

# ISO's Role in the Region and Environmental Justice

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*Environmental Advisory Group*



Sarah Adams

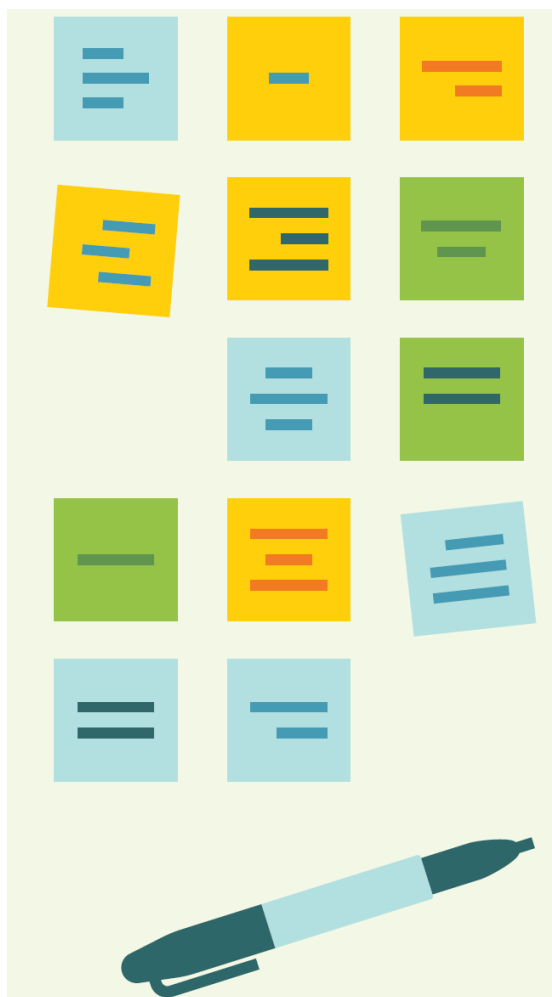
STATE POLICY ADVISOR

EXTERNAL AFFAIRS





# Presentation Goals



- Provide a brief overview of select Environmental Justice policies and community criteria
- Explain the ISO's role in the region and ongoing activities that support a reliable clean energy transition
- Discuss continued collaboration with regional power system stakeholders
- Hear from EAG attendees on Environmental Justice priorities related to the regional power system

# INTRODUCTION

# ISO New England's *Mission and Vision*

## Mission: *What we do*

Through collaboration and innovation, ISO New England plans the transmission system, administers the region's wholesale markets, and operates the power system to ensure reliable and competitively priced wholesale electricity

## Vision: *Where we're going*

To harness the power of competition and advanced technologies to reliably plan and operate the grid as the region transitions to clean energy



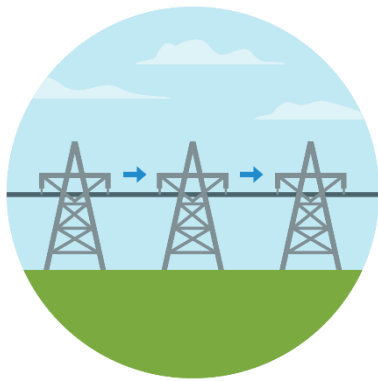
*The ISO's new **Vision** for the future represents our long-term intent and guides the formulation of our Strategic Goals*



# ISO New England Performs Three Critical Roles to Ensure Reliable Electricity at Competitive Prices

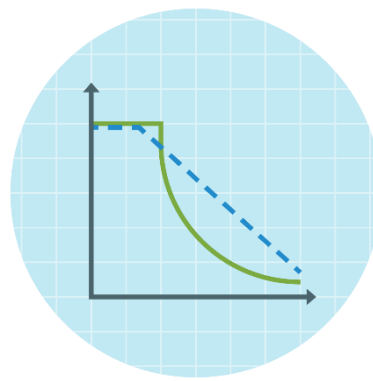
## Grid Operation

Coordinate and direct the flow of electricity over the region's high-voltage transmission system



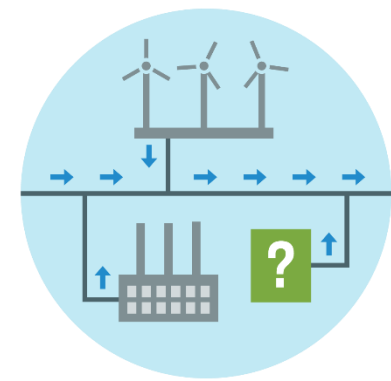
## Market Administration

Design, run, and oversee the markets where wholesale electricity is bought and sold



## Power System Planning

Study, analyze, and plan to make sure New England's electricity needs will be met over the next 10 years



# ISO's Role as a Transmission Planner for the Region

## Transmission for Reliability

- The ISO has primary responsibility for assessing the system, identifying reliability needs and selecting preferred solutions for the region
  - Depending on the timing of the reliability need, the ISO will either develop solution with the local transmission provider or issue request for proposals from any qualified transmission company



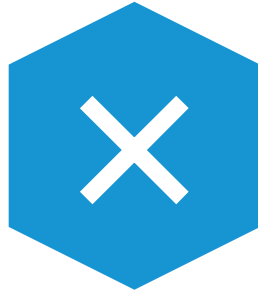
## Transmission for Public Policy

- The ISO tariff has provisions to enable transmission planning for public policy
  - The states play a key role in determining whether studies are needed, but to date, have not exercised the need for such studies
- The [New England states' 2020 Vision](#) foresees largescale transmission investment to enable clean energy
  - This will require increasing levels of input and decision-making from state regulators and policymakers with the ISO playing a technical role to support the states

# Things We Don't Do



Handle  
retail  
electricity



Own,  
maintain, or  
repair the  
power grid's  
infrastructure



Have a stake  
in companies  
that own the  
infrastructure



Have  
jurisdiction  
over fuel  
infrastructure



Have  
control  
over siting  
decisions





# States and ISO Have Overlapping Objectives

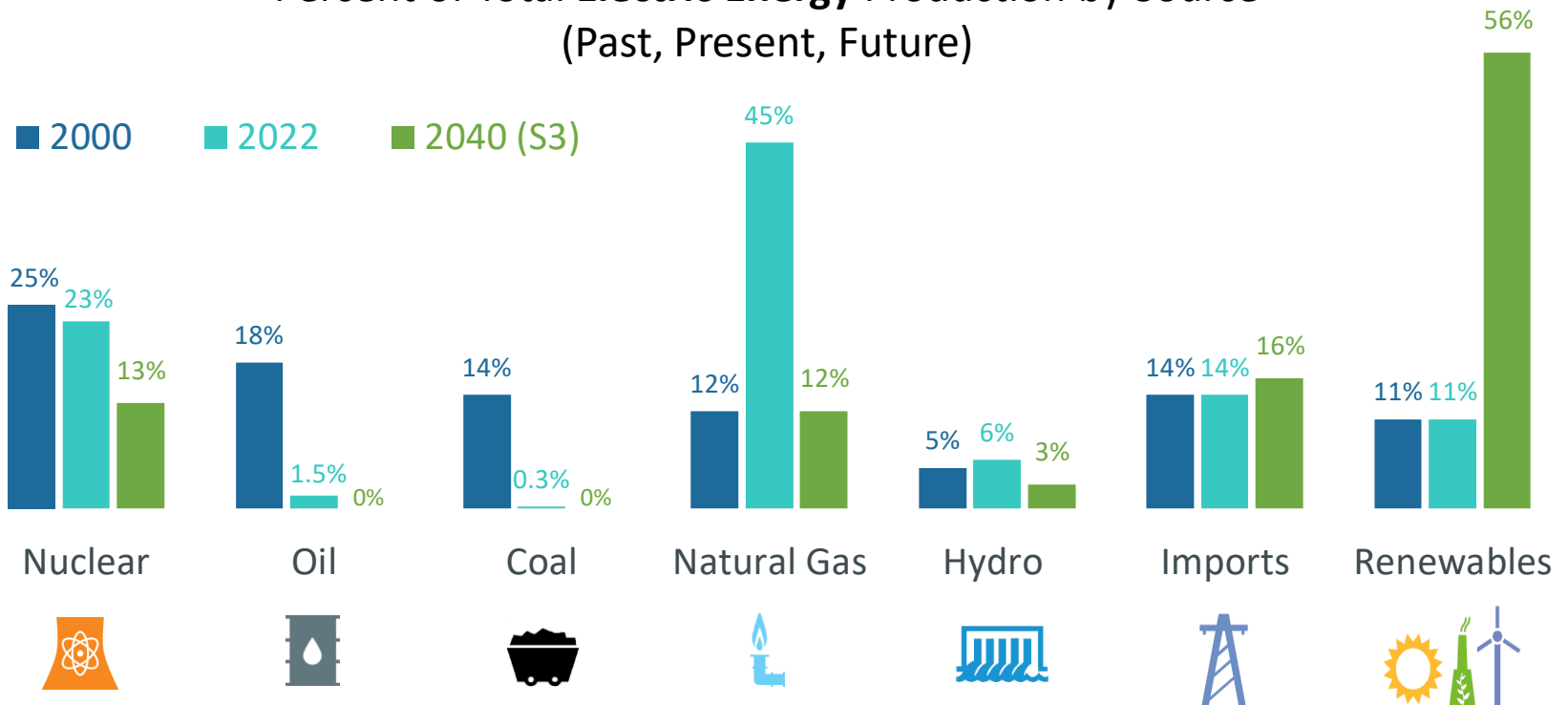
- The states have **clean-energy mandates** – and the ISO is supportive of the states in those efforts
- The ISO has a **reliability mandate** and a **mandate to administer competitive wholesale markets** for the resources needed for a reliable system – the states recognize the importance of reliability and support competitive markets
- The states have **environmental justice** laws and/or policies
  - The ISO appreciates the importance of environmental justice
  - During a [September 2021 meeting](#) with New England states, ISO offered to be a **resource to the states** on matters related to the regional power system as they evaluate equity and environmental justice issues
  - The ISO can be a **source of data and information** for the states and developers



# Wholesale Market Dynamics, Public Policies, Transmission Investments Lead to Dramatic Changes in the Energy Mix

*New England made a major shift from coal and oil to natural gas over the past two decades, and is shifting to renewable energy in the coming decades*

Percent of Total **Electric Energy** Production by Source  
(Past, Present, Future)



Source: ISO New England [Net Energy and Peak Load by Source](#); data for 2022 is preliminary and subject to resettlement; data for 2040 is based on Scenario 3 of the ISO New England [2021 Economic Study: Future Grid Reliability Study Phase 1](#).

Renewables include landfill gas, biomass, other biomass gas, wind, grid-scale solar, behind-the-meter solar, municipal solid waste, and miscellaneous fuels.





## Since 2013, Roughly 7,000 MW of Generation Have Retired or Announced Plans for Retirement in the Coming Years

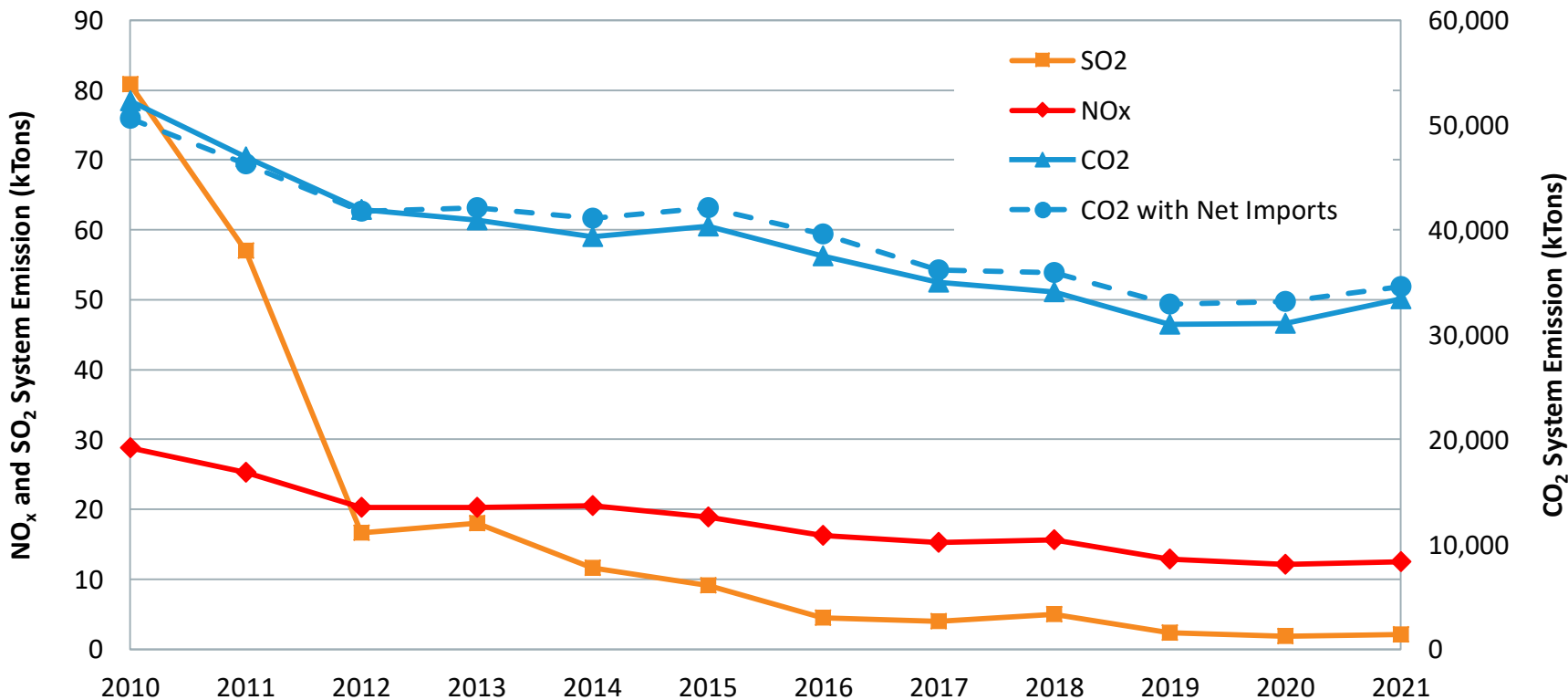
- Include predominantly coal, oil, and nuclear resources
- Another **5,000 MW** of remaining coal and oil are at risk of retirement
- These resources have played an **important** role in recent winters when natural gas supplies are constrained in New England

Source: [ISO New England Status of Non-Price Retirement Requests and Retirement De-list Bids](#) (April 2023)

# Major Emissions Reductions

*Emissions from regional generators have fallen significantly since 2001*

## Annual New England System Generator Emissions, 2010-2021 (Thousand Short Tons)



**Carbon Dioxide (CO<sub>2</sub>) ↓36%**

**Nitrogen Oxide (NO<sub>x</sub>) ↓57%**

**Sulfur Dioxide (SO<sub>2</sub>) ↓97%**

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

# WHAT IS ENVIRONMENTAL JUSTICE?

*Select Relevant Federal Definitions and Policies*

*New England States' Environmental Justice Criteria*

# What is Environmental Justice?

- Per the U.S. EPA, **environmental justice** is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies
- Executive Order 12898 (1994), [Federal Actions To Address Environmental Justice In Minority Populations and Low-Income Populations](#)
  - Instructed federal agencies to "collect, maintain and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin or income"
- Executive Order 13985 (2021), [Advancing Racial Equity and Support for Underserved Communities Through the Federal Government](#)
  - Directed the federal government to revise agency policies to account for racial inequities in their implementation
- Executive Order 14096 (2023), [Revitalizing Our Nation's Commitment to Environmental Justice for All](#)
  - Establishes the White House Office of Environmental Justice

# What is Environmental Justice?

- FERC, as an independent agency, is not required to comply with Executive Order 13985, but has elected to voluntarily participate in the process
  - FERC developed a two-year [Equity Action Plan](#) in April 2022
- FERC hosted a Roundtable on Environmental Justice and Equity in Infrastructure Permitting in March 2023
- FERC equitable processes are consistent with its strategic goals:
  - Ensuring just and reasonable rates, terms, and conditions;
  - Ensuring safe, reliable, and secure infrastructure consistent with the public interest; and
  - Providing mission support through organizational excellence
- The U.S. Department of Energy's [Environmental Justice Strategy](#) goals:
  - Fully Implement Executive Order 12898 on Environmental Justice
  - Integrate Environmental Justice into the National Environmental Policy Act Process
  - Minimize Climate Change Impacts on Vulnerable Populations
  - Comply with Title VI of the Civil Rights Act of 1964

# New England States' Environmental Justice Community Criteria

## CT

[An Act Concerning Enhancements to State's Environmental Justice Law](#)

>30% of the population have an income below 200% of the federal poverty level

a **distressed municipality**, as determined based on unemployment and poverty rates, age of housing stock and rates of growth in job creation, population, and per capita income

## ME

[An Act Regarding Utility Accountability and Grid Planning for Maine's Clean Energy Future](#)

communities who have experienced historical and ongoing systemic discrimination, restricted power, and underrepresentation in state policy making

## MA

[An Act Creating a Next-generation Roadmap for Massachusetts Climate Policy](#)

<65% statewide annual median household income

minority population >40% of the population

25%+ of the households lack English proficiency

minorities comprise >25% of the population and the annual median household income of the municipality <150% of the statewide median

## RI

[Department of Environmental Management Environmental Justice Policy](#)

<65% statewide annual median household income

minority population >40% of the population

25%+ of the households lack English proficiency

minorities comprise >25% of the population and the annual median household income of the municipality <150% of the statewide median

## VT

[An Act Relating to Environmental Justice in Vermont](#)

<80% statewide annual median household income

minority population >6% of the population

1%+ of the households lack English proficiency

NH has not adopted an Environmental Justice statute.



# SUPPORTING A RELIABLE CLEAN ENERGY TRANSITION

# There Are **Four Pillars** Necessary to Support a Successful Clean Energy Transition



Significant amounts of **clean energy** to power the economy with a greener grid



**Balancing resources** that keep electricity supply and demand in equilibrium



**Energy adequacy**— a dependable energy supply chain and/or a robust energy reserve



**Robust transmission** to integrate renewable resources and move clean electricity to consumers across New England

# Supporting a Reliable Clean Energy Transition

## *Open and Transparent Transmission Development*

- Grid planning that is regional and collaborative will best enable a reliable clean energy transition and better support a cost-effective transition
- Current transmission planning process provides opportunities for public engagement in needs assessments and solution development
- The ISO's transmission planning process is evolving to address new technologies and state policies
  - [Transmission Planning for the Clean Energy Transition](#) explored how near-term needs assessments should evolve with greater levels of renewables
  - [Storage as a Transmission-Only Asset](#) (SATO) enables electric storage facilities to be planned and operated to address certain system needs identified in the regional system planning process\*

\*Proposed Tariff changes are pending at FERC in Docket Nos. ER23-739 and ER23-743



# Supporting a Reliable Clean Energy Transition

## *Open and Transparent Transmission Development*

- Under the extended planning horizon, the ISO is conducting the [2050 Transmission Study](#)
  - Initial study scope and assumptions developed in conjunction with the states
  - When complete, will inform the region of the amount, type, and high-level cost estimates of transmission infrastructure needed to reliably serve peak loads in 2035, 2040, and 2050 using assumptions that reflect state decarbonization policies
  - Looks well beyond the ISO's 10-year horizon for transmission planning
  - It is not a plan to build specific projects
  - Identification of potential solutions will be ongoing throughout 2023
- The ISO's transmission planning work can be informed by the states, developers and public regarding environmental justice and equity issues
  - It is the role of the transmission developer to work with host communities and siting authorities for transmission needed to green the grid



# Supporting a Reliable Clean Energy Transition

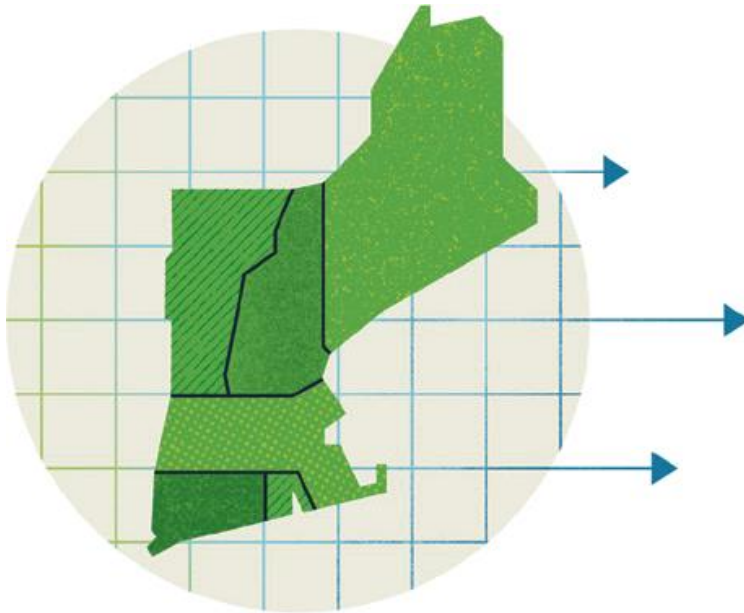
## *Enhancing Communication to Non-Technical Audiences Facilitates Broader Understanding and Engagement*

- Existing communications seek to deliver technical information to technical as well as non-technical audiences, such as:
  - Regional Electricity Outlook (the “REO”)
  - ISO Newswire
  - ISO-to-Go mobile app
  - ISO Express data portal
  - State and regional profiles
  - Regional System Plan
  - Consumer Liaison Group (CLG)
- ISO has expressed willingness to meet with the states to review existing documents to identify additional reasonable needs for enhanced communications with non-technical audiences
- EAG, Planning Advisory Committee, and CLG provide opportunities for public to learn and engage in discussions on regional energy matters



# Supporting a Reliable Clean Energy Transition

*Power System Stakeholders All Have a Distinct Role to Play*



The collective actions of the ISO, New England policymakers, energy and environmental regulators, utilities, market participants, consumer and environmental advocates, and the public will affect how successful the region is in a just transition to a reliable, clean energy grid

# Questions



# Discussion

