Environmental Update

Environmental Advisory Group

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LEAD ANALYST

Presentation Overview

- Key Points
- Federal Environmental Regulatory Update
- New England Power System Trends
- New England Power System Estimated Emissions
- New England Air Quality
- COVID-19 Update
- Environmental Compliance Costs

Key Points

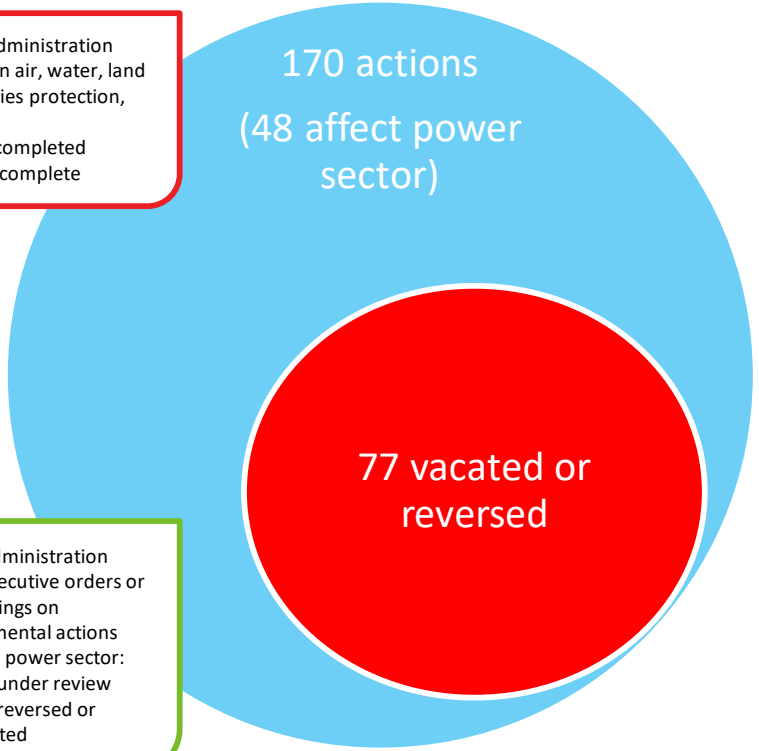
- In 2021 and early 2022, generating resources and transmission assets reported no issues with state or federal environmental compliance requirements
  - Various federal air, water, land use standards and rules under review
  - States pursuing reviews of greenhouse gas and other standards
- Preliminary data and estimates suggest New England power system carbon dioxide (CO_2), nitrogen oxides (NO_x) and sulfur dioxide (SO_2) emissions remained near historic lows in 2021 and spiked in January 2022
  - Winter and summer air pollution spikes occurred due to continued reliance on fossil fired-generators for peak demand and power plant fuel costs
  - Unhealthy ground level-ozone pollution increased over summer 2021 in New England compared to 2020
- Estimates suggest New England power system water use and wastewater discharges are near historic lows in 2021 and early 2022
  - Implementation of federal water standards for thermal and hydroelectric generators may limit unit availability to protect wildlife and habitat
- Environmental compliance costs for emitting generators are increasing
- Environmental requirements in the siting, permitting and operation of energy infrastructure affect fuel supplies, generating resources, and transmission assets

FEDERAL ENVIRONMENTAL REGULATORY UPDATE

Shift in Federal Environmental Priorities

Many Prior Administration Actions under Review, Reversed, or Vacated by Courts

Trump Administration actions on air, water, land use, species protection, climate:
- 170 completed
- 40 incomplete



Biden Administration initial executive orders or court rulings on environmental actions affecting power sector:
- ~48 under review
- ~77 reversed or vacated

Shift in Federal Environmental Priorities Has Limited Impact on New England Power System

- EPA reviews of 2020 **ozone** and **fine particulate** standards potentially most impactful, but not before mid 2020s
- **Cross State Air Pollution Rule** (CSAPR), limiting long range air pollution (updated April 2021), some regional benefit
- **Power Plant Startup, Shutdown, and Malfunction Rule**, EPA withdrew 2020 guidance, reinstating 2015 policy (Sep 2021)
- **Mercury and Air Toxics Standards for Electric Generation Units**, EPA proposing overhaul (interagency review Aug 2021) of 2020 withdrawal of rule basis and residual risk standard, limited impact on regional generators
- **Cooling Water Intake Systems Rule** (Clean Water Act 316(b)), implementation continues through permit renewals
- **Steam Electric Power Generating Effluent Guidelines**, EPA rulemaking (July 2021) reviewing 2020 changes, limited risk for regional coal-fired generators
- **Coal Combustion Residuals Rule**, EPA reviewing requests for compliance extensions for ash storage sites, plans additional actions (January 2022), changes pose limited impact for regional coal-fired generators

Sources: White House; Harvard EELP; Washington Post

Sources: EPA, Unified Regulatory Agenda

Federal Environmental Actions Affecting Power Sector

Topic	Action	Status
Federal Power Sector Pollution Strategy	• **3/10/22**: EPA Administrator Regan outlines an integrated (multi-rule) strategy on emissions, water use, wastes from power sector	• Includes more stringent limits on coal- and oil-fired units, performance standards for gas-fired units
Air Quality Standards Review	• **2/4/22**: Clean Air Scientific Advisory Committee draft review recommends EPA lower both the daily and annual fine particulate standards: • Daily: from 35 ug/m^3 to 25 – 30 ug/m^3 • Annual: from 12 ug/m^3 to 8 – 10 ug/m^3	• Draft standards expected by mid-2022, and final actions by 2023 • Could require additional pollution controls or fuel-switching from oil • Fine particulate pollution ranges between 10 – 25 ug/m^3 across parts of New England
Interstate Ozone Pollution	• **2/28/22**: EPA proposes tighter controls on nitrogen oxide emissions from power plants and other sources in upwind states to help downwind states meet national ozone limits	• If more stringent pollution control measures required upwind, could reduce need for further NO_x emission reductions from fossil fuel-fired generators in New England
Mercury and Air Toxics Regulations for Power Plants (MATS)	• **2/9/22**: EPA proposes reinstating finding underpinning hazardous air pollution limits on fossil electric generating units (87 FR 7624)	• Revoking a 2020 action finding that it was not appropriate and necessary to regulate mercury and air toxics from coal- and oil-fired electric generating units under the Clean Air Act

EPA Proposing Interstate Ozone Transport Actions

Intended to address significant contribution of ozone precursors from upwind sources under 2015 ozone standard. No regional fossil generating units affected, but could help Connecticut ozone attainment goals

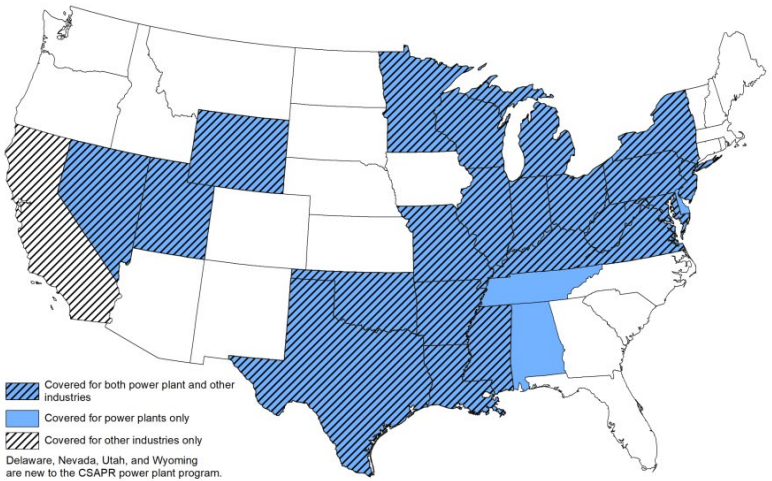
- **February 2022**: proposal would build on Cross State Air Pollution Rule (CSAPR) (CSAPR designed to address upwind ozone for the 2008 ozone standard), expand westward, adding more industrial sources of nitrogen oxide (NO_X) emissions. Implementation schedule includes:
  - In **2023** ozone season, new emissions limits on power plants in states upwind of New England
  - In **2024**, certain coal-fired steam units ≥ 100 MW in affected States would be subject to backstop daily NO_X emissions rate of 0.14 lb/mmBtu. Any excess emissions would trigger a 3-for-1 allowance surrender ratio
  - In **2025**, State emission budgets would update annually starting in 2025, accounting for new retirements, new units, and changing operations
  - In **2026**, certain industrial stationary sources, including combustion sources serving natural gas transportation pipeline compressors, would be subject to backstop specific NO_X emissions rates

Source: EPA Good Neighbor Plan for 2015 Ozone NAAQS

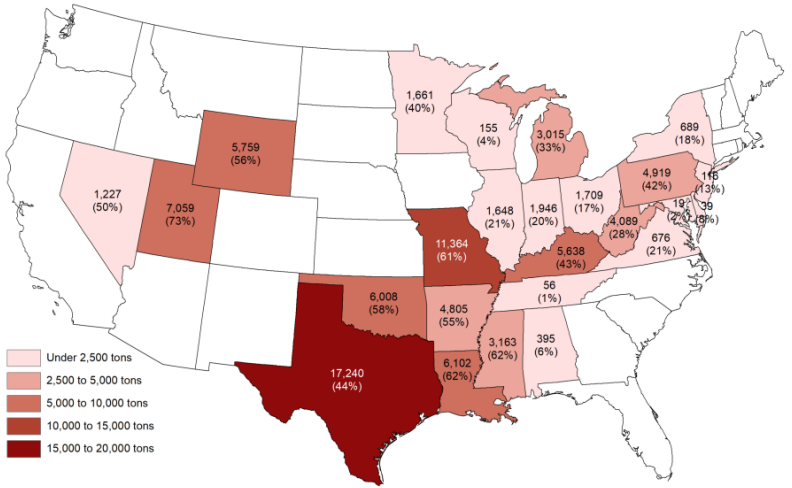
EPA Proposing Interstate Ozone Transport Actions

Initial NO_X emissions limits would be set at the level of reductions achievable through available measures, including consistently operating existing emissions controls at power plants in affected states

States Covered Under the Proposed 2022 Ozone Transport Rule



Projected Generator NO_X Emissions Reductions in 2026 compared to 2021



According to EPA, the estimated emissions reductions in the above map reflect the difference between the 2026 illustrative budgets for EGUS and their 2021 actual emissions adjusted for any retirements or new fossil EGUs. EPA projects a 29% reduction in 2026 ozone season NOX emissions (~94,000 short tons) from fossil EGUs and other industrial sources across the 25 affected states.

Source: EPA Good Neighbor Plan for 2015 Ozone NAAQS

Regional Haze Update

Haze mitigation efforts across the Northeast between 2000 and 2019 have reduced emissions of visibility-impairing pollutants, lowering measured haze levels on the 20% clearest and 20% at sites across the entire region

New England Making Progress Improving Visibility at Protected Sites Across Region

- The 2017 Regional Haze Rule (82 FR 3078) requires each affected state to revise and submit its regional haze implementation plan revision to EPA by 7/31/21, 7/31/28, and every 10 years thereafter
  - EPA estimates the average visual range in national parks and wilderness areas has increased at some sites from 90 to 120 miles (west) and from 50 to 70 miles (east)
- **2/7/22**: environmental groups notify EPA of intent to sue for failing to make completeness determinations by 1/31/22 for revised regional haze SIPs from 39 states that failed to submit plans by the 7/31/21 deadline
  - Many New England States (working through MANE-VU) have made progress on 2021 plans

Regional Haze Plans Overdue From Many States

Alabama	Louisiana	Oklahoma
Alaska	Maine	Oregon
Arizona	Maryland	Pennsylvania
Arkansas	Minnesota	Rhode Island
California	Mississippi	South Carolina
Colorado	Missouri	South Dakota
Delaware	Montana	Tennessee
Georgia	Nebraska	Utah
Hawaii	Nevada	Vermont
Idaho	New Hampshire	Virginia
Illinois	New Mexico	Washington
Iowa	North Carolina	West Virginia
Kentucky	North Dakota	Wyoming

Haze occurs when small particles of air pollution scatter and absorb sunlight, blurring scenic views and decreasing the distance that can be seen from overlooks. The primary pollutants that cause regional haze include particulate matter, nitrogen oxides (NO_X), sulfur dioxide (SO_2), and volatile organic compounds (VOCs). EPA estimates the average visual range has increased from 90 to 120 miles in some western parks and from 50 to 70 miles in some eastern parks. According to EPA, during the first implementation period (2007-2018), there was a reduction in SO_2 emissions of 500,000 tons per year and in NO_X emissions of 300,000 tons per year.
Sources: MJBA/ERM (table); Harvard EELP; EPA.

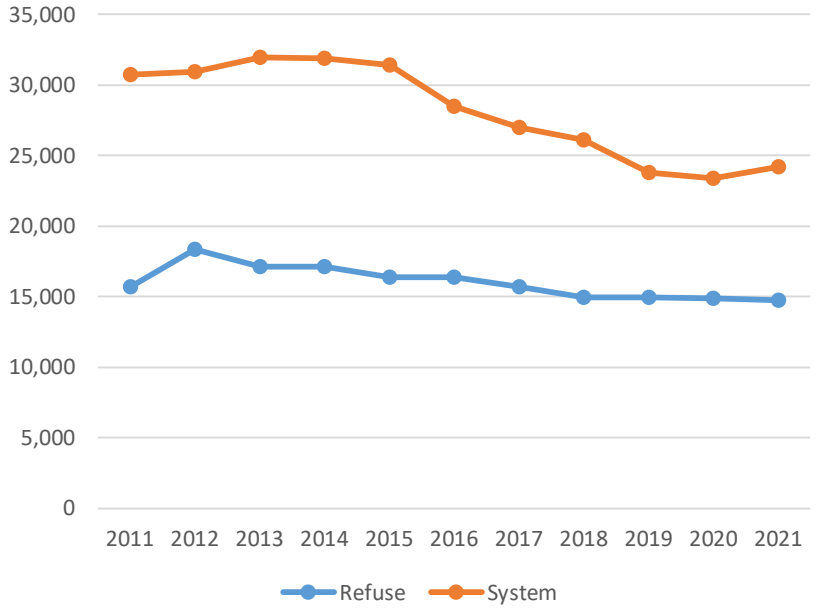
Sources: Harvard EELP; EPA; MJBA/ERM

Ozone Transport Commission Considering Lower NO_X Limits for Waste Combustors

Ozone Transport Commission Evaluating Retrofit of Additional Controls on Existing Combustors

- Refuse generation in New England emits roughly 57% (16,000 metric tons) of annual system NO_X emissions
  - 2,984 (GWh) in 2021 from 18 units with summer capacity of 368 MW
- OTC evaluating lower NO_X limits for existing municipal waste combustors
  - Existing limits: ≥150 ppmvd
  - Potential limit: 110 ppmvd with 24 hour averaging period

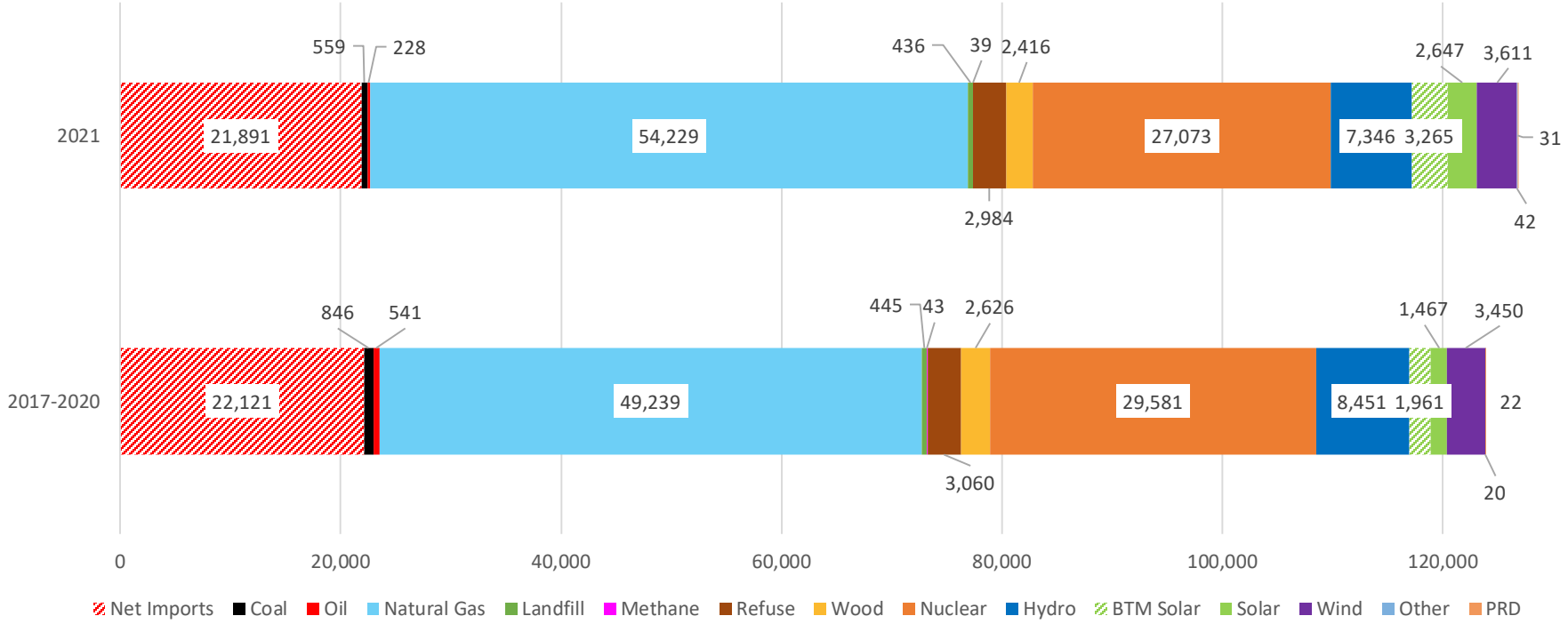
Annual Estimated NOx Emissions (Metric Tons)



Source: Ozone Transport Commission

NEW ENGLAND POWER SYSTEM TRENDS

2021 vs. 4-yr Avg Energy Supply by Fuel Type, BTM Solar & Net Imports (GWh)



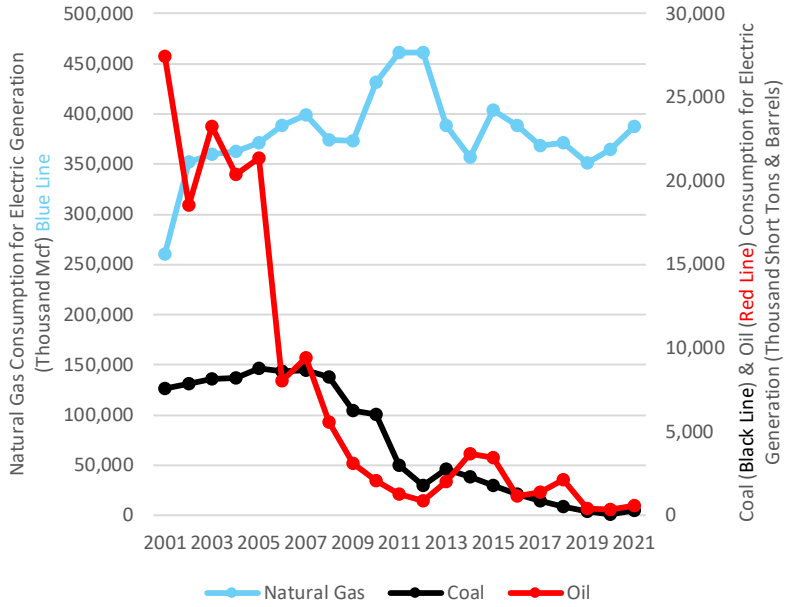
In 2021, emitting generation (**fossil fuels, landfill, methane, refuse, and wood**) increased by **7.2**% (60,890 GWh) vs. the 4-year average (56,799 GWh); non-emitting generation (**hydro, nuclear, solar, and wind**) declined **-5.3**% (40,667 GWh) vs. the 4-year average (42,949 GWh). **Net imports** declined **-1**% in 2021 (21,891 GWh) vs. the 4-year average (22,121 GWh), and **behind-the-meter** (BTM) **solar** generation increased 66% in 2021 (3,265 GWh) vs. the 4-year average (1,961 GWh). Other, PRD omitted.

Sources: ISO-NE Market Analysis & Reporting, Markets & Operations, & Load Forecasting (BTM Solar)

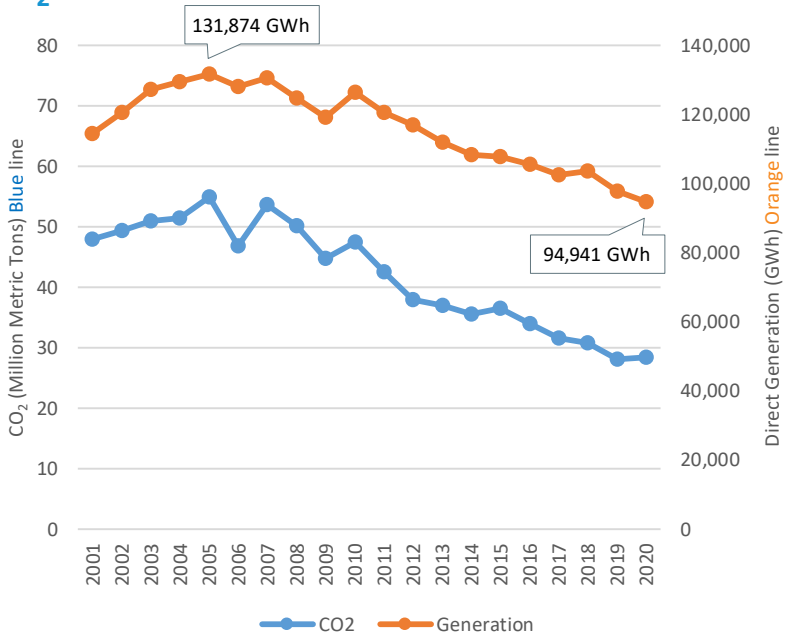
New England Power System Trends

Shift in fossil fuel consumption, long-term declines direct carbon emissions reflect changes in system resource mix

New England Annual Fossil Fuel Consumption for Electric Generation (2011 – 2021)



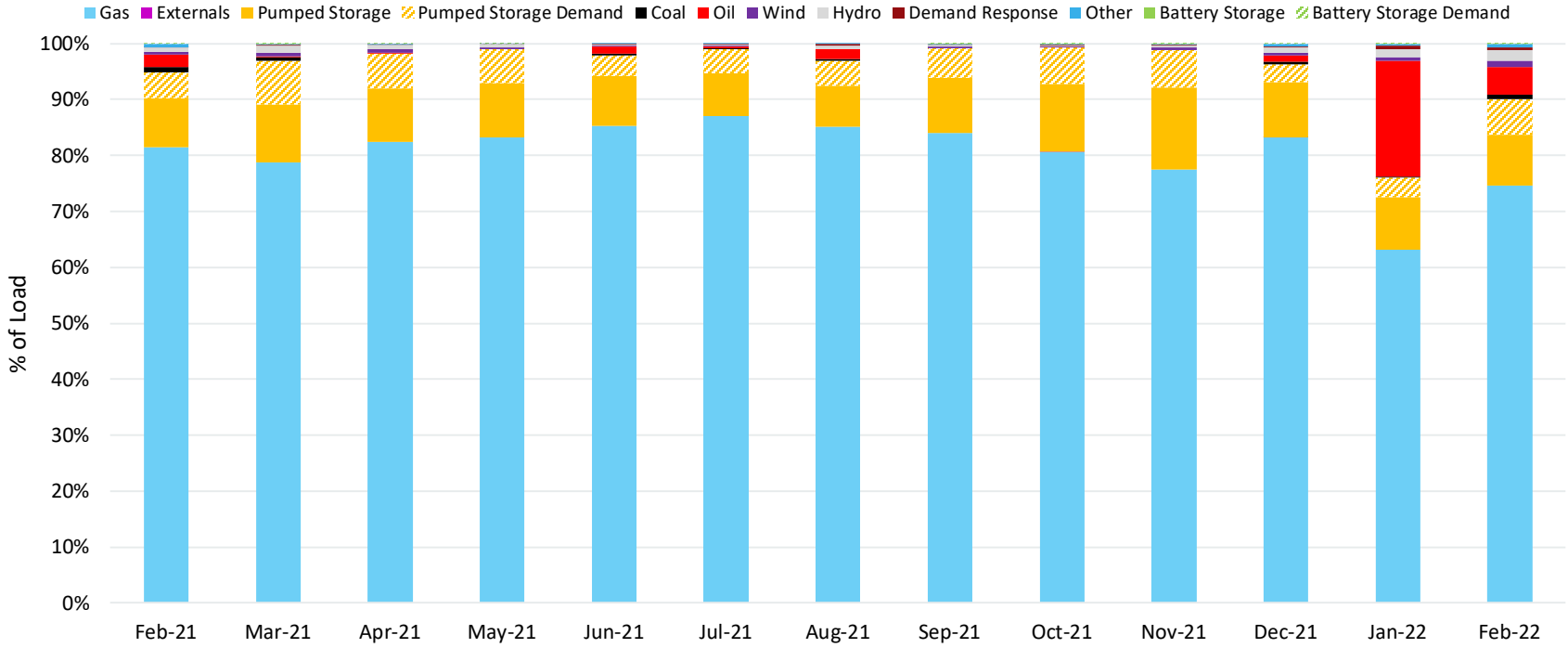
New England Power System Direct Generation & CO_2 Emissions Near Historic Lows



Energy Information Administration fossil fuel consumption for electric generation in New England

CO_2 estimated emissions with EPA (eGrid2019) balancing area fuel specific emission factors (2021 High), generation data from ISO-NE

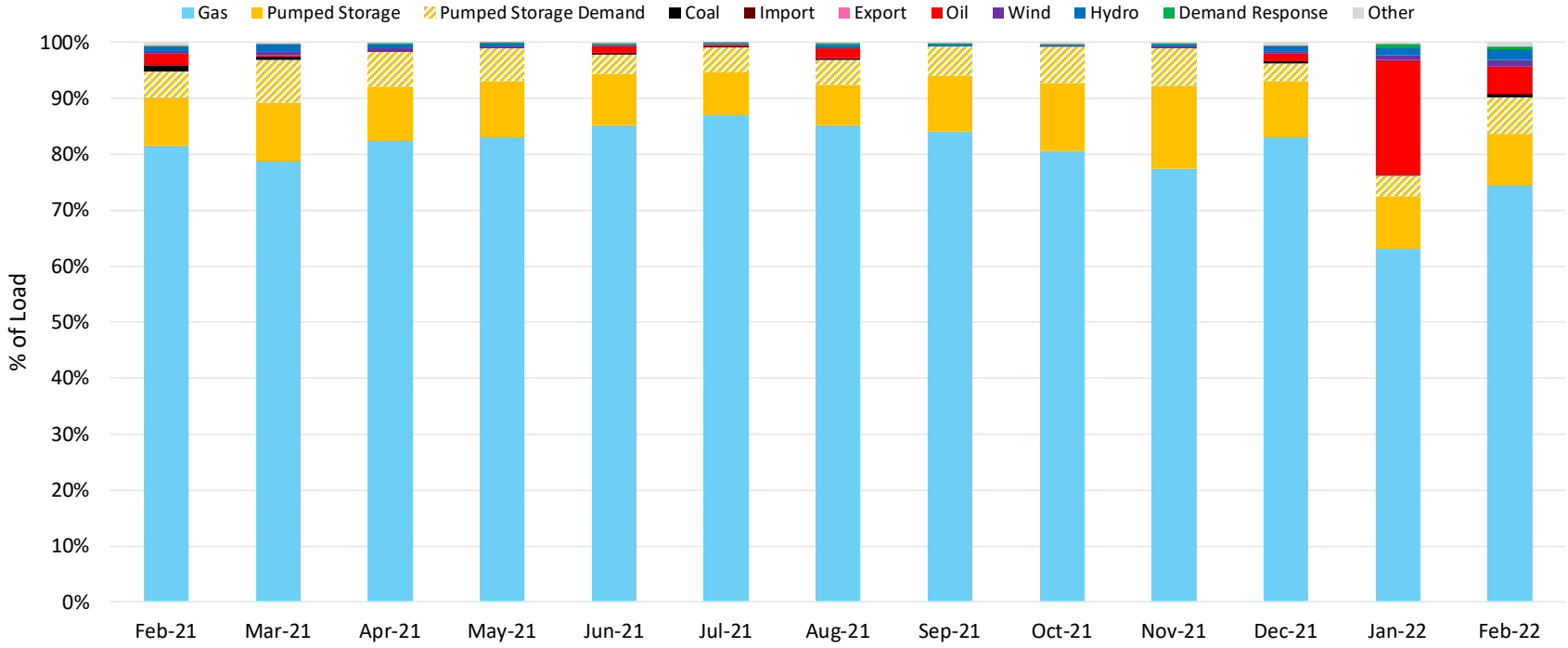
Detailed Marginal Unit Emissions % of Load



Marginal emission rates are calculated using system data that identifies at least one locational marginal unit for each five-minute period, which is associated with meeting the energy requirements on the system during that pricing interval. Using system data on the magnitude and direction of power flows, load in constrained areas and the marginal generators in the same constrained areas are matched. Since these marginal generators can only serve load in the constrained area, weighting by the load in the constrained area against the overall load on the system provides a more accurate representation of the system impact of load weighted marginal units.

Source: ISO-NE Internal Market Monitor

Summed Marginal Unit Emissions % of Load



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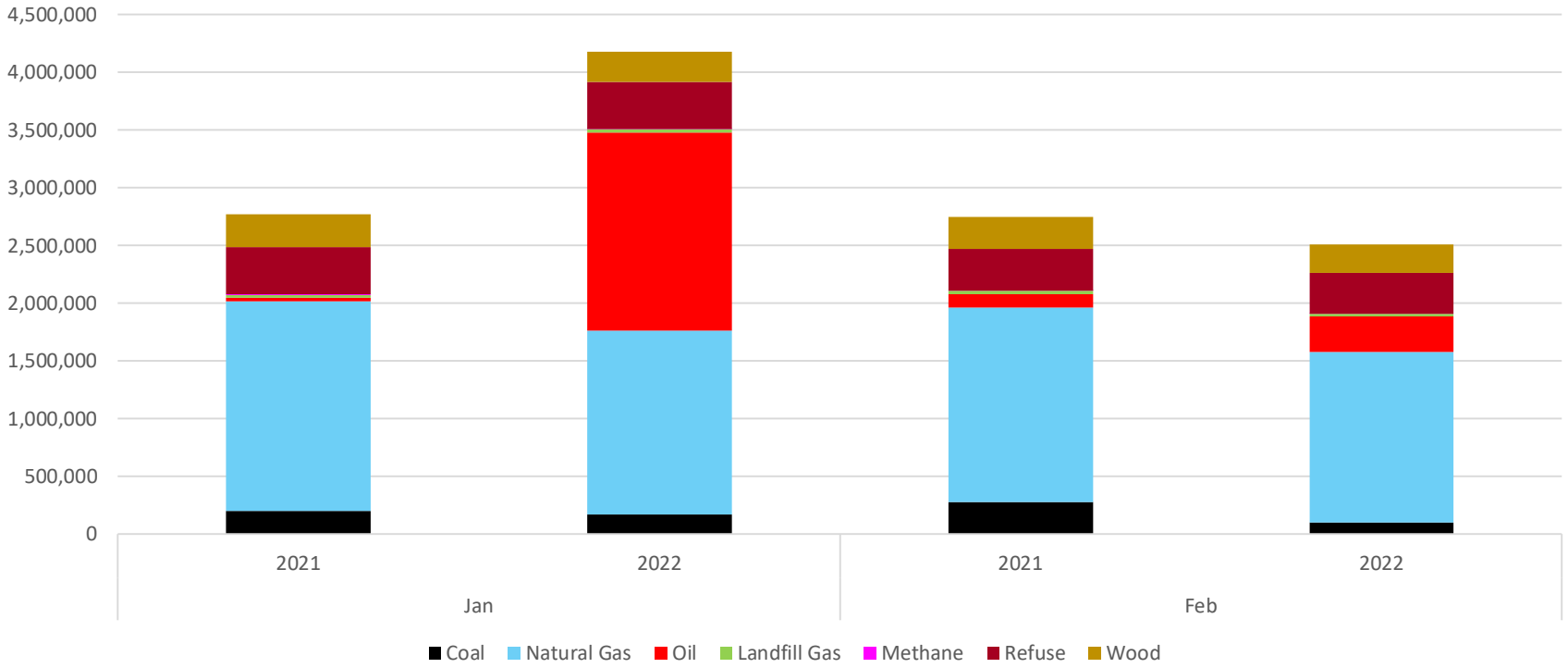
Source: ISO-NE Internal Market Monitor

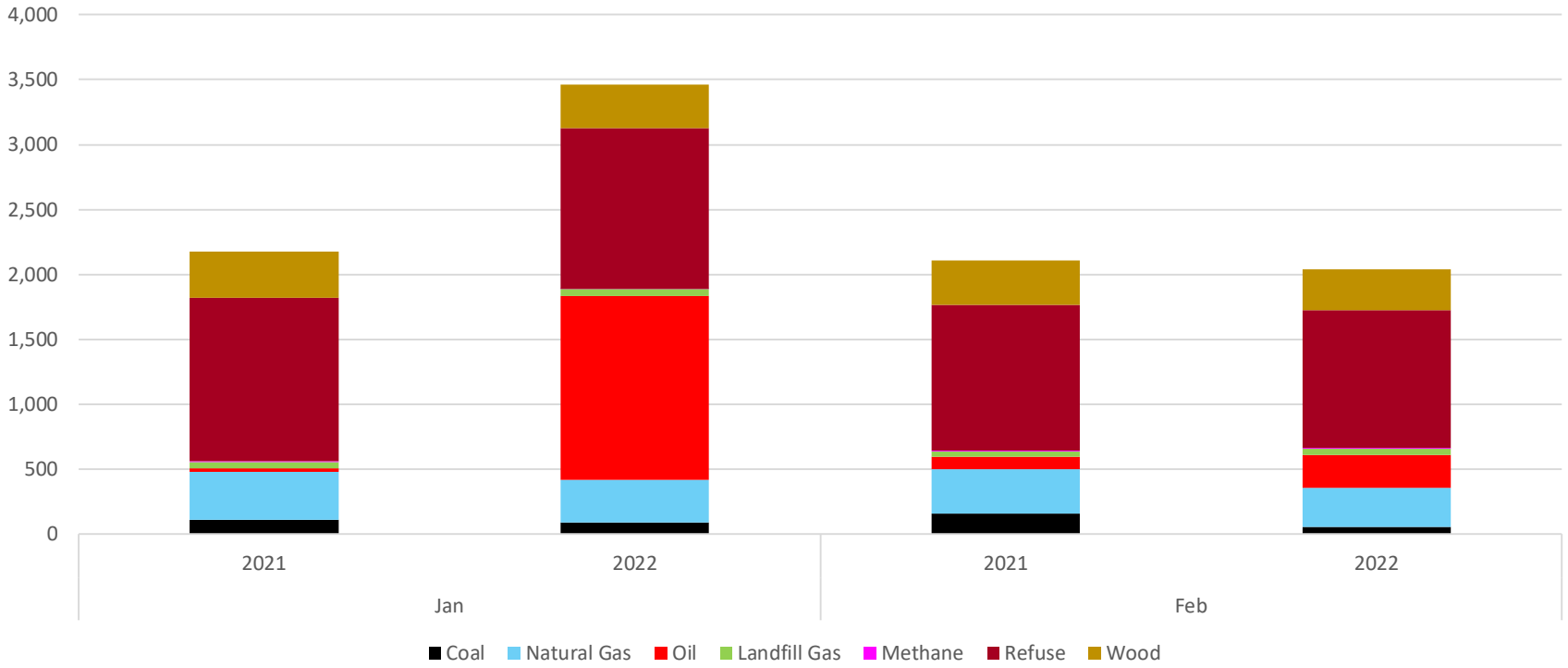
NEW ENGLAND POWER SYSTEM ESTIMATED EMISSIONS

2022 v. 2021 Estimated CO_2 System Emissions



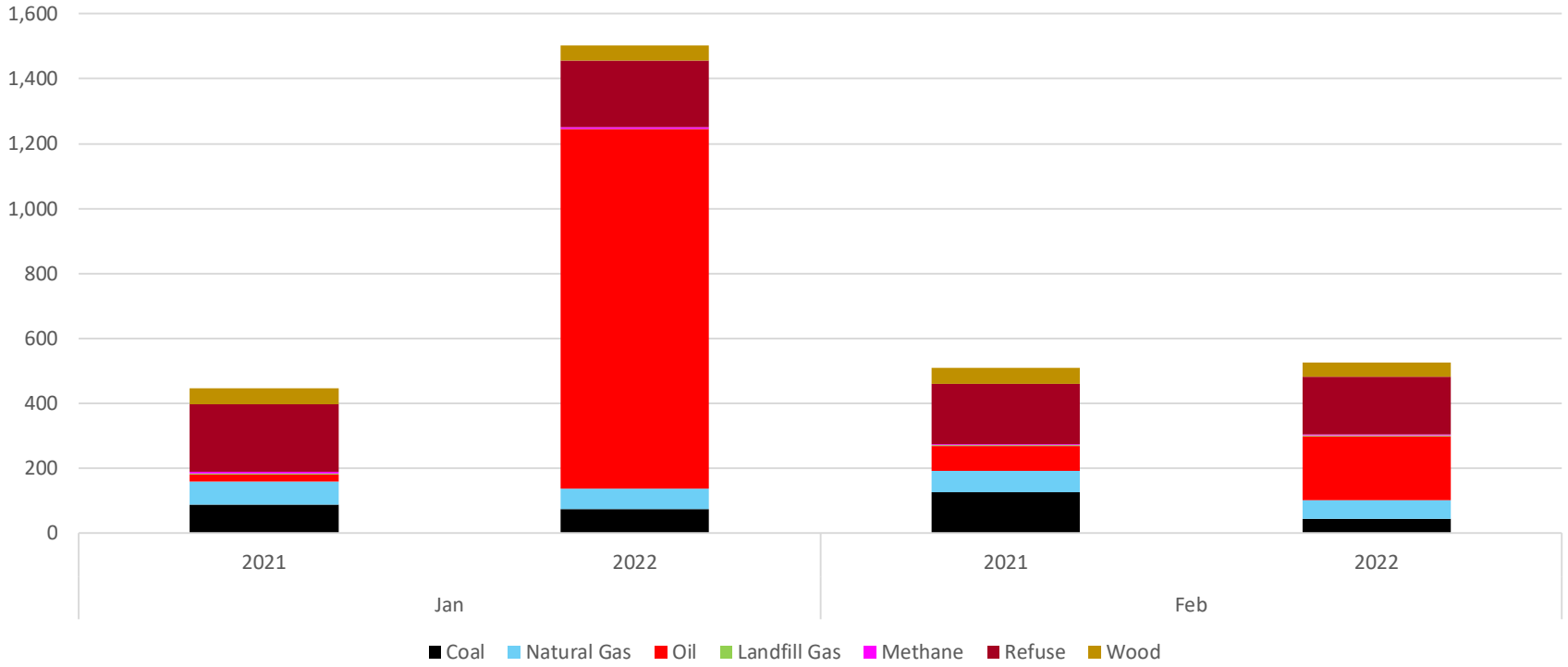
2021, 2022 CO_2 estimated emissions with EPA (eGrid 2021) balancing area fuel specific emission factors, with adjustments by ISO-NE (chart shows high range CO2 only)

2022 v. 2021 Estimated NO_X System Emissions



2021, 2022 NO_X estimated emissions with EPA (eGrid 2021) balancing area fuel specific emission factors, with adjustments by ISO-NE

2022 v. 2021 Estimated SO_2 System Emissions



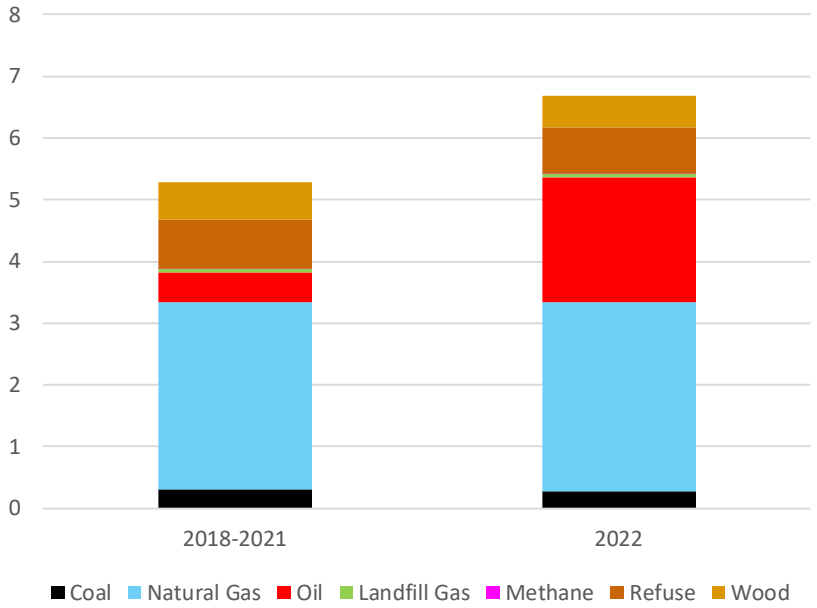
2021, 2022 SO_2 estimated emissions with EPA (eGrid 2021) balancing area fuel specific emission factors, with adjustments by ISO-NE

2022 Estimated Carbon Dioxide (CO_2) Emissions Trends by Fuel Type

Higher Winter Demand Yields Increase in System CO2 Emissions

- January – February 2022 total estimated CO_2 emissions higher than four year average:
  - 2018-2021: 5.2 million
  - 2022: 6.7 million metric tons
- Higher 2022 estimated CO_2 emissions due to higher system reliance on oil-fired generation:
  - 2018-2021 average: 295 GWh (range 22 to 1,081 MWh)
  - 2022: 1,214 GWh

Estimated CO_2 Emissions Increased in 2022 vs. 4-year average (Million Metric Tons)

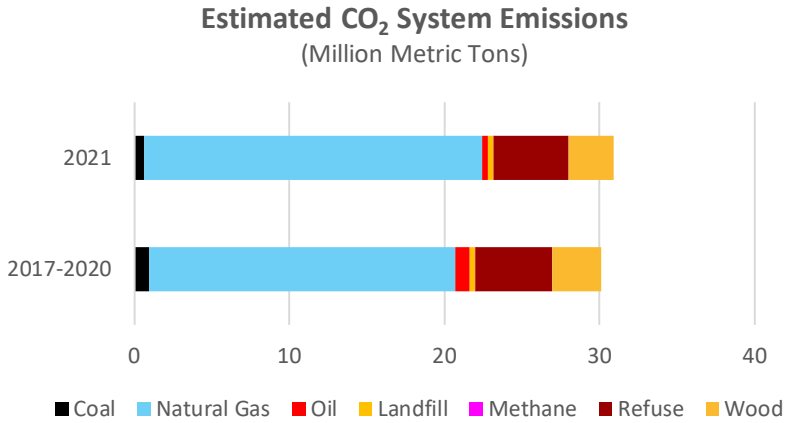


2021 Energy Demand Yielding Higher Environmental Impacts, Carbon Intensity Up

Preliminary Data Shows 2021 Load Increased Compared to 4-year average (2017-2020)

- Preliminary 2021 generation data* shows New England power generation reached 101,640 GWh compared to a 4-year average of 99,784 GWh
- 2021 net imports* decreased to 21,891 GWh compared to the 4-year average of 22,121 GWh
- Compared to the 4-year average, generation in 2021 from emitting sources increased, while non-emitting generation and net imports both declined
- Estimated emission trends diverged in 2021:
  - New England power system carbon emissions increased
  - Sulfur dioxide (SO_2) and nitrogen oxide (NO_X) emissions declined compared to multi-year averages

Estimated 2021 Carbon Emissions Higher Than 4-year average



- 2021 estimated CO_2 emissions (30.9 million metric tons (MMT)) are **2.6**% higher than the 4-year average (30.1 MMT)
- 2021 CO_2 emissions from natural gas generation (21.8 MMT) 10% higher than the 4-year average (19.8 MMT)
- Other 2021 emitting fuel type CO_2 emissions are lower than 4-year averages

* 2021 daily generation data may be revised; December 2021 import data obtained from EIA Hourly Electric Grid Monitor

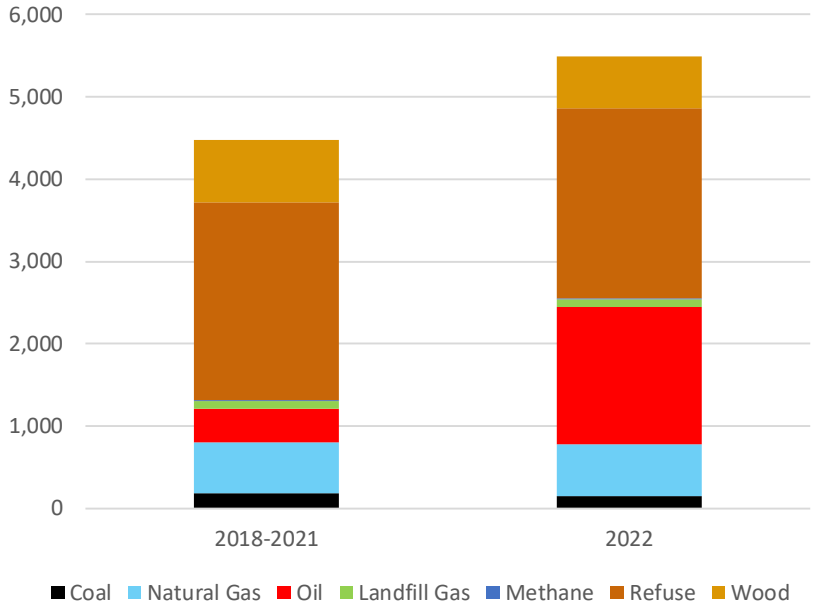
2021 CO_2 estimated emissions with EPA (eGrid 2021) balancing area fuel specific emission factors, with adjustments by ISO-NE (chart shows high range CO_2 only)

NO_X emissions from Electric Generation in New England Remain Low

New England NO_X emissions from Electric Generation

- Estimated NO_X emissions in New England from power generation increased in 2022 compared to the four year (2018 – 2021) average
- Estimated daily NO_X emissions from all fuel types averaged 91 metric tons per day in 2022 for the year and the ozone season (May-Sep)

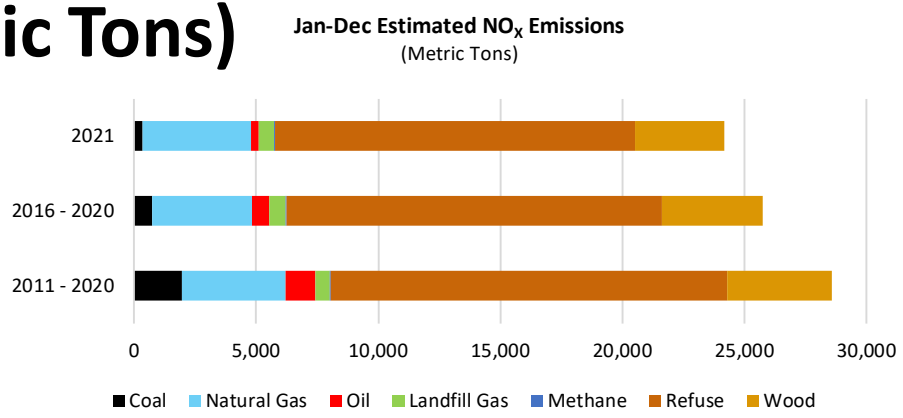
Estimated NO_X Emissions Increased in 2022 (Metric Tons)

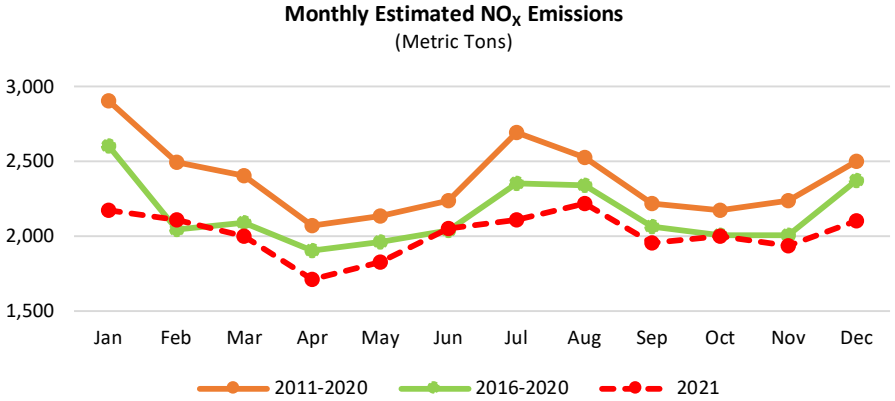


Source: 2021 NO_x estimated daily emissions with EPA (eGrid2019) New England balancing area fuel specific emission factors

2021 Estimated Nitrogen Oxide (NO_x) Emissions Trends by Fuel Type (Metric Tons)

- 2021 estimated nitrogen oxide (NO_x) emissions (24,177 metric tons) from power generation declined -**6**% compared to 5-year average (2016-2020) (25,758) and -**15**% compared to the 10-year average (2011-2020) (28,577)
  - Estimated 2021 NO_x emissions from natural gas generation (4,452 metric tons) increased **9**% compared to 5-year average (4,087) and **4**% compared to the 10-year average (4,278 metric tons)
  - Estimated 2021 YTD NO_x emissions from all other fuel categories decreased compared to 5- and 10-year averages
  - In New England, most emitting generators are subject to specific NO_x emissions standards to limit local and regional impacts





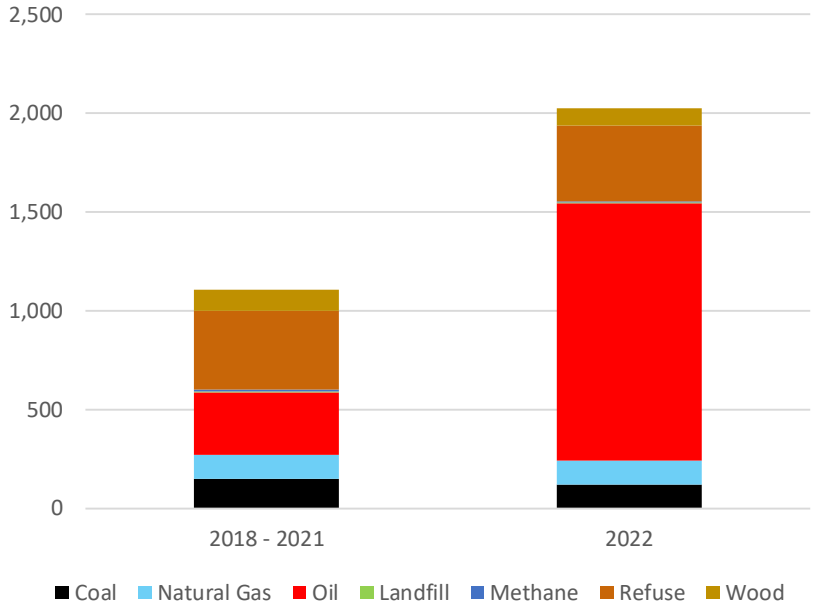
2021 NO_x estimated emissions with EPA (eGrid2019) New England balancing area fuel specific emission factors.

2022 Estimated SO_2 Emissions Spiked Due To Higher Reliance on Oil-fired Electric Generation

Estimated SO_2 emissions from Electric Generation Increased

- Estimated SO_2 emissions increased in New England in January & February compared to the 4-year average
- Estimated daily SO_2 emissions from all fuel types averaged 12 metric tons per day in 2021
  - Estimated maximum daily emissions: 36 metric tons (1/29/21)
  - Estimated minimum daily emissions: 8 metric tons (5/9/21)

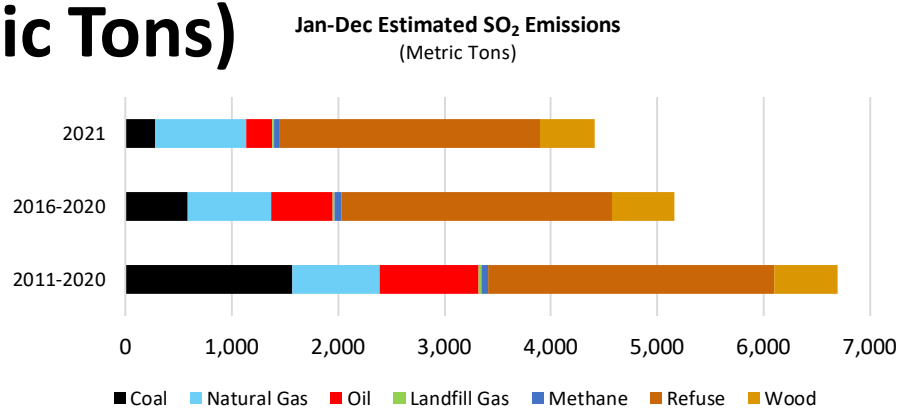
Estimated New England SO_2 Emissions by Fuel Type (Metric Tons)

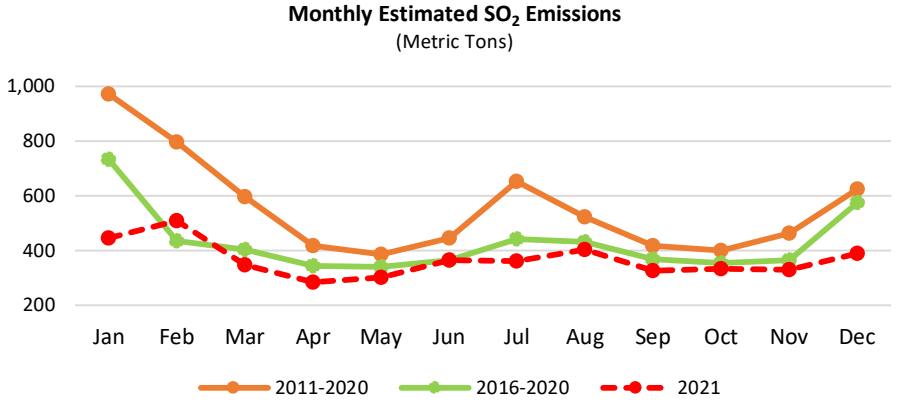


Source: 2018 - 2022 SO_2 estimated daily emissions with EPA (eGrid) New England balancing area fuel specific emission factors

2021 Estimated Sulfur Dioxide (SO_2) Emissions Trends by Fuel Type (Metric Tons)

- Estimated 2021 system sulfur dioxide (SO_2) emissions declined compared to the 5-year and 10-year averages
  - 2021 total emissions (4,408 metric tons) -**15**% lower than 5-year and -**34**% lower than 10-year averages
  - Estimated 2021 SO_2 emissions from natural gas generation sources increased **9**% (650 metric tons) compared to 5-year average (606 metric tons)
  - Estimated 2021 SO_2 emissions decreased from all other fuel categories
- SO_2 emissions have direct and indirect adverse health and environmental impacts. Once emitted, sulfur oxides react with other compounds in the atmosphere to form particles that can reduce visibility, increasing regional haze
  - According to EPA, SO_2 concentrations in the atmosphere have declined by an average of 91% between 2000 and 2020 across the Northeast
  - In New England, several generators are subject to specific SO_2 emissions standards to limit local and regional impacts





Source: 2021 SO_2 estimated emissions with EPA (eGrid2019) New England balancing area fuel specific emission factors.

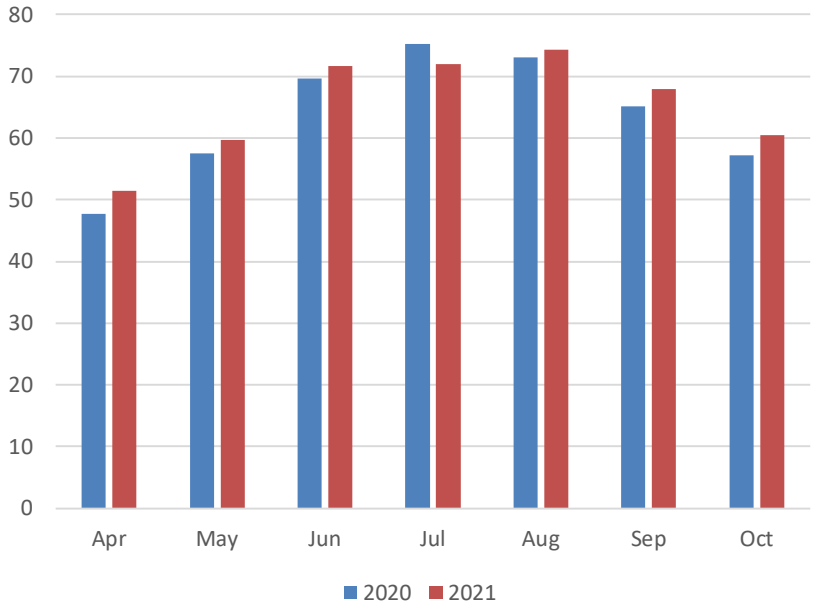
NEW ENGLAND AIR QUALITY TRENDS

Ground-level Ozone Increased in 2021

2021 Ozone Season More Robust, Generation Trends More Variable Due to Weather

- According to EPA and state monitoring data, a mix of weather patterns, local and upwind air pollution, contributed to an increase unhealthy ground-level ozone pollution days in 2021 (23) compared to 2020 (18) across portions of New England
- In 2021, several ground-level ozone pollution episodes involved high pressure systems affecting the entire Northeast, overlapping with summer demand peaks for electricity in New England
  - In Summer 2021, loads averaged 15,298 MW, a **0.3**% increase from 2020 (15,253 MW) and a **2.2**% increase compared to Summer 2019 (14,968 MW)
  - Peak demand averaged 18,316 in summer 2021, a **-0.1**% decrease compared to summer 2020 (18,342)
  - Monthly peak demand during summer 2021 averaged: 17,894 MW in June 2021, a **9**% increase compared to June 2020 (16,397 MW); 17,632 MW in July 2021, a -**12**% decrease compared to July 2020 (20,064 MW), and 19,422 MW in August 2021, a **4.6**% increase compared to August 2020 (18,565 MW)

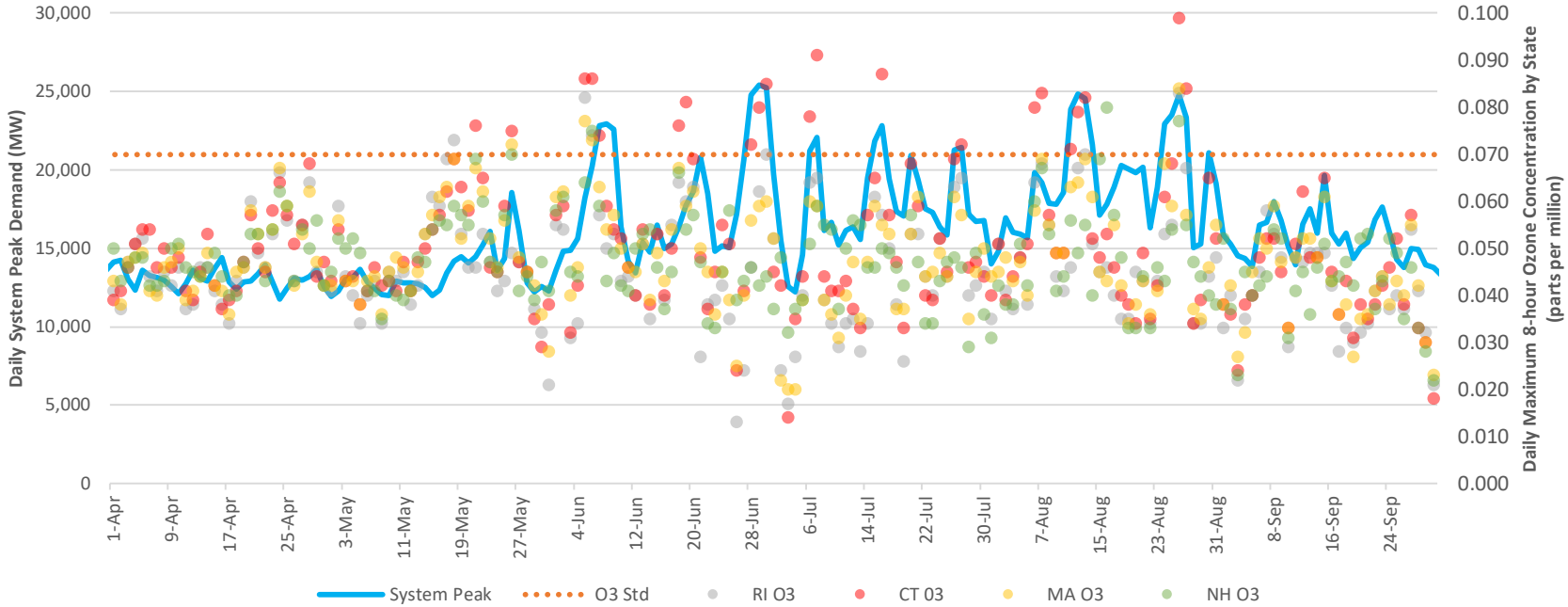
2020 vs. 2021 Monthly Weighted Average of Temperature Humidity Index at Peak Demand Hour



Sources: CT DEEP 2021 Ozone Season Summary; ISO-NE (generation, load data)

ISO-NE defines summer as June-August. EPA defines ozone season as April-Sept.

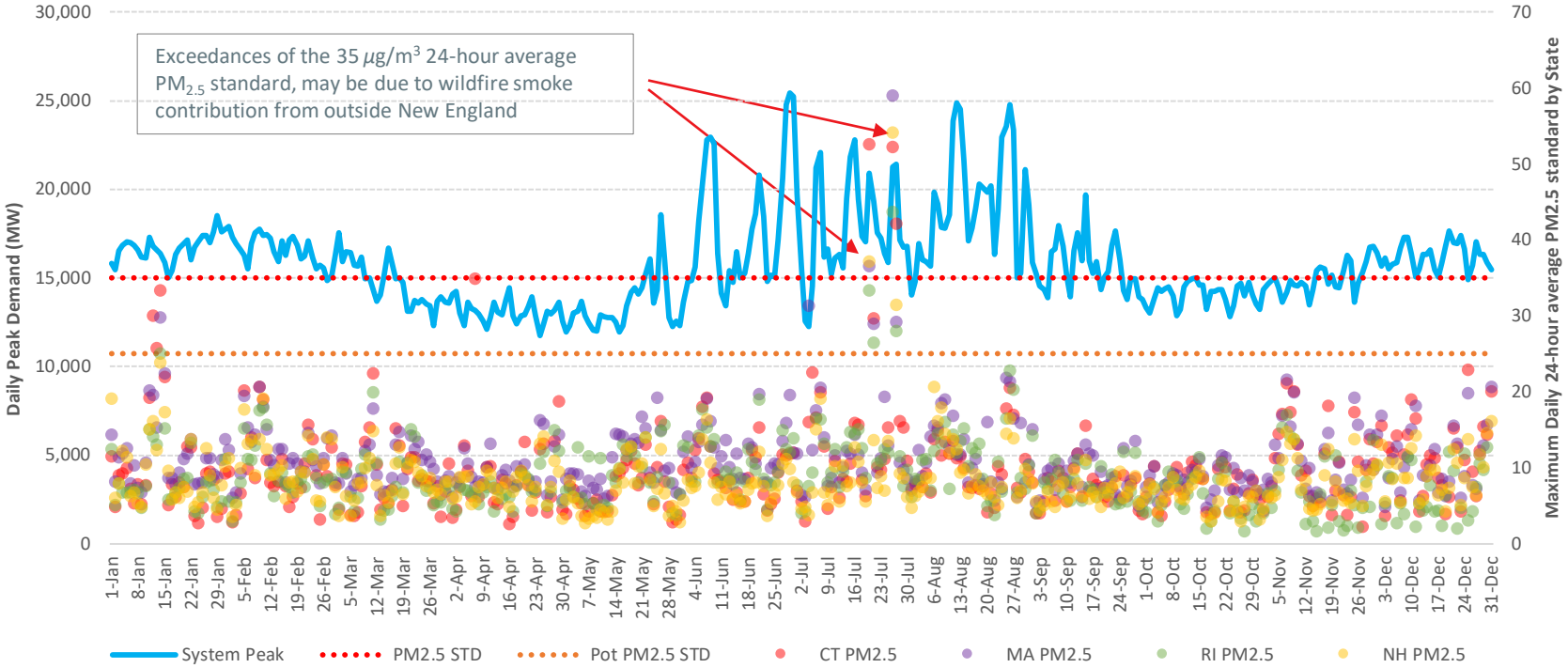
2021 Daily Peak System Load (MW) vs. Highest Daily Ground-level Ozone (ppm) in New England by State



In Summer 2021, loads averaged 15,298 MW, a **0.3**% increase from Summer 2020 (15,253 MW) and a **2.2**% increase compared to Summer 2019 (14,968 MW). Loads increased year over year due to increased humidity, lower behind-the-meter solar generation and increased electrification. Similar to Summer 2020, load levels remained elevated due to the COVID-19 pandemic, which attributed to increased residential air-conditioning demand, although less-utilized in 2020, office building demand remained relatively unchanged. Source: ISO-NE Internal Market Monitor

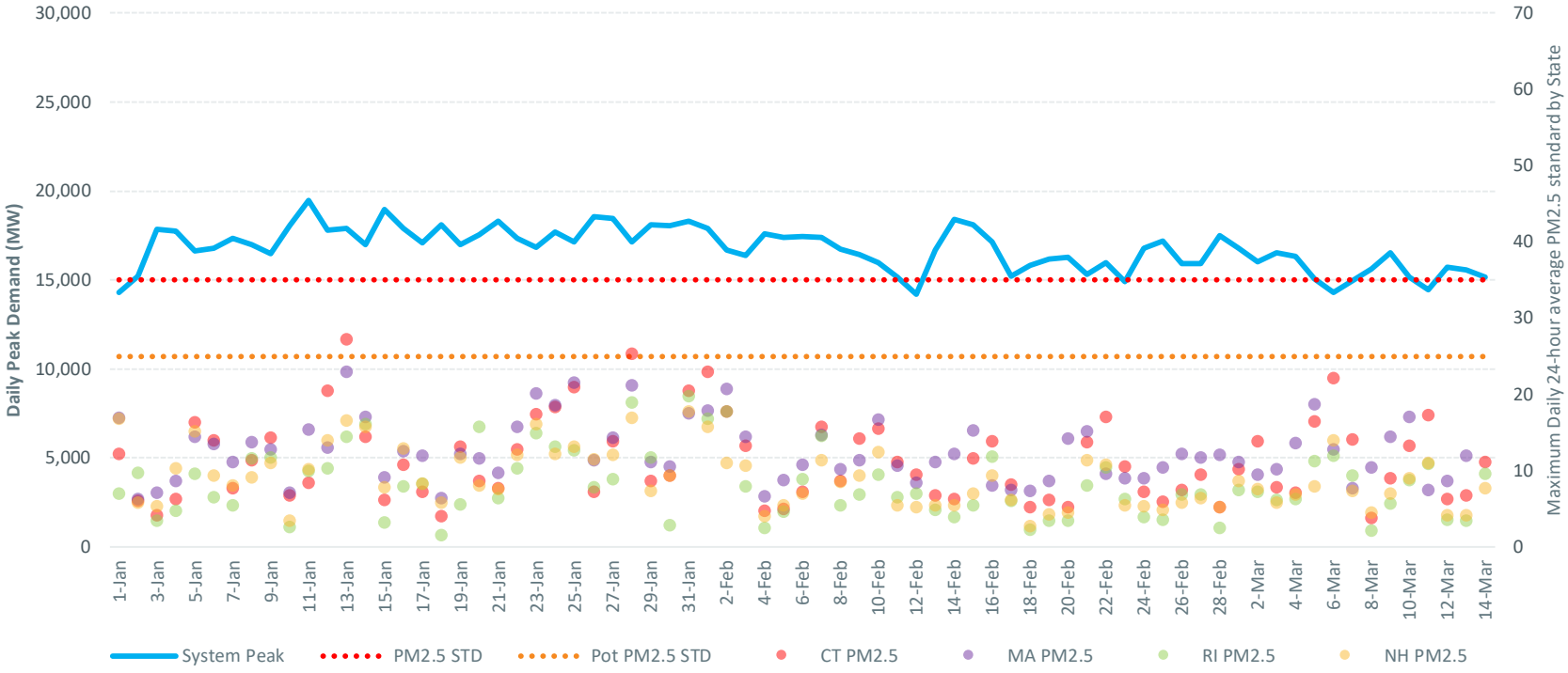
Sources: EPA (monitoring data); ISO-NE (generation data)

2021 Daily Peak System Load (MW) vs. Highest Daily Mean Fine Particulate Concentration by State



Sources: CT DEEP; EPA (monitoring data); ISO-NE (generation data)

2022 Daily Peak System Load (MW) vs. Highest Daily Mean Fine Particulate Concentration by State



Sources: EPA (monitoring data); ISO-NE (generation data)

REGIONAL COVID-19 UPDATE

Estimated COVID-19 Power System Impacts

Several mobility and economic data metrics indicate regional economic and social activities returned to pre-pandemic levels, but growth prospects tempered by concerns of continued high inflation, supply-chain issues, and uncertainty from Russia's invasion of Ukraine

Estimated Impacts on System Demand of Pandemic Responses No Longer Discernable

- **February 28, 2022**: ISO publishes final weekly *Estimated Impacts of COVID-19 on Demand* report:
  - Changes in system demand curves and total energy demand were attributed to a variety of societal changes driven by the pandemic
- Shifts in system demand have begun to extend beyond the impacts of the pandemic response and can no longer be attributed solely to COVID-19
- Several New England States have reported increasing new cases attributed to the BA.2 Omicron subvariant
- Expectation is that as COVID-19 pandemic health measures are replaced by endemic health measures, regional labor force participation will rebound and demand should increase and shift to more services from goods, supporting a continued regional expansion

Uptick in New Cases Across New England, Vaccination Rates Slowing

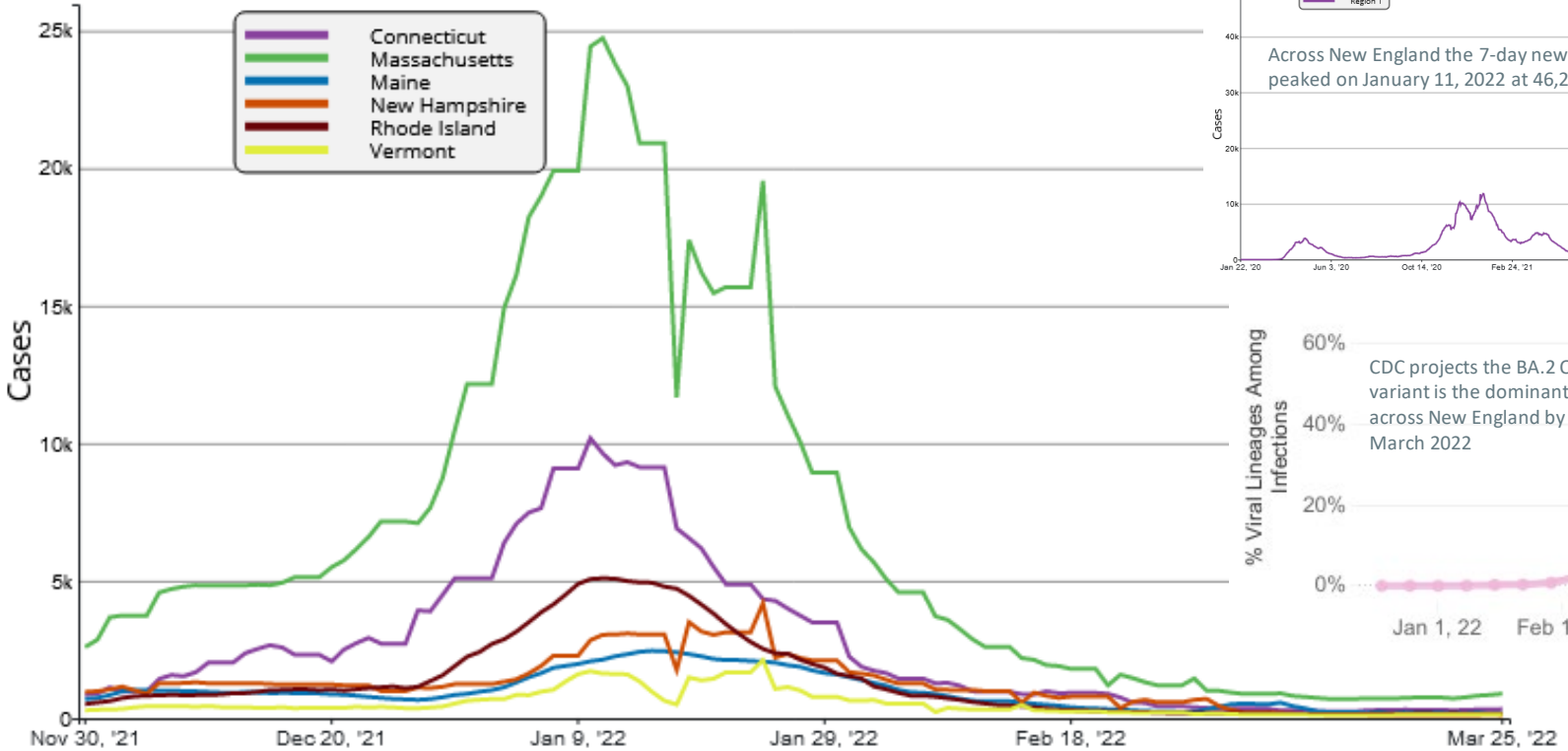
	New Cases 7-Day Average (% 14-day change)	Total COVID-19 vaccinations (Millions)	% Fully Vaccinated
Connecticut	333 (+17%)	7.4	78.11%
Maine	163 (-27%)	2.7	79.24%
Massachusetts	891 (+27%)	14.4	78.57%
New Hampshire	119 (-14%)	2.6	68.80%
Rhode Island	158 (+9%)	2.1	81.62%
Vermont	140 (+17%)	1.3	80.47%

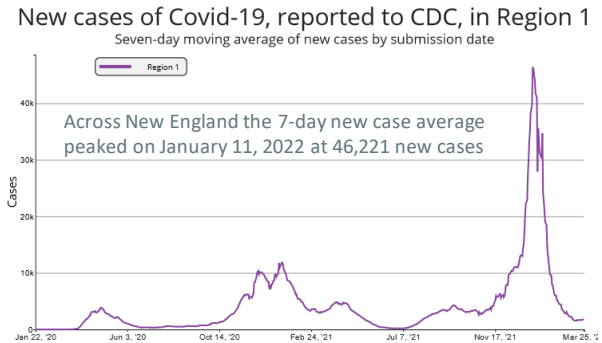
U.S. daily average: 30,210 cases; 14-day change: -12%; cumulative cases: 79.8 million with fully vaccinated 65% (217.4 million). (As of 3/27/22).
Sources: CDC; John Hopkins COVID-19 Dashboard; New York Times.

Sources: Centers for Disease Control (COVID-19 data); Federal Reserve Bank of Boston (regional economic data)

New Reported Cases of COVID-19 in New England

7-day moving average of new cases by submission date





Sources: Centers for Disease Control COVID-19 Data Tracker

ENVIRONMENTAL COMPLIANCE COSTS

Impact of CO_2 Emissions Pricing on New England Energy Costs

Generation & Environmental Compliance Costs

Carbon emissions costs have a relatively small, but increasing, impact on overall operating costs

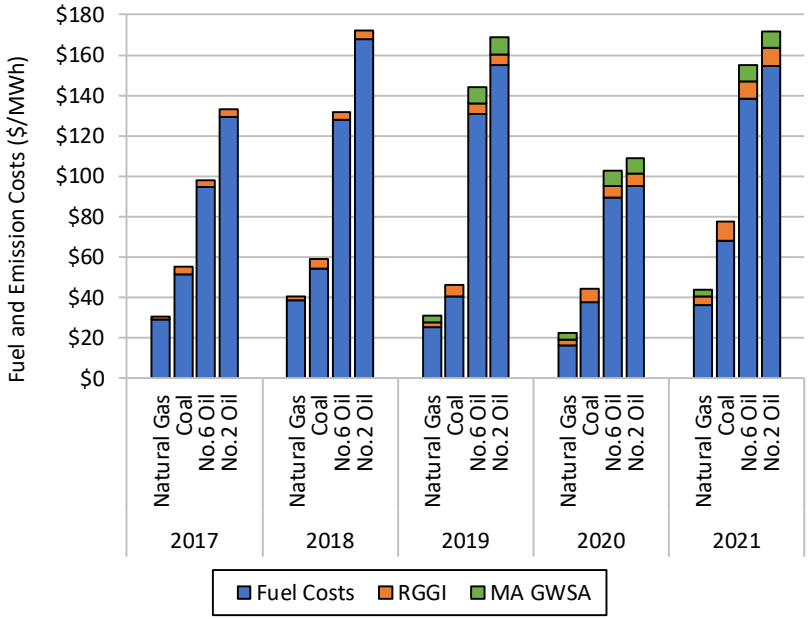
Environmental Compliance Costs Remain Relatively Small Part of Operating Costs

- At current price levels, RGGI and GWSA CO_2 compliance costs have a limited impact on the economic merit order of gas-, coal- and oil-fired generation compared to fuel costs in overall operating costs
- In 2021, average RGGI compliance costs increased 51% for fossil fuel-fired generators in New England:

	2019	2020	2021
Natural Gas ($/MWh)	$ 2.51	$ 2.88	$ 4.36
Coal	$ 5.67	$ 6.50	$ 9.85
No. 6 oil	$ 5.67	$ 6.50	$ 8.73
No. 2 oil	$ 5.19	$ 5.95	$ 9.00

- RGGI allowance costs increased from per allowance average of $5.51 in 2019, to $6.31 in 2020 and $8.36 in 2021
- For combined cycle units average environmental compliance costs range between $.10 - $1.20/MWh

Annual Estimated Average Costs of Generation and CO_2 Emissions (2016-2021)



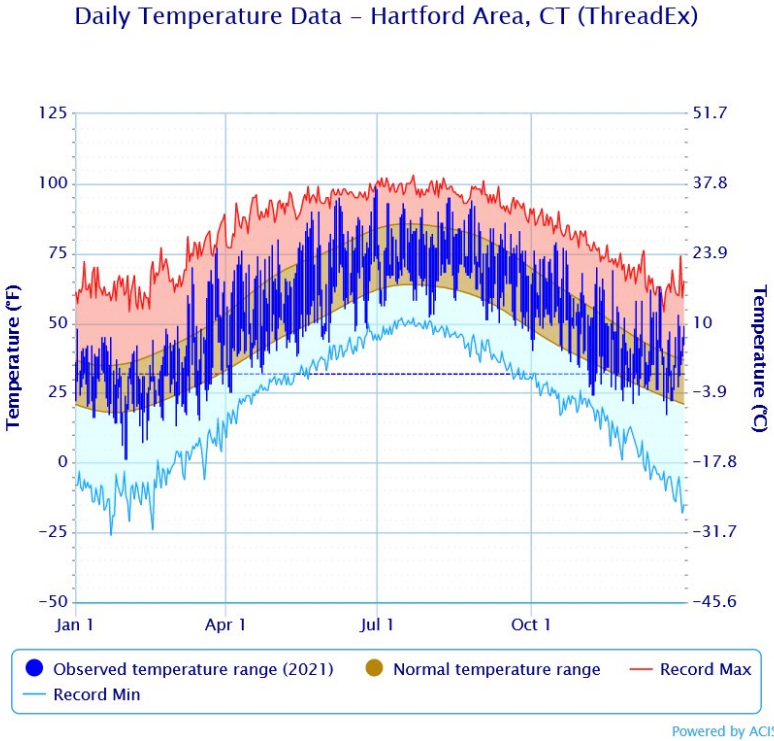
Source: ISO-NE Internal Market Monitor

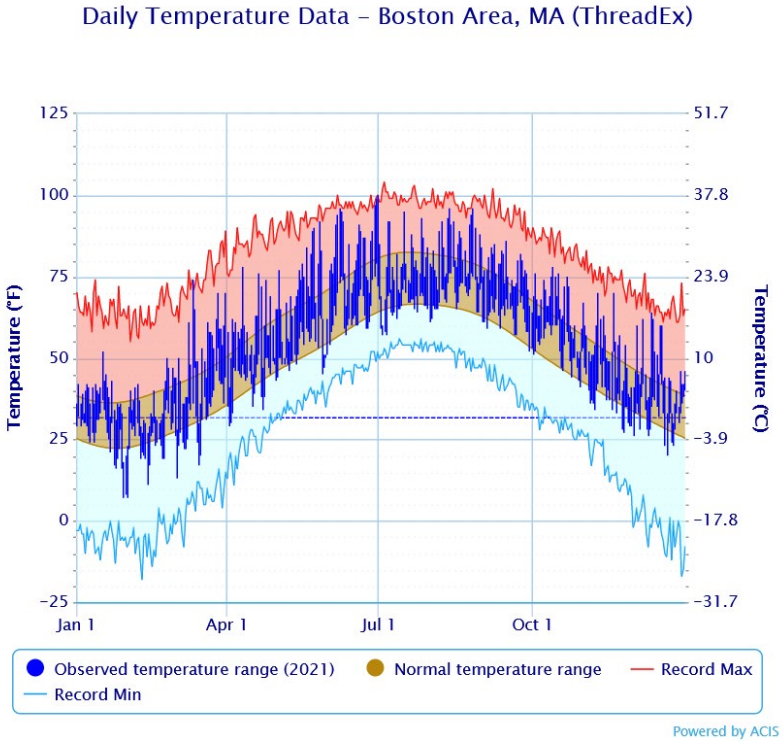
Questions

REGIONAL WEATHER TRENDS

2021 Daily Temperature Range (Hartford, Boston)

Plot of daily max/min temperatures (degrees F), along with the normal temperature range and daily all-time records. The Northeast experienced its second hottest August on record with an average temperature of 71.7 degrees F (22.1 degrees C), 3.0 degrees F (1.7 degrees C) above normal. Summer 2021 (Jun-Aug) was the warmest on record for Boston, MA monitoring sites.

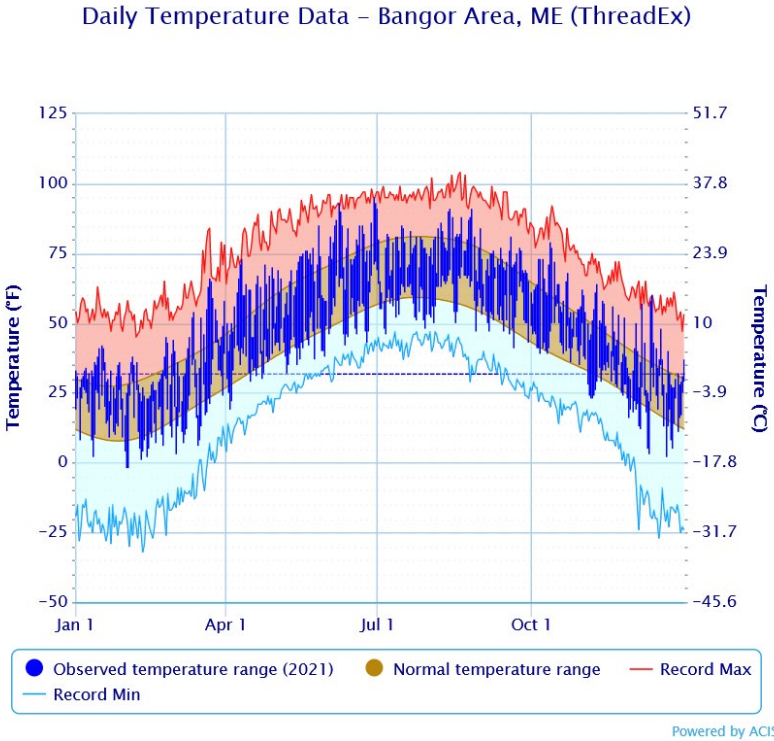


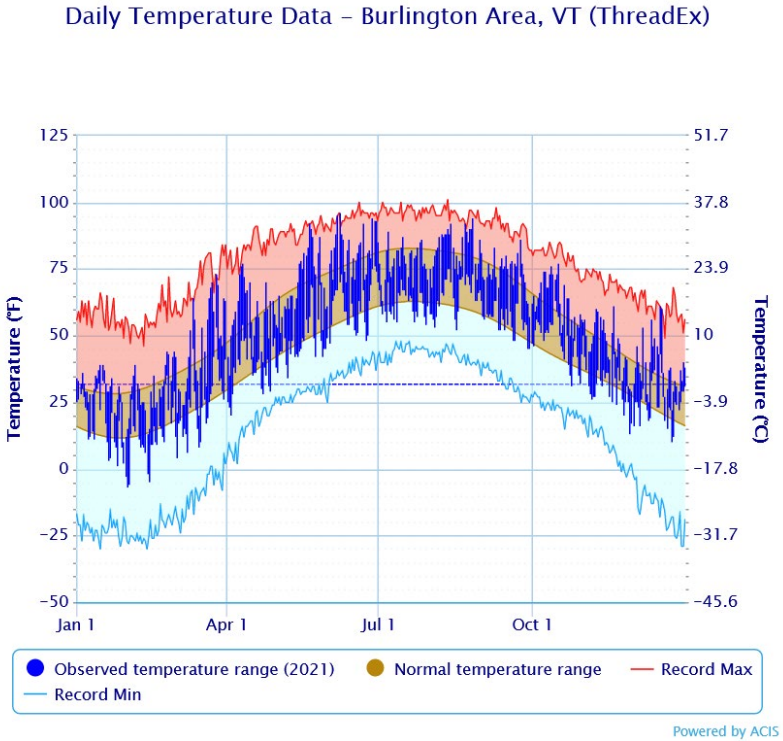


Source: Northeast Regional Climate Center

2021 Daily Temperature Range (Bangor, Burlington VT)

Plot of daily max/min temperatures (degrees F), along with the normal temperature range and daily all-time records. The Northeast experienced its second hottest August on record with an average temperature of 71.7 degrees F (22.1 degrees C), 3.0 degrees F (1.7 degrees C) above normal. Summer 2021 (Jun-Aug) was among the 10 warmest for several monitoring sites.

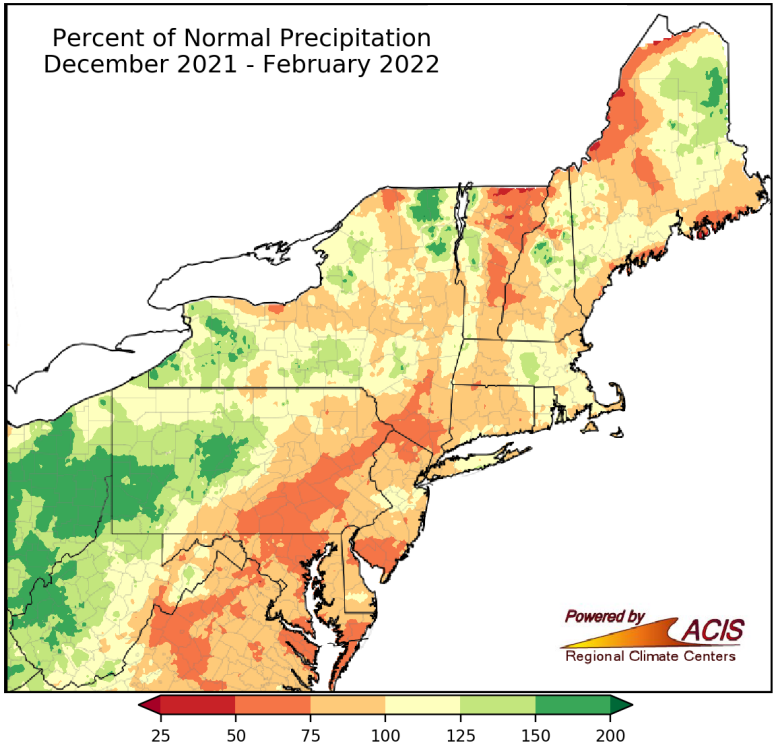


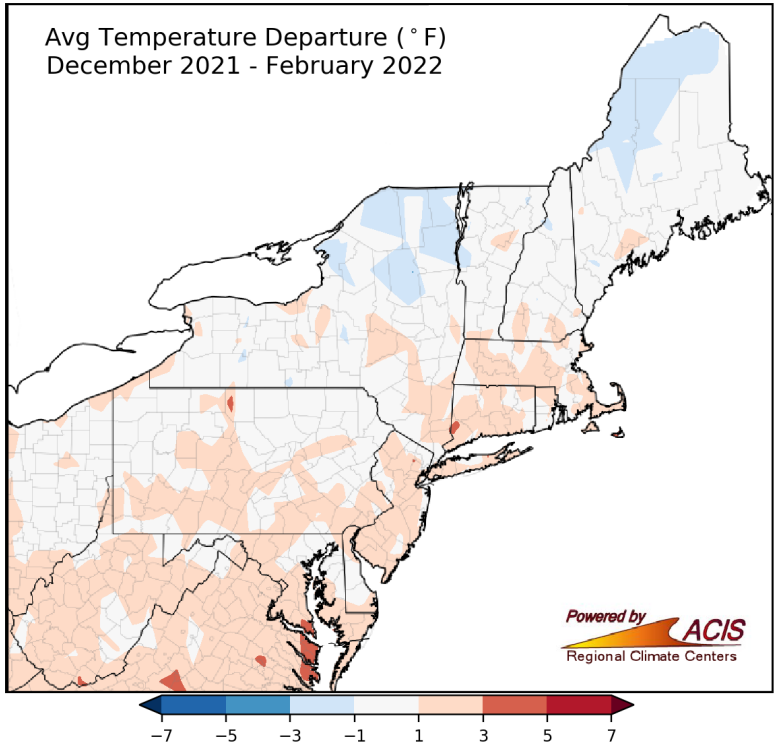


Source: Northeast Regional Climate Center

Northeast Winter Weather Trends

Winter averaged out to warmer than normal for much of New England, with the warmest locations as much as 3°F above normal, and lower snowfall totals with the exception of southern coastal New England

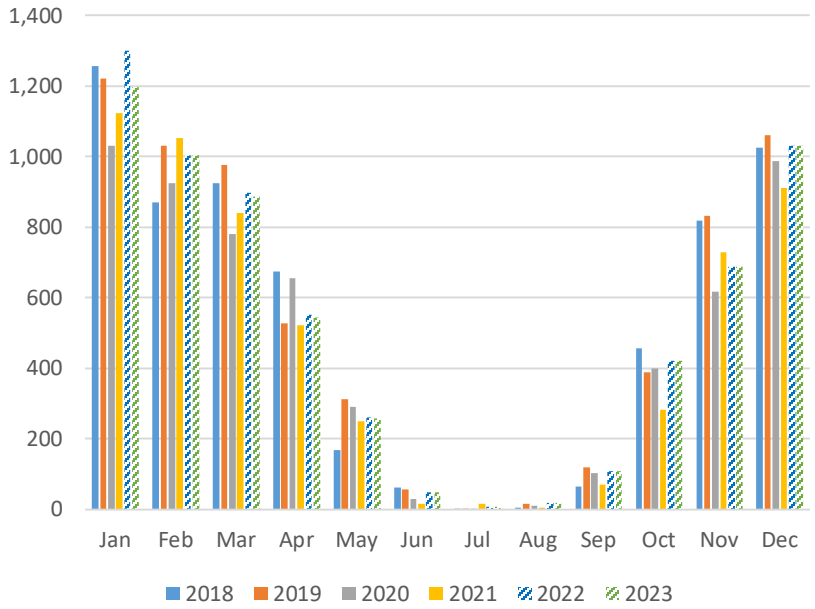




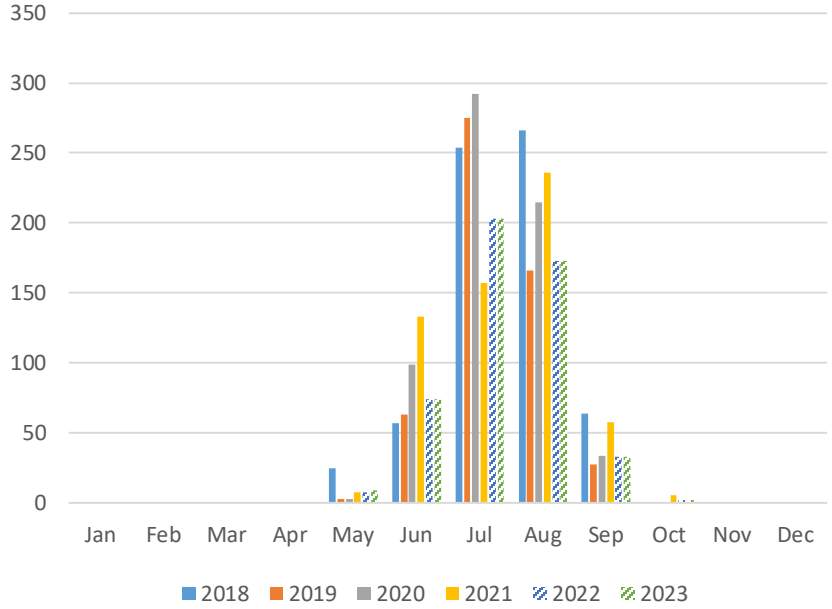
Source: Northeast Regional Climate Center

Monthly Degree Day Trends in New England

Heating Degree Days



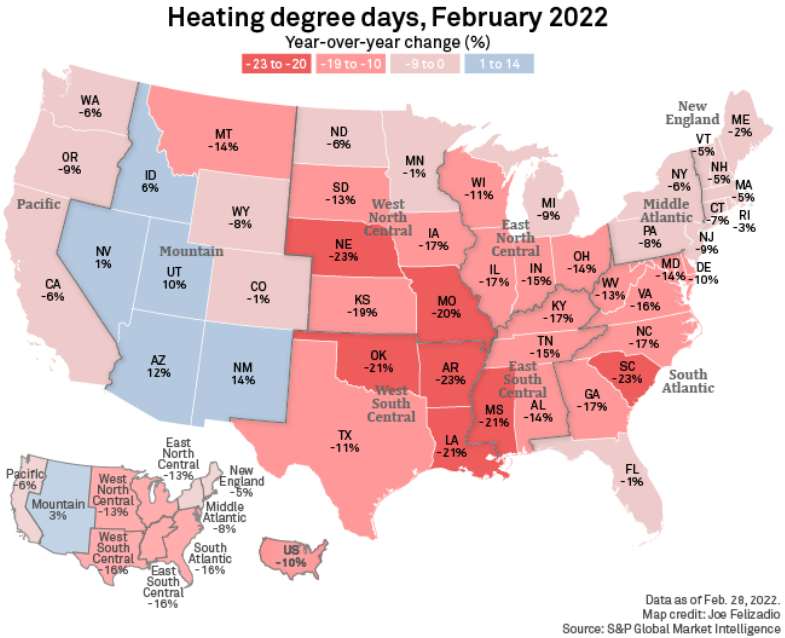
Cooling Degree Days



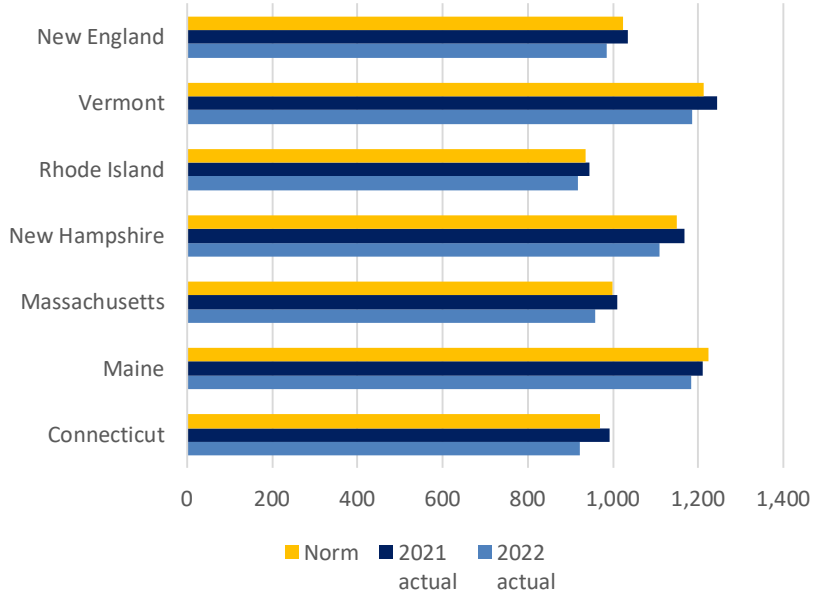
Sources: Northeast Regional Climate Center; Energy Information Administration

February 2022 Heating Degree Days

February 2022 Heating Degree Days -5% Lower in New England than February 2021



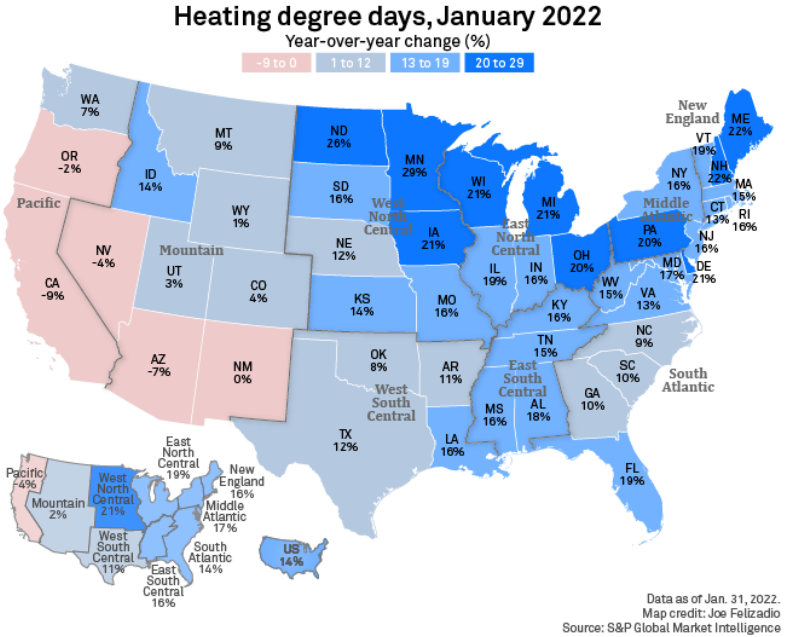
New England Regional Heating Degree Days (986) -4% Lower than Monthly Normal (1,023)



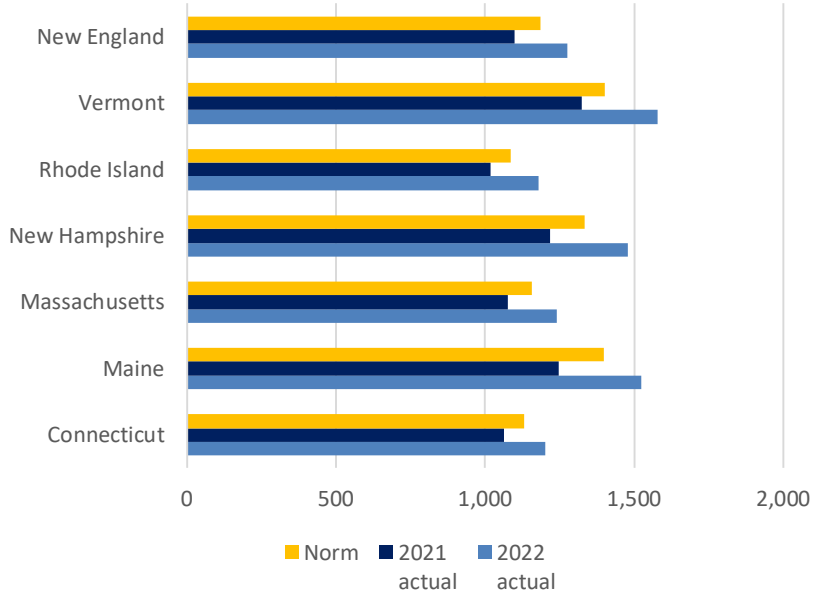
Source: S&P Capital IQ

January 2022 Heating Degree Days

January 2022 Heating Degree Days 16% Higher in New England than January 2021



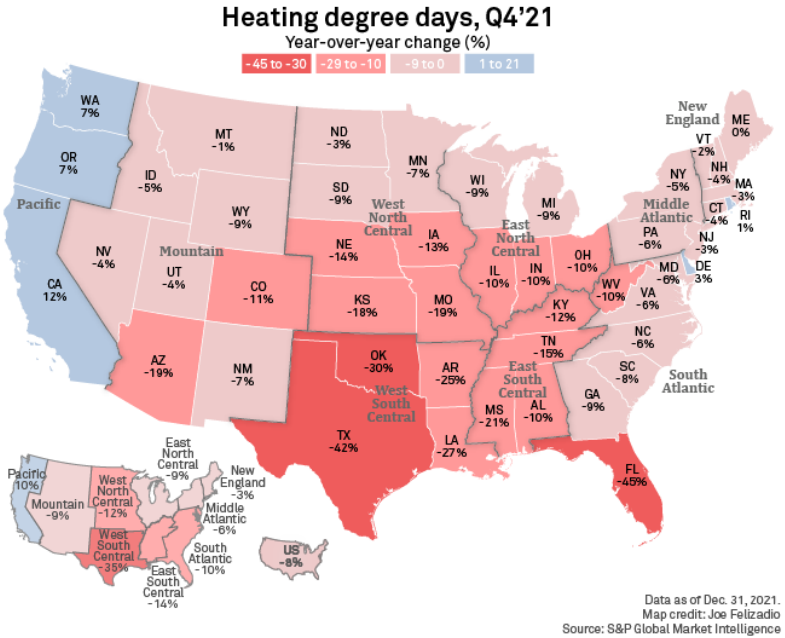
New England Regional Heating Degree Days (1,277) 8% Higher than Monthly Normal (1,185)



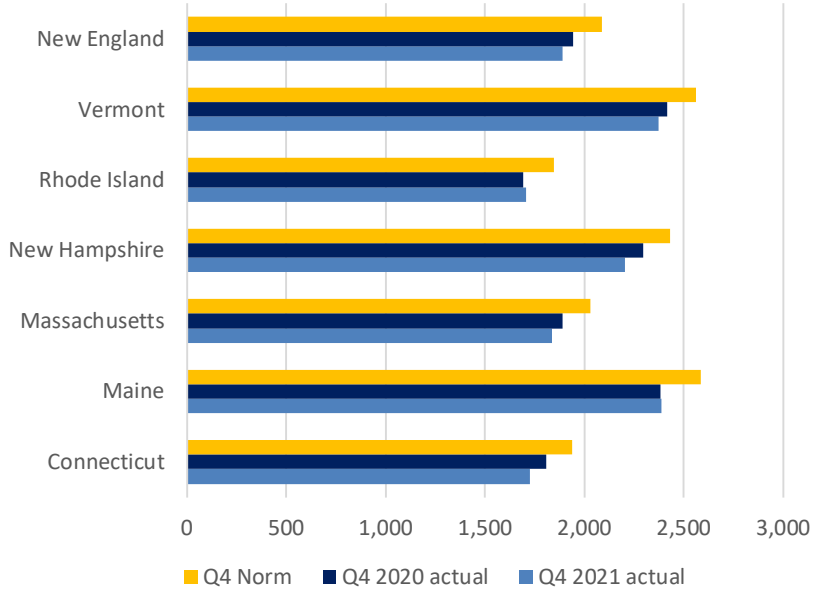
Source: S&P Capital IQ

2021 4th Quarter Heating Degree Days

2021 4th Quarter Cooling Degree Days Were -9% Lower in New England than the 15-year average



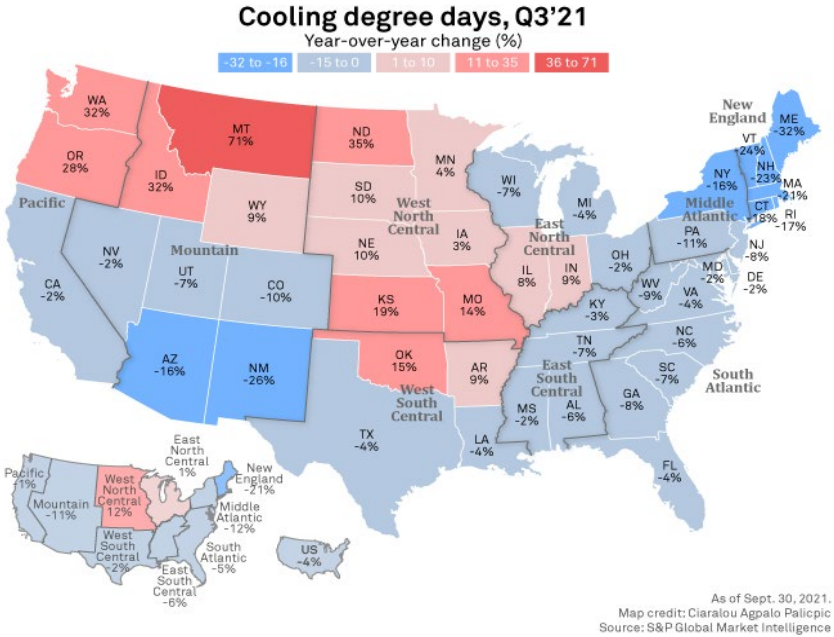
New England Heating Degree Days were -11% lower than quarterly normal and -4% than 2020



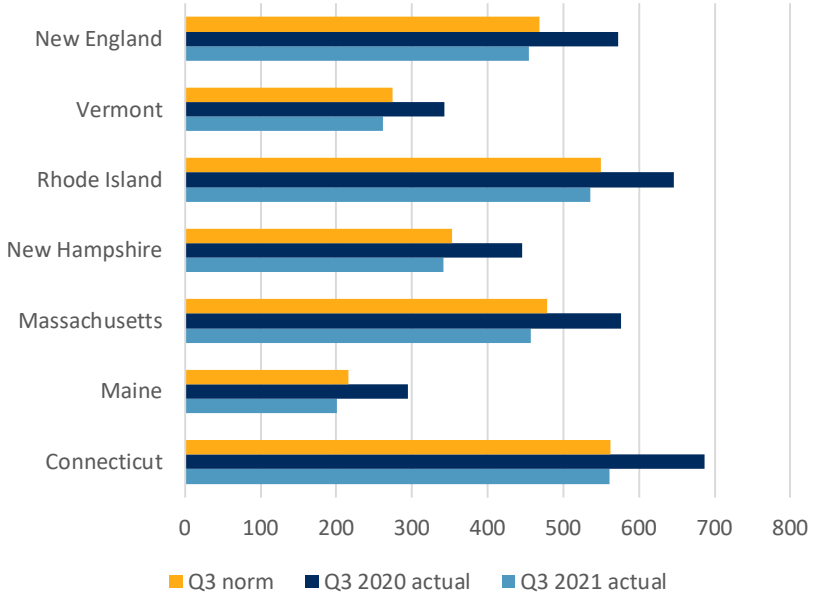
Source: S&P Capital IQ

2021 3rd Quarter Cooling Degree Days

2021 3rd Quarter Cooling Degree Days Were % higher in New England than the 15-year average



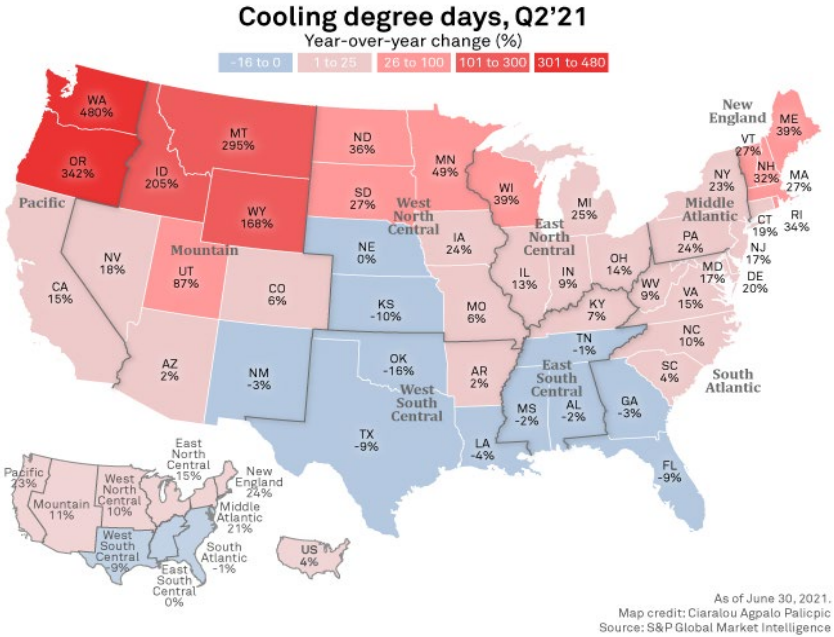
New England Cooling Degree Days were lower than quarterly normal and -21% than 2020



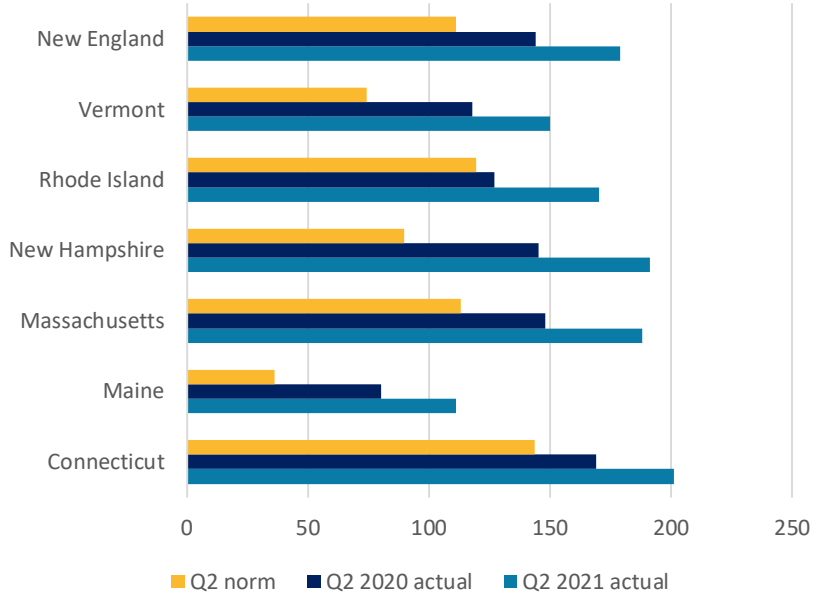
Source: S&P Capital IQ

2021 2nd Quarter Cooling Degree Days

2021 2nd Quarter Cooling Degree Days Were 24% higher in New England than the 15-year average



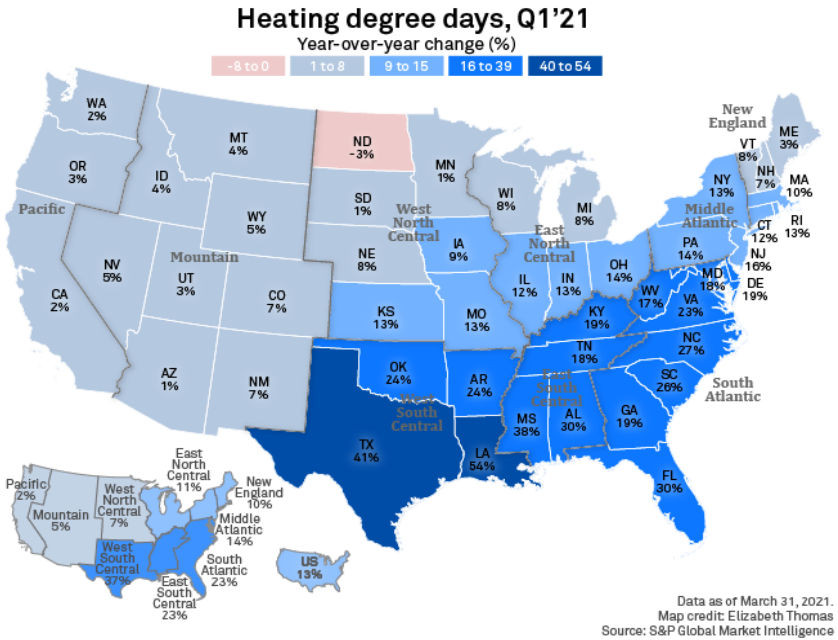
2021 2nd Quarter Cooling Degree Days Higher Than Normal and 2020



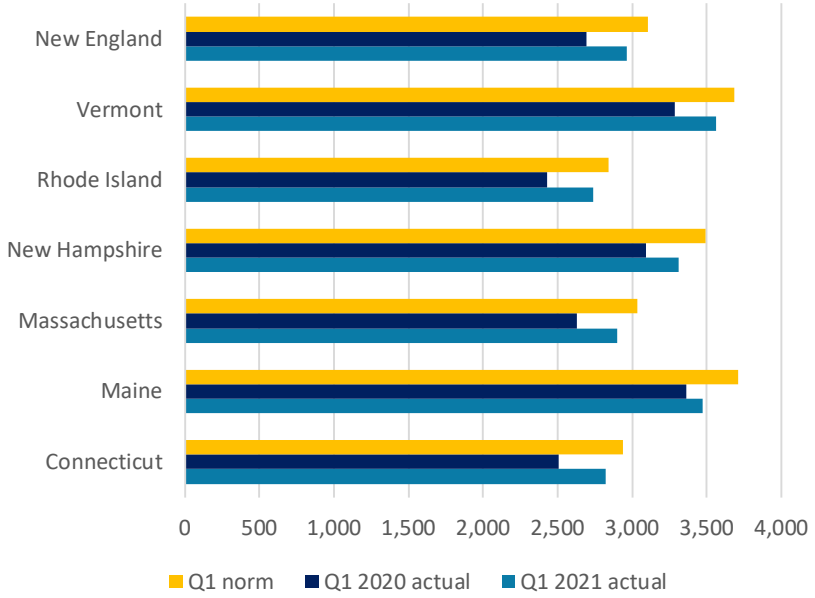
Source: S&P Capital IQ

2021 1st Quarter Heating Degree Days

2021 1st Quarter Heating Degree Days Were 10% higher in New England than the previous Year



New England Regional Heating Degree Days (2,962) -3% lower than quarterly normal (3,106)



Source: S&P Capital IQ