



Connecticut Greenhouse Gas Inventory Update for 1990-2021

Highlights

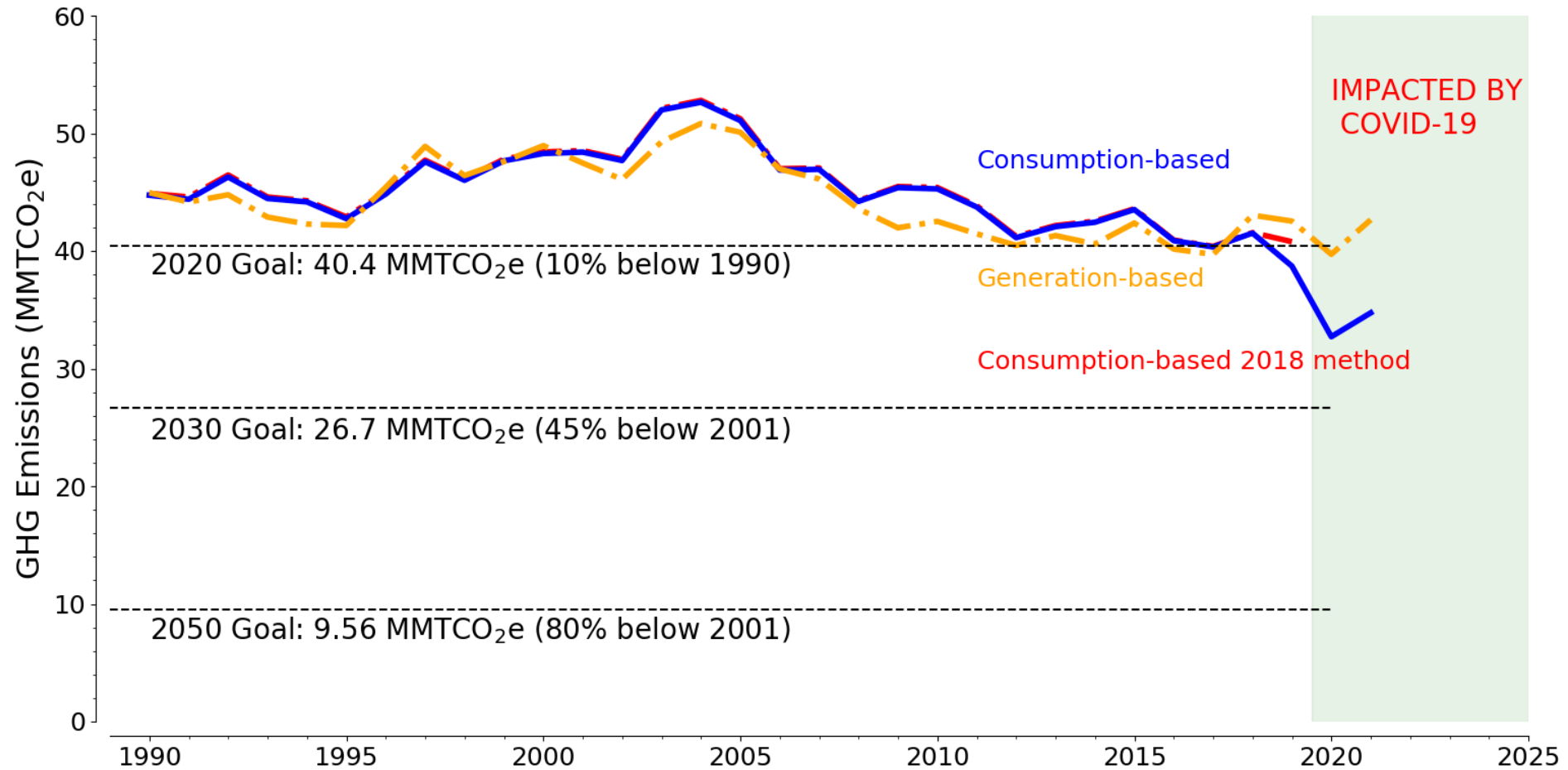
An aerial photograph of a city, likely Hartford, Connecticut, showing a mix of modern and historic buildings, green spaces, and a river. A semi-transparent green rectangular box is overlaid on the left side of the image, containing text. The sky is clear and blue.

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 (CO₂e) — a decrease of 13.9 percent from 1990 levels.

Highlights *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).

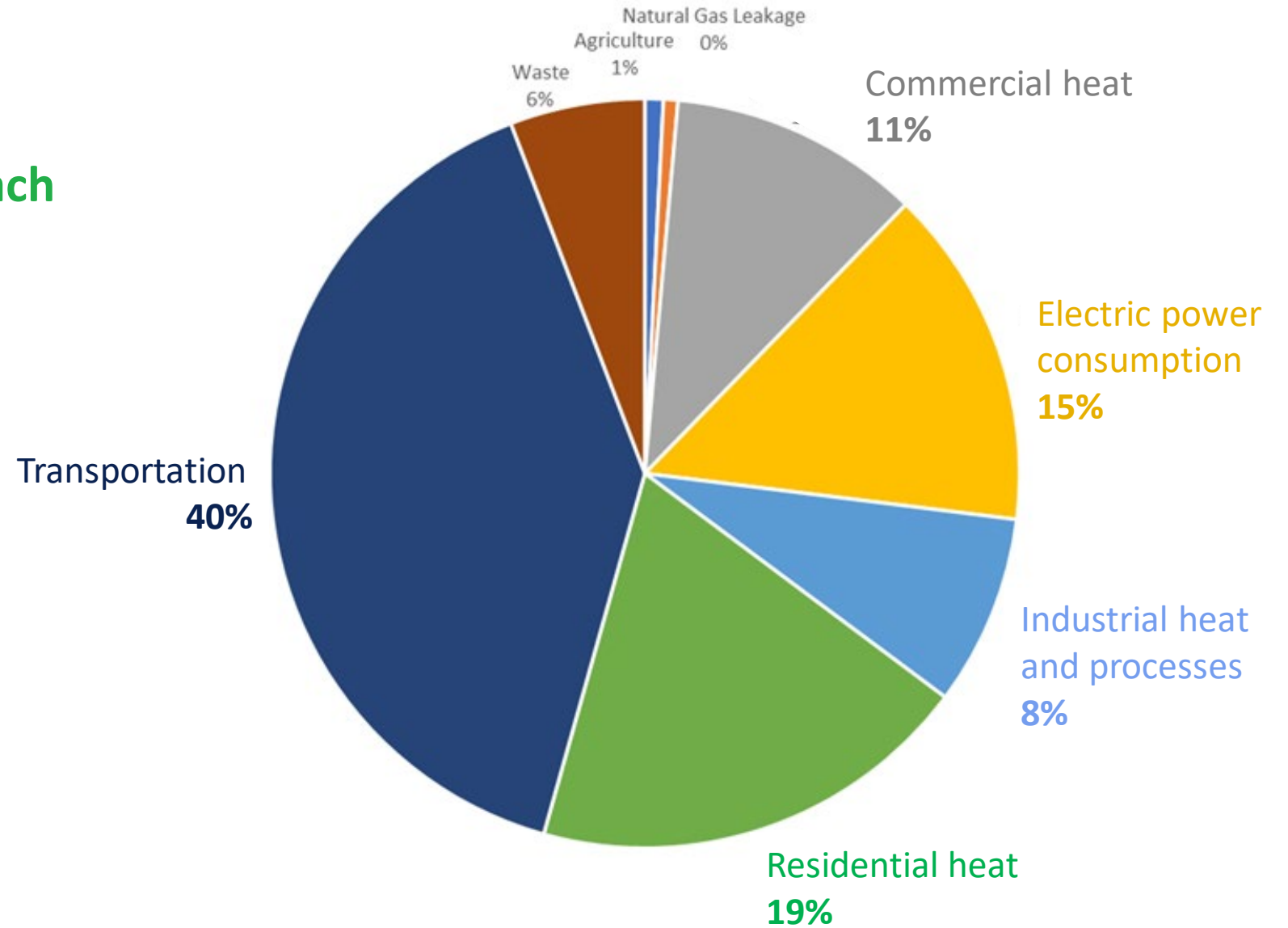
Total economy-wide GHG emissions, 1990–2021



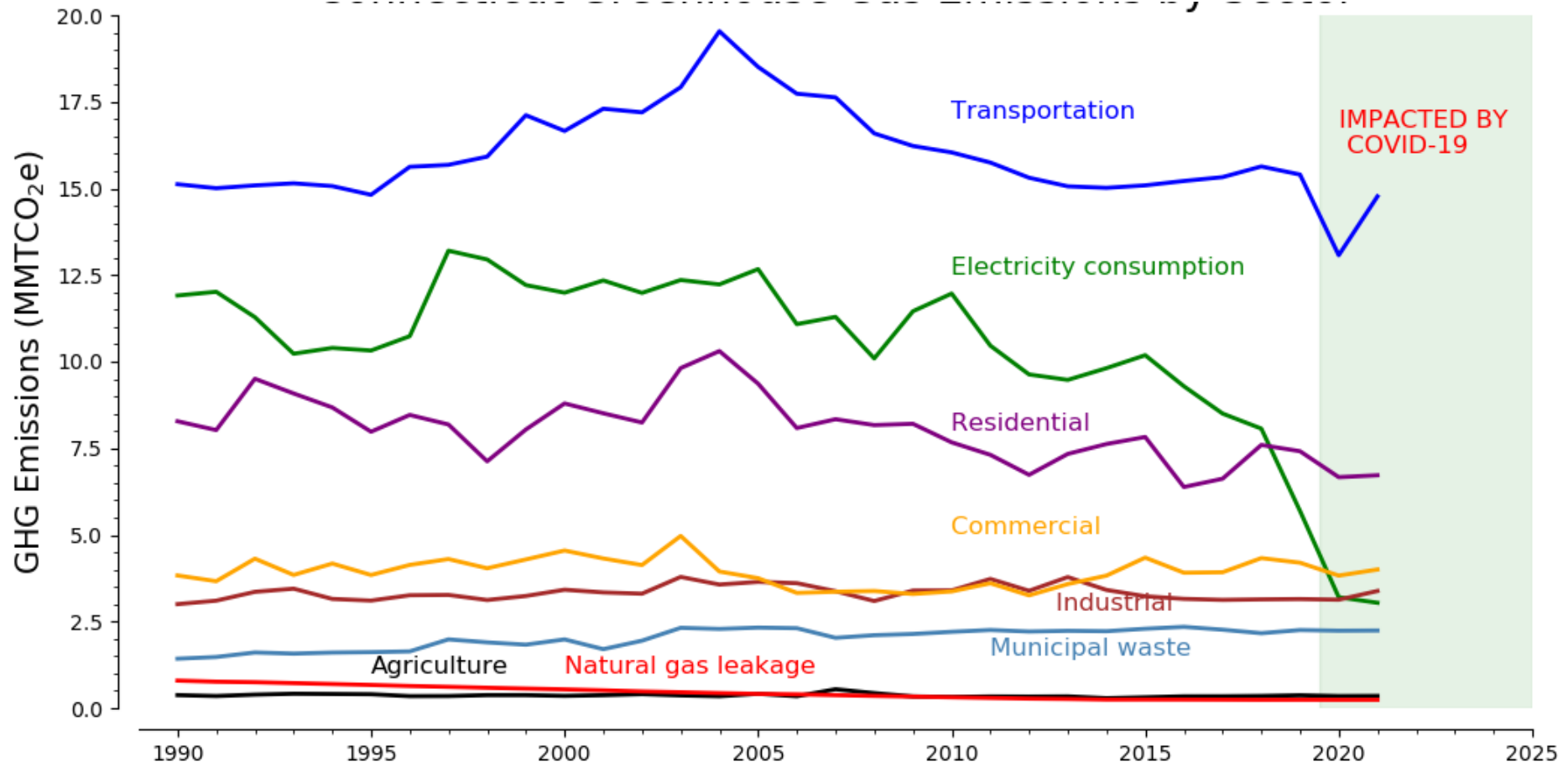
Highlights *Continued*

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

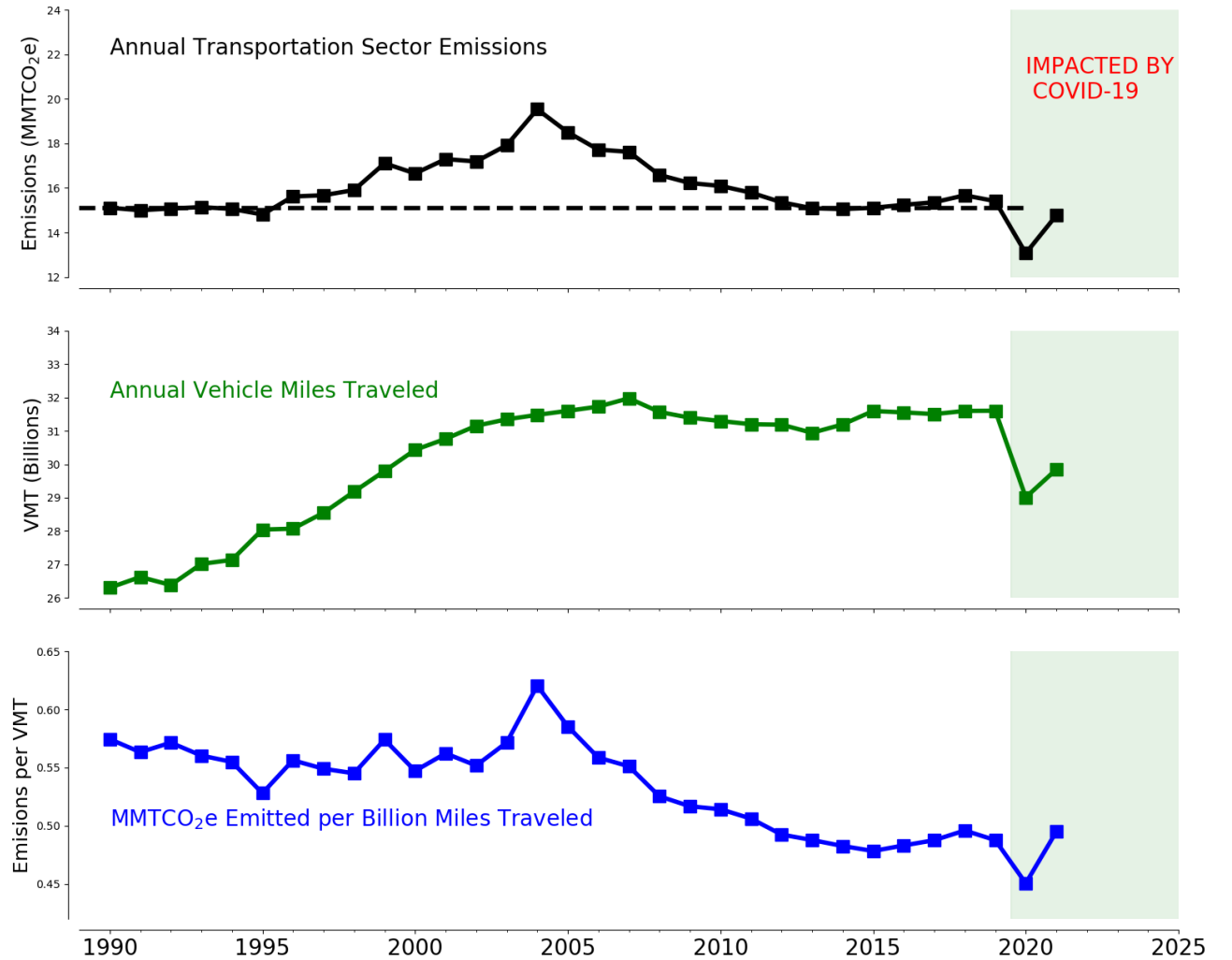


Highlighted Results *Continued*

An aerial photograph of a city, likely Hartford, Connecticut, showing a mix of urban buildings, green spaces, and a river. The image is partially obscured by a semi-transparent green text box on the left side. The sky is clear and blue.

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, 1990-2021

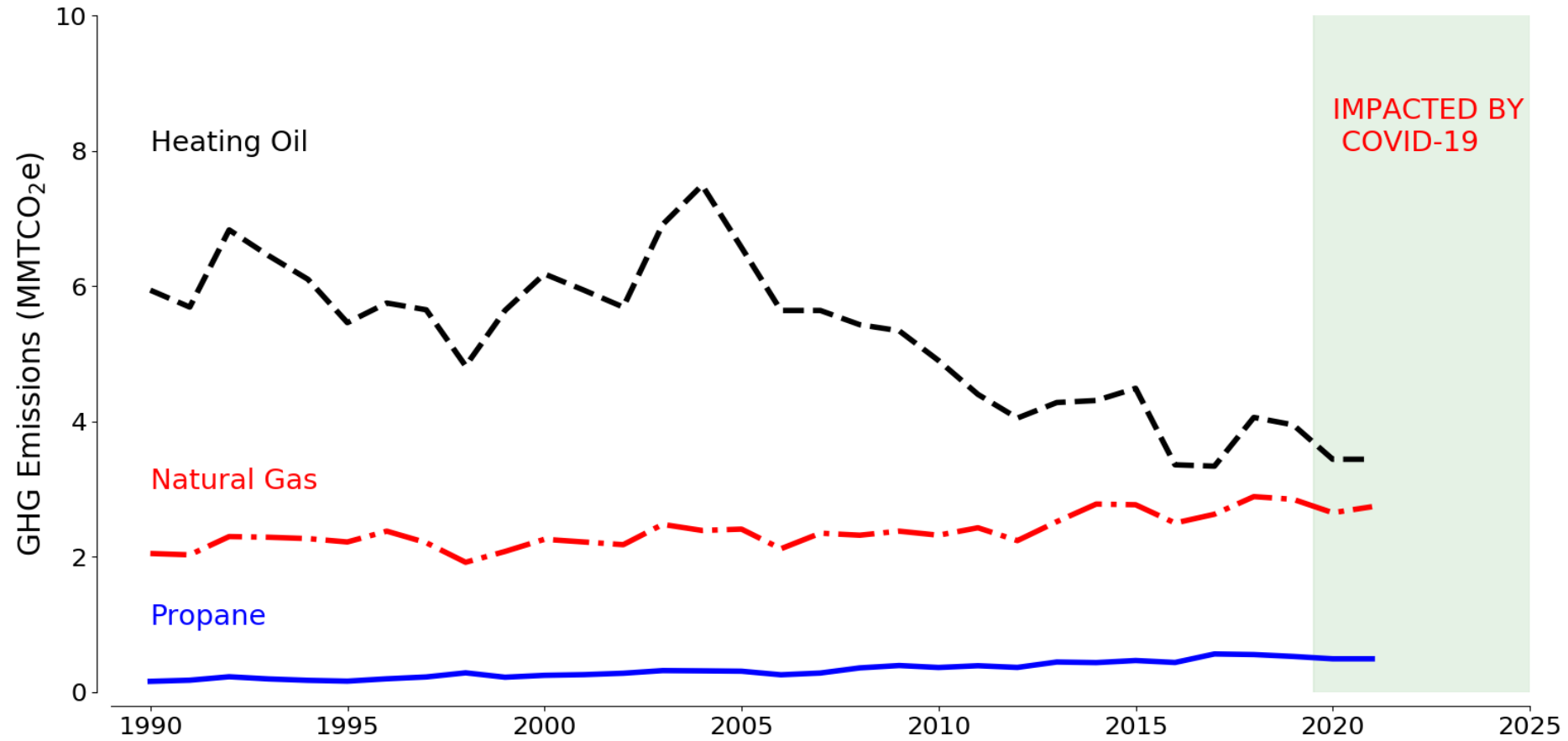


Highlights *Continued*

An aerial photograph of a city, likely Hartford, Connecticut, showing a mix of modern and older buildings, green spaces, and a river. A semi-transparent green rectangular box is overlaid on the left side of the image, containing text. The sky is clear and blue.

Residential: As of January 1, 2020, residential thermal 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, especially through retrofits of Connecticut's older housing stock.

Residential GHG emissions, 1990-2019



Highlights *Continued*

An aerial photograph of a city, likely Hartford, Connecticut, showing a mix of modern and historic buildings, parking lots, and trees with autumn foliage. A large green rectangular box is overlaid on the left side of the image, containing text. The background shows a dense urban area with various building styles, including a prominent white classical building and several brick structures. The sky is clear and blue.

Electricity: In 2021, electricity consumption emissions continued to drop, falling for the first time below emissions from the commercial sector. If Connecticut is to meet the 2030 and 2050 statutory targets, it must continue decarbonizing electricity while substantially accelerating emission reductions in the transportation, residential, and commercial sectors.

Policy recommendations



Update the GWSA to:

- make targets more ambitious
- adopt sector sub-targets
- grant regulatory authority to DEEP

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

Require that prospective renters and buyers be provided with building's energy consumption data

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*

The background of the slide features a composite image. The upper portion shows a city skyline with various skyscrapers under a blue sky with scattered white clouds. The lower portion shows a lush green park with a winding asphalt road, street lamps, and trees, suggesting a focus on urban planning and environmental protection.

Adopt Net-Zero Energy
Building Codes

Take advantage of incentives
to expand consumer
education and adoption of
low-carbon technologies

Pursue grants available
through the Inflation
Reduction Act