

# Meeting of the Governor's Council on Climate Change

December 11, 2019  
1:30-3:30 p.m.



# Agenda

- 1:30 p.m.      **Welcome**
- 1:45 p.m.      **Roundtable introductions**
- 2:15 p.m.      **Climate change action in Connecticut,  
progress to date**
- 2:35 p.m.      **Review and discussion of Executive Order 3  
objectives and GC3 structure, deliverables,  
and timeline**
- 3:10            **Public Comments**



# Roundtable Introductions



# Climate Change Action in Connecticut

## Progress to Date

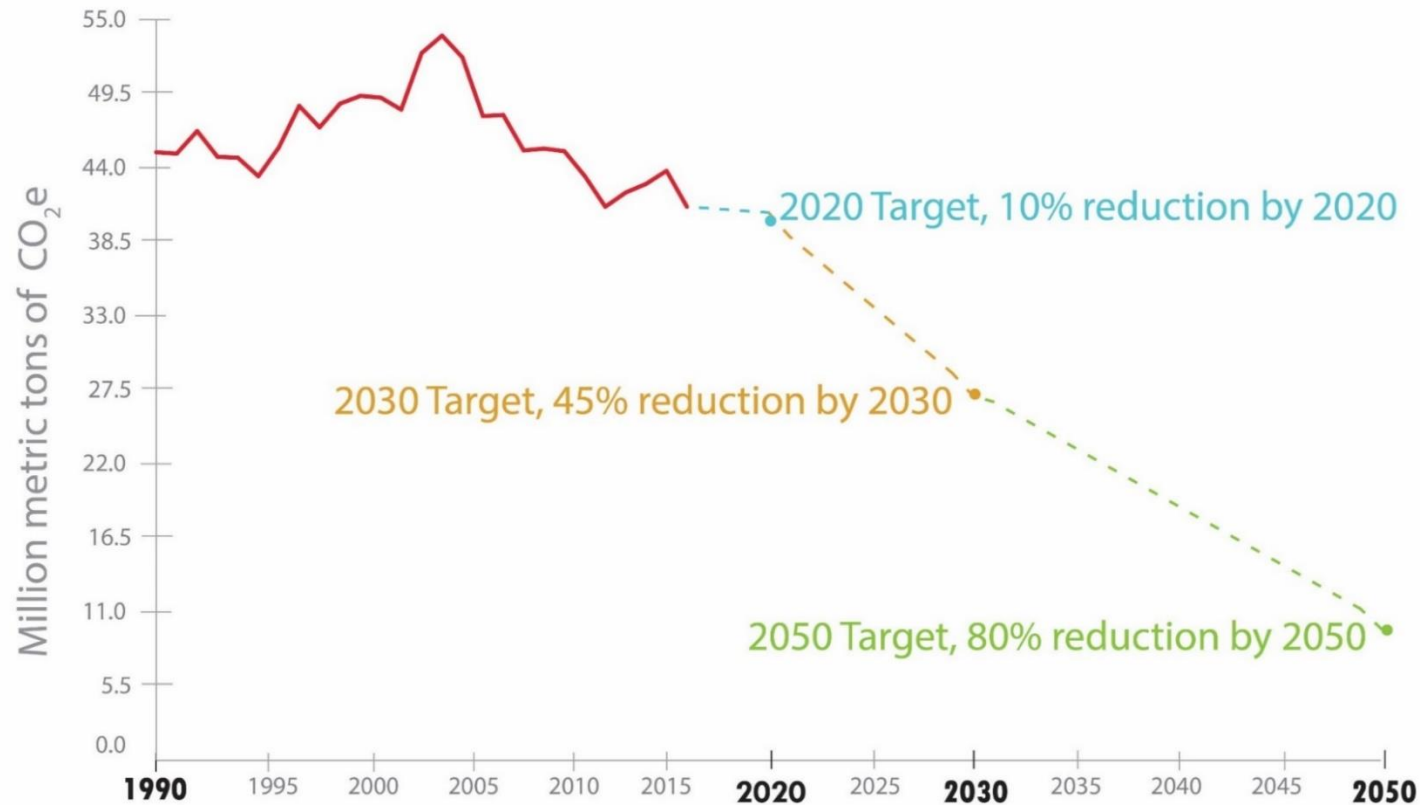


# Tracking CT's GHG Reductions

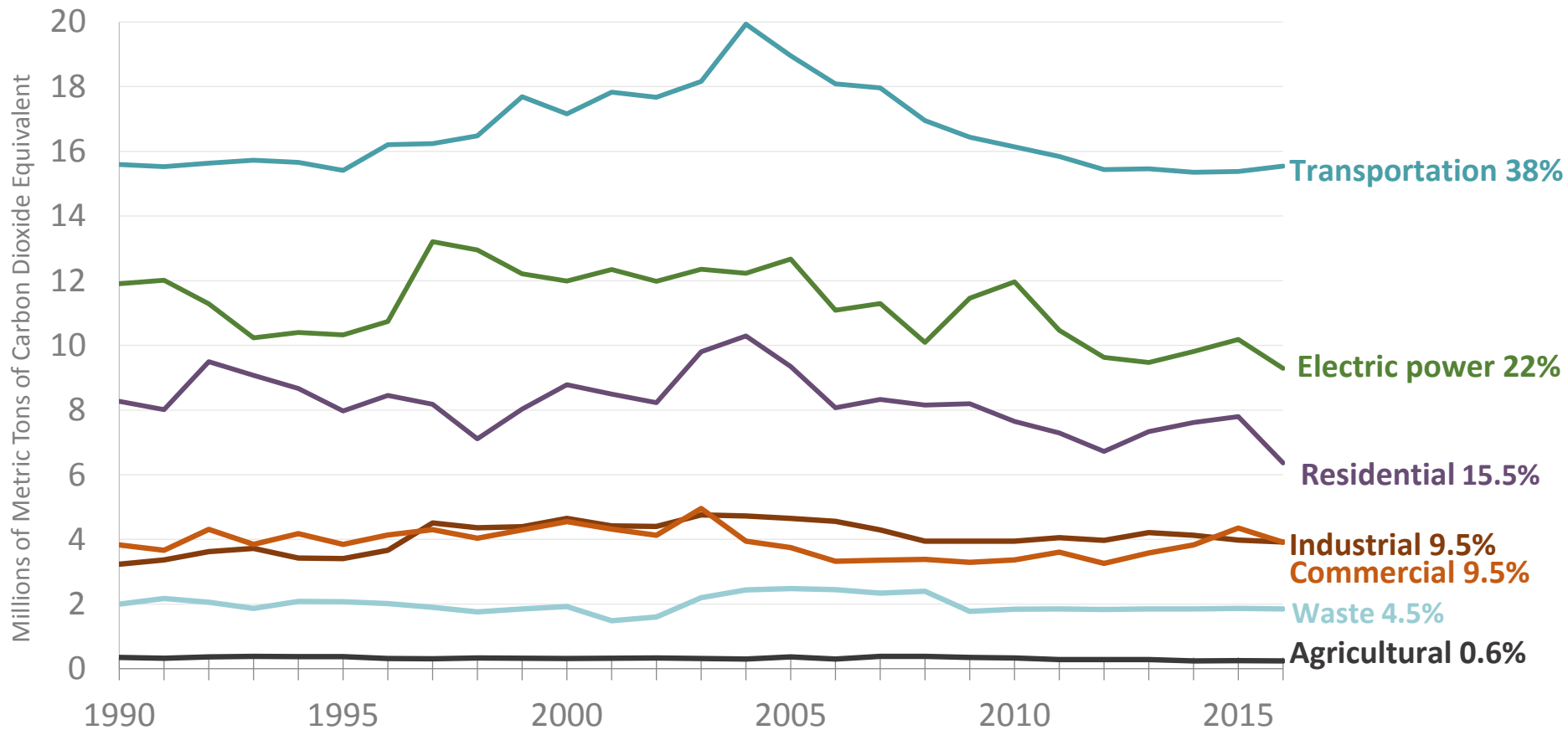
Chapter 446c, Sec. Sec. 22a-200a. Reduction of greenhouse gas emissions:  
Mandated levels.

(a) The state shall reduce the level of emissions of greenhouse gas:

- ✓ Not later than January 1, 2020, to a level at least 10% below the level emitted in 1990
- ✓ Not later than January 1, 2030, to a level at least 45% below the level emitted in 2001
- ✓ Not later than January 1, 2050, to a level at least 80% below the level emitted in 2001

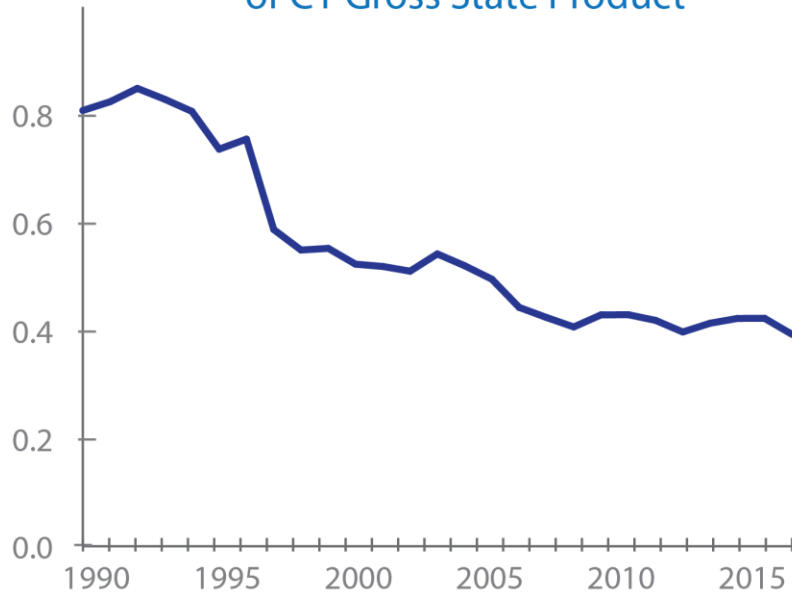


# Annual GHG emissions by Sector, 1990-2016

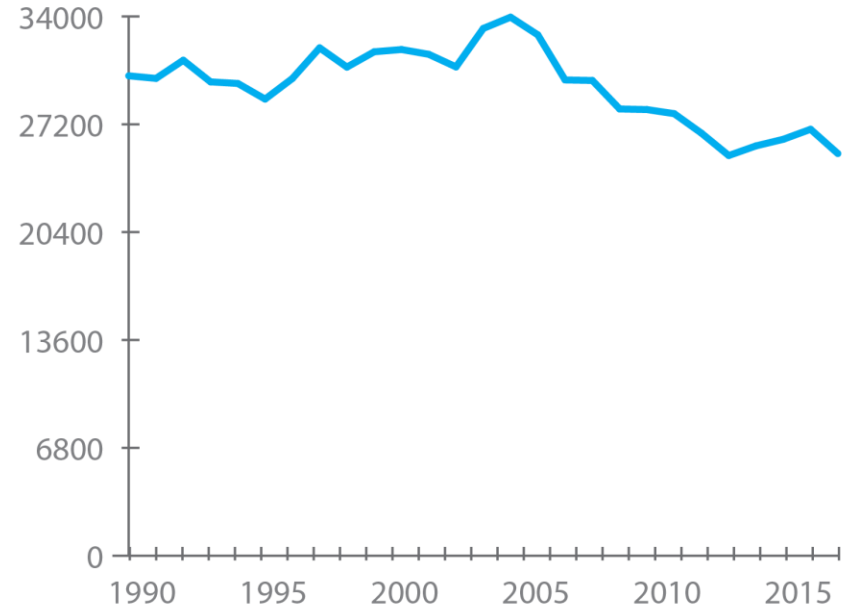


# Emissions per GDP and Capita

Pounds of CO<sub>2</sub>e per real \$ (2009)  
of CT Gross State Product



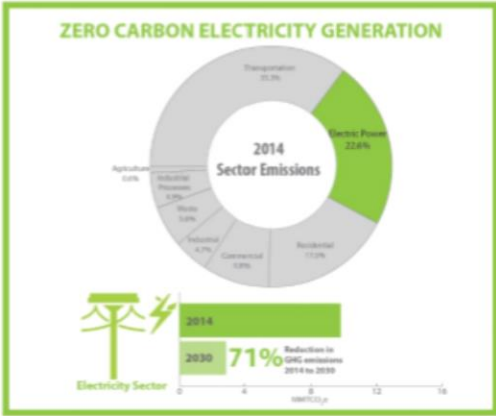
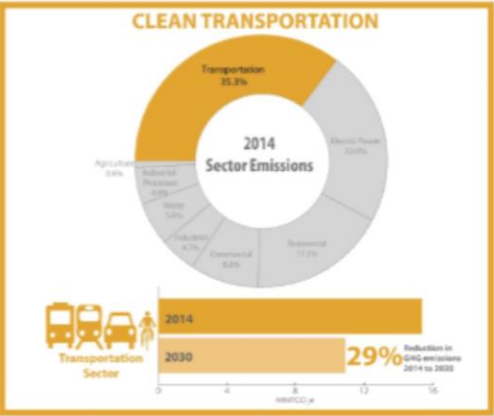
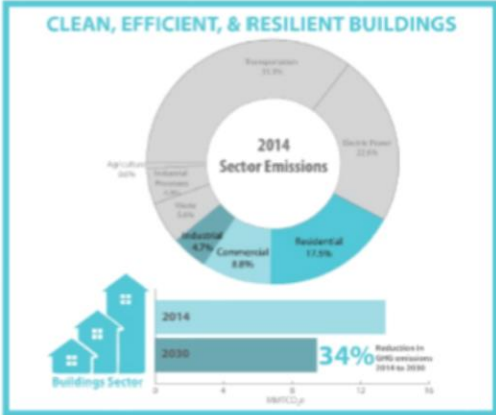
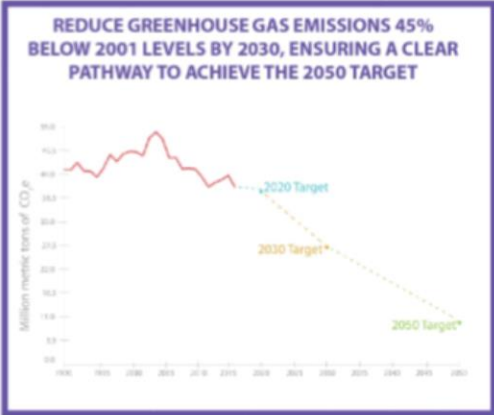
Pounds of CO<sub>2</sub>e Per Capita



# GHG Reduction Strategies and Recommendations

## BUILDING A LOW CARBON FUTURE FOR CONNECTICUT

### ACHIEVING A 45% GHG REDUCTION BY 2030

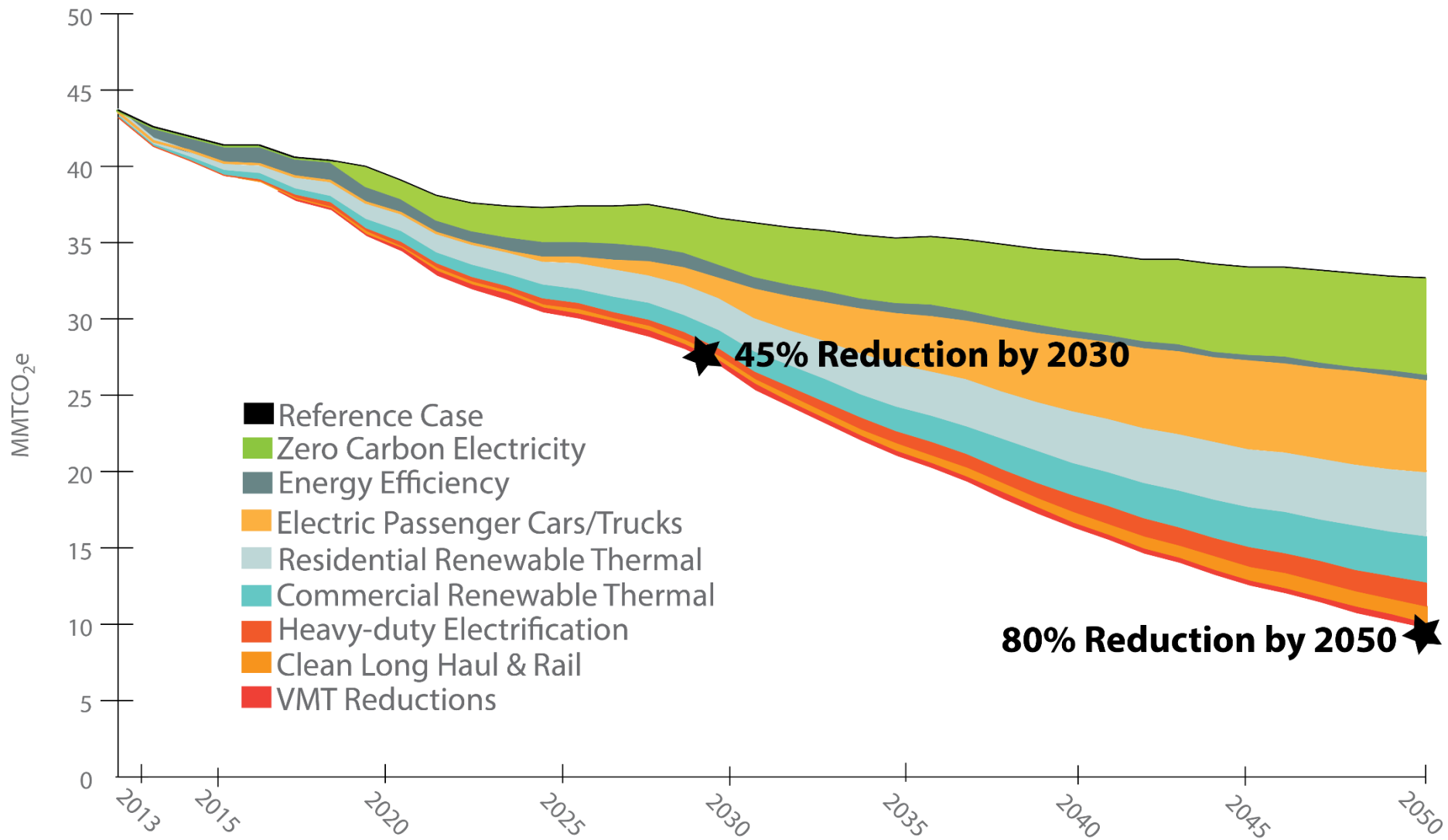


### RECOMMENDATIONS FROM THE GOVERNOR'S COUNCIL ON CLIMATE CHANGE

DECEMBER 18, 2018

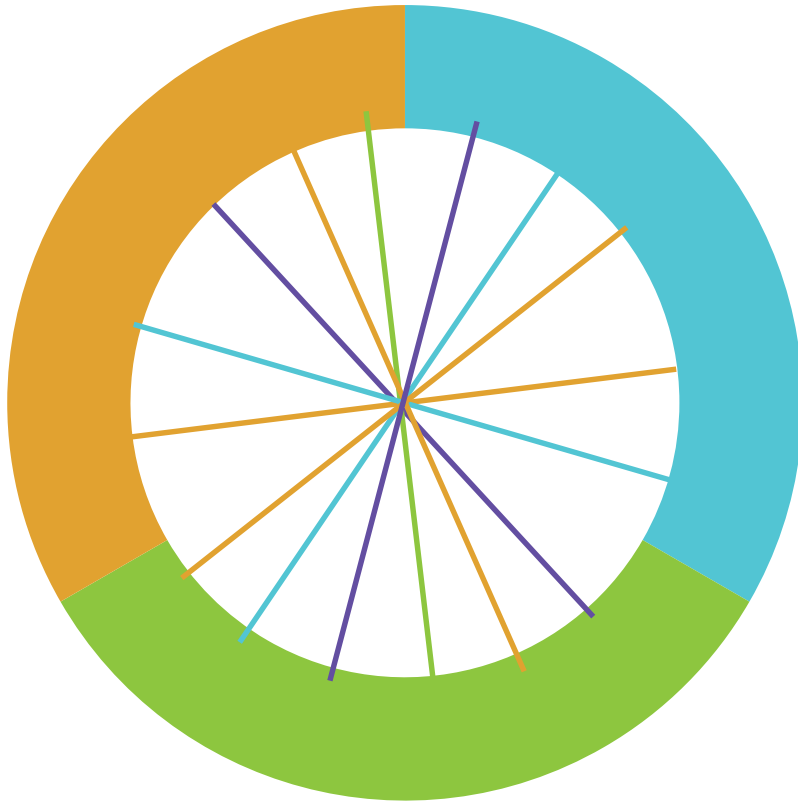


# GHG Reduction Pathway Analysis



# Cross Sector Recommendations

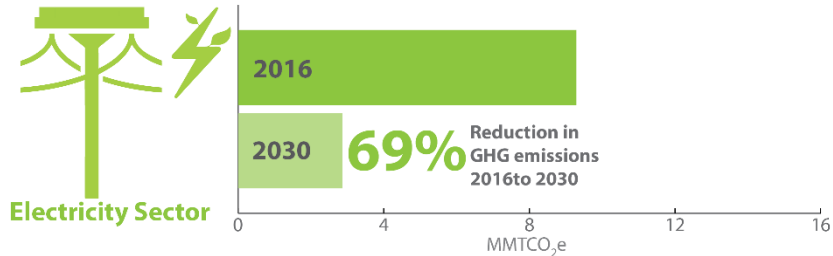
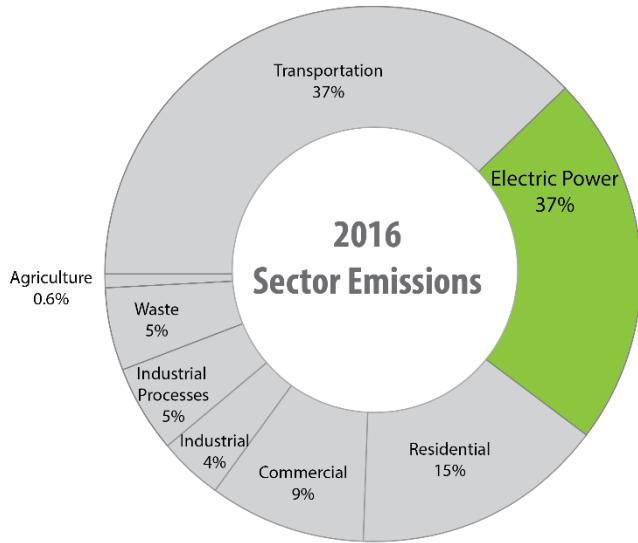
## CROSS SECTOR



- ❑ Put a price on Carbon
- ❑ Expand consumer education and awareness efforts to increase the uptake of zero- and low-carbon technology and resiliency measures
- ❑ Pursuing an integrated approach to GHG mitigation, adaptation and resiliency

# Electric Sector Recommendations

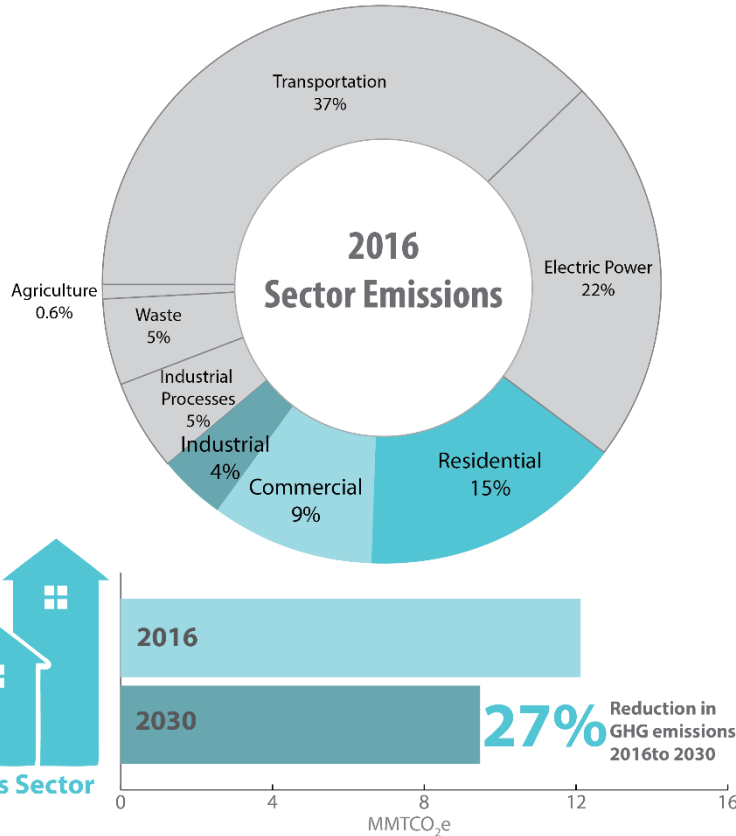
## ZERO CARBON ELECTRICITY GENERATION



- ❑ Commit at least 50 megawatts of demand reduction per year to the ISO New England forward-capacity market
- ❑ Achieve at least 66% zero-carbon energy generation by 2030
- ❑ Optimize grid-management strategies to reduce carbon emissions

# Buildings Sector Recommendations

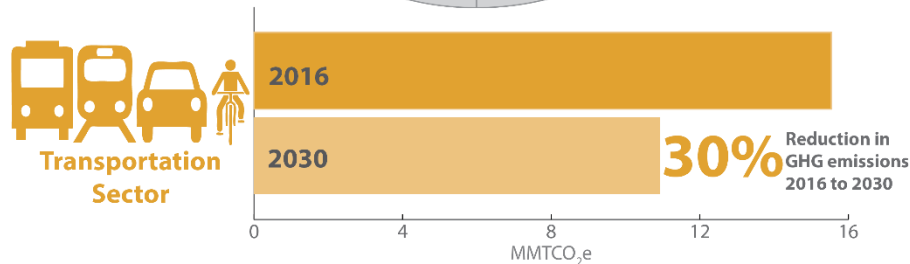
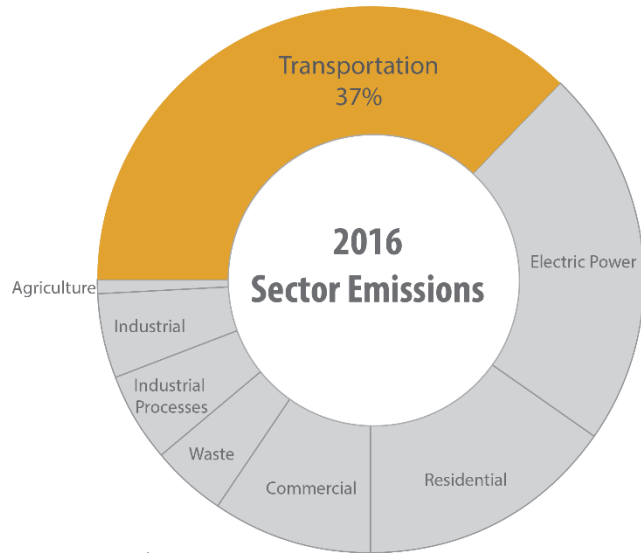
## CLEAN, EFFICIENT, & RESILIENT BUILDINGS



- ❑ Accelerate adoption of building thermal energy conservation
- ❑ Transition building fossil fuel thermal loads to efficient renewable thermal technologies
- ❑ Improve training and technical capacity of workforce

# Transportation Sector Recommendations

## CLEAN TRANSPORTATION

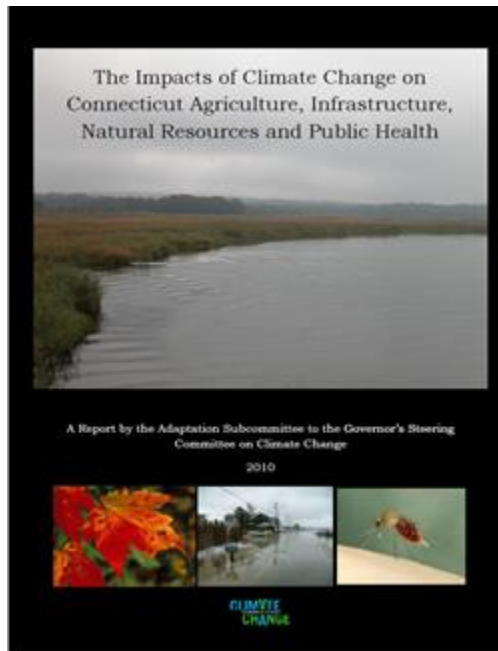


- ❑ Maintain increasing fuel economy and low- and zero-emission standards
- ❑ Increase light-duty ZEV penetration rate to at least 20% by 2030
- ❑ Advance initiatives that eliminate the rate of annual VMT growth by 2030
- ❑ Develop sustainable funding for transportation electrification and transportation infrastructure

# Climate Adaptation Planning

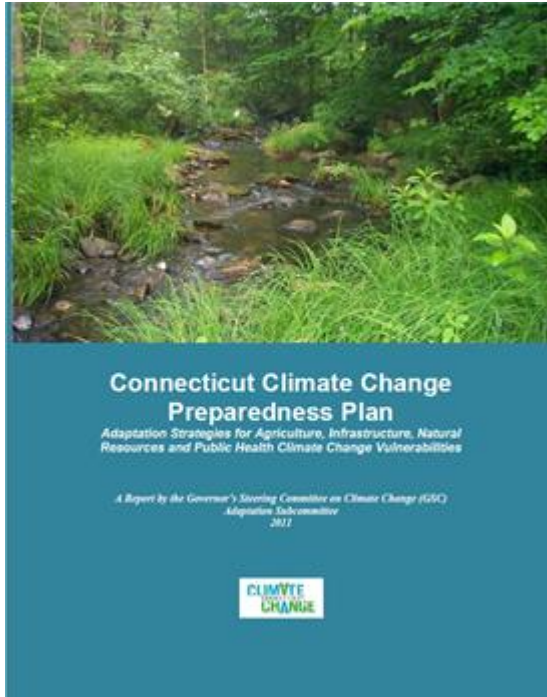
## PA 08-98, *Connecticut Global Warming Solutions*

- Established Governor's Steering Committee on Climate Change, Adaptation Subcommittee
- Evaluate impacts and mitigation strategies: **agriculture, infrastructure, natural resources, public health**



## 2010 Climate Impacts Report

# Connecticut Climate Preparedness Plan (2011)



## Example Recommendations:

### **Best Management Practices (16)**

- Develop decision tools for infrastructure design
- Pursue ecosystem conservation
- Address public health needs of vulnerable populations

### **Research, Monitoring and Education (31)**

- Assess Public Water and Wastewater System Vulnerabilities
- Develop CT-specific climate change projections
- Determine vulnerable transportation routes

### **Policy, Legislation, Regulation, Funding (23)**

- Regional collaboration on adaptation planning
- Acquire lands for tidal marsh migration
- Land use policies to reduce repetitive losses

# Storms of 2011 and 2012

## Responses:

- Governor's Two-Storm Panel Report, 2012
- Legislative Shoreline Preservation Task Force Report, 2012

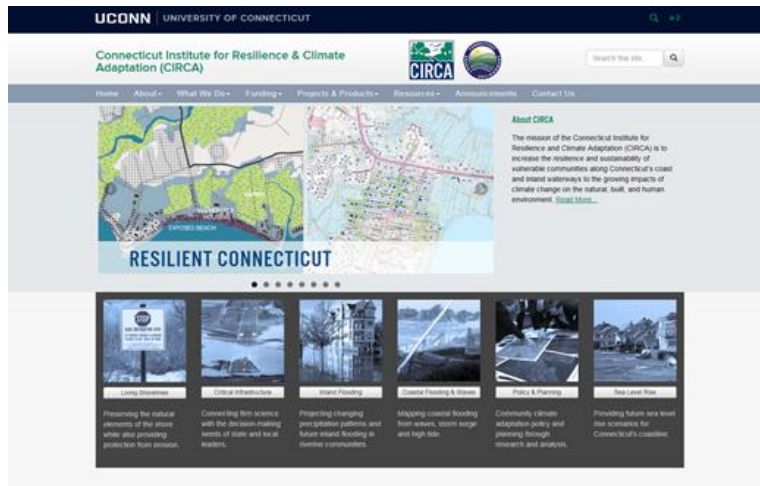


- PA12-101 and PA13-179
  - Introduced living shorelines concept
  - Sea level rise defined
  - Sea level rise to be considered in State POCD



## Connecticut Institute for Resilience and Climate Adaptation (CIRCA)

- Experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions
- Tools for assessing and addressing climate change impacts
- Funding to municipalities and organizations for research and projects



## State Agencies Fostering Resilience

- Established by Governor Malloy EO53
- Responsible for creating a Statewide Resilience Roadmap based on the best climate impact research and data, and helping develop state policy on resilience

# Executive Order 3



# Executive Order 3 Objectives

## The Council is tasked with two primary objectives and related tasks:

1. Monitor and report on the state's implementation of the greenhouse gas emissions reduction strategies set forth in the GC3's December 2018 recommendations report. This includes tasks such as:
  - evaluating **opportunities for equitably distributing the costs and benefits of implementing** the recommended GHG mitigation strategies, specifically addressing any disproportionate impact on environmental communities;
  - assessing and describing how GHG reduction strategies are being **integrated into existing and new state agency planning efforts**;
  - evaluating the **efficacy of existing and proposed policies and regulations** aimed at reducing GHG emissions; and
  - identifying new and emerging GHG mitigation strategies that **maximize climate change adaptation and resiliency**.



# Executive Order 3 Objectives

2. Develop and implement adaptation strategies to assess and prepare for the impacts of climate change in areas such as infrastructure, agriculture, natural resources, and public health. This includes tasks such as:
  - conducting an **inventory of vulnerable assets and operations**;
  - revising and updating the statewide **Adaptation and Resilience Plan**; and
  - reporting on the **alignment of climate change adaptation** strategies incorporated into **state agency planning processes and documents**.

To achieve these objectives and associated tasks the Council may establish subcommittees and working groups including, but not limited to, a **Climate Change Mitigation Subcommittee** and **Climate Change Adaptation and Resiliency Subcommittee**.



# Deliverables

**January 15, 2021** report to the Governor the state's progress on the implementation of the recommendations outlined in the report *Building a Low Carbon Future for CT: Achieving a 45% reduction by 2030*;

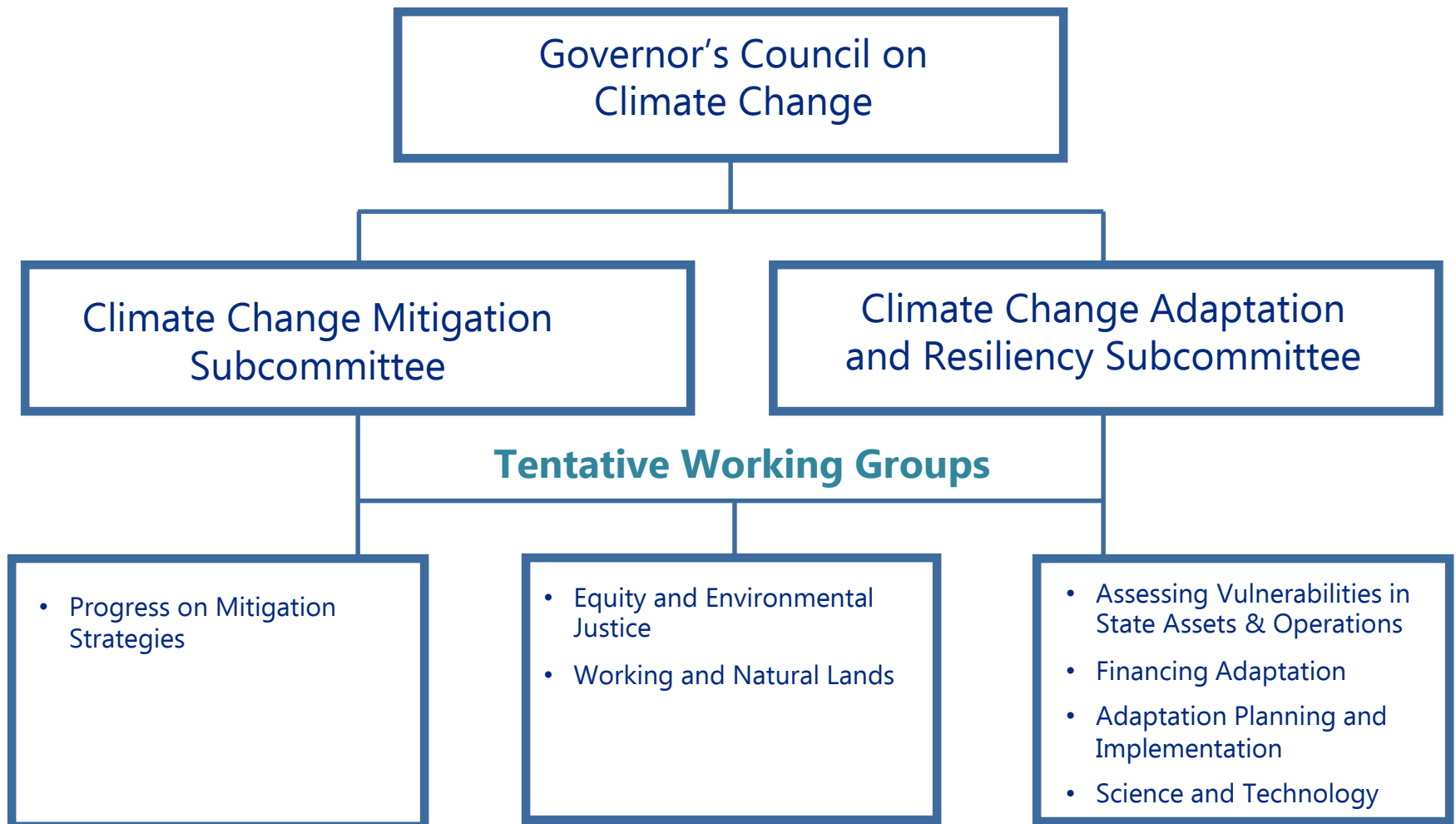
**Establish a framework**, in consultation with the state's Chief Data Officer and in coordination with CIRCA's ongoing vulnerability assessment, for state agencies to compile and maintain an inventory of vulnerable assets and operations

**January 15, 2021**, report to the Governor on a revised statewide Adaptation and Resilience Plan for Connecticut that encompasses the most current and locally scaled scientific information and analysis available with respect to the effects of climate change, including sea level rise, changes in precipitation and temperature patterns, and storm preparedness in the context of the State's changing land use and demographics.

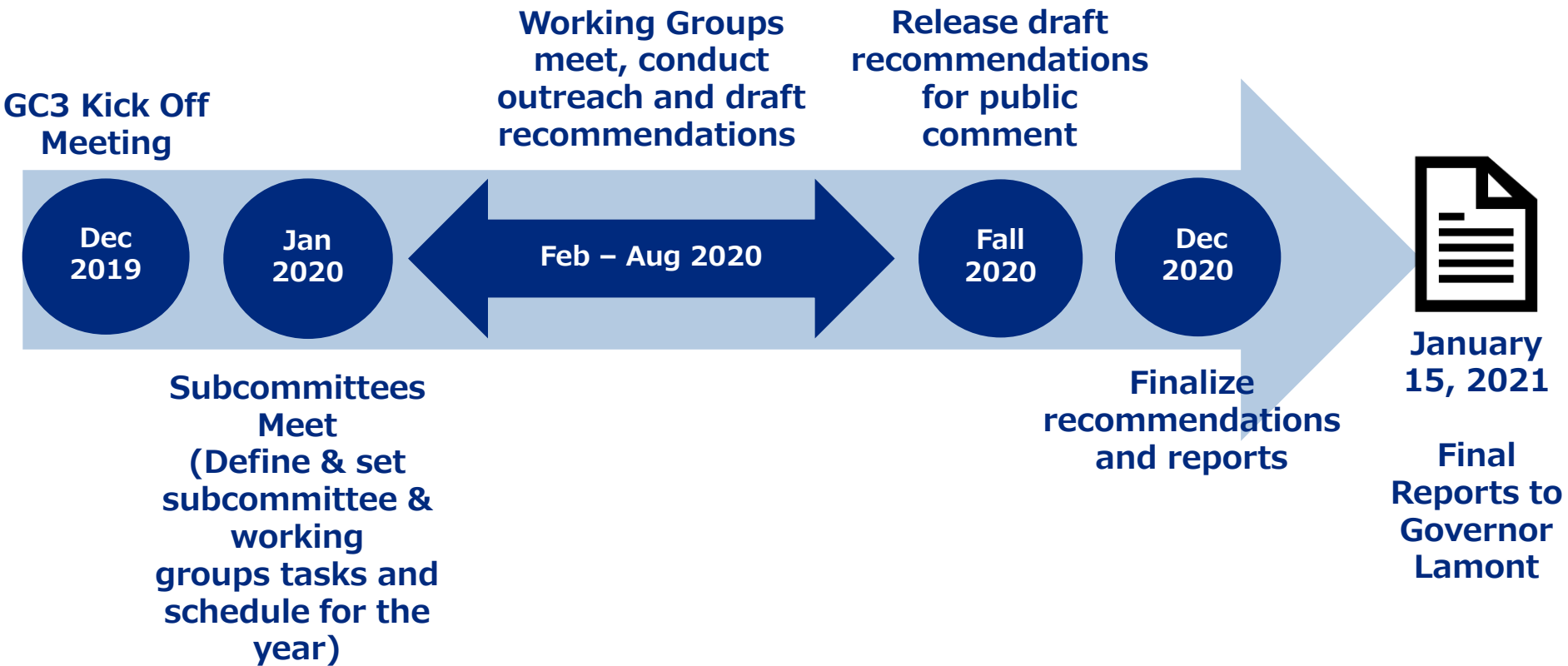
**December 31, 2021**, compile a comprehensive State Agency Climate Change Adaptation and Resiliency report on the alignment of climate change adaptation strategies incorporated into each state agency's relevant planning processes and documents



# GC3 Structure



# Timeline



# Public Comments

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