New England Power Grid State Profiles 2017–2018

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)*

![Region Has Many Proposals for New Supply](image)


**The region’s capacity market is attracting investment**

More than 3,000 MW of natural gas, wind, solar, and hydro resources have cleared in recent Forward Capacity Auctions with commitments to be available in 2018–2020, and 5,600 MW of new resources qualified to compete in the February 2018 auction for resources needed in the 2021–2022 timeframe.

**New Resources Will Be Needed**

*Retired, or announced retirement, since 2013 (MW)*

![New Resources Will Be Needed](image)

Source: ISO-NE Status of Non-Price Retirement Requests and Retirement De-list Bids

**New England is losing non-gas-fired resources**

More than 4,600 MW of generating capacity (primarily coal, oil, and nuclear) have retired or announced plans to retire since 2013, and more retirements are likely.

**Electricity Demand Growth Has Slowed in New England**

*Compound annual growth rates for peak demand and overall electricity use, net of energy efficiency and solar photovoltaic (PV), 2017-2026*

![Electricity Demand Growth Has Slowed in New England](image)


**EE and solar PV are reducing demand growth**

State-sponsored energy-efficiency and behind-the-meter solar PV resources are slowing the growth rate for summer peak demand and flattening overall electricity demand for the 7.1 million retail electricity customers in New England.

**Demand Resources Compete in New England Markets**

*Demand resources cleared in the 9th Forward Capacity Auction and committed for June 1, 2018, to May 31, 2019 (MW)*

![Demand Resources Compete in New England Markets](image)

Source: ISO-NE 2018-2019 Capacity Commitment Period Forward Capacity Auction Obligations

**New England is expanding market opportunities**

ISO-NE plans to integrate demand-response resources into the energy and reserves markets in June 2018.
State Renewable Portfolio Standards Are Rising

Class I or new renewable energy resources (%)

- VT: 2018 – 55%
- 2020 – 59%
- 2025 – 63%
- 2030 – 71%
- 2035 – 75%
- 2040 – 75%

CT

RI

MA

NH

ME

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.

ISO-NE Forecasts Strong Growth of Solar PV Resources

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

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.

Source: Final 2017 PV Forecast, ISO-NE, May 2017

*Start of 2018

New England Goals Seek Deep Reductions in CO₂ Emissions

Percentage reduction in greenhouse gas (GHG) emissions below 1990 levels by 2050*

- Legislative Mandate
- Aspirational Goal

*Some states have different baseline and target years

**New England Governors and Eastern Canadian Premiers (NEG-ECP)

States pursue multiple approaches to reduce GHG emissions

New England states are promoting GHG reductions on a state-by-state basis and at the regional level, through a combination of legislative mandates (e.g., CT, MA, RI) and aspirational goals (e.g., ME, NH, VT, and NEG-ECP).

New England States Lead US Energy-Efficiency Rankings

New England ranks among top states in US

Source: American Council for an Energy-Efficient Economy, 2017 State Energy Efficiency Scorecard

New England states invest billions in energy efficiency

The six states invested $4.5 billion from 2010 to 2015, and the ISO projects an additional $7.2 billion investment from 2021 to 2026.

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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