

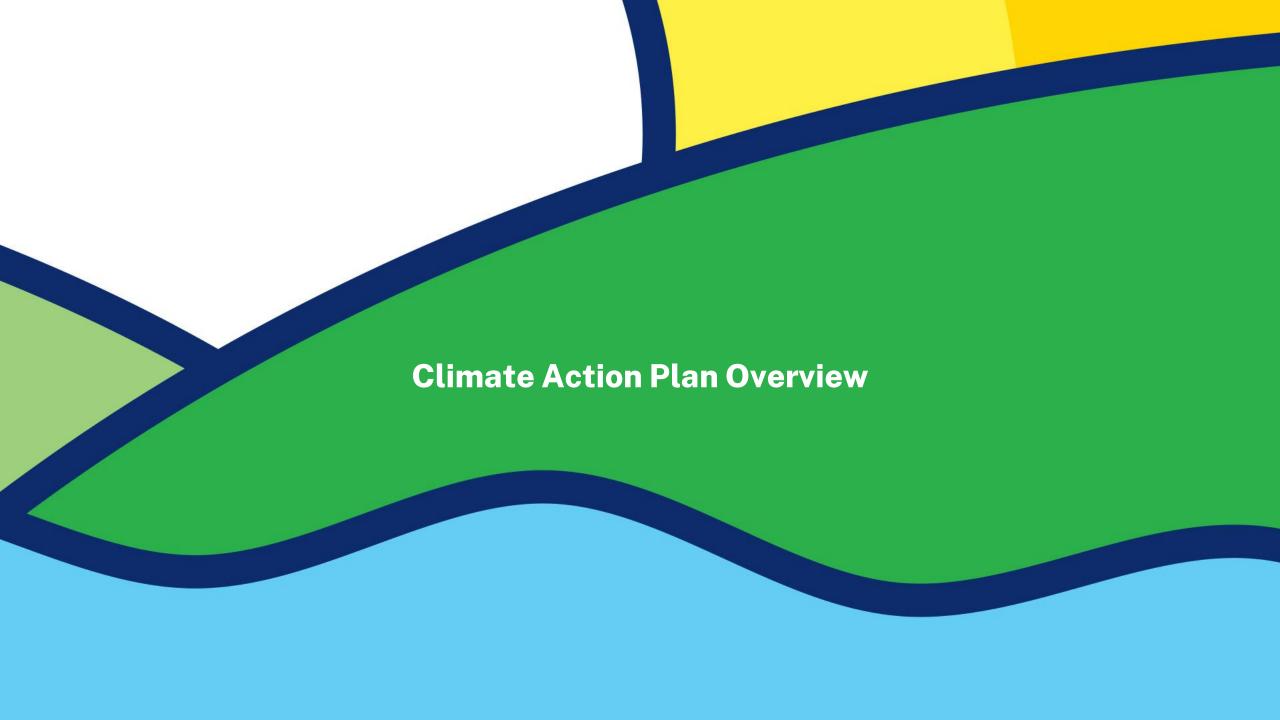
MEETING GROUND RULES AND HOUSEKEEPING

- •This meeting is being recorded. A recording will be posted on DEEP's Climate Action Plan website.
- •For those on Zoom, the chat is public record. Please be respectful and avoid off-topic conversations.
- •If you did not sign up ahead of this meeting, you can sign up for public comment in the chat as a direct message to Allie Brown.
- You can add written comments to the chat or email them to deep.climatechange@ct.gov
- •If someone causes a disruption, we will first try to remove the individual(s) from the meeting. If we have to stop, we will re-start the meeting and you can rejoin using the original meeting link.

AGENDA

- Welcome and Overview
- Business-As-Usual (BAU) Projections
 - Brief clarifying questions on overview and BAU Write Questions in Q&A
- Draft GHG Reduction Measures
 - Overview of Proposed Measures
 - Discussion and Feedback: Breakout Rooms by Sector
- Next Steps
- •Public Comment and Feedback 1:30 pm 2:00 pm

Icebreaker: Before we dive in, let's take a moment to celebrate progress. In the chat, share one small or big climate win you've seen in your community. For example, maybe it's a new bike lane, a composting program, solar panels on a school, or even a neighbor switching to an EV.



TERMS AND ACRONYMS



CPRG = Climate Pollution Reduction Grant



PCAP = Priority Climate Action Plan



CAP = Climate Action Plan



Measure = A specific, tangible initiative that will reduce emissions or enhance carbon removal. Measures must be quantifiable with clear responsible parties.



Action = Activities that need to occur to implement a measure and realize the associated emission reductions and benefits.

CONNECTICUT'S CLIMATE GOALS

2030

 Emissions 45% below 2001 levels 2040

- Zero-carbon electricity supply
- Emissions 65% below 2001 levels

2050

- Economy-wide net-zero emissions
- Achieve 80% reductions from 2001 levels

CONNECTICUT'S UPCOMING CLIMATE REPORTS

Global Warming Solutions Act

DUE January 1, 2026

Required by Public Act 25-125 Sec. 2

Produce a report on Quantifiable emissions reductions and carbon sequestration achieved

- Proposed regulations, policies and strategies to achieve GHG emissions reductions
- Assessment of latest scientific information and data on global climate change
- Status of GHG emissions reductions in other states and countries

Triple Impact Report

DUE February 2, 2020

Required by Public Act 25-125 Sec. 14

Recommended regulations, policies, and strategies that can:

- Significantly lower energy costs
- Increase community resilience
- Contribute to GHG emissions reductions

CT Climate Action Plan (CAP)

DUE July 1, 2020

Required as a condition of receipt of CPRG funding from EPA

- Second of three deliverables per grant agreement with EPA
- Priority Climate Action Plan (submitted Spring 2024)
- Climate Action Plan (due Summer 2026)
- Status Report (due Summer 2027)

CONNECTICUT'S CLIMATE ACTION PLAN

The CAP will serve as a roadmap to reach the state's statutory greenhouse gas (GHG) emission reduction targets, focusing on measures that simultaneously provide cost savings and increase community resilience.

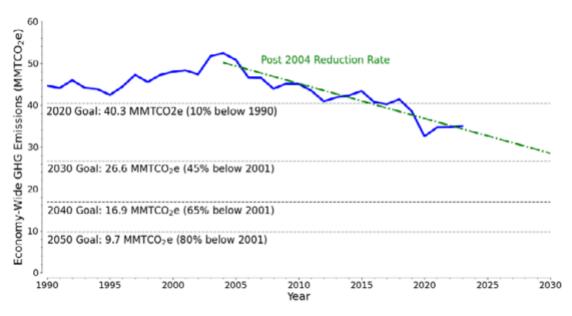
CAP components:





BUSINESS-AS-USUAL (BAU) PROJECTIONS

- •The BAU provides a baseline from which to model GHG reduction measures and develop "what would it take" policy scenarios and pathways to be tested
- Builds off the most recent inventory estimates and best available data on future trends based on existing policies and programs
- •Helps identify areas of focus based on not only emissions today, but also what we expect them to be in the future
- May align with but also can differ from historical trends



Connecticut's Inventory Report included this graph showing economy-wide GHG emissions for the years 1990-2023 and future projections assuming the trend will follow a linear regression of the total annual emissions since 2004.

BAU METHODOLOGY

 Methodology: Project forward activity data and/or emission factors using sector-specific forecasts, tools, models, socio-economic data, and/or historical trends

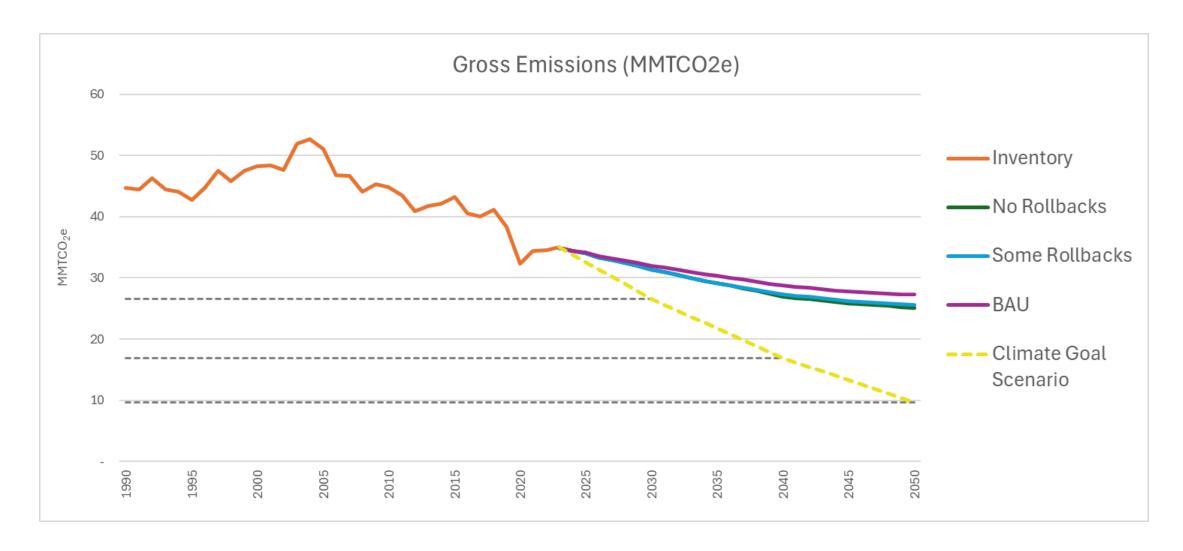
Key sources

- EPA's Motor Vehicle Emission Simulator (MOVES)
- RMI's Energy Policy Simulator
- EIA's 2025 Annual Energy Outlook (AEO)
- DOE's 2022 Industrial Decarbonization Roadmap
- EPA's State Inventory and Projections Tool
- ICF's Energy Codes Tool
- ICF's Integrated Planning Model (IPM)

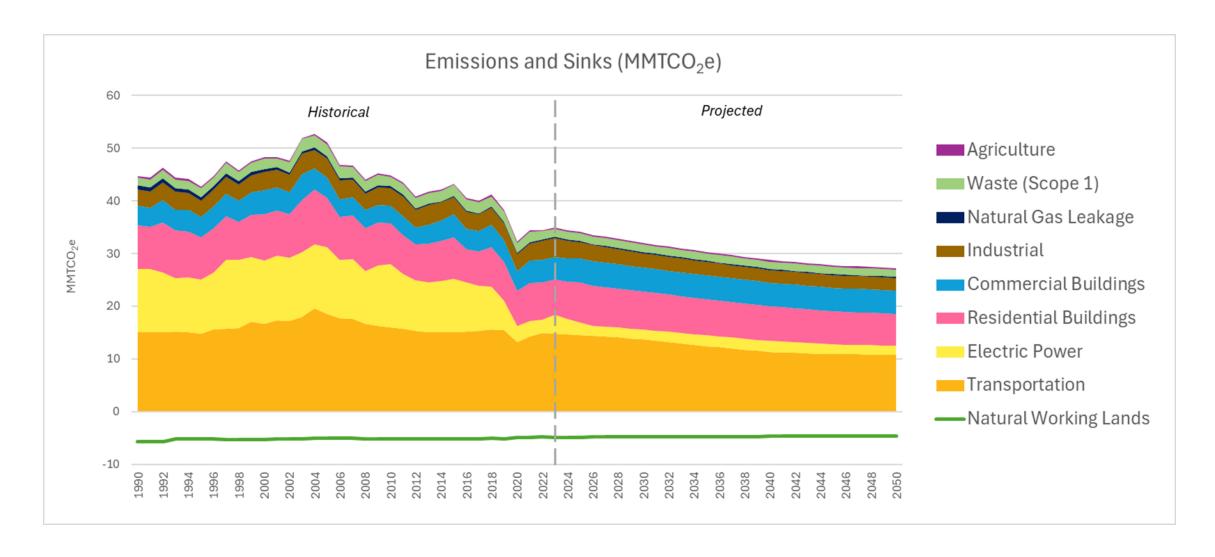
Modeled Three Scenarios

- 1. BAU Scenario: Reflects recent and anticipated changes to climate policies, including rollbacks to electric power and electric vehicle tax incentives, offshore wind projects, CAFE standards, and 111(d) regulations
- 2. Some Rollbacks (sensitivity analysis): Assumes no rollbacks to electric vehicle tax incentives, CAFE standards, and 111(d) regulations
- 3. No Rollbacks (sensitivity analysis): Assumes the IRA tax incentive schedule for electric power and electric vehicles, and no rollbacks to offshore wind projects, CAFE standards, and 111(d) regulations

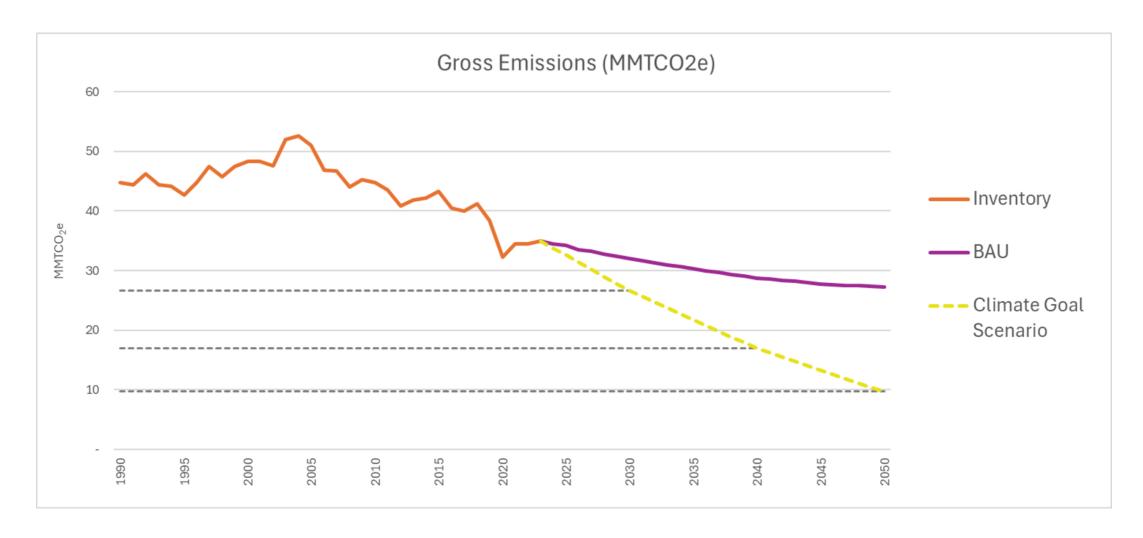
BAU PROJECTION RESULTS



BAU PROJECTION RESULTS



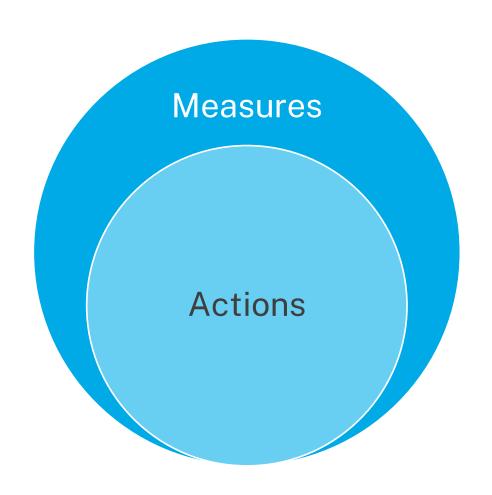
CLIMATE GOAL COMPARISON





GHG REDUCTION MEASURES AND ACTIONS

- Measure. A specific, tangible initiative that will reduce emissions. Measures must be quantifiable with clear responsible parties.
- Actions. Activities that need to occur to implement a measure and realize the associated emission reductions and benefits.
 - Note: The actions presented are illustrative and remain under development. They do not constitute formal recommendations from DEEP.



GHG REDUCTION MEASURES AT A GLANCE





Expand vehicle electrification, electric vehicle (EV) infrastructure, and zero- and low-carbon fuels in the on-road transportation sector

Decarbonize the off-road transportation sector, including ports, airports, and rail

Increase energy efficiency in existing residential and commercial buildings



Increase electrification in existing residential and commercial buildings

Maximize efficiency in new residential and commercial buildings

Maximize electrification in new residential and commercial buildings



Expand grid-scale clean energy resources

Deploy distributed clean energy resources







Reduce emissions from the disposal of organic solid waste

Reduce emissions from the disposal of non-organic solid waste

Reduce methane emissions from public wastewater treatment plants



Reduce emissions associated with soil runoff

Reduce methane emissions from manure

Increase protection and conservation of high-carbon coastal habitats, wetlands, grasslands, and forests

Increase and manage urban tree canopy





Reduce vehicle miles traveled (VMT)

Expand availability of e-bike or scooter rentals

Expand bike lanes and safe biking infrastructure

Expand sidewalks, crosswalks, and safe walking infrastructure

Expand public transit routes and frequency

Enhance transit passenger experience (tap-to-pay, transit navigation apps, shade and benches, etc.).

More housing withing walking distance of public transportation options

Expand vehicle electrification, EV infrastructure, and zeroand low-carbon fuels in on-road vehicles

Tax credits and other incentives for the purchase of an EV

Tax credits and other incentives for the purchase of EV infrastructure

Expand public access to EV charging

Deploy electric buses

Decarbonize the offroad transportation sector, including ports, airports, and rail

Support development of low carbon aviation fuels

Support decarbonization of ports and ferries

Electrify off-road equipment (lawn, recreational, and industrial equipment)



RESIDENTIAL AND COMMERCIAL BUILDINGS



Increase energy efficiency in existing residential and commercial buildings

- Rebates or tax credits to replace inefficient and gaspowered appliances
- Free or low-cost building energy audits
- Approved lists of installation contractors or dealers of energy efficient equipment
- More affordable and accessible weatherization adjustments



Increase electrification in existing residential and commercial buildings

- Rebates to upgrade home electrical systems
- Financing opportunities for electrification
- Offer incentive programs to encourage transitioning to electrical equipment



RESIDENTIAL AND COMMERCIAL BUILDINGS



Maximize energy efficiency in new residential and commercial buildings

- Strengthen building energy codes/establish building performance standards
- Increase the adoption of low GWP refrigerants in HVAC and other systems
- Adopt refrigerant leakage detection strategies



Maximize electrification in new residential and commercial buildings

- Install on-site renewable energy and energy storage systems
- Support increased adoption of heat pumps statewide
- Implement zero emission equipment standards
- Promote electrification incentive programs



Expand grid-scale clean energy resources

- Participate in regional wind program
- Set target levels of solar and other renewables to be distributed to CT residents
- Expand energy efficiency programs under the C&LM program
- Convert propane & diesel forklifts at ports to hydrogen energy
- Develop a pilot project to use hydrogen for port operations & long duration electric storage
- Expand onshore wind
- Expand offshore wind
- Accelerate the development of electricity storage (like solar batteries)

Deploy distributed clean energy resources

- Expand rooftop solar for new and existing homes
- Expand rooftop solar on new and existing commercial buildings and warehouse spaces
- Expand solar canopies



Expand carbon capture, utilization, and storage (CCUS) at industrial facilities

Install CCS at all plants that process coal and/or fossil fuels

Explore pilot programs and small-scale demonstrations

Identify optimal locations for capture and storage and potential barriers

Increase adoption of smart-management technologies to optimize resources

Develop a regional long-term plan to identify industrial sites with opportunities for hydrogen production and/or use, carbon capture, electrification, efficiency, or use of other low-carbon fuels

Decarbonize industrial processes through energy efficiency, electrification, and low carbon fuels

Support implementation of best available technologies to reduce process emissions

Establish a refrigerant management system

Advance industrial electrification and install on-site renewable energy and battery energy storage systems

Support local production and use of low-embodied carbon materials through clean procurement frameworks

Deploy Combined Heat and Power (CHP) Systems



Reduce emissions from the disposal of organic solid waste

Prioritize the Connecticut Coalition for Sustainable Materials Management (CCSMM) four-part strategy

Divert 185,000 tons of food scraps each year

Expand access to community composting and assess the need for industrial-scale composting

Establish and expand residential, municipal, and academic food waste/food rescue diversion programs

Reduce emissions from the disposal of non-organic solid waste

Increase recycling programs

Support municipal unit-based pricing for waste units and connect municipalities with waste infrastructure grants

Hold plastic producers and consumer packaging accountable for their products' full lifecycle

Identify and reduce high impact waste (boat shrink wrap and construction waste)

Reduce methane emissions from public WWTPs

Require methane detection equipment at all Wastewater Treatment Plants (WWTP)

Support efficiency upgrades at public wastewater treatment plants

Capture landfill gas



Reduce emissions associated with soil runoff

- Implement climate friendly management practices on croplands
- Promote agricultural land preservation and improve management of grasslands and pasturelands
- Support local food production, urban agriculture, and farm-to-school initiatives

Reduce methane emissions from manure

- Deploy anaerobic digesters on medium-large scale farms
- Connect farmers with financing opportunities with CT GreenBank



NATURAL AND WORKING LANDS

Increase protection and conservation of high-carbon coastal habitats, wetlands, grasslands, and forests

Protect 50% of core forests greater than 250 acres by 2040

Increase statewide forest cover from 59% to over 60% by 2040

Reduce impacts of development on natural areas by preserving existing natural working lands and improving land management

Reduce emissions and support carbon sequestration on aquatic natural and working lands

Increase and manage urban tree canopy

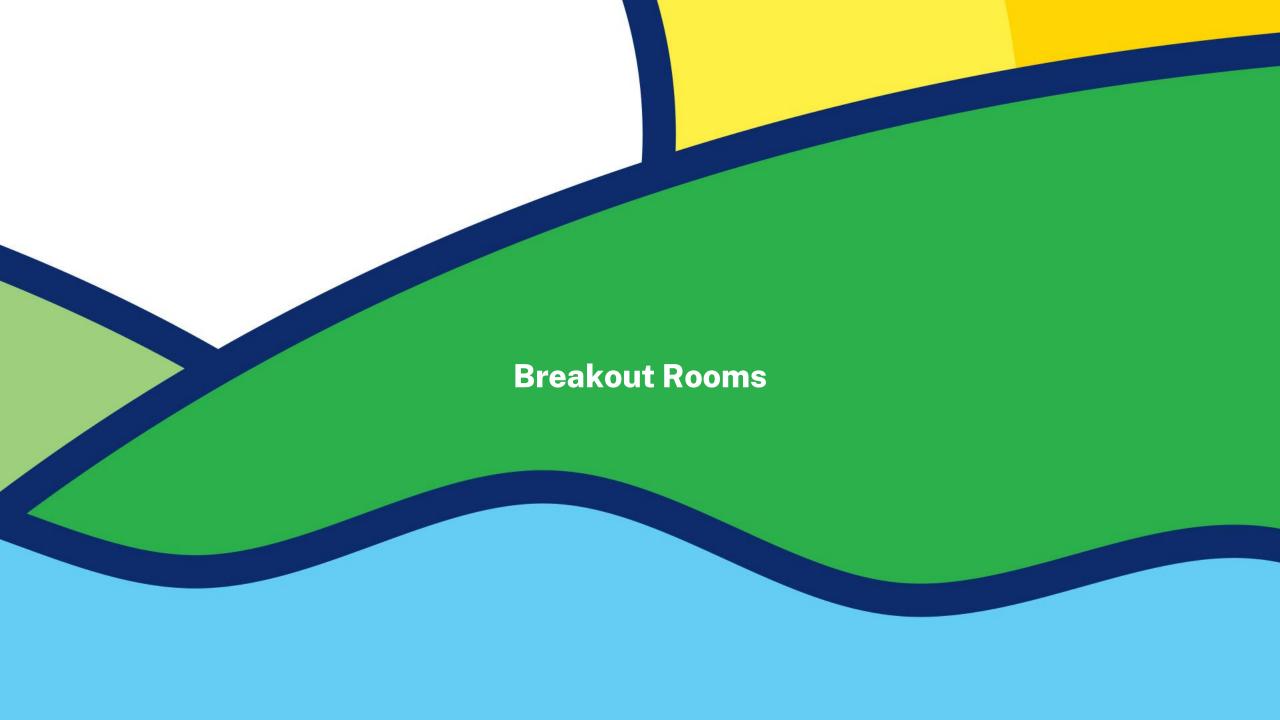
Increase tree canopy coverage in municipalities across the state to match Hartford's goal of 35% coverage by 2070

Plant 5,000 trees in EJ areas and increase urban tree cover by 5% in EJ areas by 2040

Advocate for greater federal funding levels for existing programs as well as increase outreach and technical assistance to municipalities

Identify or develop funding sources to help municipalities restore/expand their tree canopy following loss from storms, invasive pests or utility vegetation management

Encourage the establishment of oak regeneration on appropriate sites to ensure that oak remains an important component of Connecticut's forests



BREAKOUT ROOM INSTRUCTIONS

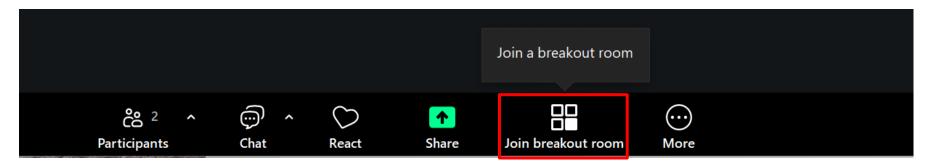
In a moment, you'll be invited to join a breakout room based on your interests. There are 5 sector-based rooms:

- Transportation
- 2. Residential and Commercial Buildings
- 3. Electric Power
- 4. Industrial and Waste
- 5. Agriculture and Natural and Working Lands

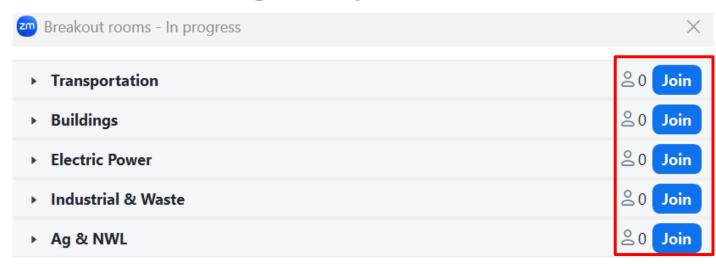
You will have approximately 30 minutes in the breakout room.

BREAKOUT ROOM INSTRUCTIONS

When the breakout rooms open, you'll see a new icon at the bottom of your screen that says "Join breakout room", click the icon.



A new window will open with the 5 breakout room options. Click "Join" next to the room that best aligns with your interests.

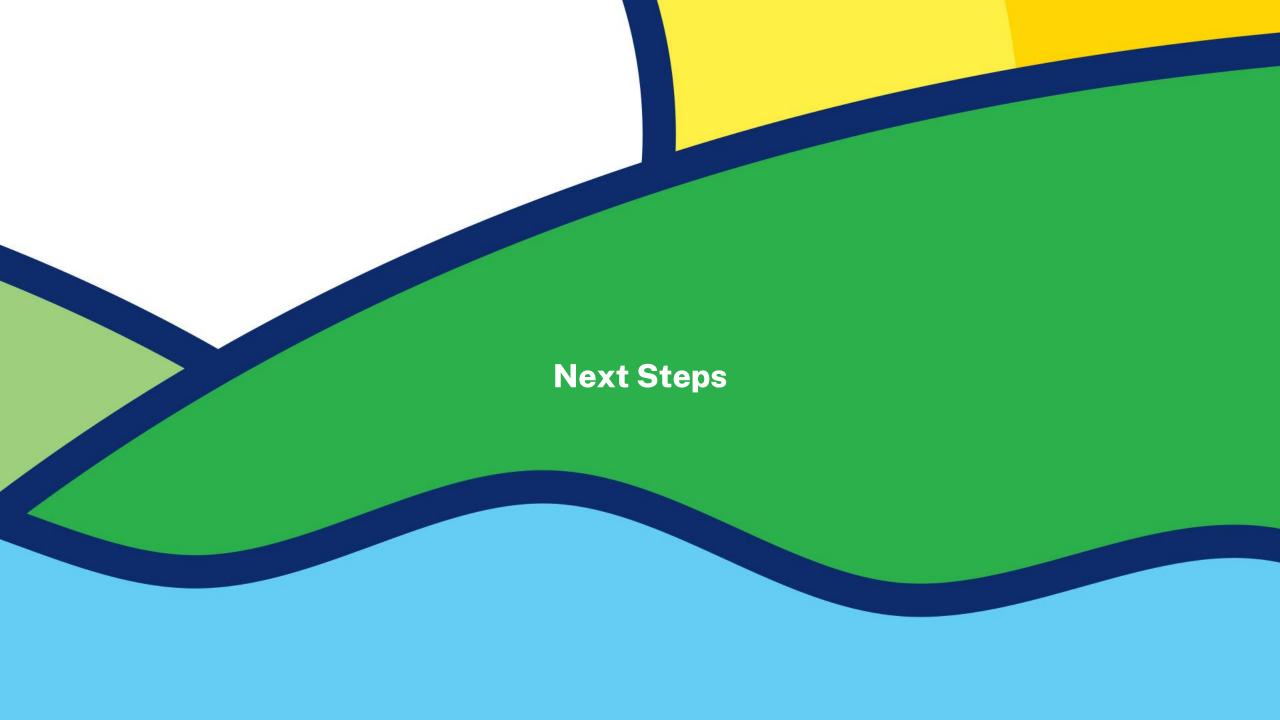




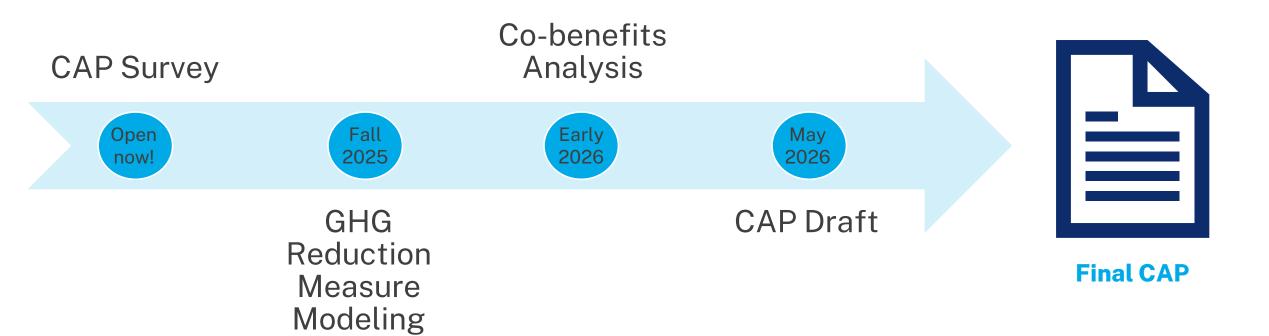
BREAKOUT ROOMS REPORT OUT

Please share:

- One high priority implementation action
- One barrier to implementing that high priority item
- The co-benefits of that priority action



CAP TIMELINE AND OPPORTUNITIES FOR INPUT



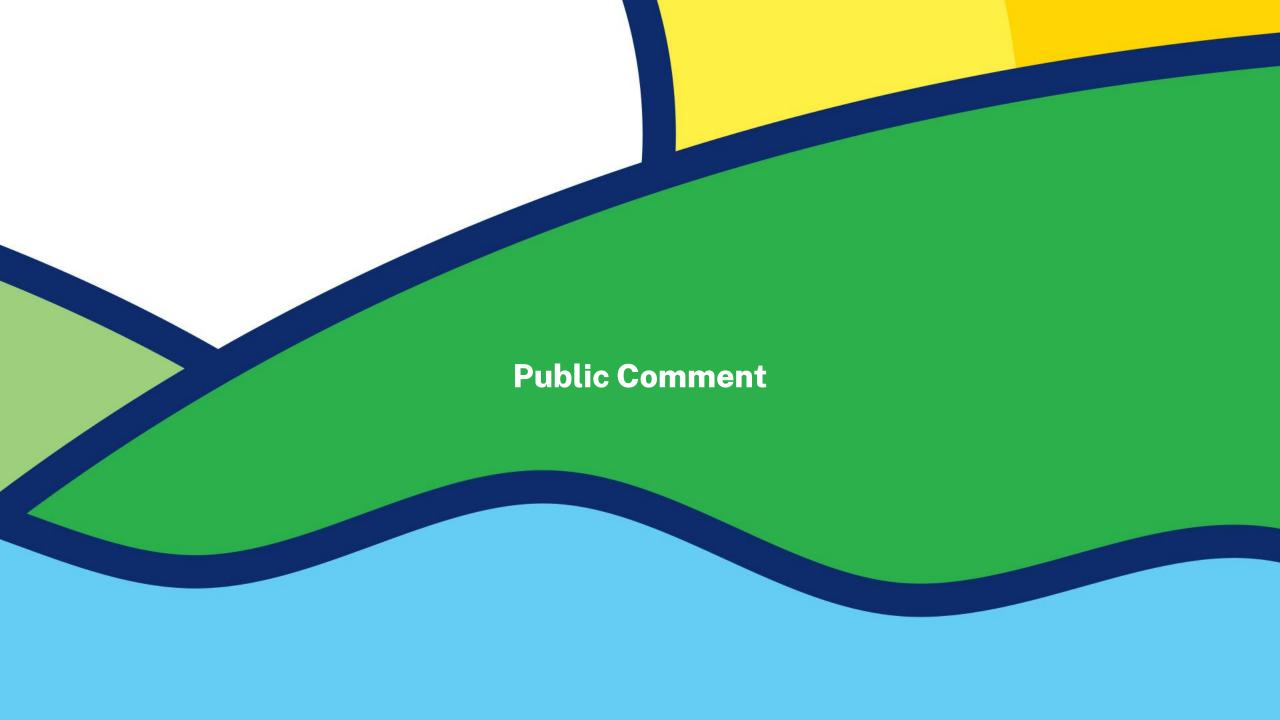
CLIMATE ACTION PLAN SURVEY AND DEEP NEWSLETTER

For additional questions or comments related to the CAP, email us at deep.climatechange@ct.gov

Scan the QR code to complete the Climate Action Plan Survey







PUBLIC COMMENT LOGISTICS

- Please keep your mic muted and camera off unless you are called on to speak.
- If you would like to sign up to speak, <u>please send a direct message via the chat to Allie Brown.</u>
- Speakers will have 2 minutes.
- We will accept additional comments in writing via email to deep.climatechange@ct.gov
- Note that the chat is public record. If you feel more comfortable submitting your comment there, please do so. Please make sure your comment is public as direct messages may not be recorded.