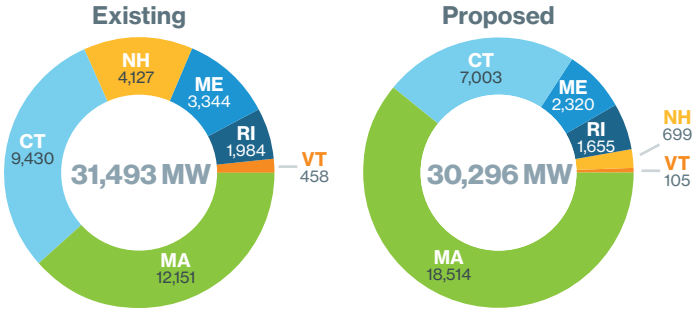
New England Power Grid State Profiles 2021–2022

Supply and demand resources help meet New England's electricity needs, and state policies are transforming the resource mix.

Region Has Many Proposals for New Supply

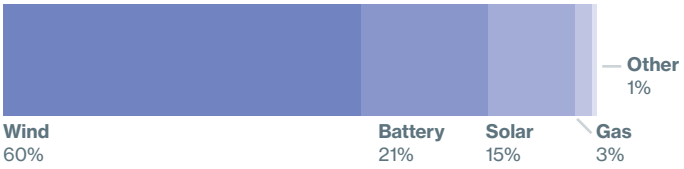
Electric generating capacity by state (MW)



Source: ISO-NE *2021 Capacity, Energy, Loads, and Transmission Report*; and ISO-NE Generator Interconnection Queue, January 2022

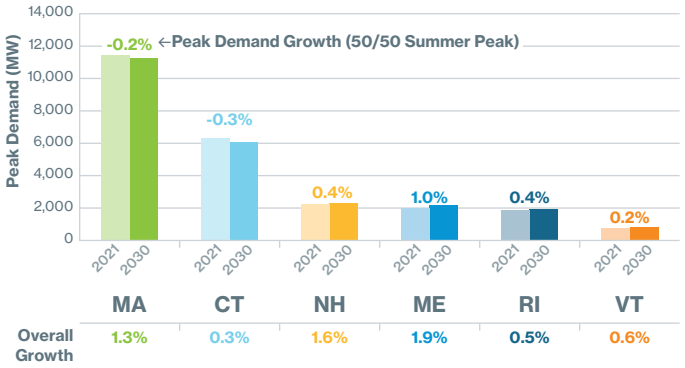
Proposed Generation (by type)

Wind, solar and battery storage dominate new resource proposals in the ISO queue (as of January 2022); Total: 30,296 MW



ISO's Electrification Forecast Shows Demand Growth

Compound annual growth rates for peak demand and overall electricity use, net of energy efficiency and solar photovoltaics (PV), 2019–2028



Source: ISO-NE 2021 Forecast Data and *2021 Capacity, Energy, Loads, and Transmission Report*

EE and solar PV are reducing demand growth

While state-sponsored energy-efficiency and behind-the-meter solar PV resources are driving down grid electricity use and flattening overall electricity demand in New England, the ISO forecasts that both energy usage and peak demand will increase slightly over the next 10 years. Electrification of transportation and buildings are the primary factors for this increase.

Related Developments

The region's capacity market is attracting investment

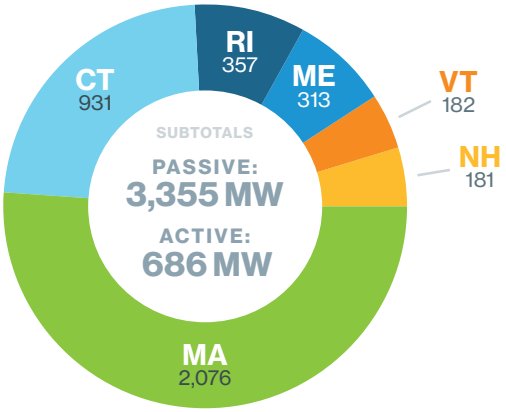
More than 2,000 MW of new natural gas, wind, solar, energy storage, and hydro resources have cleared in recent Forward Capacity Auctions with commitments to be available in 2022–2025.

The states are active in procuring clean energy

From 2015 to 2022, the southern New England states have solicited more than 8,000 MW of supply through large-scale clean energy procurements, consisting primarily of wind, solar, hydro, and nuclear energy resources. This is driving proposals in the ISO queue.

Demand Resources Compete in New England Markets

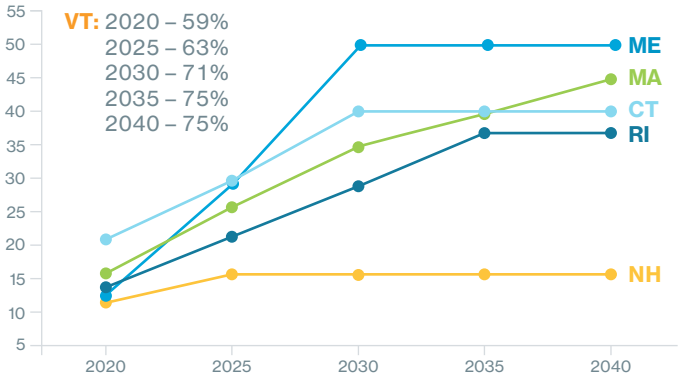
Demand resources cleared in the 12th Forward Capacity Auction and committed for June 1, 2022, to May 31, 2023 (MW)



Source: ISO-NE 2022-2023 Capacity Commitment Period Forward Capacity Auction Obligations

State Renewable Portfolio Standards Are Rising

Class I or new renewable energy resources (%)



All six New England states have renewable energy standards

Electricity suppliers are required to provide customers with increasing percentages of renewable energy to meet state requirements.

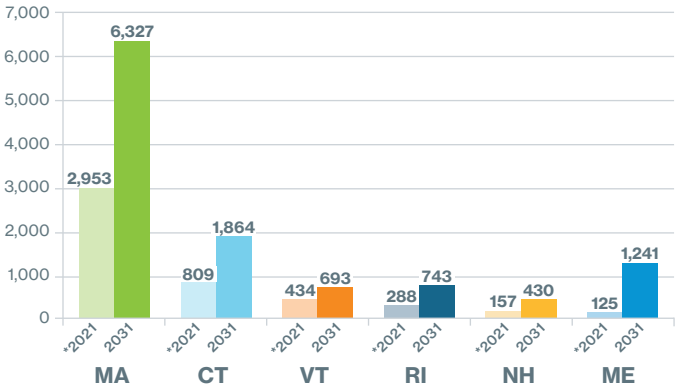
*Vermont's standard recognizes new and existing renewable energy and is unique in classifying large-scale hydropower as renewable.

States Target Increases in Renewable and Clean Energy and Deep Reductions in CO_2 Emissions

≥80% by 2050	**Five states mandate greenhouse gas reductions economy wide: MA, CT, ME, RI, and VT (mostly below 1990 levels)**
80% by 2050 Net-Zero by 2050	MA statewide GHG emissions limit MA clean energy standard
90% by 2050	VT renewable energy requirement
100% by 2050 Carbon-Neutral by 2045	ME renewable energy requirement ME emissions goal
100% by 2040	CT zero-carbon electricity goal
100% by 2030	RI renewable energy goal

ISO-NE Forecasts Strong Growth of Solar PV Resources

Values are alternating current (AC) nameplate capacity (MW)



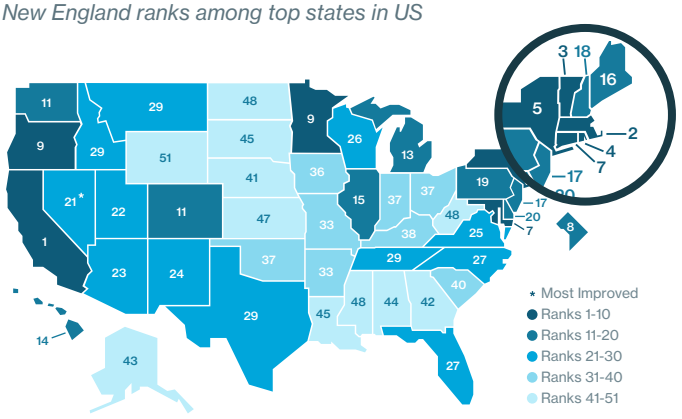
Source: Draft 2022 PV Forecast, ISO-NE, February 2022
*As of December 2021

New England states promote behind-the-meter solar PV

ISO-NE reduces the level of capacity to be procured in the Forward Capacity Auction to account for state policies promoting behind-the-meter solar PV.

New England States Lead US Energy-Efficiency Rankings

New England ranks among top states in US



Source: American Council for an Energy-Efficient Economy, 2020 State Energy Efficiency Scorecard

New England states invest billions in energy efficiency

The six states invested nearly $5.8 billion from 2015 to 2020, and the ISO projects an additional $11.9 billion investment from 2021 to 2030.

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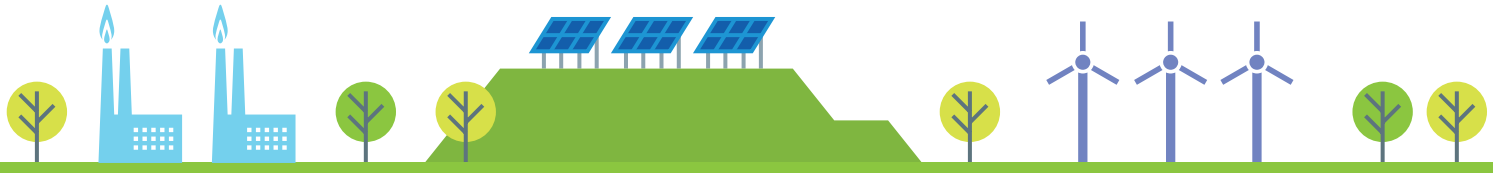

About ISO New England

Created in 1997, ISO New England is the independent, not-for-profit corporation responsible for the reliable operation of New England's electric power generation and transmission system, overseeing and ensuring the fair administration of the region's wholesale electricity markets, and managing comprehensive regional electric power planning.

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