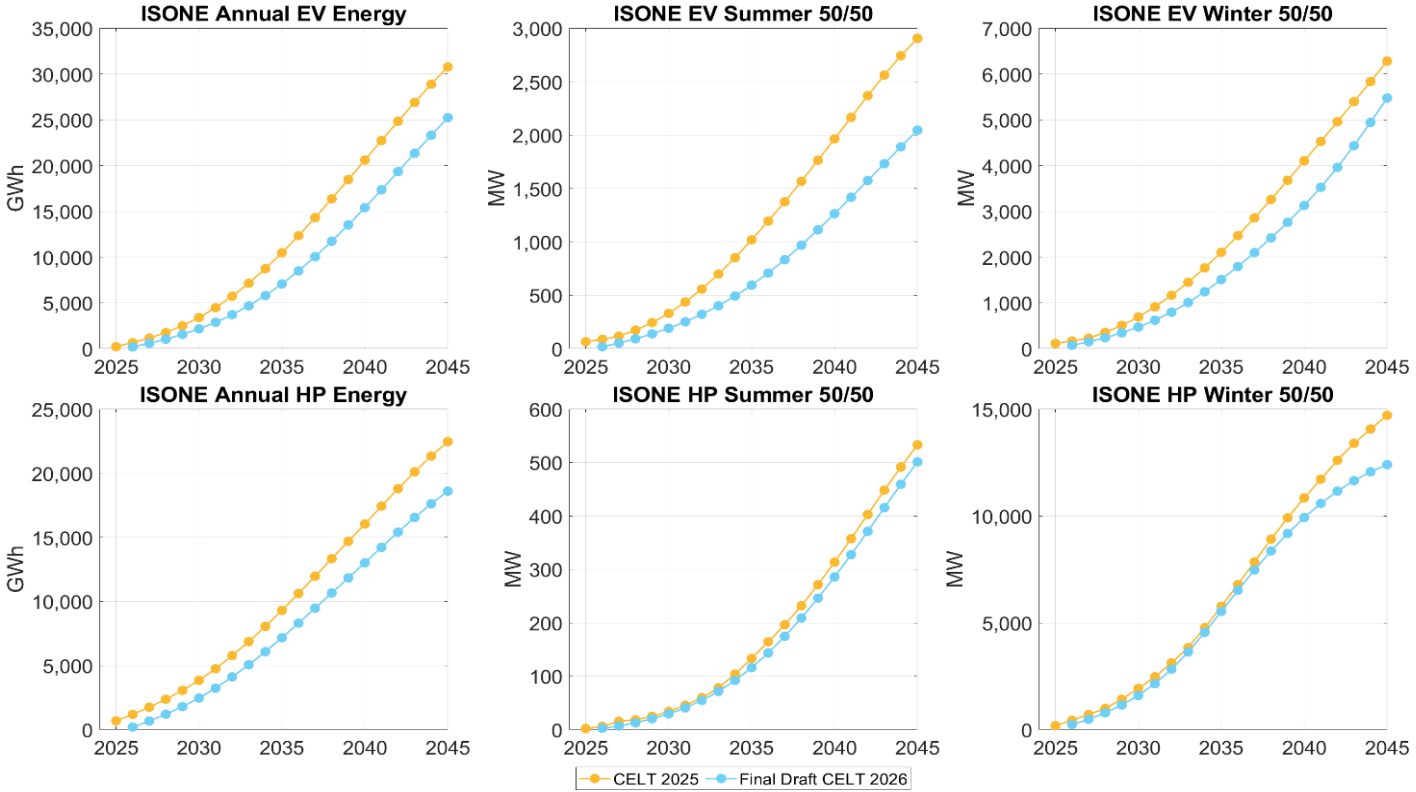






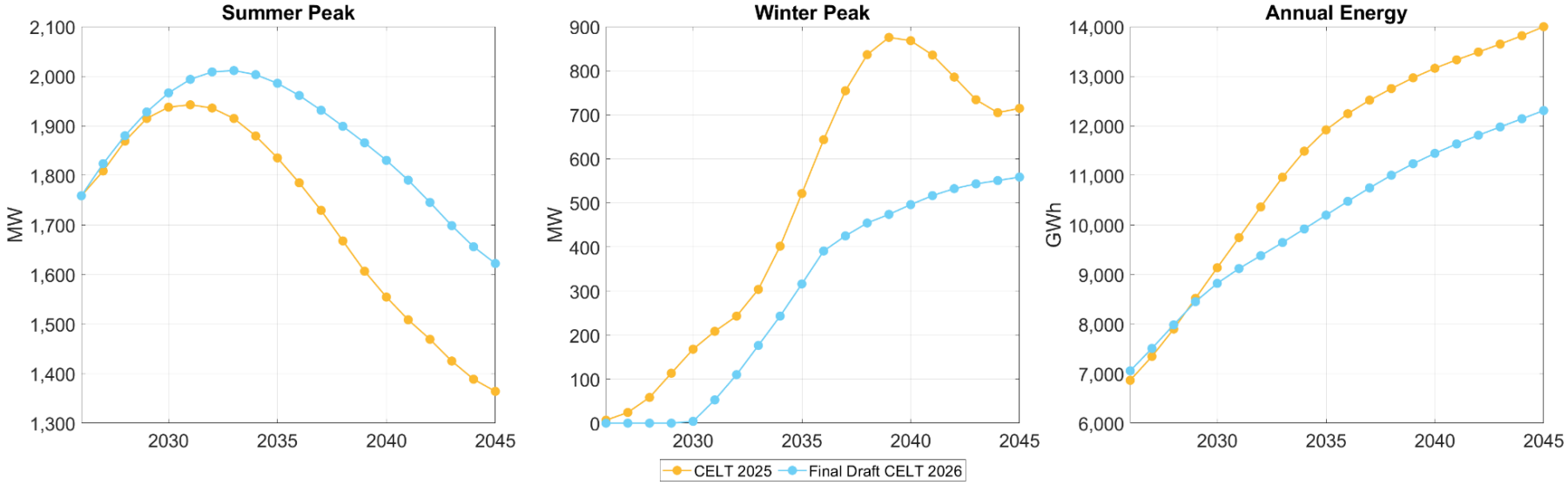
Final Draft HP and EV Forecasts

50/50 Peak Demand and Annual Energy



Final Draft BTM PV Forecast

50/50 Peak Demand and Annual Energy

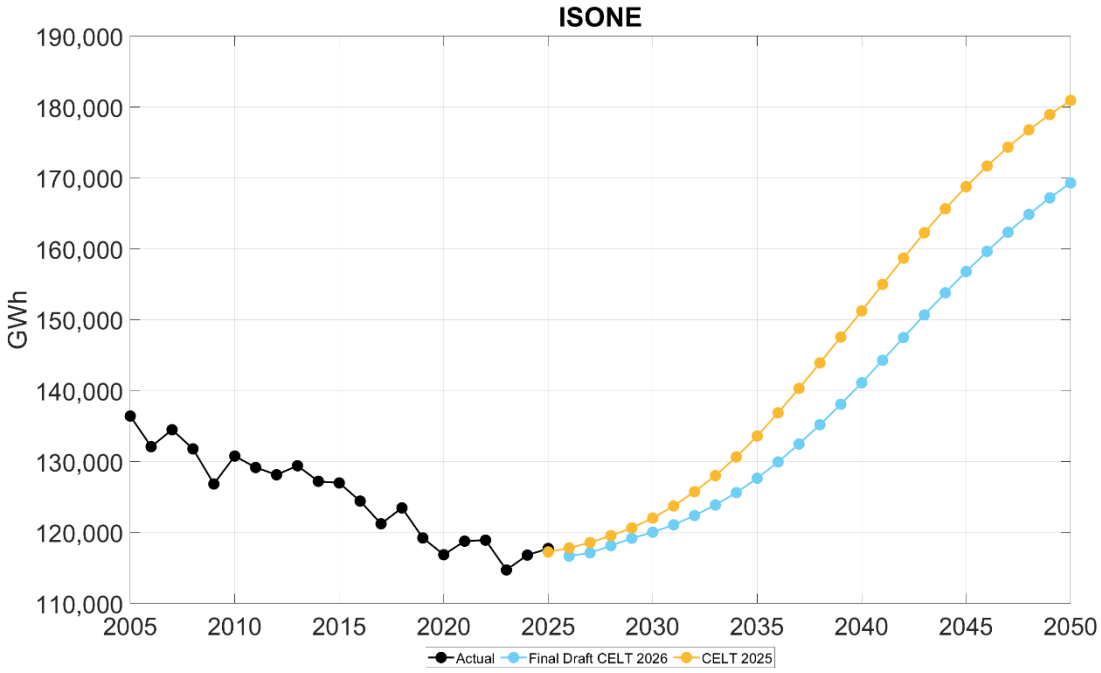


FINAL DRAFT NET FORECAST

Annual Net Energy Forecast

New England – Final Draft CELT 2026 Vs. CELT 2025

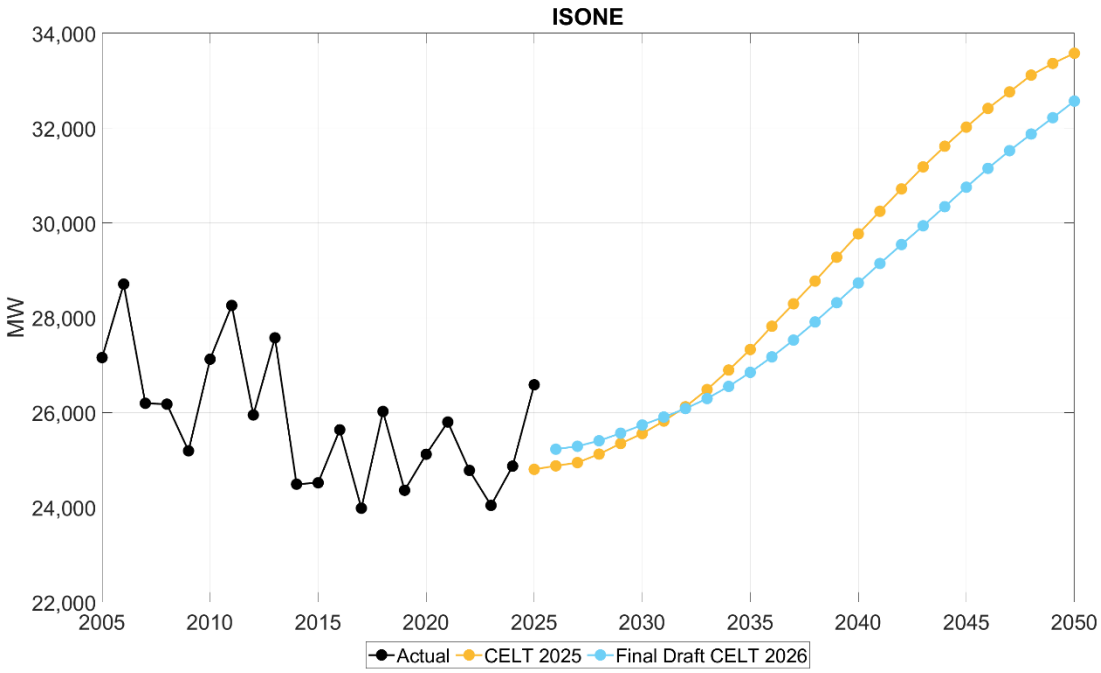
Year	CELT 2025 (GWh)	Final Draft CELT 2026 (GWh)	Change (GWh)	Change (%)
2026	117,829	116,679	-1,150	-1
2027	118,591	117,138	-1,453	-1.2
2028	119,559	118,156	-1,403	-1.2
2029	120,659	119,187	-1,472	-1.2
2030	122,044	120,047	-1,997	-1.6
2031	123,747	121,088	-2,658	-2.1
2032	125,761	122,393	-3,367	-2.7
2033	128,034	123,888	-4,146	-3.2
2034	130,665	125,633	-5,032	-3.9
2035	133,617	127,660	-5,957	-4.5



Summer Net 50/50 Peak Forecast

New England – Final Draft CELT 2026 Vs. CELT 2025

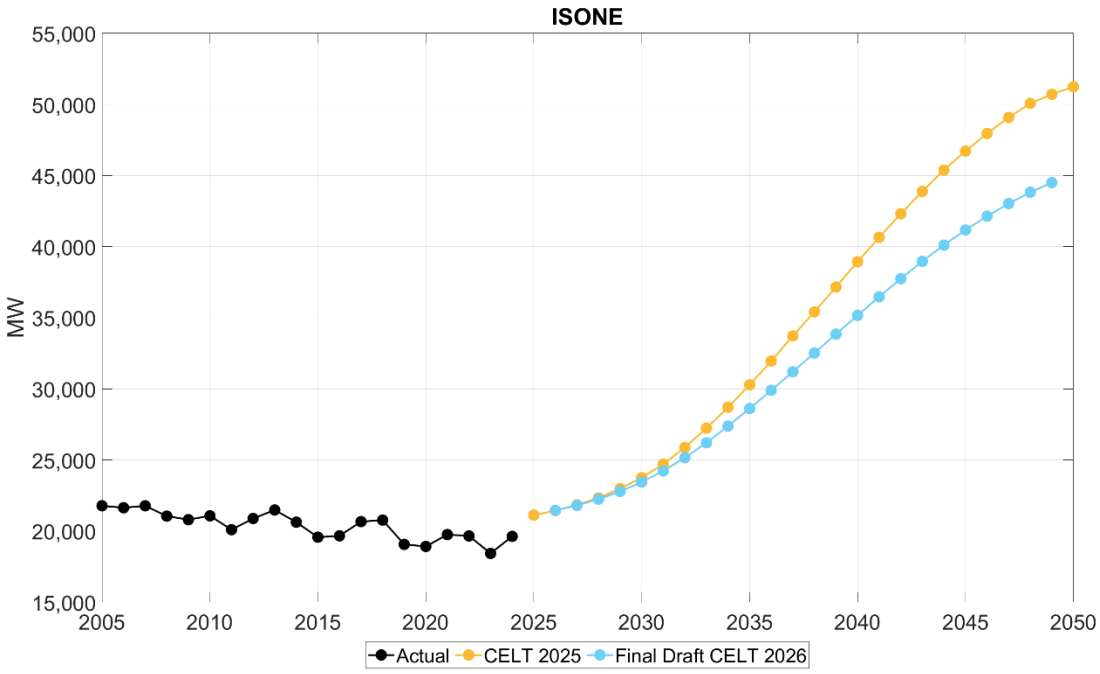
Year	CELT 2025 (MW)	Final Draft CELT 2026 (MW)	Change (MW)	Change (%)
2026	24,877	25,228	351	1.4
2027	24,945	25,290	345	1.4
2028	25,124	25,406	282	1.1
2029	25,347	25,565	218	0.9
2030	25,557	25,738	181	0.7
2031	25,821	25,906	85	0.3
2032	26,123	26,084	-39	-0.1
2033	26,486	26,296	-189	-0.7
2034	26,897	26,553	-345	-1.3
2035	27,331	26,849	-482	-1.8



Winter Net 50/50 Peak Forecast

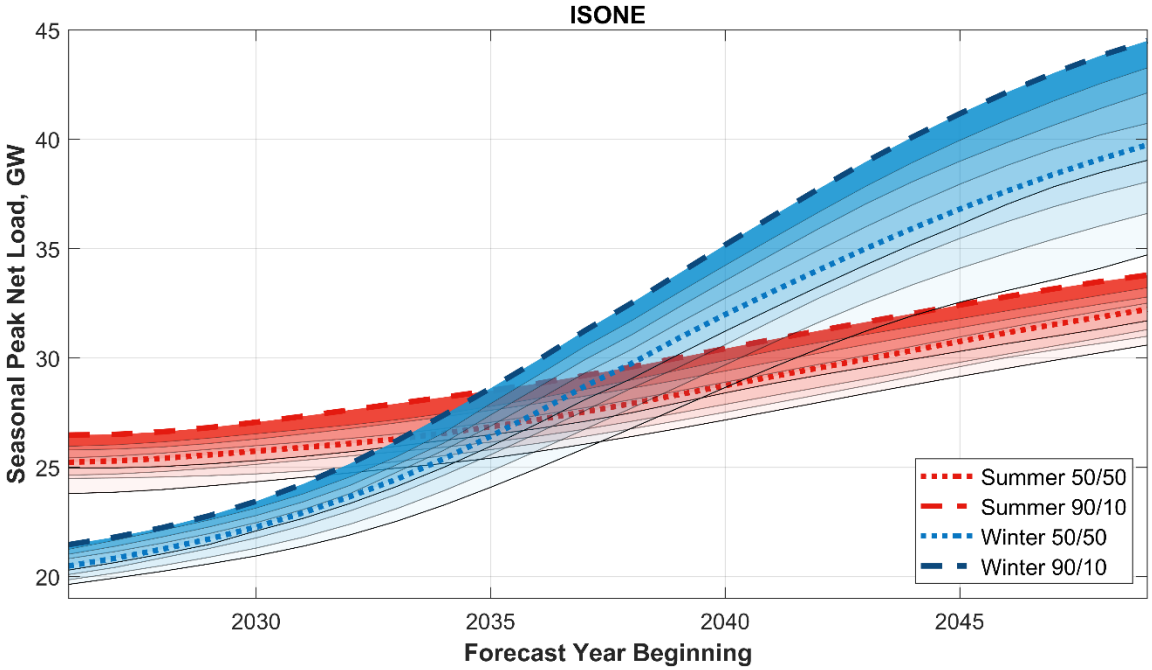
New England – Final Draft CELT 2026 Vs. CELT 2025

Year	CELT 2025 (MW)	Final Draft CELT 2026 (MW)	Change (MW)	Change (%)
2026	20,371	20,483	111	0.5
2027	20,707	20,839	132	0.6
2028	21,101	21,257	157	0.7
2029	21,638	21,731	93	0.4
2030	22,284	22,296	12	0.1
2031	23,021	22,918	-102	-0.4
2032	23,902	23,636	-266	-1.1
2033	24,856	24,452	-404	-1.6
2034	26,020	25,380	-640	-2.5
2035	27,272	26,411	-861	-3.2



Winter and Summer Peak Convergence

- Plot shows the probabilistic seasonal peak forecast distribution
  - Forecasts include impacts of electrification, BTMPV, large loads, and BTM BESS
  - Both seasonal distributions exhibit less demand growth than CELT 2025
- By 2034, the 90/10 net winter demand forecast exceeds the 50/50 net summer demand forecast
- By the late 2030s, electrification causes winter peak demand to become the prevailing peak season



GROSS LOAD FORECAST FOR CALCULATING ICR FOR UPCOMING ARAS

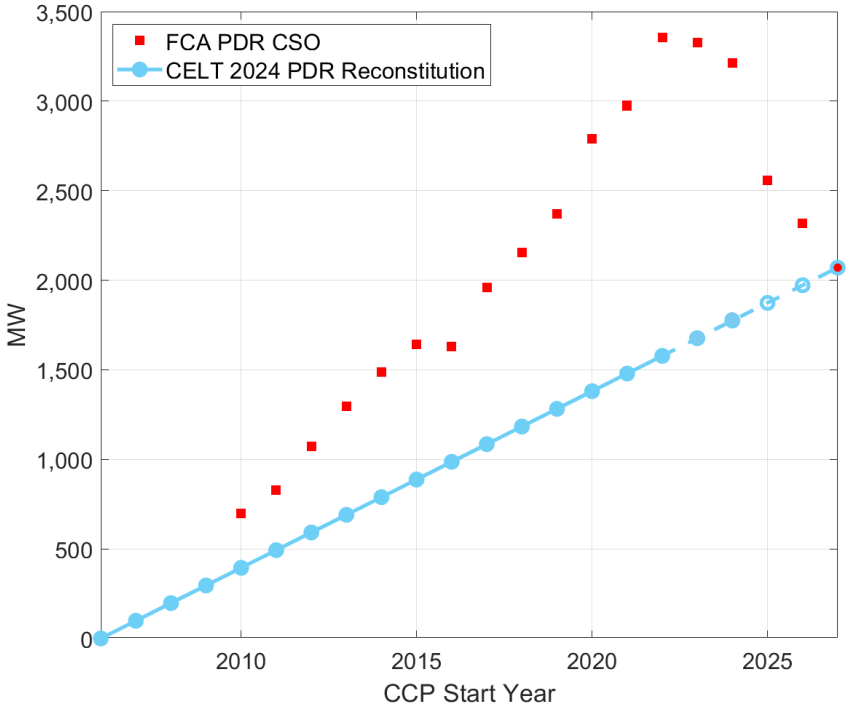
CELT 2026: Pre-Existing Forecast Methodology

- Calculation of ICR for the remaining FCM ARAs will be supported by a gross load forecast based on the pre-existing (pre-CELT 2025) forecast methodology
  - Gross load stems from reconstituting for BTM PV and PDRs
  - Separate models for energy and seasonal peaks
  - Details on the pre-existing forecast methodology can be found in this presentation
- Input data
  - Reconstitution for passive demand resources (PDRs) based on FCA 18 CSOs
  - CELT 2026 EV, HP, BTM PV, BTM BESS, and large load forecasts
  - Load, weather, economic data through end of 2025
- Includes the two new component forecasts implemented as part of CELT 2026
  - The contribution of large loads to summer 2027 is zero and will not impact summer modeling for CCP 2027-2028
- Reporting of gross load forecast values generated using the pre-existing methodology will be confined to specific tabs within the CELT Report and Forecast Data Workbook

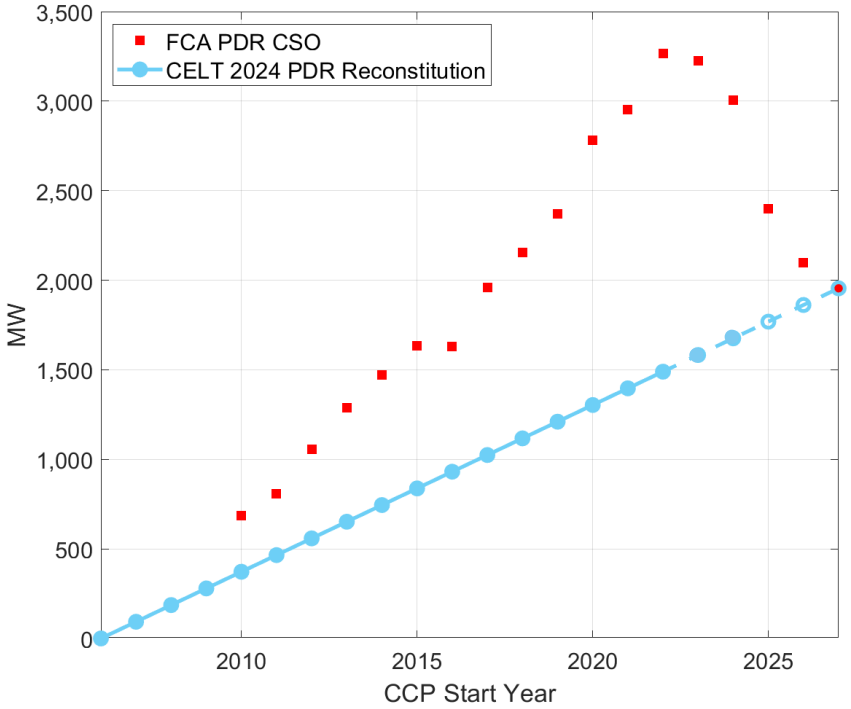
Pre-Existing Methodology

CELT 2026 PDR Reconstitution for New England

Summer (June) PDR CSO

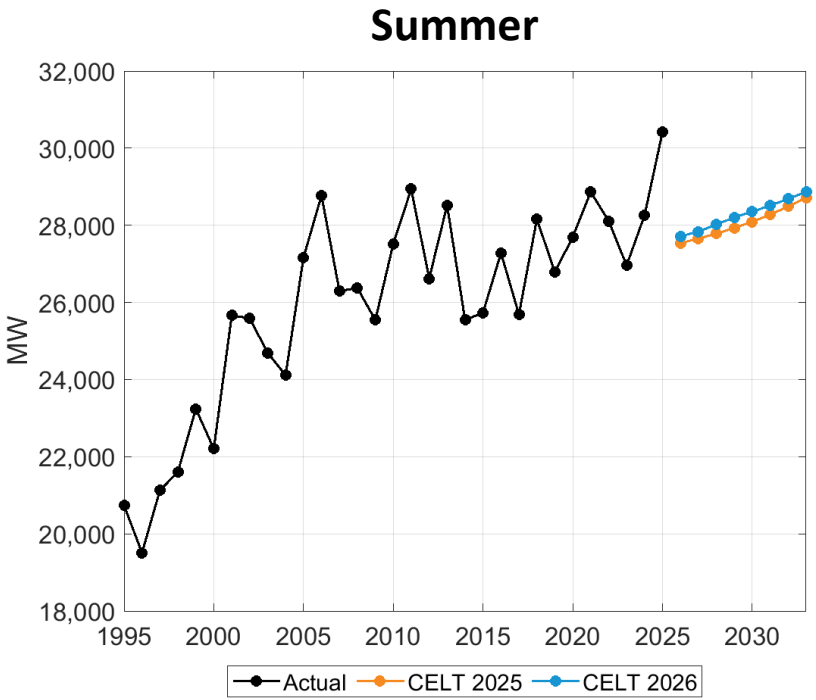


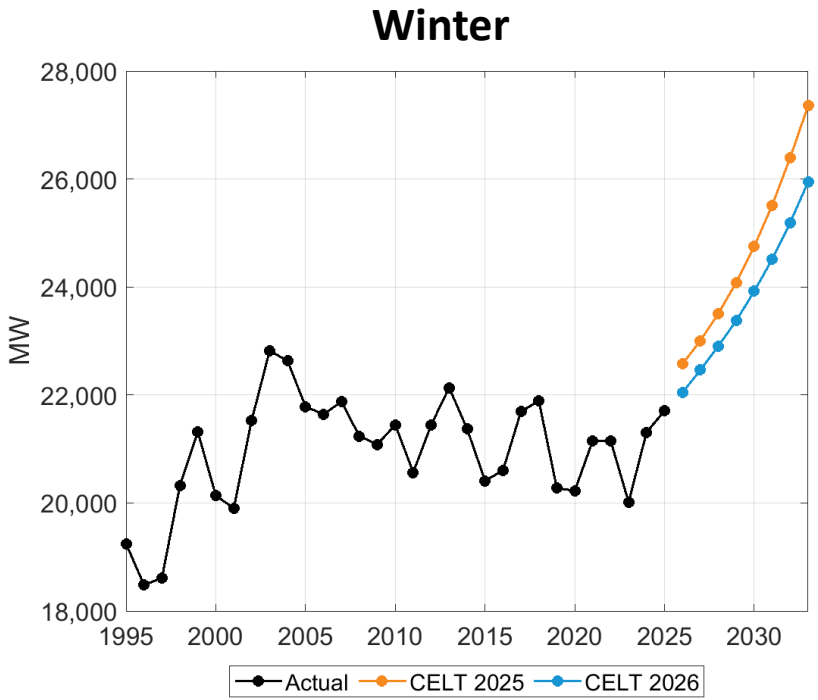
Winter (December) PDR CSO



Pre-Existing Methodology

CELT 2026 50/50 Gross Peak Forecast





Pre-Existing Methodology

CELT 2026 Gross Load Forecast Values for ARAs

- Upcoming ARA event will only use forecast values relevant to the 2027-2028 capacity commitment period (CCP)

Year (Winter Start Year)	Summer 50/50 Peak (MW)	Summer 90/10 Peak (MW)	Winter 50/50 Peak (MW)	Winter 90/10 Peak (MW)	Annual Energy (GWh)
2027	27,835	29,778	22,461	23,337	136,064

Next Steps

- The final CELT 2026 forecast will be published on May 1, 2026
  - CELT Report (CELT webpage)
  - Forecast Data workbook (Load Forecast webpage)
  - Slide decks describing the final EV, HP, BTM PV, and BTM BESS forecasts (Load Forecast webpage)

Questions

About the Presenter

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APPENDIX

Acronyms

ASOS	Automated Surface Observing System	**EIA**	Energy Information Administration
ARA	Annual reconfiguration auction	**EV**	Electric Vehicle
AEO	EIA's Annual Energy Outlook	**GCM**	Global Climate Model
BESS	Battery energy storage system	**FCM**	Forward Capacity Market
BTM PV	Behind the meter photovoltaic	**GWH**	Gigawatt hour
CDD	Cooling degree day	**HDD**	Heating degree day
CELT	Capacity, Energy, Load, and Transmission	**HP**	Heat pump
COP	Coefficient of performance	**ICR**	Installed Capacity Requirement
DER	Distributed energy resource	**IPSL**	Institut Pierre-Simon Laplace (Climate Modelling Center)
DGFWG	Distributed Generation Forecast Working Group	**LFC**	Load Forecast Committee
ECMWF	European Center for Medium-Range Weather Forecasts	**MAPE**	Mean absolute percent error
EE	Energy Efficiency	**MW**	Megawatt
EPRI	Electric Power Research Institute	**SAE**	Statistically-adjusted end-use
ERA5	ECMWF Reanalysis Version 5	**SSP**	Shared Socioeconomic Pathway