APRIL 28, 2024



### Final 2024 Energy Efficiency Forecast

### **INTRODUCTION**



### Acronyms

- ARA 3 Third Annual Reconfiguration Auction (FCM)
- BCR Benefit-Cost Ratio
- CSO Capacity Supply Obligation (FCM)
- C&I Commercial and Industrial
- CELT 10-year forecast of Capacity, Energy, Loads and Transmission
- EE Energy Efficiency
- EEFWG Energy Efficiency Forecast Working
  Group
- FCA Forward Capacity Auction

- FCM Forward Capacity Market
- ICR Installed Capacity Requirement
- PA Program Administrator

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- PDR Passive Demand Resources
- R&L Residential and Low Income
- RGGI Regional Greenhouse Gas Initiative
- SBC System Benefit Charge

# Introduction

- This presentation contains the final Energy Efficiency (EE) forecast for the period 2024 through 2033
- The forecast estimates reductions in energy and demand from state-sponsored EE programs in the New England control area by state (CT, MA, ME, NH, RI, VT)
- The data used to create the forecast originates from state-sponsored EE program administrators (PAs) and state regulatory agencies
- The EE forecast is updated annually and is incorporated into ISO New England's Forecast Report of Capacity, Energy, Loads, and Transmission (the CELT Report)

# Introduction

#### Impacts

- The EE forecast is used in ISO studies including:
  - Long-term transmission planning studies
  - Economic planning studies
- The EE forecast is also used in the development of the net load forecast
- The EE forecast will not impact:
  - Installed Capacity Requirement (ICR)/Local Sourcing Requirement/Maximum Capacity Limit/Demand Curves
  - Forward Capacity Auctions (FCA)
  - Forward Capacity Market (FCM) related reliability studies (qualification, de-list bid reliability reviews)

### **MODEL METHODOLOGY**



# **EE Forecast Methodology**

#### Process Diagram

- The process below is followed separately for each sector using sector specific inputs in each of the orange blocks
  - Sectors include Residential and Low Income (R&L) and Commerciale and Industrial (C&I)
- Summer and winter peak savings are computed separately using season-specific coincidence factors



### **INPUT DATA AND ASSUMPTIONS**

State End-Use Shares, Regional Coincidence Factors, and State Budgets



# **EE Forecast Input Data**

- Historical end-use kWh/\$incentive
  - source: PA provided data (2020-2022)
- Historical incentives as a % of total program costs
  - source: PA provided data (2020-2022)
- Projected end-use shares
  - Source: PA provided data
- Summer and winter end-use coincidence factors
  - Source: PA provided BCR models
- Annual inflation adjustment of 2.5%
  - Source: Moody's Economics
- Annual graduated escalation of costs of 1.25%
  - Source: Original graduated rate introduced during the 2017 EE forecast

# **End-Use Share Projections**

- End-use shares by state and sector were compiled based on data provided by the PAs within each state
  - End-use shares shown on the following slides are based on energy
- Reporting of shares and end-uses varied within and across states
  - Projection timelines varied from a couple of years to the entire forecast horizon
  - Within a given state, some PAs may have had different shares for the same end-uses
- Where shares differed, shares from PAs within a state were averaged
- When only one PA provided a 10 year projection, that projection guided the shares
- In order to standardize end-uses across all states and PA's, the following aggregations were applied:
  - Residential "process" includes process, custom, food service, motors/drives, pool pumps, and appliances
  - Residential "HVAC" includes HVAC and building envelope
  - C&I "process" includes process and food service

# **Residential & Low Income End-Use Shares**

MA, CT, and RI

Massachusetts										
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
HVAC	66%	67%	67%	67%	67%	67%	67%	67%	67%	67%
Process	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Hot Water	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Lighting	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Refrigeration	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
				Conn	ecticut					
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
HVAC	16%	42%	49%	49%	49%	49%	49%	49%	49%	49%
Process	52%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Hot Water	12%	14%	14%	14%	14%	14%	14%	14%	14%	14%
Lighting	12%	7%	0%	0%	0%	0%	0%	0%	0%	0%
Refrigeration	8%	7%	7%	7%	7%	7%	7%	7%	7%	7%
				Rhode	e Island					
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
HVAC	67%	69%	70%	70%	70%	70%	70%	70%	70%	70%
Process	18%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Hot Water	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
Lighting	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Refrigeration	13%	12%	12%	12%	12%	12%	12%	12%	12%	12%

# **Residential & Low Income End-Use Shares**

#### VT, NH, and ME

	Vermont										
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
HVAC	64%	64%	65%	67%	68%	71%	71%	70%	71%	71%	
Process	10%	12%	12%	10%	11%	10%	9%	10%	10%	9%	
Hot Water	19%	18%	19%	19%	17%	16%	17%	17%	17%	17%	
Lighting	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	
Refrigeration	5%	4%	2%	2%	3%	2%	2%	2%	1%	2%	
				New Ha	ampshi	re					
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
HVAC	65%	64%	64%	65%	65%	65%	65%	65%	65%	65%	
Process	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	
Hot Water	16%	15%	15%	15%	15%	15%	15%	15%	15%	15%	
Lighting	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	
Refrigeration	16%	17%	17%	17%	17%	17%	17%	17%	17%	17%	
				M	aine						
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
HVAC	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	
Process	7%	9%	11%	11%	11%	11%	11%	11%	11%	11%	
Hot Water	51%	69%	86%	86%	86%	86%	86%	86%	86%	86%	
Lighting	41%	21%	0%	0%	0%	0%	0%	0%	0%	0%	

# **Commercial & Industrial End-Use Shares**

#### MA, CT, and RI

	Massachusetts										
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Compressed Air	3%	4%	4%	4%	5%	5%	5%	5%	5%	5%	
Custom Measures	8%	13%	12%	12%	16%	16%	16%	16%	16%	16%	
Hot Water	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
HVAC	20%	27%	27%	27%	34%	34%	34%	34%	34%	34%	
Lighting	49%	27%	28%	28%	9%	9%	9%	9%	9%	9%	
Motors/Drives	7%	9%	9%	9%	11%	11%	11%	11%	11%	11%	
Process	9%	12%	12%	12%	15%	15%	15%	15%	15%	15%	
Refrigeration	5%	7%	7%	7%	9%	9%	9%	9%	9%	9%	
Connecticut											
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
HVAC	11%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
Lighting	60%	44%	44%	44%	44%	44%	44%	44%	44%	44%	
Motors/Drives	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
Process	24%	38%	38%	38%	38%	38%	38%	38%	38%	38%	
Refrigeration	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
				Rhod	e Island						
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Compressed Air	8%	9%	11%	11%	11%	11%	11%	11%	11%	11%	
Hot Water	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
Process	6%	7%	8%	8%	8%	8%	8%	8%	8%	8%	
HVAC	13%	15%	18%	18%	18%	18%	18%	18%	18%	18%	
Lighting	65%	59%	52%	52%	52%	52%	52%	52%	52%	52%	
Motors/Drives	4%	6%	7%	7%	7%	7%	7%	7%	7%	7%	
Refrigeration	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	

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# **Commercial & Industrial End-Use Shares**

VT, NH, and ME

Vermont										
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Hot Water	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%
HVAC	14%	14%	14%	16%	18%	19%	19%	21%	21%	21%
Lighting	44%	43%	43%	34%	29%	26%	25%	24%	23%	23%
Motors/Drives	11%	11%	11%	15%	16%	17%	17%	17%	17%	17%
Process	17%	17%	17%	19%	21%	22%	22%	22%	22%	22%
Refrigeration	14%	14%	14%	15%	16%	16%	16%	16%	16%	16%
				New Ha	ampshir	e				
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Custom Measures	9%	9%	9%	24%	35%	41%	41%	41%	41%	41%
HVAC	2%	2%	2%	5%	7%	9%	9%	9%	9%	9%
Lighting	82%	82%	82%	49%	27%	14%	14%	14%	14%	14%
Process	1%	1%	1%	3%	4%	4%	4%	4%	4%	4%
Compressed Air	4%	4%	4%	11%	16%	18%	18%	18%	18%	18%
Motors/Drives	1%	1%	1%	2%	3%	3%	3%	3%	3%	3%
Refrigeration	2%	2%	2%	6%	9%	10%	10%	10%	10%	10%
				Μ	aine					
End-Use	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Compressed Air	12%	16%	20%	24%	24%	24%	24%	24%	24%	24%
<b>Custom Measures</b>	4%	6%	7%	9%	9%	9%	9%	9%	9%	9%
HVAC	37%	43%	49%	56%	56%	56%	56%	56%	56%	56%
Lighting	47%	35%	24%	12%	12%	12%	12%	12%	12%	12%

# **End-Use Starting kWh/\$Incentive**

Source: PA Supplied Data (2020-2022)

<b>Residential &amp; Low Income</b>								
End-Use	kWh/\$Incentive							
HVAC	0.32							
Nater Heating	1.55							
ighting	2.88							
Refrigeration	1.46							
Process	1.81							

<b>Commercial &amp; Industrial</b>							
End-Use	kWh/\$Incentive						
HVAC	1.78						
Water Heating	0.82						
Lighting	2.76						
Refrigeration	2.21						
Process	2.38						
Compressed Air	2.93						
Motors/Drives	2.48						
Custom	2.58						

# **End-Use Coincidence Factors**

Source: PA Supplied BCR Models (Most Recently Approved State Plans)

Residential & Low Income								
End-Use	Summer Coincidence Factor (MW/GWh)	Winter Coincidence Factor (MW/GWh)						
HVAC	0.559	0.464						
Water Heating	0.128	0.173						
Lighting	0.152	0.208						
Refrigeration	0.135	0.286						
Process	0.146	0.217						

Commercial & Industrial								
End-Use	Summer Coincidence Factor (MW/GWh)	Winter Coincidence Factor (MW/GWh)						
HVAC	0.504	0.338						
Water Heating	0.103	0.120						
Lighting	0.154	0.166						
Refrigeration	0.100	0.098						
Process	0.114	0.103						
Compressed Air	0.217	0.179						
Motors/Drives	0.193	0.217						
Custom	0.156	0.182						

# **State EE Budgets**

#### Source: State EE Budget Administrators

Total R&L Budget Dollars (\$1000's)										
	NE	MA	СТ	ME	RI	VT	NH			
2024	582,832	411,207	65,763	14,704	38,613	19,660	32,885			
2025	585,688	411,207	64,958	15,297	38,613	20,240	35,373			
2026	589,302	411,207	66,287	15,297	38,613	20,625	37,273			
2027	588,897	411,207	65,299	15,297	38,613	21,208	37,273			
2028	589,372	411,207	65,246	15,297	38,613	21,736	37,273			
2029	588,648	411,207	64,121	15,297	38,613	22,137	37,273			
2030	589,116	411,207	64,117	15,297	38,613	22,609	37,273			
2031	589,822	411,207	64,153	15,297	38,613	23,279	37,273			
2032	590,187	411,207	64,095	15,297	38,613	23,702	37,273			
2033	590,616	411,207	64,023	15,297	38,613	24,203	37,273			

Total C&I Budget Dollars (\$1000's)										
	NE	MA	СТ	ME	RI	VT	NH			
2024	478,935	264,256	105,298	9,454	43,693	25,457	30,777			
2025	478,464	264,256	104,407	9,526	43,693	26,112	30,470			
2026	480,996	264,256	106,564	9,526	43,693	26,546	30,411			
2027	482,380	264,256	107,404	9,526	43,693	27,090	30,411			
2028	482,701	264,256	107,017	9,526	43,693	27,798	30,411			
2029	483,917	264,256	107,781	9,526	43,693	28,250	30,411			
2030	484,021	264,256	107,342	9,526	43,693	28,793	30,411			
2031	481,843	264,256	104,419	9,526	43,693	29,538	30,411			
2032	479,486	264,256	101,585	9,526	43,693	30,015	30,411			
2033	476,513	264,256	98,047	9,526	43,693	30,580	30,411			

	Total Budget Dollars (\$1000's)										
	NE	MA	СТ	ME	RI	VT	NH				
2024	1,061,767	675,463	171,061	24,158	82,306	45,117	63,662				
2025	1,064,152	675,463	169,365	24,823	82,306	46,352	65,843				
2026	1,070,298	675,463	172,851	24,823	82,306	47,171	67,684				
2027	1,071,277	675,463	172,703	24,823	82,306	48,298	67,684				
2028	1,072,073	675,463	172,263	24,823	82,306	49,534	67,684				
2029	1,072,565	675,463	171,902	24,823	82,306	50,387	67,684				
2030	1,073,137	675,463	171,459	24,823	82,306	51,402	67,684				
2031	1,071,665	675 <i>,</i> 463	168,572	24,823	82,306	52,817	67,684				
2032	1,069,673	675,463	165,680	24,823	82,306	53,717	67,684				
2033	1,067,129	675,463	162,070	24,823	82,306	54,783	67,684				

### **State EE Production Costs**

*Source: End-use shares applied to end-use production costs* 

R&L Production Costs (\$/MWh)											
	MA	СТ	ME	RI	, VT	NH					
2024	3,162	1,338	775	3,214	3094	3145					
2025	3,342	2,411	919	3,434	3246	3298					
2026	3,551	2,865	1,088	3,698	3514	3482					
2027	3,817	3,080	1,169	3,976	3857	3782					
2028	4,151	3,349	1,272	4,324	4231	4113					
2029	4,566	3,684	1,399	4,756	4791	4524					
2030	5,080	4,099	1,556	5,291	5348	5033					
2031	5,715	4,611	1,751	5,952	5951	5663					
2032	6,501	5,245	1,991	6,771	6857	6441					
2033	7,476	6,032	2,290	7,786	7909	7407					

C&I Production Costs (\$/MWh)												
	MA	СТ	ME	RI	VT	NH						
2024	688	561	1049	856	588	657						
2025	801	608	1265	956	619	690						
2026	850	646	1518	1074	659	732						
2027	914	694	1819	1154	721	1122						
2028	1078	755	1978	1256	796	1457						
2029	1185	830	2175	1381	883	1754						
2030	1319	924	2420	1536	985	1952						
2031	1484	1039	2723	1728	1115	2196						
2032	1687	1182	3097	1966	1271	2498						
2033	1941	1360	3562	2261	1463	2872						

	Weighted Production Costs (\$/MWh)											
	MA	СТ	ME	RI	VT	NH						
2024	1,314	722	863	1,306	909	1,111						
2025	1,492	852	1,027	1,445	957	1,200						
2026	1,584	919	1,220	1,610	1,021	1,296						
2027	1,702	982	1,355	1,731	1,122	1,831						
2028	1,962	1,068	1,473	1,882	1,237	2,261						
2029	2,158	1,168	1,621	2,070	1,376	2,647						
2030	2,401	1,301	1,803	2,303	1,537	2,945						
2031	2,701	1,474	2,028	2,591	1,737	3,313						
2032	3,072	1,688	2,307	2,947	1,984	3,768						
2033	3,533	1,959	2,654	3,389	2,287	4,333						

### **ACCOUNTING FOR EMBEDDED EXPIRING MEASURES**



# **Accounting for Embedded Expiring Measures**

- The EE forecast works in tandem with the gross load forecast
  - Expiring measures become embedded as load reductions in the gross load forecast
  - Accounting for EE measure expiration in the gross load forecast reconstitution methodology results in a gross load forecast with a lower slope (i.e., less gross load growth over time)
- As a result, the EE forecast should be a projection of EE net of the cumulative impacts of expiring measures embedded in the gross load forecast
  - Impacts are appropriately captured in the reconstitution trend line that serves as the first four years of the EE forecast
  - Embedded expiring measures must be accounted for in the years beyond the most recent FCA's Capacity Commitment Period (CCP), years 5-10 of the EE forecast
  - An overview of how expiring measures embedded in the load forecast are accounted for in the EE forecast was provided at the <u>December 7, 2020 EEFWG</u> meeting
- The EE forecast is a projection of EE described as follows:
  - The trend line of market-facing EE reflected in the new reconstitution up through the most recent FCA's CCP
  - A forecast of market-facing EE that will further reduce load beyond the most recent FCA's CCP

# **Accounting for Embedded Expiring Measures**

- To determine the amount of EE expiring measures embedded as load reductions in the gross load forecast
  - 1. Use the new reconstitution methodology to recreate the historical reconstitution that reflects no EE measure expiration
    - I.e., the most recent FCA CSOs plus all cumulative EE expiring measures up through the most recent FCA's CCP
  - 2. Use this reconstitution to develop a gross load forecast that reflects no EE measure expiration
  - 3. The differences between this version of the gross load forecast and the actual gross load forecast are the amount of expiring measures embedded over the forecast horizon

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• An example of the estimated embedded expiring measures is shown for CELT 2020 in the adjacent plots





# **Accounting for Embedded Expiring Measures**

Examples Illustrating Possible Impacts Of Accounting

EE Forecast Grows Faster Than Embedded Expiring Measures										
Year	Cumulative EE Forecast (before subtracting embedded expiring measures) (MW)	Cumulative Embedded Expiring Measures (MW)	Cumulative EE Forecast (MW)							
2021	110	0	110							
2022	120	0	120							
2023	130	0	130							
2024	140	0	140							
2025	150	3	147							
2026	160	6	154							
2027	170	9	161							
2028	180	12	168							
2029	190	15	175							
2030	200	18	182							



EE forecast grows faster than embedded expiring measures, resulting in an EE forecast that *increases* 

EE Forecast and Embedded Expiring Measures Grow at the Same Rate										
Year	Cumulative EE Forecast (before subtracting embedded expiring measures) (MW)	Cumulative Embedded Expiring Measures (MW)	Cumulative EE Forecast (MW)							
2021	110	0	110							
2022	120	0	120							
2023	130	0	130							
2024	140	0	140							
2025	150	10	140							
2026	160	20	140							
2027	170	30	140							
2028	180	40	140							
2029	190	50	140							
2030	200	60	140							



EE forecast grows at the same rate as the embedded expiring measures, resulting in an EE forecast that is *flat* 

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EE Forecast Grows Slower Than Embedded Expiring Measures										
Year	Cumulative EE Forecast (before subtracting embedded expiring measures) (MW)	Cumulative Embedded Expiring Measures (MW)	Cumulative EE Forecast (MW)							
2021	110	0	110							
2022	120	0	120							
2023	130	0	130							
2024	140	0	140							
2025	150	20	130							
2026	160	40	120							
2027	170	60	110							
2028	180	80	100							
2029	190	100	90							
2030	200	120	80							



EE forecast grows slower than embedded expiring measures, resulting in an EE forecast that <u>decreases</u>

### FINAL 2024 EE FORECAST

Annual Energy, Summer Peak, and Winter Peak Savings



### 2024 EE Forecast (Before Removal of Embedded Expiring Measures)

Incremental Annual Energy, Summer Peak, and Winter Peak Savings

Annual Energy Savings (GWh)												
	NE	СТ	MA	ME	NH	RI	VT					
2024	605	147	299	37	40	50	32					
2025	605	147	299	37	40	50	32					
2026	605	147	299	37	40	50	32					
2027	605	147	299	37	40	50	32					
2028	636	161	344	17	30	44	40					
2029	577	147	313	15	26	40	37					
2030	519	132	281	14	23	36	33					
2031	459	114	250	12	20	32	30					
2032	402	98	220	11	18	30	27					
2033	347	83	191	9	16	24	24					
Total (2024-2033)	5,360	1,323	2,795	226	293	406	319					

Summer Peak Demand Savings (MW)							Winter Peak Demand Savings (MW)								
	NE	СТ	MA	ME	NH	RI	VT		NE	СТ	MA	ME	NH	RI	VT
2024	99	25	49	6	6	8	5	2024	93	23	46	6	6	8	5
2025	99	25	49	6	6	8	5	2025	93	23	46	6	6	8	5
2026	99	25	49	6	6	8	5	2026	93	23	46	6	6	8	5
2027	99	25	49	6	6	8	5	2027	93	23	46	6	6	8	5
2028	172	33	108	3	8	12	9	2028	150	30	91	4	7	10	8
2029	157	30	98	3	7	11	9	2029	136	27	82	3	6	9	8
2030	141	27	88	3	6	9	8	2030	122	24	74	3	6	8	7
2031	125	23	78	3	5	8	7	2031	109	21	66	3	5	8	6
2032	110	20	69	2	5	7	7	2032	95	18	60	2	4	7	6
2033	95	17	60	2	4	6	6	2033	82	15	50	2	4	6	5
Total (2024-2033)	1,196	250	697	40	59	85	66	Total (2024-2033)	1,066	227	607	41	56	80	60

### Final 2024 EE Forecast (Net of embedded Expiring Measures)

Incremental Annual Energy, Summer Peak, and Winter Peak Savings

Annual Energy Savings (GWh)												
	NE CT		MA	ME	NH	RI	VT					
2024	604	147	299	37	40	50	32					
2025	604	147	299	37	40	50	32					
2026	604	147	299	37	40	50	32					
2027	604	147	299	37	40	50	32					
2028	33	68	7	-40	6	-15	7					
2029	-26	54	-24	-42	2	-19	4					
2030	-219	25	-133	-58	-8	-38	-7					
2031	-279	7	-165	-60	-10	-42	-10					
2032	-337	-9	-195	-61	-13	-46	-13					
2033	-391	-24	-224	-63	-15	-50	-16					
Total (2024-2033)	1,197	709	462	-176	122	-10	93					

Summ	Summer Peak Demand Savings (MW)								Winter Peak Demand Savings (MW)						-	
	NE	СТ	MA	ME	NH	RI	VT			NE	СТ	MA	ME	NH	RI	VT
2024	99	25	49	6	6	8	5		2024	93	23	46	6	6	8	5
2025	99	25	49	6	6	8	5		2025	93	23	46	6	6	8	5
2026	99	25	49	6	6	8	5		2026	93	23	46	6	6	8	5
2027	99	25	49	6	6	8	5		2027	93	23	46	6	6	8	5
2028	31	5	30	-8	3	-1	2		2028	75	30	46	-7	3	0	4
2029	15	2	20	-8	2	-2	1		2029	62	27	38	-7	2	-1	3
2030	0	-1	10	-8	1	-3	1		2030	48	24	30	-7	1	-2	3
2031	-16	-4	0	-9	0	-4	0		2031	34	21	21	-8	0	-3	2
2032	-32	-7	-9	-9	0	-5	-1		2032	21	18	13	-8	0	-4	1
2033	-46	-11	-18	-9	-1	-6	-1		2033	8	15	6	-8	-1	-5	1
Total (2024-2033)	348	84	229	-27	29	11	22		Total (2024-2033)	620	227	338	-21	29	17	34

### **EE Forecast Comparison**

#### Final 2023 EE Forecast Vs. Final 2024 EE Forecast

Total EE Dollars (1000s)	NE	MA	СТ	ME	RI	VT	NH
2023 EE Forecast							
Total (2023-2032)	10,818,726	6,691,120	1,845,314	236,216	909,280	529,426	607,370
Average (2023-2032)	1,081,873	669,112	184,531	23,622	90,928	52,943	60,737
2024 EE Forecast							
Total (2024-2033)	10,693,736	6,754,630	1,697,926	247,565	823,060	499,578	670,977
Average (2024-2033)	1,069,374	675,463	169,793	24,757	82,306	49,958	67,098
Energy Savings (GWh)	NE	MA	СТ	ME	RI	VT	NH
2023 EE Forecast							
Total (2023-2032)	1,920	815	788	-76	3	128	262
Average (2023-2032)	192	82	79	-8	0	13	26
2024 EE Forecast							
Total (2024-2033)	1,201	462	709	-176	-10	93	122
Average (2024-2033)	120	46	71	-18	-1	9	12
Summer Peak Savings (MW)	NE	MA	СТ	ME	RI	VT	NH
2023 EE Forecast							
Total (2023-2032)	582	328	157	-6	21	18	64
Average (2023-2032)	58	33	16	-1	2	2	6
2024 EE Forecast							
Total (2024-2033)	348	229	84	-27	11	22	29
Average (2024-2033)	35	23	8	-3	1	2	3
Winter Peak Savings (MW)	NE	MA	СТ	ME	RI	VT	NH
2023 EE Forecast							
Total (2023-2032)	863	450	275	2	32	51	53
Average (2023-2032)	86	45	28	0	3	5	5
2024 EE Forecast							
Total (2024-2033)	620	338	227	-21	17	34	29
Average (2024-2033)	62	34	23	-2	2	3	3

# Energy Efficiency on Summer Peak

#### New England



**ISO-NE PUBLIC** 

### **Energy Efficiency on Summer Peak** *States*

MA СТ NH 1,600 1,400 1,200 1,000 MM MM ≹ 100 VТ RI ME MM MM MΜ 2010 

🔶 EEF 2023 — PDR Reconstitution (EEF 2023) - 🐑 EEF 2024 (before removal of embededded expiring measures) — EEF 2024 — PDR Reconstitution (EEF 2024)

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### **Energy Efficiency on Winter Peak** *New England*



### **Energy Efficiency on Winter Peak** *States*



🕶 EEF 2023 🛶 PDR Reconstitution (EEF 2023) - 🗣 EEF 2024 (before removal of embededded expiring measures) 🛶 EEF 2024 🛶 PDR Reconstitution (EEF 2024)

### **Energy Efficiency on Annual Energy** *New England*



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### **Energy Efficiency on Annual Energy** *States*



🕶 EEF 2023 🗝 PDR Reconstitution (EEF 2023) 🔹 EEF 2024 (before removal of embededded expiring measures) 🔷 EEF 2024 🛥 PDR Reconstitution (EEF 2024)

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