



ISO New England Update

Consumer Liaison Group Meeting

Anne George

VICE PRESIDENT,
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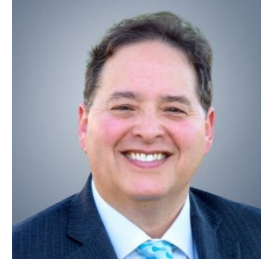
An Ongoing Dialogue: ISO's External Affairs Team



Eric Johnson
Executive Director, External Affairs
New England



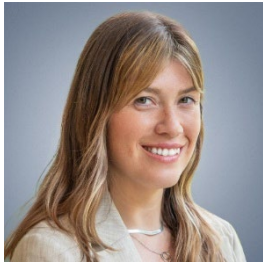
Carrick Heilferty
Policy Advisor
Federal Affairs



Ruben Flores-Marzan
Policy Advisor
Environmental &
Community Affairs



Kerry Schlichting
Lead State Policy Advisor
Connecticut and Rhode Island



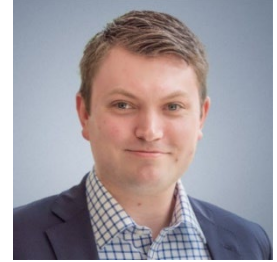
Sarah Adams
State Policy Advisor
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Marissa Ribeiro Dahan
State Policy Advisor
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Melissa Winne
State Policy Advisor
Maine



Nathan Raike
Associate State Policy Advisor
New Hampshire

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TODAY'S UPDATES

- **About the Consumer Liaison Group**
- **Monthly Markets Highlights**
- **2025 Annual Work Plan**
- **ISO New England 2024/2025 Winter Outlook and Preparations**
- **2023 ISO New England Electric Generator Air Emissions Report**
- **Consumer Liaison Group Events & Resources**

ABOUT THE CONSUMER LIAISON GROUP



Consumer Liaison Group – Background

- In 2009, the ISO worked with stakeholders (end users, consumer advocacy organizations, and state consumer advocates) to create the Consumer Liaison Group (CLG)
 - The CLG was created as an enhancement to ISO’s interactions with consumers, and was part of ISO’s overall effort to comply with FERC requirements for ISO/RTO responsiveness (Order 719)
 - The Group has a point of contact within External Affairs
 - The members of the CLG Coordinating Committee (CLGCC) select the topics, guest speakers, moderators, and panelists featured at quarterly meetings
 - During each quarterly meeting, ISO-NE provides reports on NEPOOL activities and other initiatives, especially those that impact consumers
 - The CLGCC has occasional interactions with the Board
 - The Group’s feedback is given to management and the Board
 - In addition, the consumer advocates in all six New England states have chosen to become members of NEPOOL’s End-User sector

CLG Provides a Forum for Consumers to Learn about Regional Electricity Issues

- The CLG is a forum for sharing information between the ISO and those who ultimately use and pay for electricity in New England
- The goal underpinning the CLG is that consumers and consumer representatives gain a greater understanding of ISO activities and proposals and the decision-making process regarding these activities, and increase their knowledge of the operation of the bulk power system and wholesale electricity markets
 - In turn, ISO New England benefits from direct communications with consumer representatives and develops a better understanding of consumer issues and concerns relative to the electric system
- The ISO plans and facilitates CLG meetings in partnership with the elected CLG Coordinating Committee
- Quarterly meetings are free and open to the public, with in-person and virtual options to participate



2023 CLG Annual Report

More information on the CLG is available at: <https://www.iso-ne.com/committees/industry-collaborations/consumer-liaison/>

MONTHLY MARKETS HIGHLIGHTS

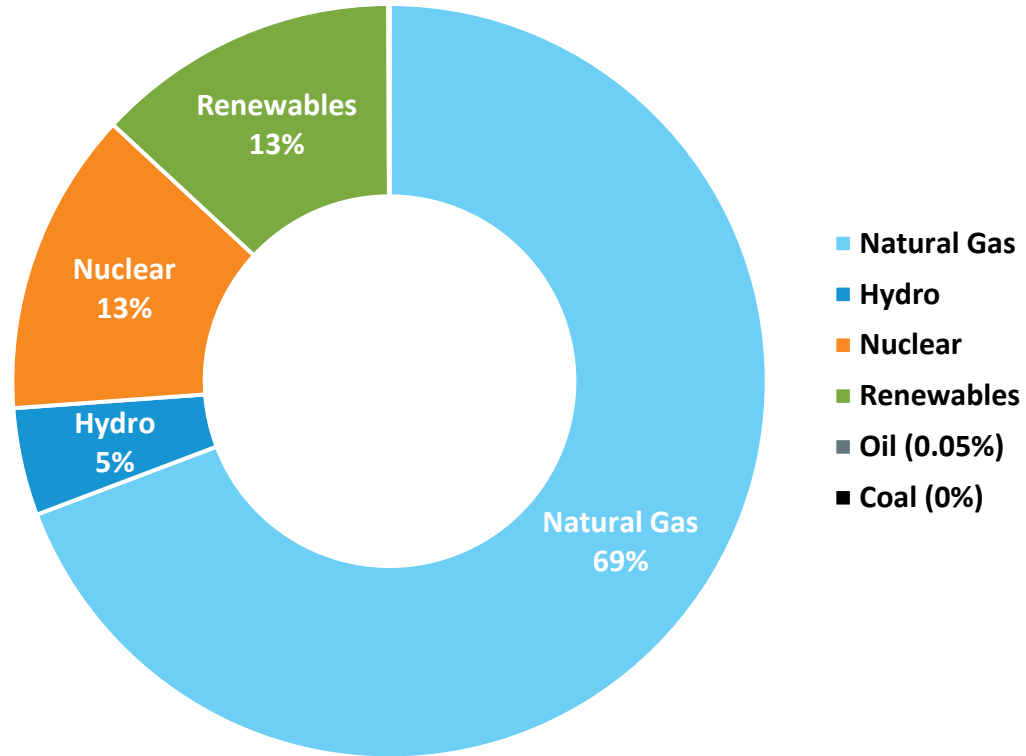


Monthly Wholesale Electricity Prices and Demand in New England, October 2024

October 2024 and Percent Change from October 2023 and September 2024	October 2024	October 2023	September 2024
Average Real-Time Electricity Price (\$/megawatt-hour)	\$34.84	43%	9%
Average Natural Gas Price (\$/MMBtu)	\$1.79	27%	-1.1%
Peak Demand	14,736 MW	-11%	-13%
Total Electricity Use	8,529 GWh	-2%	-3%
Weather-Normalized Use*	8,543 GWh	-2%	-6%

*Weather-normalized demand indicates how much electricity would have been consumed if the weather had been the same as the average weather over the last 20 years.

October 2024 Generation in New England, by Source



Source: [2024 Net Energy and Peak Load by Source](#)

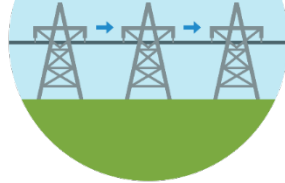
2025 ANNUAL WORK PLAN



2025 Work Plan Objectives and Highlights

- ISO New England has issued its final [2025 Annual Work Plan](#)
- **Anchor projects** require focus and a regional commitment to securing power system reliability while facilitating the integration of clean-energy and distributed-energy resources
 - Anchor projects span the ISO's three critical roles

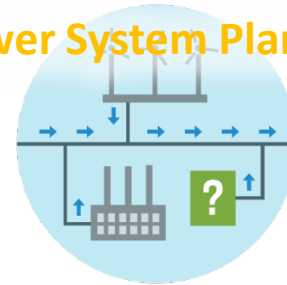
Grid Operation



Market Administration

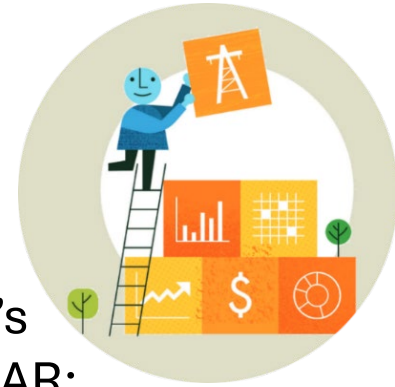


Power System Planning



- **Notable initiatives** target innovation, advance efficiency, and manage risks across markets, planning, operations, and software structures

Markets Anchor Project



Capacity Auction Reforms (CAR)

- To ensure system reliability and affordability as the region's electricity demand and power resource mix transforms, CAR:
 - Transitions the capacity market from a three-year forward auction to a prompt auction that runs shortly before the capacity commitment period (CCP)
 - Restructures the CCP from annual to seasonal commitment periods
 - Reshapes capacity market accreditation to more accurately reflect resource adequacy contributions from an evolving resource mix, from season to season
- Design and implementation of the changes will span 2025-2027
 - The current Forward Capacity Market has secured capacity commitments through May 2028 (CCP 18)

Operations Anchor Project



Regional Energy Shortfall Threshold (REST)

- Stakeholder discussions re: updates to the Probabilistic Energy Adequacy Tool (PEAT) are underway
 - ISO expects the model to be fully operational by the end of 2024
- Expected in Q1 2025, the ISO will present its REST proposal for establishing an acceptable threshold of energy shortfall risk during low-probability extreme weather events as identified through PEAT
- The ISO plans to begin performing PEAT/REST assessments seasonally, starting with winter 2025/2026
 - Afterward, annual assessments with longer look-ahead horizons (to be defined) will be considered to inform risk trends over time
- Results of the first assessment will provide more data on the risk trends to guide the timing and nature of the next phase, which is to evaluate whether the possibility of exceeding the REST requires development of specific regional solutions to mitigate risks

Planning Anchor & Implementation Projects

Competitive Solicitation for Longer-term Transmission Planning (LTTP) Solution



- Phase II of LTTP creates a **new process to implement transmission system upgrades** based on longer-term transmission planning studies
 - Provides an avenue for the **states**, through NESCOE, to evaluate and determine cost allocation for **transmission upgrades** needed to ensure a reliable grid through the clean energy transition
 - ISO will issue and evaluate requests for proposals (RFPs) to **address needs identified by the states** and provide technical assistance to the states in support of their procurements and efforts to secure federal funding for transmission investments
- In 2025, the ISO will implement an RFP process in response to a request from the states for a competitively-selected transmission solution to address New England's future, clean energy needs in connection with the 2050 Transmission Study
 - The RFP process, from initiation through final recommendation, is expected to take approximately 18 months

Planning Anchor & Implementation Projects



[FERC Order No. 1920](#): Building for the Future Through Electric Regional Transmission Planning and Cost Allocation

- The ISO is assessing the assimilation of FERC Order 1920 and the recently released [Order 1920-A](#) with New England’s innovative LTTP framework (accepted by FERC in July 2024)
 - ISO is currently reviewing how LTTP complies with the Orders and assessing what other compliance measures may need to be developed
 - Stakeholder discussions (which were paused in anticipation of significant changes to Order 1920 on rehearing and on appeal) are expected to resume in 2025

Work Plan Prioritization Process

- The ISO adjusts its priorities as needed to best maintain reliable operations, robustly plan for a changing grid, and ensure competitive wholesale markets
- Planned projects are impacted as scopes shift or new projects emerge

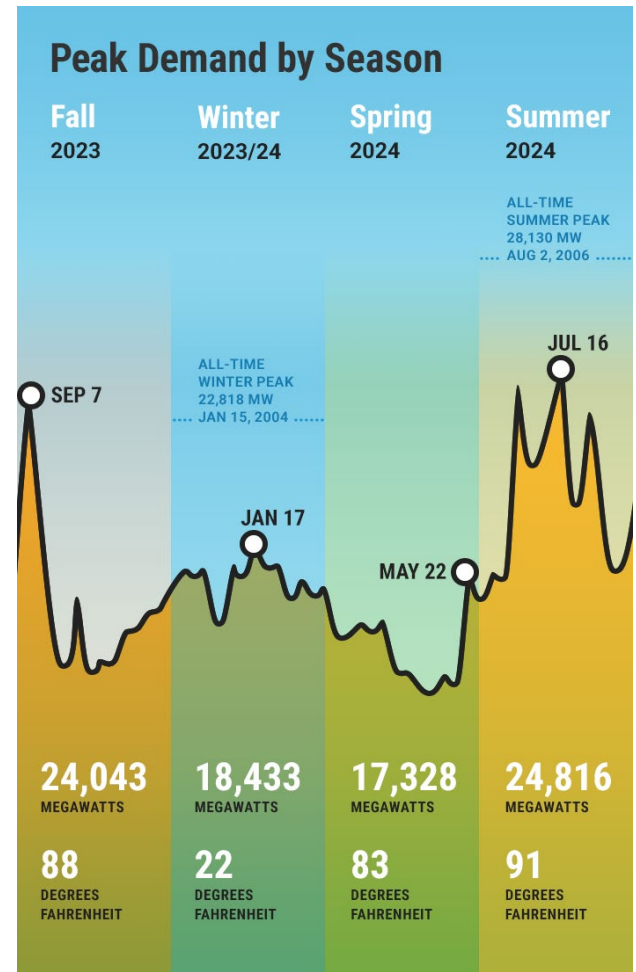


ISO NEW ENGLAND 2024/2025 WINTER OUTLOOK AND PREPARATIONS

ISO New England 2024/2025 Winter Outlook and Preparations

- New England's winter peak demand period runs from December through February
- **Weather** is the largest driver of energy use and resource availability in New England
- The ISO utilizes a **rolling 21-day energy supply forecast** to provide an early warning to the region should energy supplies become constrained

One Goal Lies at the Heart of ISO New England's Mission: *Reliability*



ISO's Pre-Winter Energy Analysis

- ISO-NE calculates **available capacity** by assessing expected contributions from all resources (including imports) while accounting for unplanned resource outages
- Available capacity is compared to anticipated demand under both normal weather conditions and periods of colder than normal temperatures to determine if region has the capacity needed to meet **consumer demand** and **maintain required operating reserves**
- This year, ISO also used the **Probabilistic Energy Adequacy Tool** to determine whether resources would be available to provide energy under extreme weather scenarios

2024/2025 Results

The capacity analyses and energy assessments show the region is **well-positioned** heading into the winter

Learn more about ISO-NE's PEAT and the 2024/2025 Winter Outlook

<https://www.iso-ne.com/static-assets/documents/100017/npc-2024-11-07-new-england-winter-outlook.pdf>

ISO Publishes 21-Day Energy Assessments on a Weekly Basis During Winter

- As a key part of its winter operations, ISO New England closely monitors weather forecasts and energy supplies, expected consumer demand, and other variables to identify and communicate potential reliability issues
- The **energy assessment** is based on New England generators' reports of their fuel inventories, emissions limitations, and other factors that could limit their availability
- 21-Day Energy Assessment raises awareness about energy availability so resources can take action



For Background on How to Read the OP-21 Report:

The screenshot shows the ISO New England website header with the logo, a search bar, and navigation links: CALENDAR, LIBRARY, CAREERS, CONTACT US, SIGN UP, SIGN IN. Below the header is a dark navigation bar with links: About Us, Participate, Committees and Groups, System Planning, Markets and Operations. The main content area features a sidebar with 'What We Do', 'Our Three Critical Roles', 'Our History', and 'In Depth'. The main article is titled 'An Innovative Energy Supply Forecast' and includes a sub-header 'System Health Slider'.

The System Health Slider is a horizontal bar with a color gradient from red on the left to green on the right. A grey slider knob is positioned towards the right end, indicating a lower risk level. Below the bar, a red square is labeled 'HIGHER RISK' and a green square is labeled 'LOWER RISK'. Below the diagram, text reads: 'Example of the system health slider included in the 21-Day Forecast report' and 'Source: ISO New England'.

<https://www.iso-ne.com/about/what-we-do/21-day-forecast>

The screenshot shows an ISO Newswire article. The header includes the ISO Newswire logo, the tagline 'A Wholesale Electricity Industry Update', the ISO New England logo, and a menu icon. The article is dated 'DECEMBER 19, 2022' and has the title 'ISO-NE rolls out enhancements to report on 21-day energy supply forecast'. The text describes the launch of a new '21-Day Energy Assessment Forecast and Report' and includes a section titled '21 DAY ENERGY ASSESSMENT: 1 NORMAL CONDITIONS' with a corresponding slider graphic.

<https://isonewswire.com/2022/12/19/iso-ne-rolls-out-enhancements-to-report-on-21-day-energy-supply-forecast/>

Two Easy Ways to View Power Systems Conditions:

Website Home Page

The screenshot shows the ISO-NE website home page. At the top, there is a navigation bar with links for 'About Us', 'Participate', 'Committees and Groups', 'Syst. Planning', and 'Markets and Operations'. Below this, a banner reads 'Reliable Electricity. Competitive Prices. Clean-Energy Transition.' The main content area features a 'Price Map' on the left, a 'Resource Mix' section with two donut charts, and a 'System Demand' line graph on the right. A green box highlights the 'System Status' indicator, which shows 'NORMAL'. Below the main content, there is a section titled 'Current Power System Status' with a table of reported conditions.

REPORTED AREA	SYSTEM CONDITION	TIME IN
New England	Normal	

UPDATED: 04/25/2024 9:47 AM

ISO to Go Mobile App

The screenshot shows the ISO-NE mobile app interface. At the top, there is a navigation bar with 'Price Map', 'Demand Chart', and 'Zones'. Below this, there are two summary cards: '9,498 MW SYSTEM DEMAND' and '\$20.73 NE ENERGY'. A green box highlights the 'Normal SYSTEM STATUS' indicator. The main content area features a map of New England with various price points (e.g., \$20.61, \$21.03, \$20.52, \$20.33, \$20.12, \$20.53, \$20.46 Hub LMP). A green box highlights the 'Status' button at the bottom of the screen.

2023 ISO NEW ENGLAND ELECTRIC GENERATOR AIR EMISSIONS REPORT

Carbon Emissions from New England Power Generation Continue Downward Trend

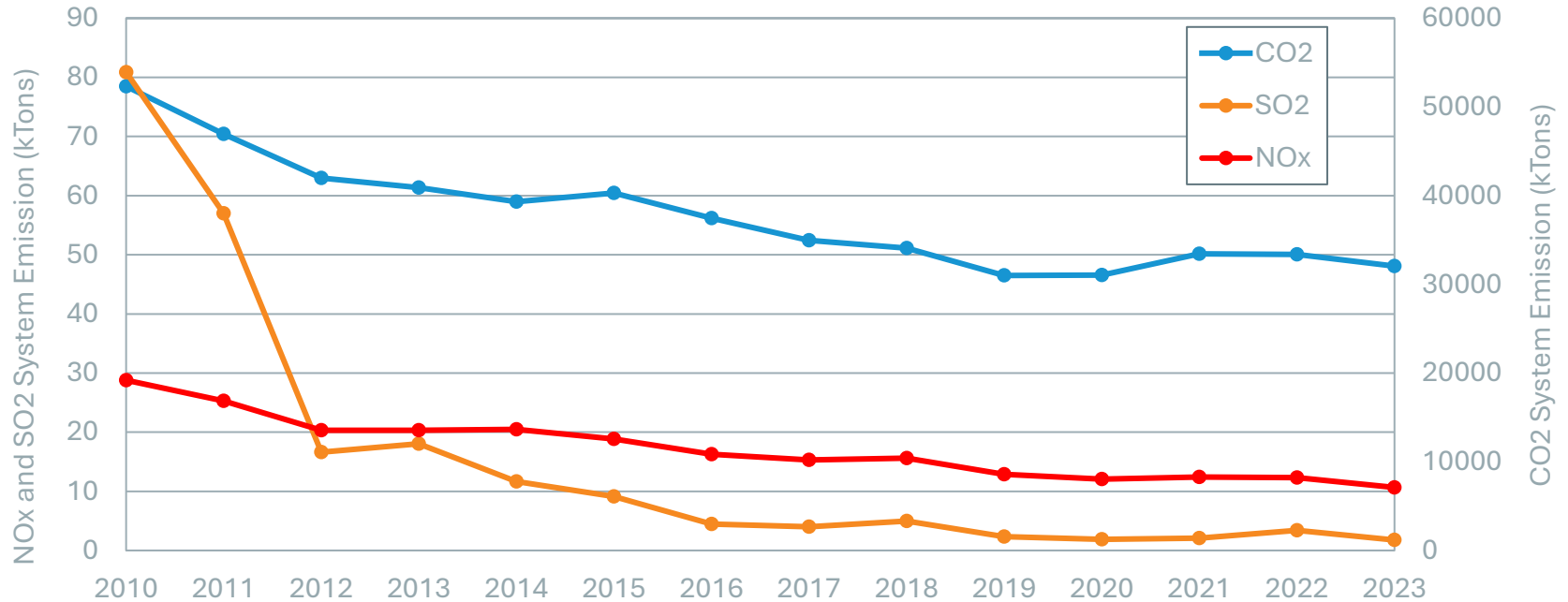
- The [2023 ISO New England Electric Generator Air Emissions Report](#) found that from 2001 through 2023, **CO₂ emissions fell by 40%**, **NO_x emissions fell by 82%**, and **SO₂ emissions fell by 99%**
 - The report's emissions estimates for generation within New England are based on information from Environmental Protection Agency databases and other sources
- Other report takeaways include:
 - The region saw a **4% reduction in CO₂ emissions** from electric generation versus 2022, **SO₂ emissions were nearly halved**, and **emissions of NO_x were down 13%**
 - Emission reductions for all three pollutants were attributed to lower load, lower peak demand, and less coal and oil-fired generation compared to 2022
 - Electricity generation decreased by 3% year-over-year
 - Between 2022 and 2023, generation from oil and coal fell by 83% and 44%, respectively
- The ISO also publishes data on estimated CO₂ emissions from New England power plants in a [monthly recap](#) of the wholesale electricity markets, and real-time estimates are [available on ISO Express](#)

Source: ISO New England, *New England Electric Generators Air Emissions Report*

Major Emissions Reductions

Emissions from regional generators have fallen significantly since 2001

Annual New England System Generator Emissions, 2010-2023 (Thousand Short Tons)



Carbon Dioxide (CO₂) ↓39%

Nitrogen Oxide (NO_x) ↓63%

Sulfur Dioxide (SO₂) ↓98%

Source: ISO New England, *New England Electric Generators Air Emissions Report*

CONSUMER LIAISON GROUP EVENTS & RESOURCES



ISO New England Open Board Meeting



- The ISO-NE Board of Directors held the 2024 open board meeting on November 6 in Boston, and virtually via WebEx
- Meeting materials, including slides and a recording of the meeting, are posted on the [event webpage](#)
 - An article providing a summary of the meeting has also been published to the [ISO Newswire](#)
 - [Compiled comments received to date](#) are posted to the ISO website
 - The public can continue to provide written comments to the Board of Directors by email at legal@iso-ne.com

CLG Webinar with FERC Office of Public Participation



- On November 14, 2024, the ISO, in coordination with the CLG Coordinating Committee, hosted a webinar with staff from the Federal Energy Regulatory Commission's (FERC's) Office of Public Participation (OPP)
- OPP presenters explained FERC's mission, jurisdiction, relationship to ISO-NE, and how and why to participate in FERC proceedings
- Webinar [slides](#) and a [video recording](#) have been posted to the [CLG webpage](#)

Economic Planning for the Clean Energy Transition Public Webinar



- [Registration is open](#) for a December 10 virtual public webinar on ISO's recently released report, Economic Planning for the Clean Energy Transition (EPCET)
 - EPCET explored the operational, engineering, and economic challenges the region must address to support the New England states' commitment to reduce carbon emissions over the next several decades
 - The [final report](#), [fact sheet](#), and related materials can be found on the [Economic Studies page](#) on the ISO-NE website
- The webinar will provide an overview of the study and is designed for a non-technical audience
- Questions can be directed to the [ISO External Affairs team](#)

For More Information



Subscribe to *ISO Newswire*

[ISO Newswire](#) is your source for regular news about ISO New England and the wholesale electricity industry within the six-state region



Log on to ISO Express

[ISO Express](#) provides real-time data on New England's wholesale electricity markets and power system operations



Follow the ISO on Social Media

www.iso-ne.com/social

Download the ISO to Go App

[ISO to Go](#) is a free mobile application that puts real-time wholesale electricity pricing and power grid information in the palm of your hand



Questions



APPENDIX



New England Wholesale Electricity Costs^(a)

	2018		2019		2020		2021		2022		2023**			
	\$ Mil.	¢/kWh	\$ Mil.	¢/kWh	\$ Mil.	¢/kWh	\$ Mil.	¢/kWh	\$ Mil.	¢/kWh	\$ Mil.	¢/kWh		
Wholesale Market Costs														
Energy (LMPs)^(b)	\$6,041	4.7	\$4,105	3.3	\$2,996	2.4	\$6,101	4.8	\$11,712	9.0	\$4,847	3.9		
Ancillaries^(c)	\$147	0.1	\$83	0.1	\$62	0.1	\$52	0.0	\$124	0.1	\$182	0.1		
Capacity^(d)	\$3,606	2.8	\$3,401	2.7	\$2,662	2.2	\$2,243	1.8	\$1,864	1.4	\$1,308	1.1		
Subtotal	\$9,794	7.6	\$7,589	6.0	\$5,720	4.7	\$8,404	6.6	\$13,701	10.5	\$6,338	5.1		
Transmission charges^(e)	\$2,250	1.7	\$2,146	1.7	\$2,331	1.9	\$2,688	2.1	\$2,739	2.1	\$2,612	2.1		
RTO costs^(f)	\$196	0.2	\$184	0.1	\$191	0.2	\$216	0.2	\$214	0.2	\$214	0.2		
									Mystic Cost of Service Agreement		\$173	0.1	\$460	0.4
Total	\$12,240	9.4	\$9,918	7.9	\$8,242	6.7	\$11,308	8.9	\$16,828	13.0	\$9,624	7.7		

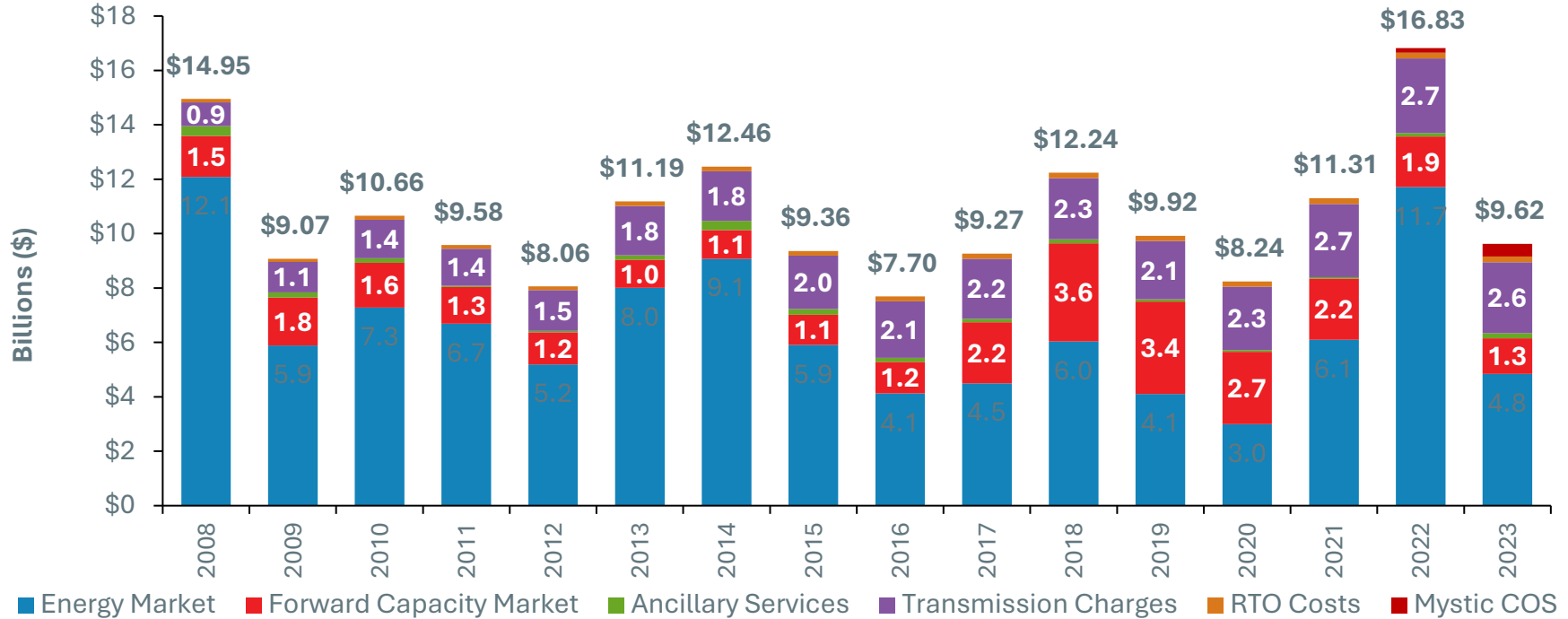
(a) Average annual costs are based on the 12 months beginning January 1 and ending December 31. Costs in millions = the dollar value of the costs to New England wholesale market load servers for ISO-administered services. Cents/kWh = the value derived by dividing the dollar value (indicated above) by the real-time load obligation. These values are presented for illustrative purposes only and do not reflect actual charge methodologies. ***The wholesale values for 2023 are preliminary and subject to resettlement.**

- (b) Energy values are derived from wholesale market pricing and represent the results of the Day-Ahead Energy Market plus deviations from the Day-Ahead Energy Market reflected in the Real-Time Energy Market.
(c) Ancillaries include first- and second-contingency Net Commitment-Period Compensation (NCPC), forward reserves, real-time reserves, regulation service, and a reduction for the Marginal Loss Revenue Fund.
(d) Capacity charges are those associated with the Forward Capacity Market (FCM).
(e) Transmission charges reflect the collection of transmission owners' revenue requirements and tariff-based reliability services, including black-start capability, voltage support, and FCM reliability.
(f) RTO costs are the costs to run and operate ISO New England and are based on actual collections, as determined under Section IV of the *ISO New England Inc. Transmission, Markets, and Services Tariff*.

** 2023 figures are preliminary

New England Wholesale Electricity Costs*

Annual wholesale electricity costs have ranged from \$7.7 billion to \$16.8 billion



(The total costs for each year include Ancillary Services and RTO costs)

Source: ISO New England; *2023 data is preliminary and subject to resettlement

Note: Forward Capacity Market values shown are based on auctions held roughly three years prior to each calendar year.