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)

- **Existing**
  - MA: 12,151 MW
  - CT: 9,430 MW
  - NH: 4,127 MW
  - ME: 3,344 MW
  - RI: 1,655 MW
  - VT: 458 MW

- **Proposed**
  - MA: 18,514 MW
  - CT: 7,003 MW
  - NH: 1,599 MW
  - ME: 2,320 MW
  - RI: 1,655 MW
  - VT: 105 MW

Subtotal: Existing = 31,493 MW, Proposed = 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

- **Overall Growth**
  - MA: 1.3%
  - CT: 0.3%
  - NH: 1.6%
  - ME: 1.9%
  - RI: 0.5%
  - VT: 0.6%

- **Peak Demand Growth (50/50 Summer Peak)**
  - MA: -0.2%
  - CT: -0.3%
  - NH: 0.4%
  - ME: 1.0%
  - RI: 0.4%
  - VT: 0.2%

Proposed Generation (by type)

- **Wind**: 60%
- **Battery**: 21%
- **Solar**: 15%
- **Gas**: 3%

Proposed Generation (as of January 2022): Total = 30,296 MW


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)

- **SUBTOTALS**
  - MA: 2,076 MW
  - CT: 357 MW
  - ME: 313 MW
  - NH: 181 MW
  - RI: 182 MW
  - VT: 357 MW

- **ACTIVE:** 686 MW
- **PASSIVE:** 3,355 MW

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

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.
State Renewable Portfolio Standards Are Rising
Class I or new renewable energy resources (%)

States Target Increases in Renewable and Clean Energy and Deep Reductions in CO₂ Emissions

ISO-NE Forecasts Strong Growth of Solar PV Resources
Values are alternating current (AC) nameplate capacity (MW)

New England States Lead US Energy-Efficiency Rankings
New England ranks among top states in US

State Renewable Portfolio Standards Are Rising
Class I or new renewable energy resources (%)

ISO-NE Forecasts Strong Growth of Solar PV Resources
Values are alternating current (AC) nameplate capacity (MW)

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.

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 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.

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.