

# Clean Energy and Climate Plan for 2030

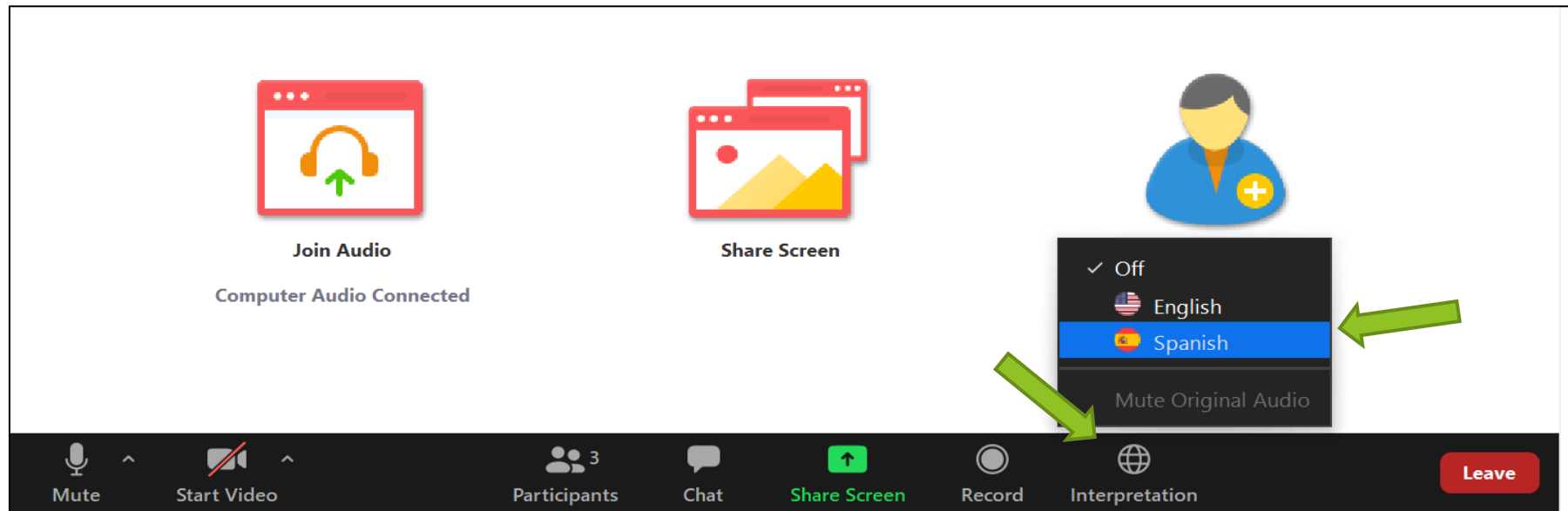
Judy Chang,  
Undersecretary of Energy  
Massachusetts Executive Office of Energy and Environmental Affairs

March 9, 2021



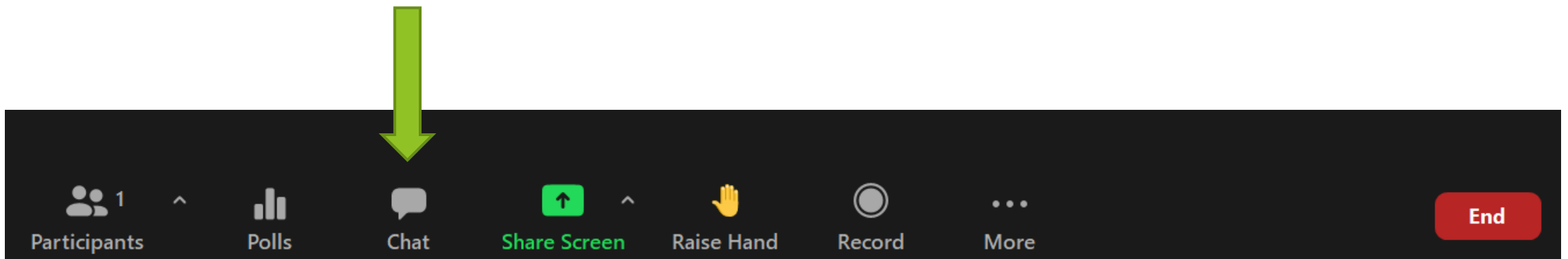
# Interpretation is being offered in: Português, Kreyòl ayisyen, Español, & 廣東話(Cantonese)

- ▶ To join the other channels, click the “Interpretation” icon and select your preferred language
- ▶ Para entrar no canal em português, clique no ícone “Interpretation” e selecione “Portuguese”
- ▶ Pou rantré nan chanèl kreyòl ayisyen an, klike sou ikòn “Interpretation” an epi chwazi “Haitian Creole”
- ▶ Si alguien desea interpretación en español, haga clic en “Interpretation” y seleccione “Spanish”
- ▶ 如果有人想用粵語進行口譯，請點擊“口譯”，然後選擇“Cantonese”

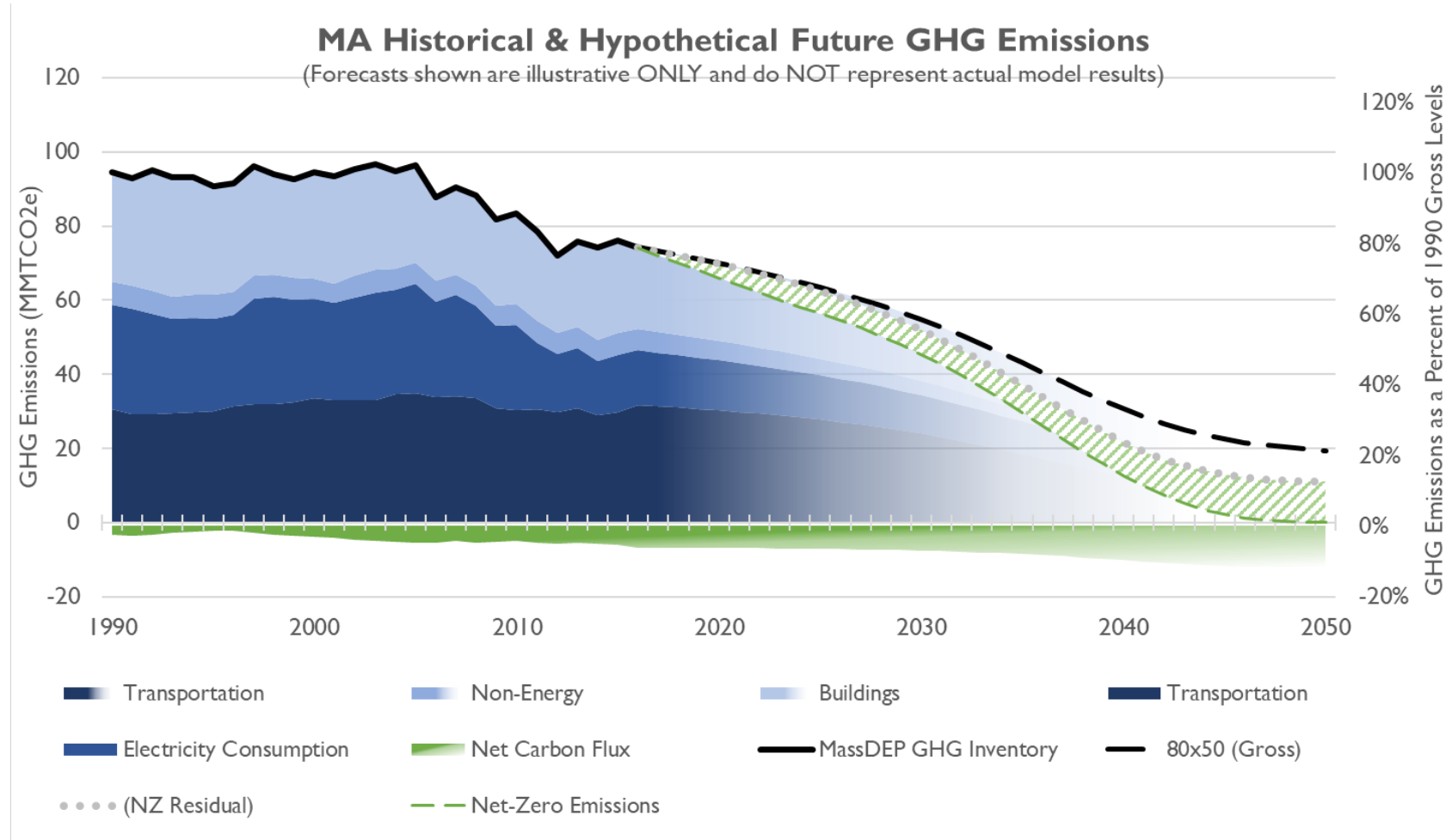


# Webinar logistics

- ▶ This webinar is being recorded.
- ▶ The recording of the presentation will be posted on [www.mass.gov/2030CECP](http://www.mass.gov/2030CECP) afterwards.
- ▶ All lines will be muted during the presentation.
- ▶ The line will be open for oral comments after the presentation.
- ▶ If you have a clarifying question or a logistical issue, please type it into the Chat box.



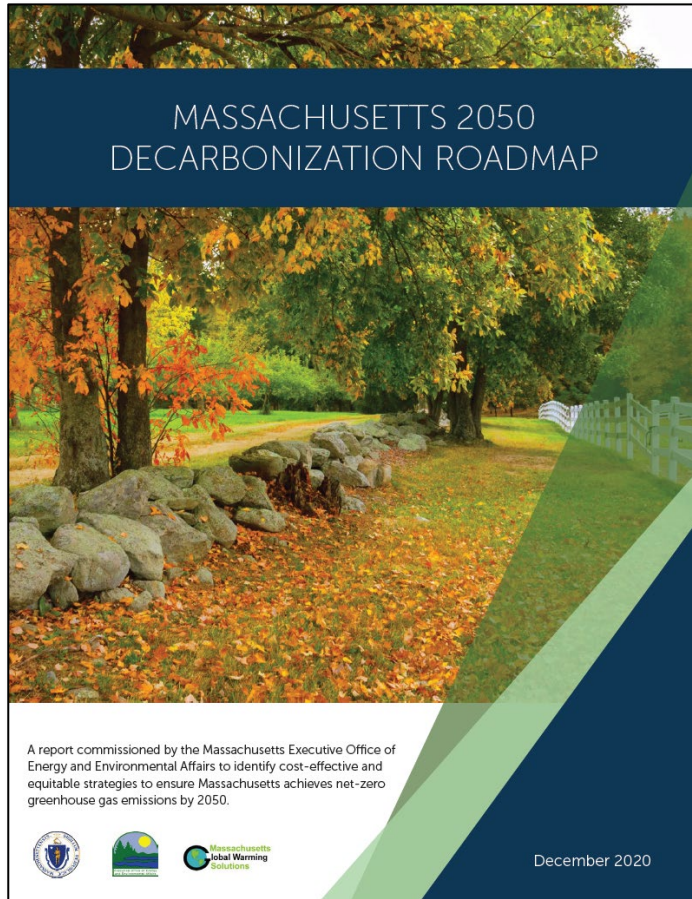
# Net Zero by 2050



**Net Zero emissions: sources of emissions = removal of emissions**

# 2050 Decarbonization Roadmap

[www.mass.gov/2050Roadmap](http://www.mass.gov/2050Roadmap)



- Examined 8 economy-wide decarbonization pathways to 2050
- Provides technologies, implementation options, and overall cost
- Summary Report + six technical reports, each detailing analysis and detailed conclusions by sector (energy supply, transportation, buildings, non-energy, land use, economic and health impacts)
- **EEA used results of 2050 Roadmap Study analysis to develop cost-effective climate strategies for the current decade**

# 2050 Roadmap: Key Findings

**Commonwealth has a range of options, but the most cost-effective, low-risk pathways share core elements:**



A balanced clean energy portfolio anchored by a significant offshore wind resource



More interstate transmission to allow us to access renewable generation in other states and in Canada



Widespread electrification of transportation and building heat



Reduce cost by replacing energy infrastructure at end of service life.

# 2030 Clean Energy and Climate Plan & Emissions Limit

- ▶ Emissions Limit for 2030: 45% *gross* emissions reduction below 1990 level
  - 45% limit determined as best option for Commonwealth providing optimal balance between setting MA on the best course to hit Net Zero goals while balancing economic costs.
  - Takes advantage of cost-saving turn-over transition points for infrastructure (cars, heating equipment, power plants) in the current decade
  - Allows markets to scale and transition (e.g., electric vehicles and building retrofit)
  - One of the most ambitious 2030 limits in the U.S.
- ▶ 2030 Clean Energy and Climate Plan (2030 CECP)
  - EEA issued the 2030 CECP for public comment to be updated and finalized this Spring, 2021
  - Plan will maximize the Commonwealth's ability to meet its target of Net Zero by 2050

# What Does Getting to 45% in 2030 Look Like?



- ❑ **New Buildings:** Highly-efficient new construction
- ❑ **Existing Buildings:** ~ 1,000,000 Homes and ~ 350 million sq-ft of commercial property retrofitted with clean heating, high-efficiency insulation
- ❑ **Building Heat:** Significantly less residential and commercial gas usage than today



- ❑ **Light-Duty:** Over 750,000 *new* zero emission cars & trucks on the road
- ❑ **Med. & Heavy:** 20,000 *new* zero emission vehicles (ZEV) on the road + cleaner diesel fuel blends
- ❑ **Miles Travelled:** 15% reduction in light-duty commuter miles traveled



- ❑ **Generation:** 6,000 MW of new clean energy built and interconnected
- ❑ **Transmission:** First of several new regional transmission lines operational
- ❑ **System:** New ISO-NE transmission planning & clean energy markets are ready to add 1 GW offshore wind & 500 MW of solar every year, plus 2 or 3 more large transmission lines, through 2050



# 2030 CECP: Policy Proposals to Achieve 45% Reduction

**Buildings: ~9.4 MMTCO<sub>2</sub>e reduction**



- **High-Efficiency Energy Code:**
  - Community adoption starting in 2022
  - Mandatory statewide no later than January 1, 2028
- **Pivot MassSave**
  - **2022-2024:**
    - Limit fossil fuel heating system incentives
    - Increase electrification thru heat pump incentives and consumer education
    - Expand access to energy efficiency and clean heating for low- and moderate-income renters and homeowners in EJ communities
  - **By end of 2024:**
    - End all fossil fuel heating system incentives
- **Cap Heating Fuel Emissions**
- **Convene Commission and Task Force on Clean Heat**

# 2030 CECP: Policy Proposals to Achieve 45% Reduction

## Transportation: ~8 MMTCO<sub>2</sub>e reduction



- **Transportation and Climate Initiative Program**
  - At least 35% of proceeds from the auction of allowances will be set aside to ensure that overburdened and underserved communities benefit equitably from clean transportation projects and programs
- **Implement 100% new light-duty ZEV sales by 2035 & Advanced Clean Trucks/Fleets**
- **MOR-EV program, MassEVIP, and other state funding**
  - Incentives for light-duty and heavy-duty vehicles, including public fleets, transit buses, and school buses
- **EV Charging + Smart Charging**
- **Work with partners/stakeholders to explore Low-Carbon Fuel Standard**
- **Limit Commuter Vehicle Miles Traveled**
- **Smart Growth**

# 2030 CECP: Policy Proposals to Achieve 45% Reduction

**Electricity:** >4.2 MMTCO<sub>2</sub>e reduction



- **Execute on Existing Procurements**
  - 3.2 GW of offshore wind
  - 3.2 GW of solar
  - 1 GW of hydroelectricity
- **Plan for Additional Clean Energy**
  - 2 GW of distributed clean energy generation between 2025-2030
  - 6 GW of offshore wind between 2030-2040
- **Review & Revise Clean Energy Programs & Include Municipal Light Plants**
- **Revise Wholesale Energy Markets & Planning**

# 2030 CECP: Policy Proposals to Achieve 45% Reduction

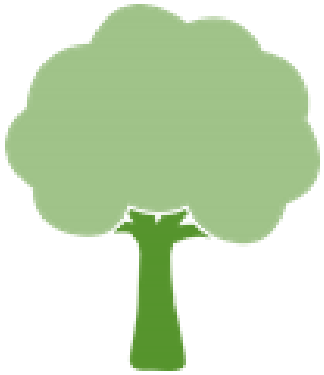
## Non-Energy: stabilize emissions



- Implement regulation limiting sale of HFCs & support federal actions further phasing down use of HFCs
- Best practices to limit waste, wastewater, and agricultural emissions
  - Long term goal of reducing the Commonwealth's solid waste disposal by about 90% by 2050

# 2030 CECP: Policy Proposals to Achieve 45% Reduction

## **Land: protect and enhance carbon sequestration**



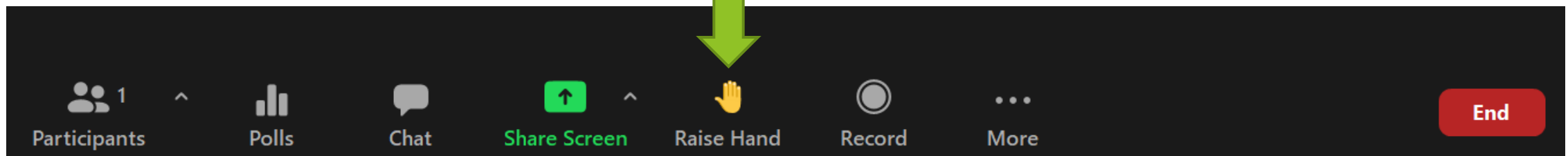
- **Develop Sequestration Accounting and Market Frameworks**
- **Explore incentive-based programs designed to achieve no net-loss of forest and farmland**
- **Protect and restore inland and coastal wetlands**
- **Implement and incentivize best land management practices for ecosystem health and enhanced carbon sequestration**
- **Incentivize Regional Manufacture and Use of Durable Wood Products**

# Current Draft Timeline

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb 28	March 1	2	3	4	5	6
7	8	9	10	11	12	13
		Public webinar				
14	15	16	17	18	19	20
	Public webinar					
21	22	23	24	25	26	27
	Public comment period ends	Public comments are analyzed and synthesized				
28	29	30	31	April 1	2	3
	Synthesis of public comments					

# Oral Comments (up to 2-3 min per person)

- ▶ If you'd like to provide oral comments:
  - ▶ Click on "Raise Hand" and we will unmute you
  - ▶ We will give priority to folks who indicated they would give comment when they registered.
- ▶ If you are on the phone, please press \*9 to raise your hand. When we call on you, press \*6 to unmute yourself.



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**Thank You!**