



# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# GC3 Mitigation Progress Working Group

February 28, 2020  
DEEP, New Britain



# Agenda for GC3 Mitigation Progress WG

- Introductions – 10 min. (all)
- Goals for the Working Group – 10 min. (Mike Li)
- Equity and Environmental Justice WG Update – 10 min (James Albis)
- Presentation on the 2018 GC3 Report – 10 min. (Jeremy Hunt)
- Working group process – 35 min. (Mike Li)
  - Sector teams – 20 min.
    - List of co-chairs and DEEP staff for each sector – 5 min.
    - Co-chairs discuss initial impressions of key focal points – 10 min.
    - Role of stakeholders; notifications regarding sector team meetings – 5 min.
  - Review of proposed timeline – 15 min.
- Public comments – 10 min. (Mike Li)
- Next Steps – 5 min.



# Executive Order 3

The Council shall report to the Governor no later than January 15, 2021 and annually thereafter, on the state's progress on the implementation of the strategies identified in the *Building a Low Carbon Future for Connecticut: Achieving a 45% GHG reduction by 2030*, including, but not limited to:

- Prioritizing, integrating, and advancing equitable distribution of the costs and benefits of climate change mitigation planning and policies, specifically addressing disproportionate impacts of such strategies on environmental justice communities;
- A description of how such strategies are being integrated into existing and new agency policy planning efforts;



# Executive Order 3

- Evaluation of the efficacy of existing and proposed policies and regulations aimed at reducing GHG emissions; and
- Identification of new and emerging mitigation strategies that maximize climate change adaptation and resiliency opportunities while ensuring the state is on a sustainable path to meet its reduction targets.



# Schedule Overview



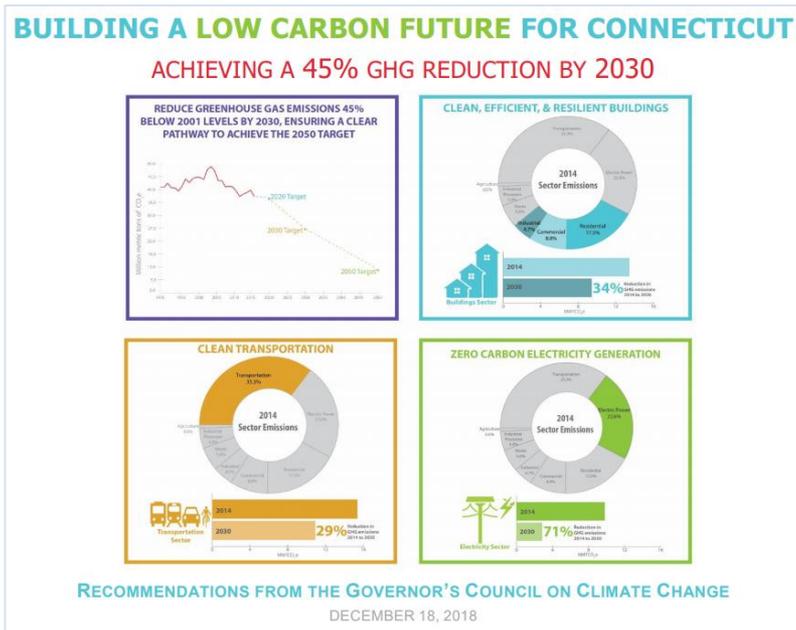
# Draft Schedule

Feb. 28	First <b>WG meeting</b> ; <b>sector teams</b> are formed; review timeline
March	<b>Sector teams</b> begin work <b>WG meeting</b> – Review <b>sector team</b> process
April	<b>Sector teams</b> consult with <b>EEJ WG</b> <b>WG meeting</b> – <b>Sector teams</b> give status updates
May	<b>Sector teams</b> draft their reports, consult with <b>EEJ WG</b> <b>WG meeting</b> – <b>Sector teams</b> give status updates
June	<b>Sector teams</b> provide draft reports to WG <b>EEJ WG</b> reviews draft team reports <b>WG meeting</b> – Discussion of draft reports
July	<b>Sector teams</b> submit revised draft reports <b>EEJ WG</b> reviews revised draft team reports <b>WG meeting</b> – Review revised draft team reports
August	WG develops <b>draft report</b> , briefs <b>Commissioner</b> <b>WG meeting</b> – Review draft report WG submits <b>draft report</b> to <b>Commissioner</b>
Sept.	WG submits <b>draft report</b> to GC3 GC3 releases <b>draft report</b> for public comment
October	WG receives public comments on <b>draft report</b> <b>WG meeting</b> – Review of public comments WG briefs <b>Commissioner</b> on public comments WG develops final report
November	<b>WG meeting</b> – Review of <b>final report</b>
December	WG submits <b>final report</b> to GC3
January 15	GC3 submits <b>final report</b> to Gov. Lamont



# Sector team leaders

Sector	2018 report	Co-chair	DEEP staff
Cross	pages 18-21	Charles	Jeff & Jeremy
Electricity	22-26	Marissa	Jeff
Transportation	26-34	John	Jeremy
Buildings	34-39	Brenda	Jeff
Non-energy	39-40	Charles	Jeremy



URL for 2018 report is on agenda sheet



# Review of 2017 GHG Inventory and 2018 GC3 Report

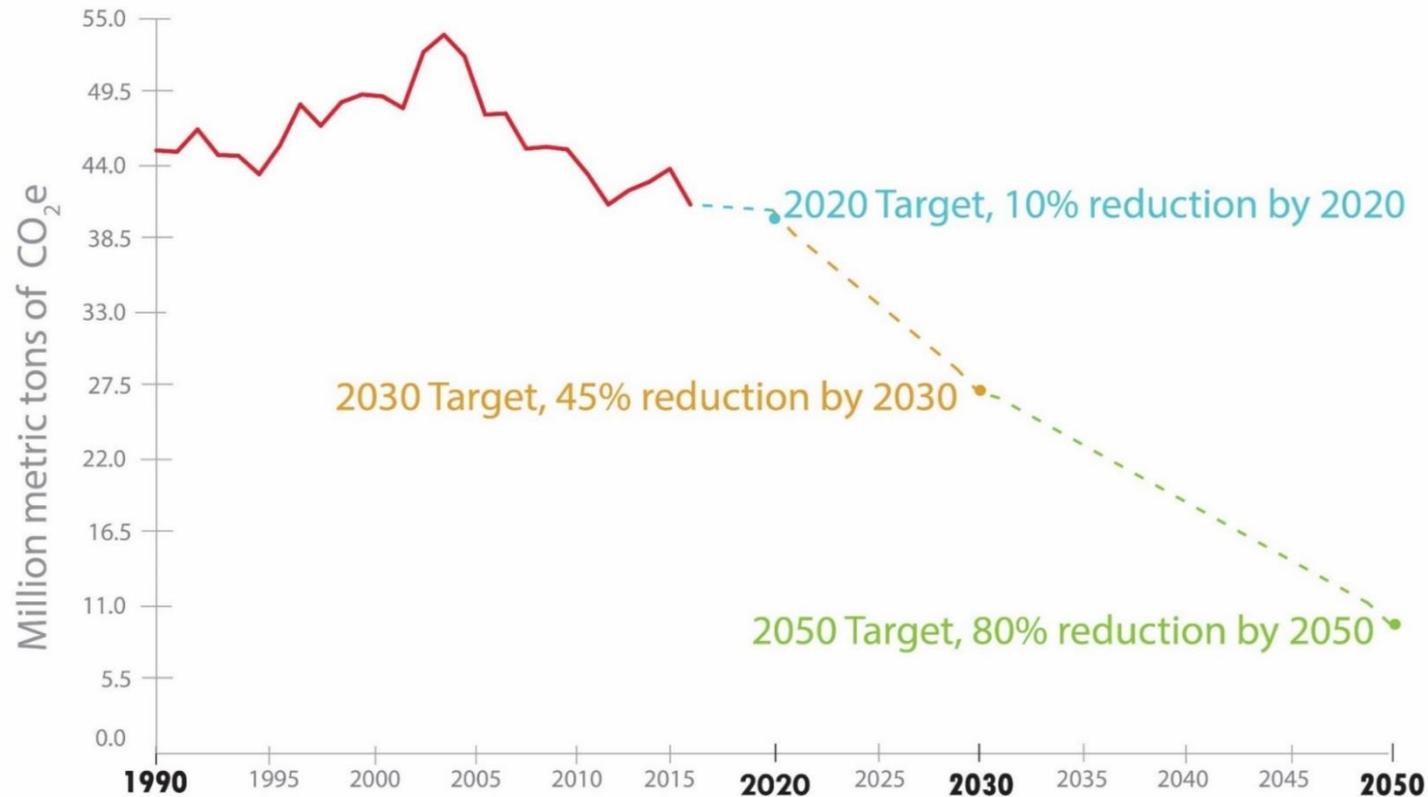


# Tracking CT's GHG Reductions

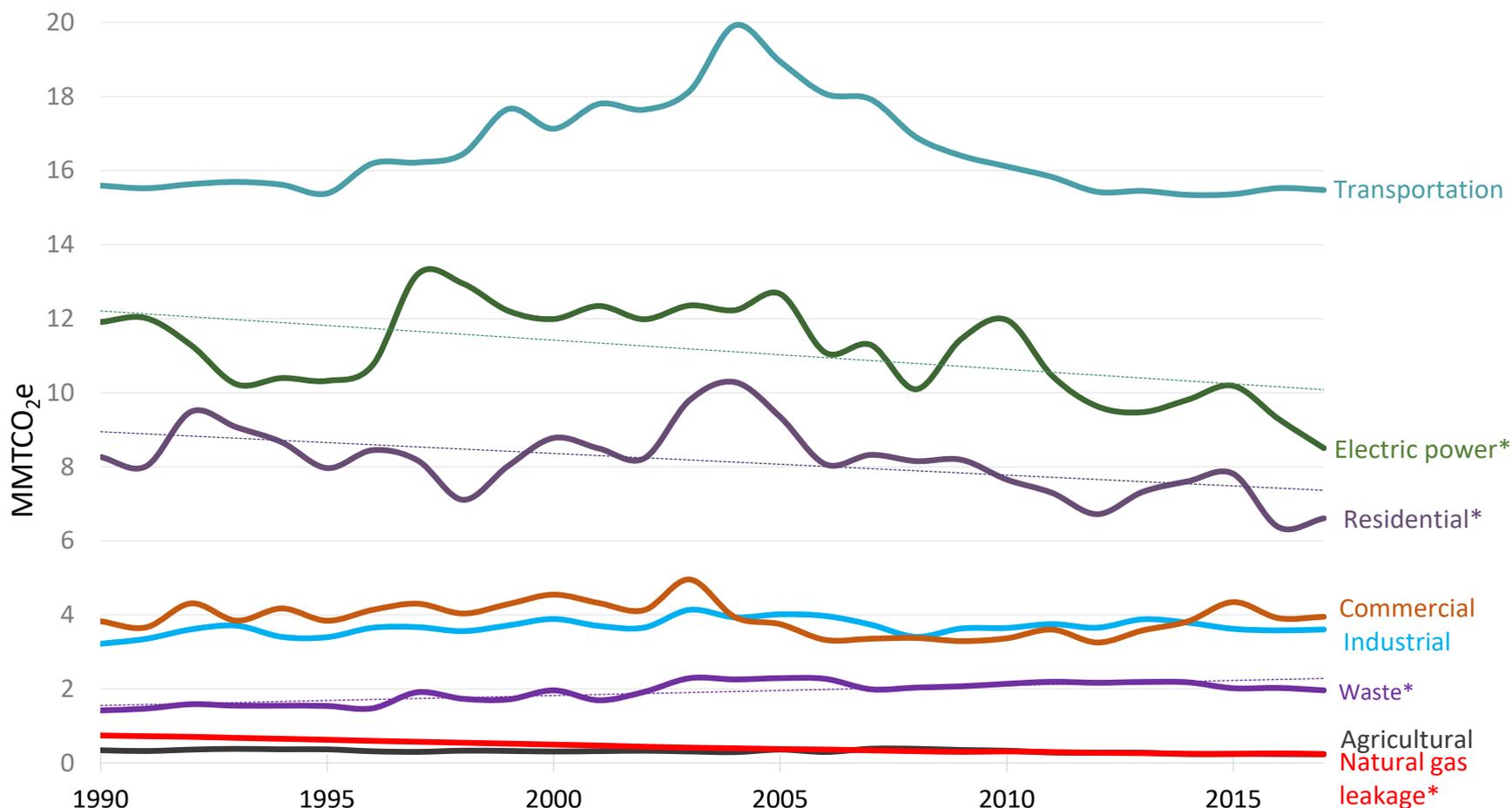
Chapter 446c, Sec. Sec. 22a-200a. Reduction of greenhouse gas emissions:  
Mandated levels.

(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



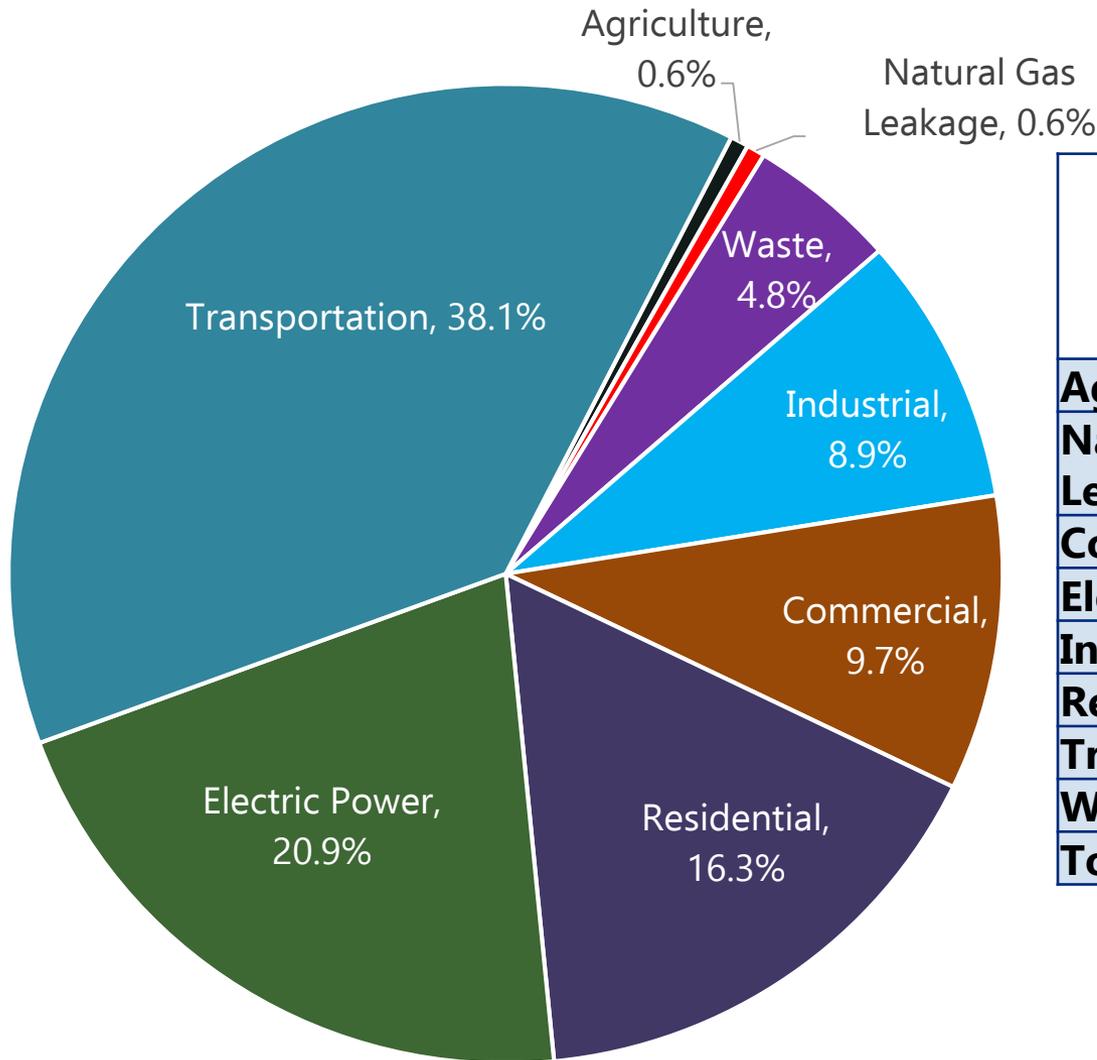
# Connecticut Annual GHG Emissions by Sector, 1990-2017



- Transportation Sector dominant source of GHG emissions: 38.1% of economy-wide emissions
- 2017 Electric Power, Agricultural, Natural Gas Leakage, & Waste Sectors down from 2016



# Sectoral Emissions



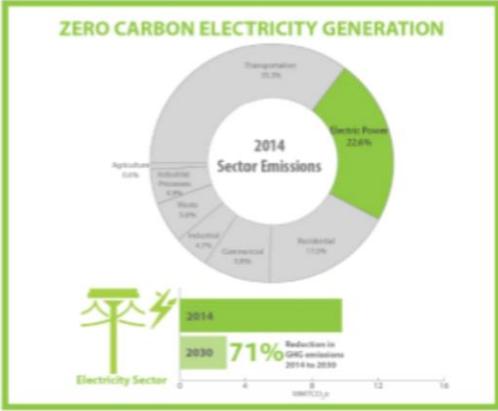
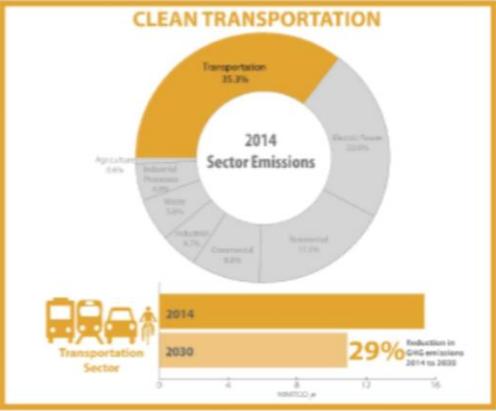
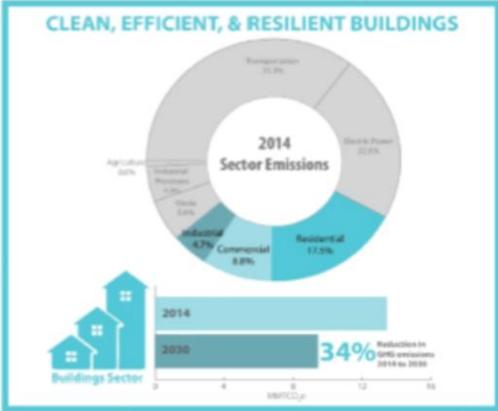
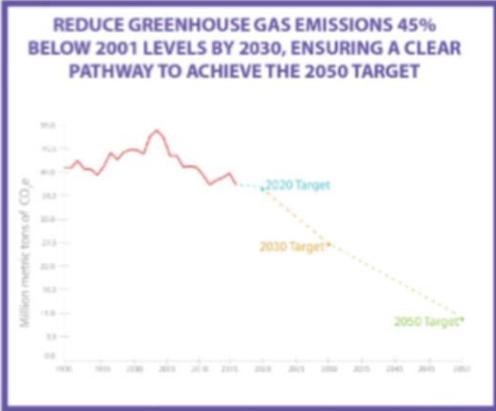
	% change from 1990	% change from 2001	% change from 2016
<b>Agriculture</b>	-31%	-26%	-2%
<b>Natural Gas Leakage</b>	-68%	-49%	-7%
<b>Commercial</b>	3%	-9%	1%
<b>Electric Power</b>	-29%	-31%	-8%
<b>Industrial</b>	12%	-3%	1%
<b>Residential</b>	-20%	-22%	4%
<b>Transportation</b>	-0.8%	-13%	0%
<b>Waste</b>	38%	16%	-3%
<b>Total Emissions</b>	-10.5%	-17.4%	-2%



# GHG Reduction Strategies and Recommendations

## BUILDING A LOW CARBON FUTURE FOR CONNECTICUT

### ACHIEVING A 45% GHG REDUCTION BY 2030

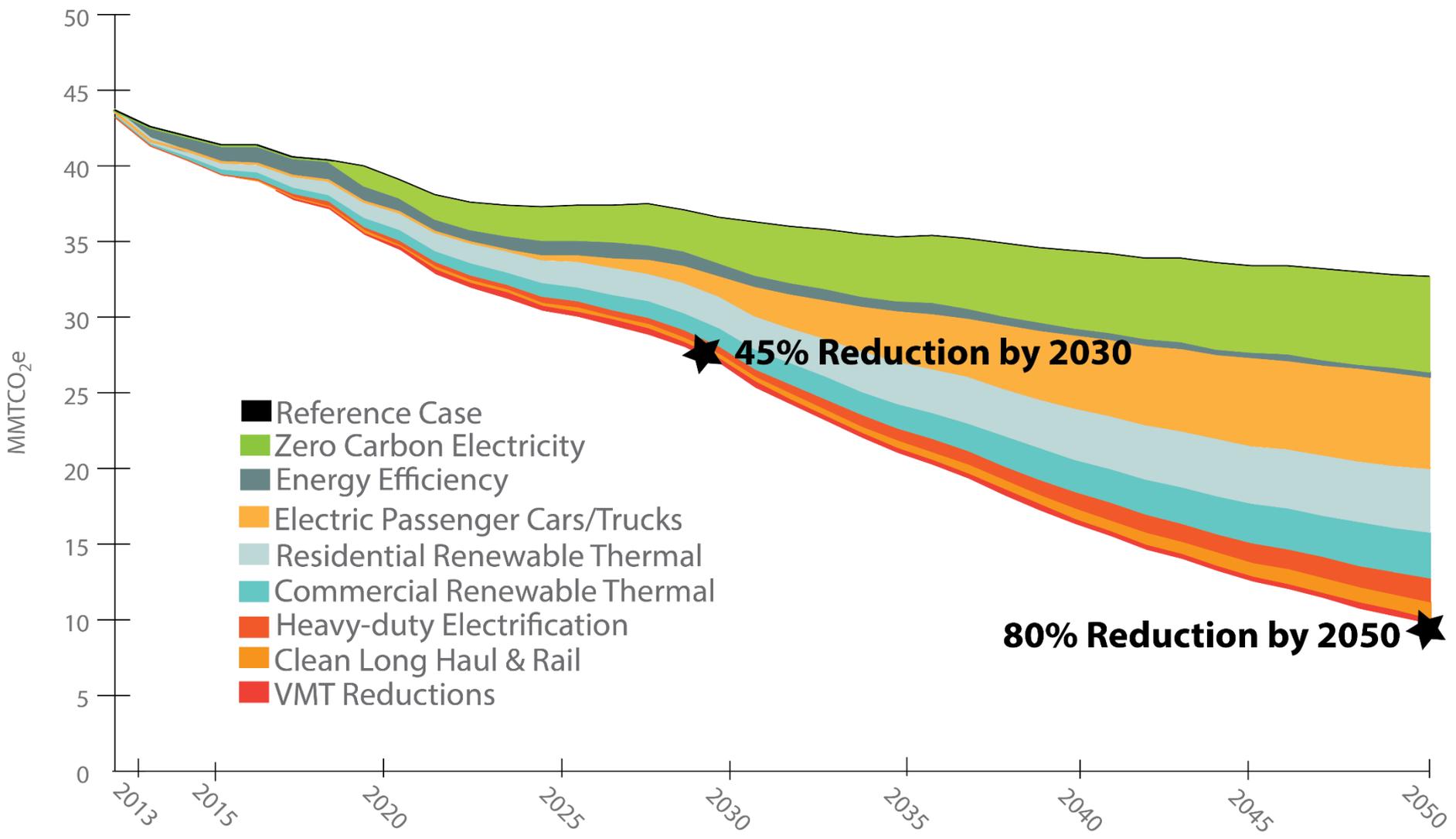


### RECOMMENDATIONS FROM THE GOVERNOR'S COUNCIL ON CLIMATE CHANGE

DECEMBER 18, 2018

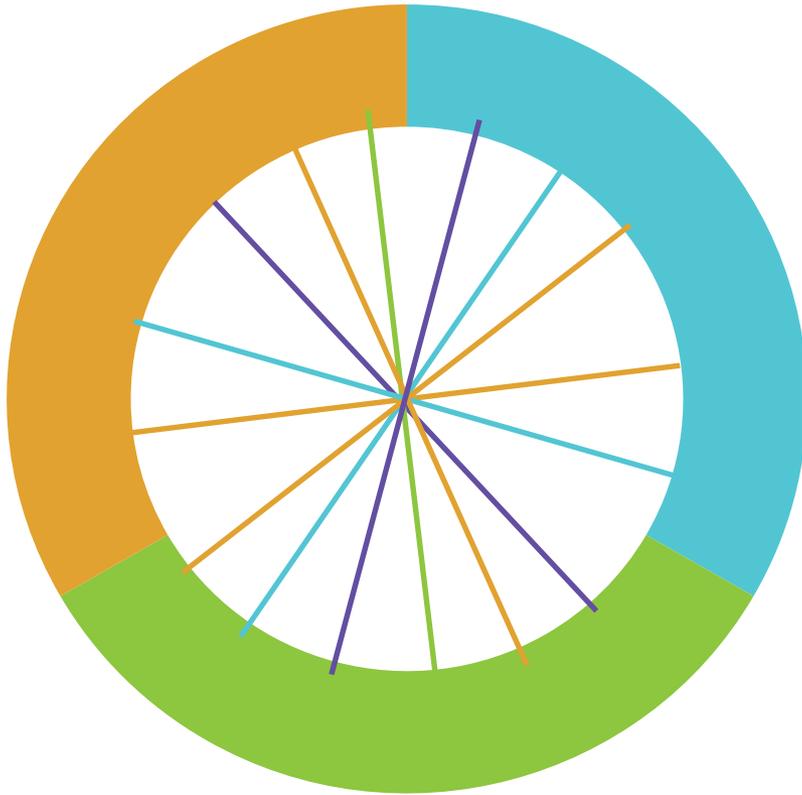


# GHG Reduction Pathway Analysis



# Cross Sector Recommendations

## CROSS SECTOR

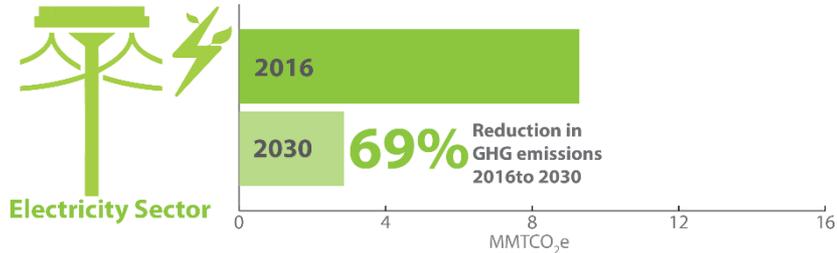
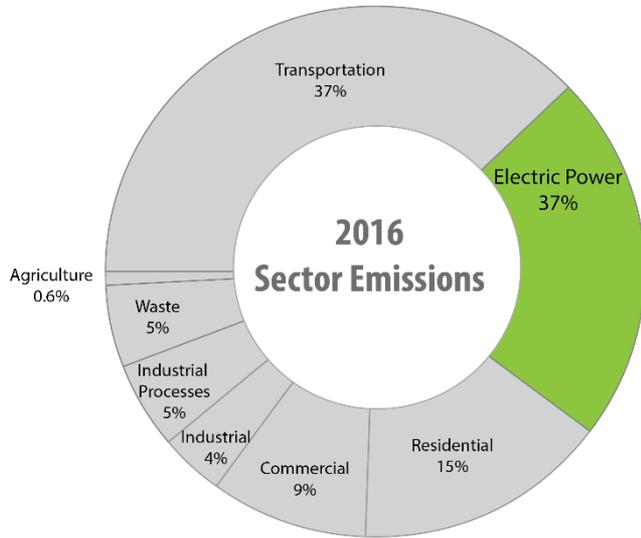


- ❑ Put a price on carbon
- ❑ Expand consumer education and awareness efforts to increase the uptake of zero- and low-carbon technology and resiliency measures
- ❑ Pursuing an integrated approach to GHG mitigation, adaptation and resiliency



# Electric Sector Recommendations

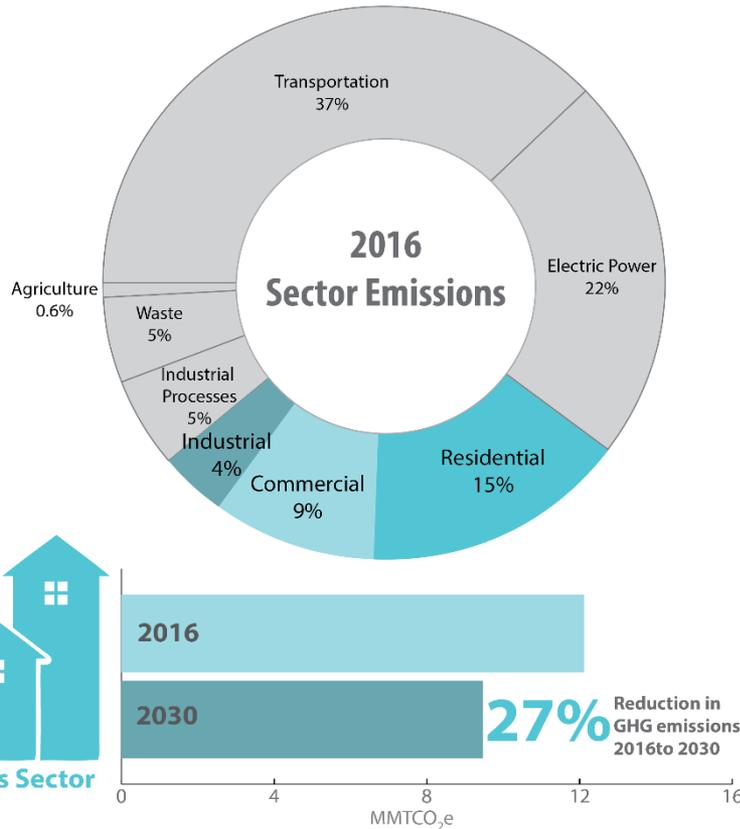
## ZERO CARBON ELECTRICITY GENERATION



- ❑ 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

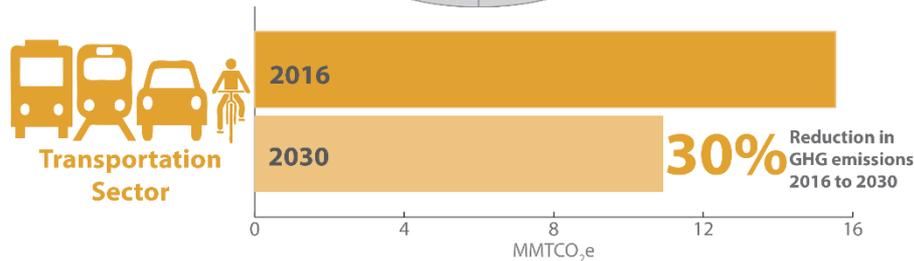
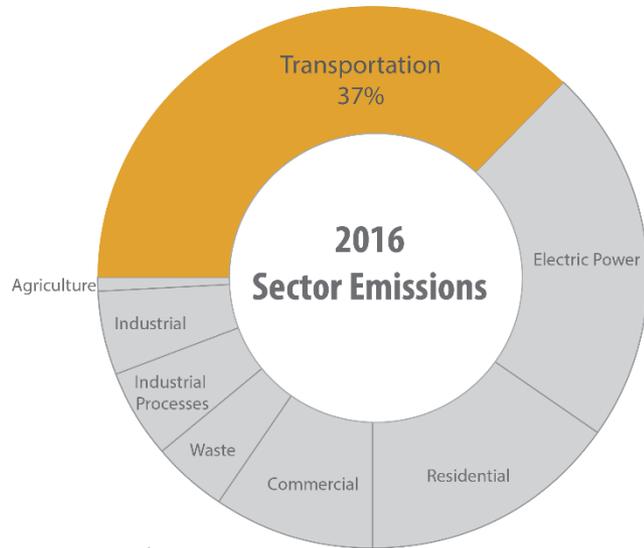
## CLEAN, EFFICIENT, & RESILIENT BUILDINGS



- ❑ 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