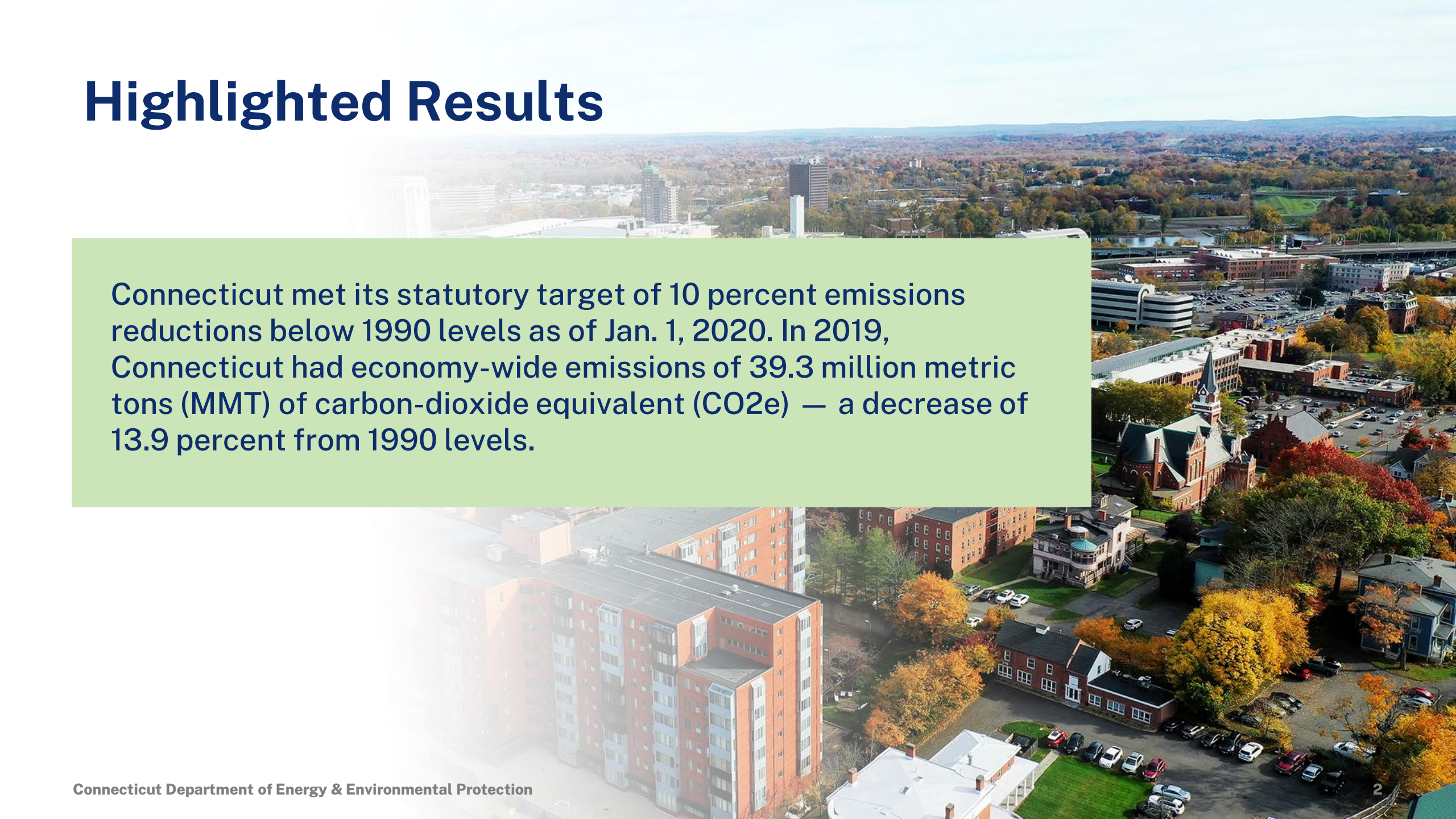
Connecticut Greenhouse Gas Inventory

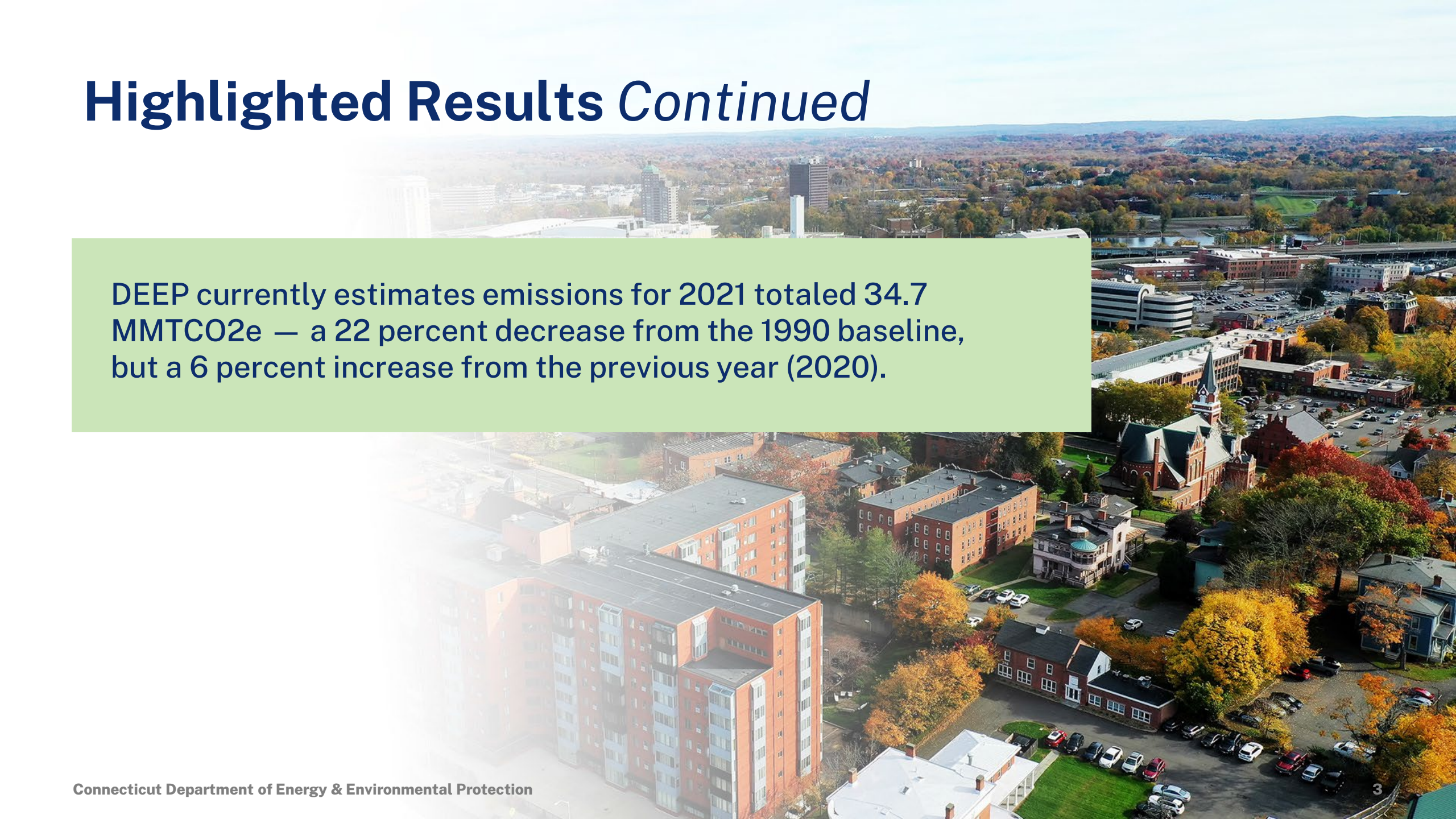
Update for 1990-2021

Highlighted Results



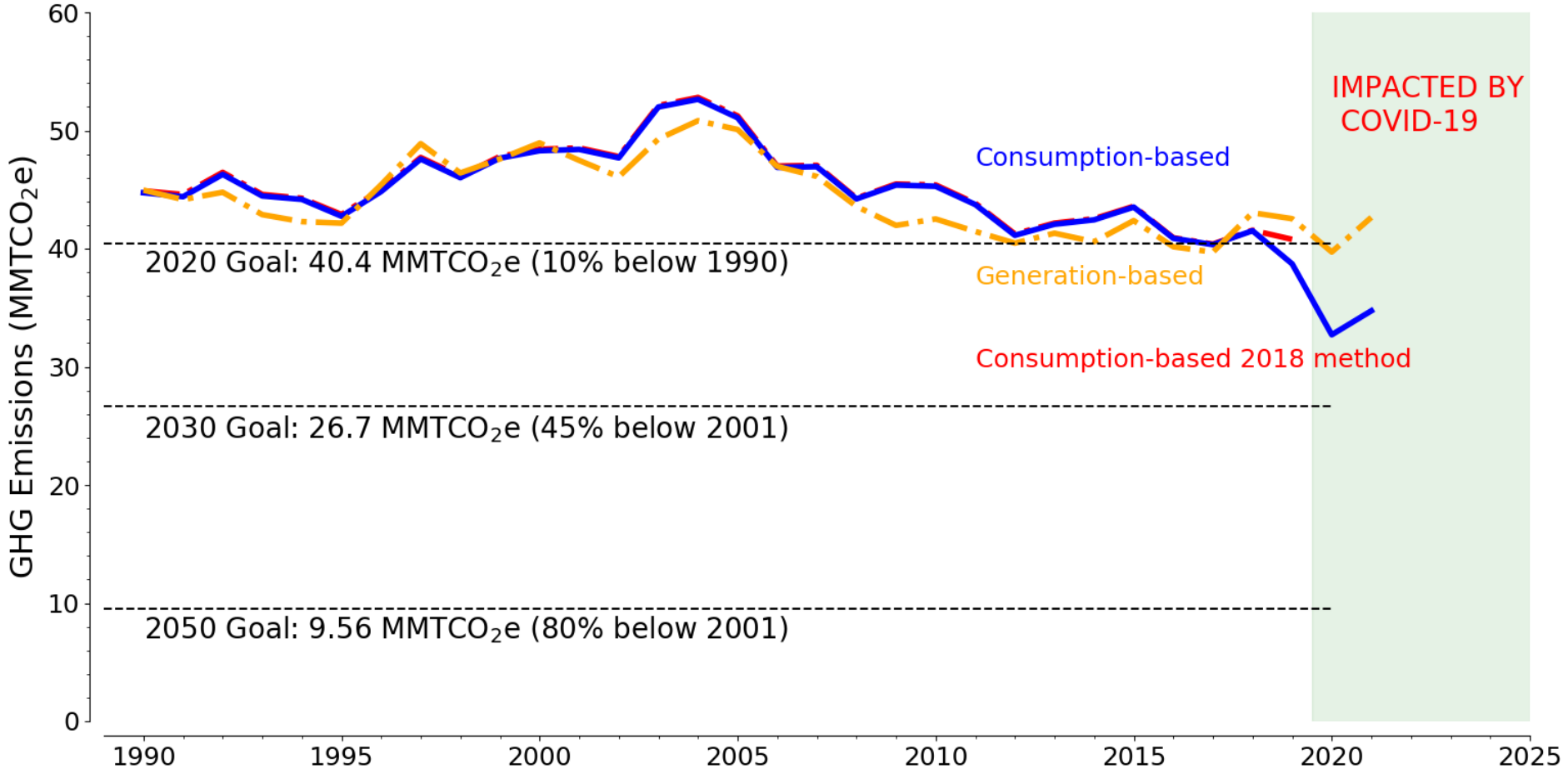
Connecticut met its statutory target of 10 percent emissions reductions below 1990 levels as of Jan. 1, 2020. In 2019, Connecticut had economy-wide emissions of 39.3 million metric tons (MMT) of carbon-dioxide equivalent (CO_2e) — a decrease of 13.9 percent from 1990 levels.

Highlighted Results *Continued*



DEEP currently estimates emissions for 2021 totaled 34.7 MMTCO2e — a 22 percent decrease from the 1990 baseline, but a 6 percent increase from the previous year (2020).

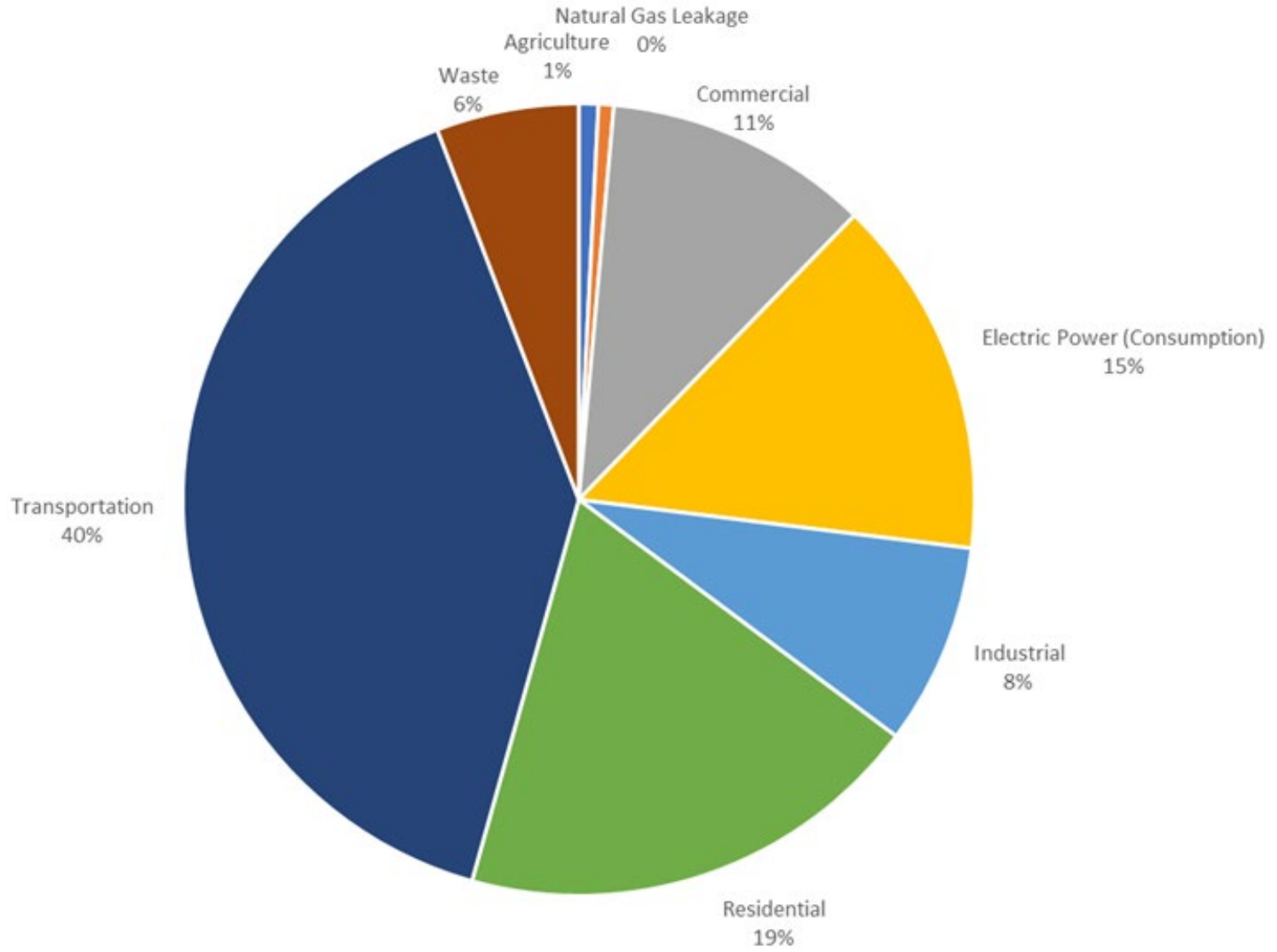
Total economy-wide GHG emissions from Connecticut, 1990–2021



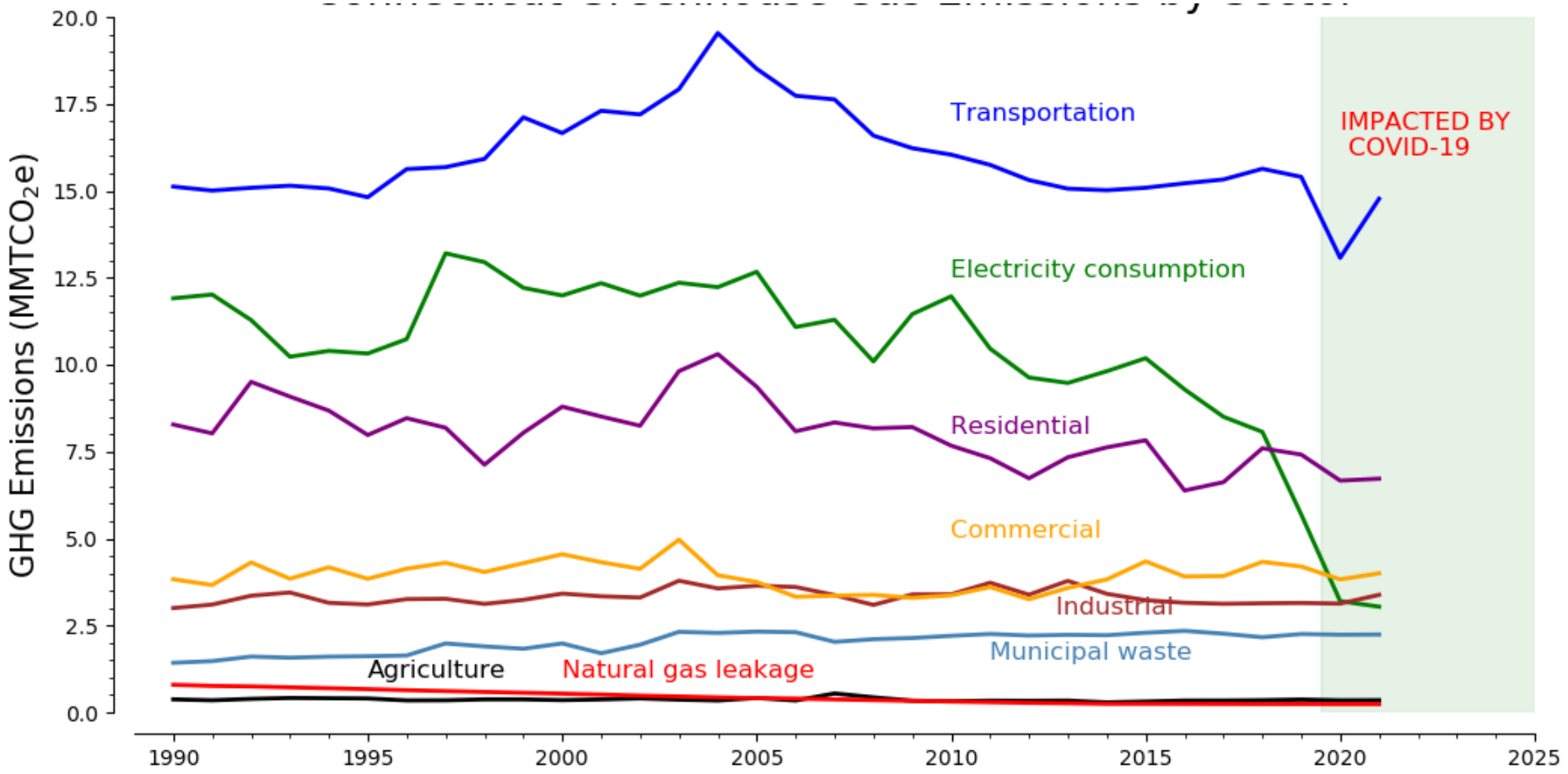
Highlighted Results *Continued*

Top sectors: The transportation, electricity, and residential thermal sectors continue to account for nearly three quarters of Connecticut's GHG emissions. Transportation remains the largest source of emissions, but the residential thermal sector replaced the electric power sector as the second-largest emitter.

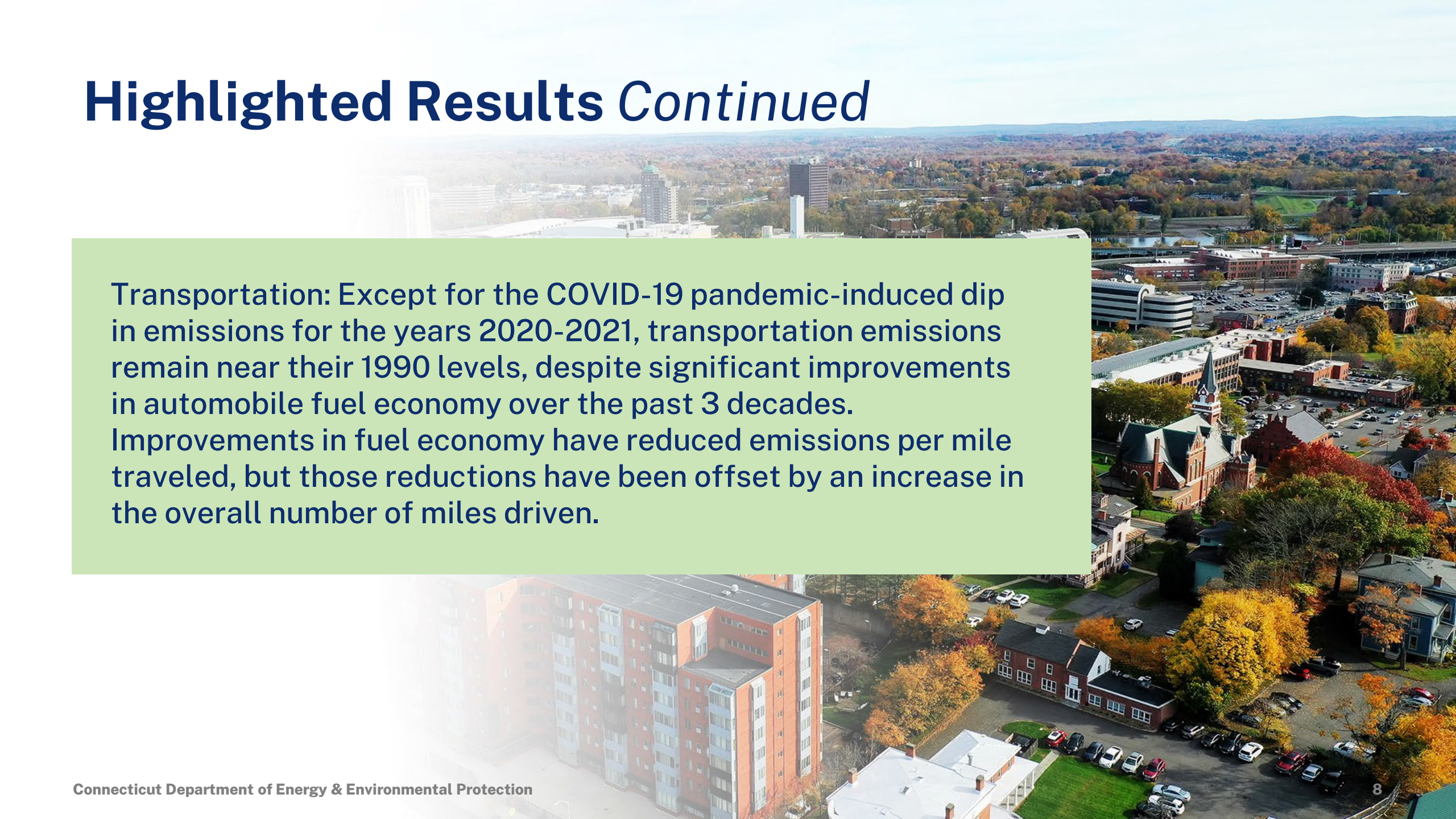
Relative contribution of each economic sector to GHG emissions in 2019.



Connecticut GHG emissions by sector

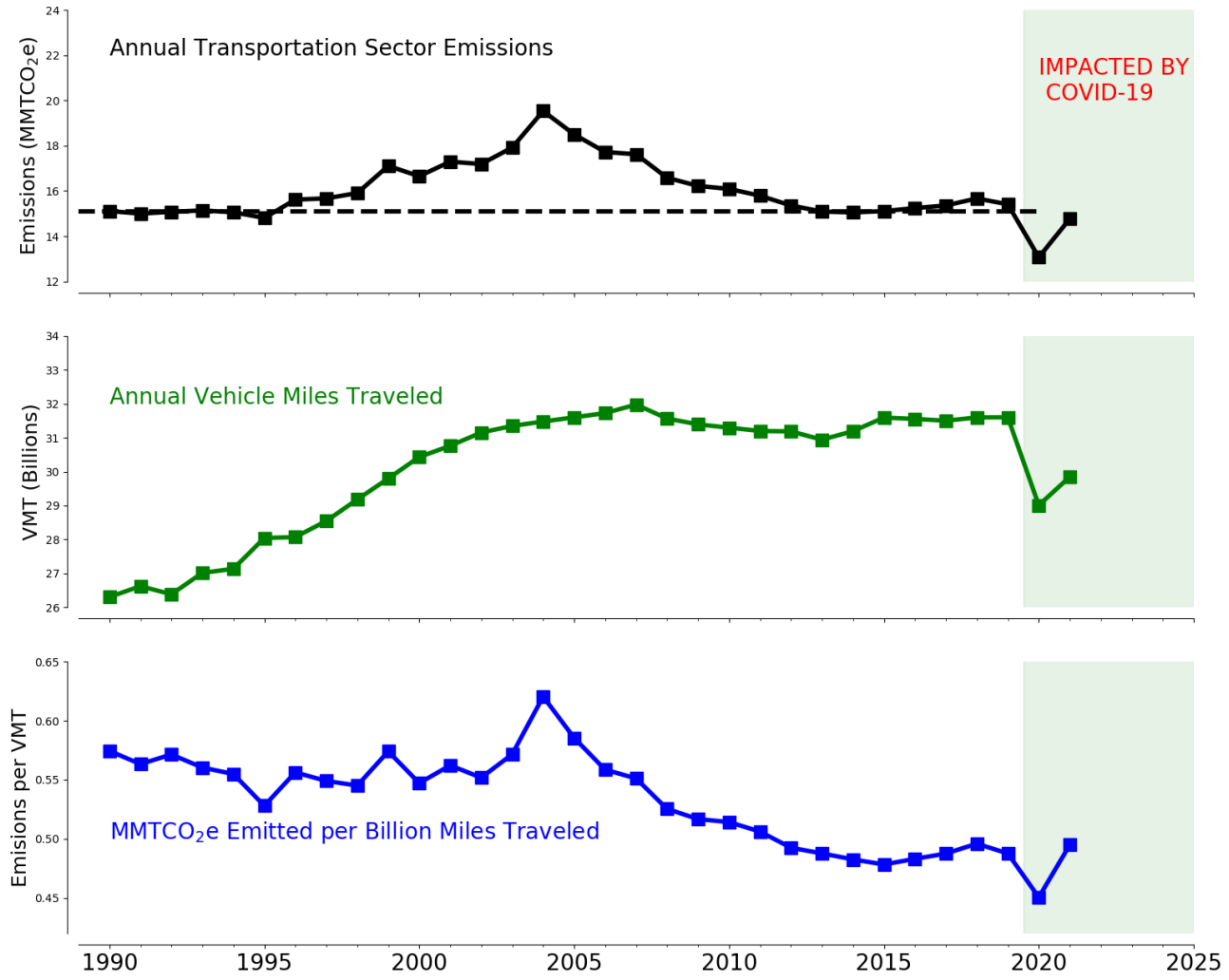


Highlighted Results *Continued*



Transportation: Except for the COVID-19 pandemic-induced dip in emissions for the years 2020-2021, transportation emissions remain near their 1990 levels, despite significant improvements in automobile fuel economy over the past 3 decades. Improvements in fuel economy have reduced emissions per mile traveled, but those reductions have been offset by an increase in the overall number of miles driven.

Total transportation sector GHG emissions from 1990–2021



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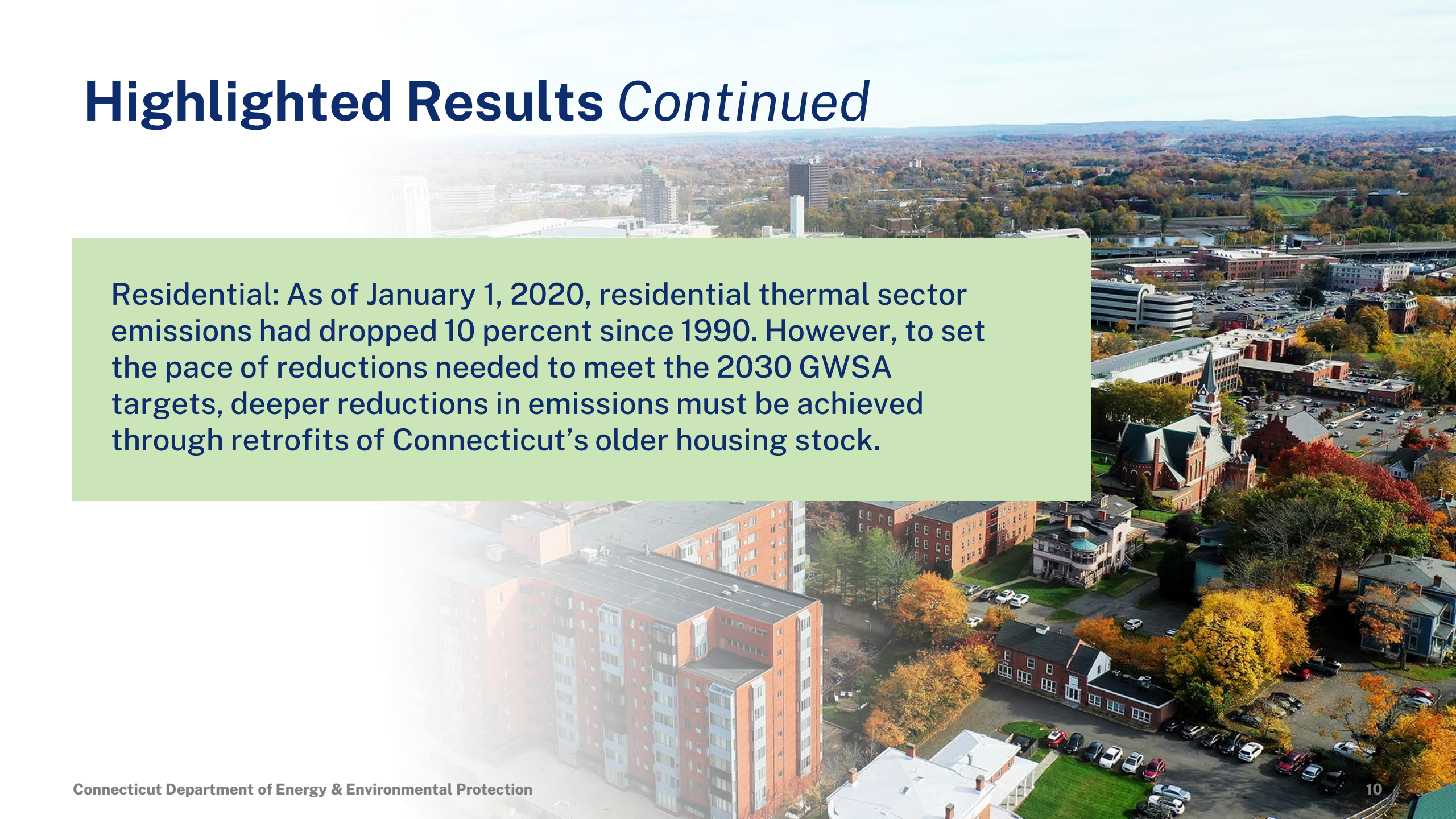
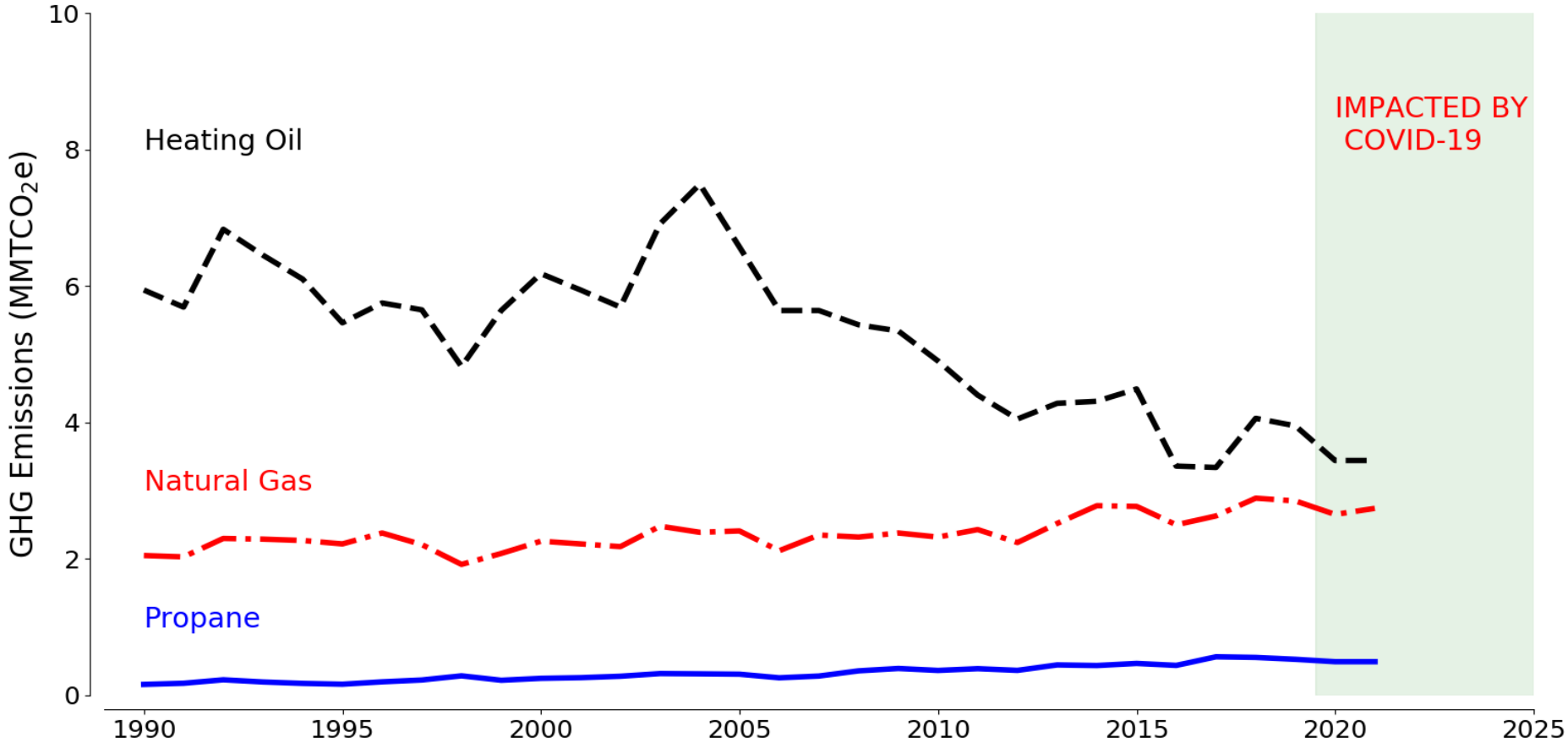
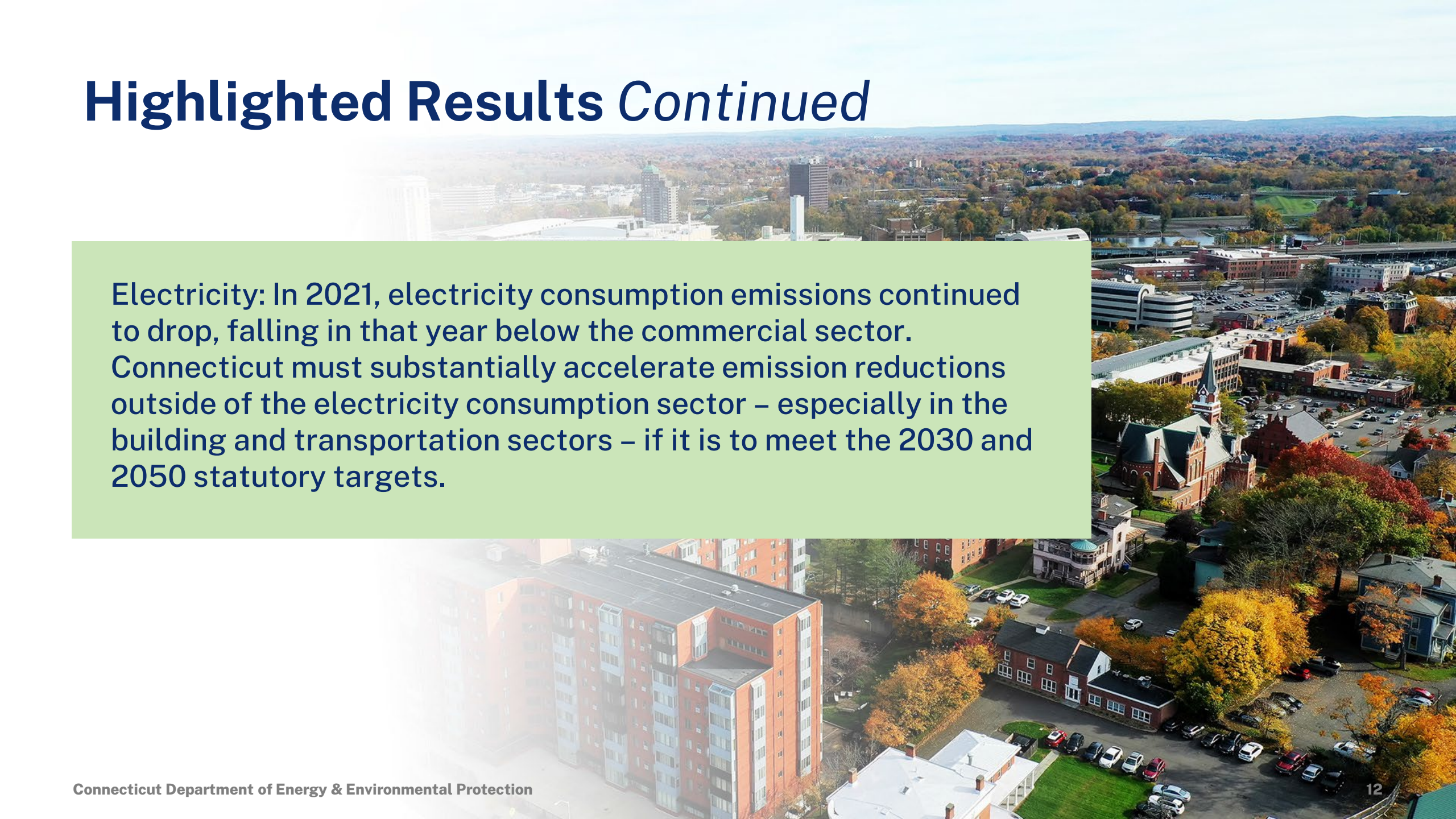


Residential: As of January 1, 2020, residential thermal sector emissions had dropped 10 percent since 1990. However, to set the pace of reductions needed to meet the 2030 GWSA targets, deeper reductions in emissions must be achieved through retrofits of Connecticut's older housing stock.

Residential GHG emissions from 1990-2019



Highlighted Results *Continued*



Electricity: In 2021, electricity consumption emissions continued to drop, falling in that year below the commercial sector. Connecticut must substantially accelerate emission reductions outside of the electricity consumption sector – especially in the building and transportation sectors – if it is to meet the 2030 and 2050 statutory targets.

Policy Recommendations

Update the GWSA to make targets more ambitious, adopt sector sub-targets, and grant regulatory authority to DEEP for enforcement.

Increase tree canopy in urban settings to counter the urban heat island effect.

Require reporting of building energy consumption to prospective renters and buyers.

Policy Recommendations *Continued*

Continue adopting tighter emission standards for light-, medium-, and heavy-duty vehicles.

Implement strategies proposed by CTDOT to meet its proposed 5% per capita vehicle miles traveled reduction targets by 2030.

Pursue alternative fuels where electrification is not practical, including heavy duty vehicles, long-distance shipping, and aviation.

Improve bicycle and pedestrian infrastructure.

Policy Recommendations *Continued*

Adopt Net-Zero Energy Building Codes

Take advantage of incentives to expand consumer education, awareness, and adoption of renewable thermal and low-carbon technology.

Pursue grants available through the Inflation Reduction Act.