



Connecticut Greenhouse Gas Inventory Update for 1990-2021

Highlighted Results

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 background shows a dense urban area with various architectural styles, including a prominent white classical building and several brick structures. The sky is clear and blue.

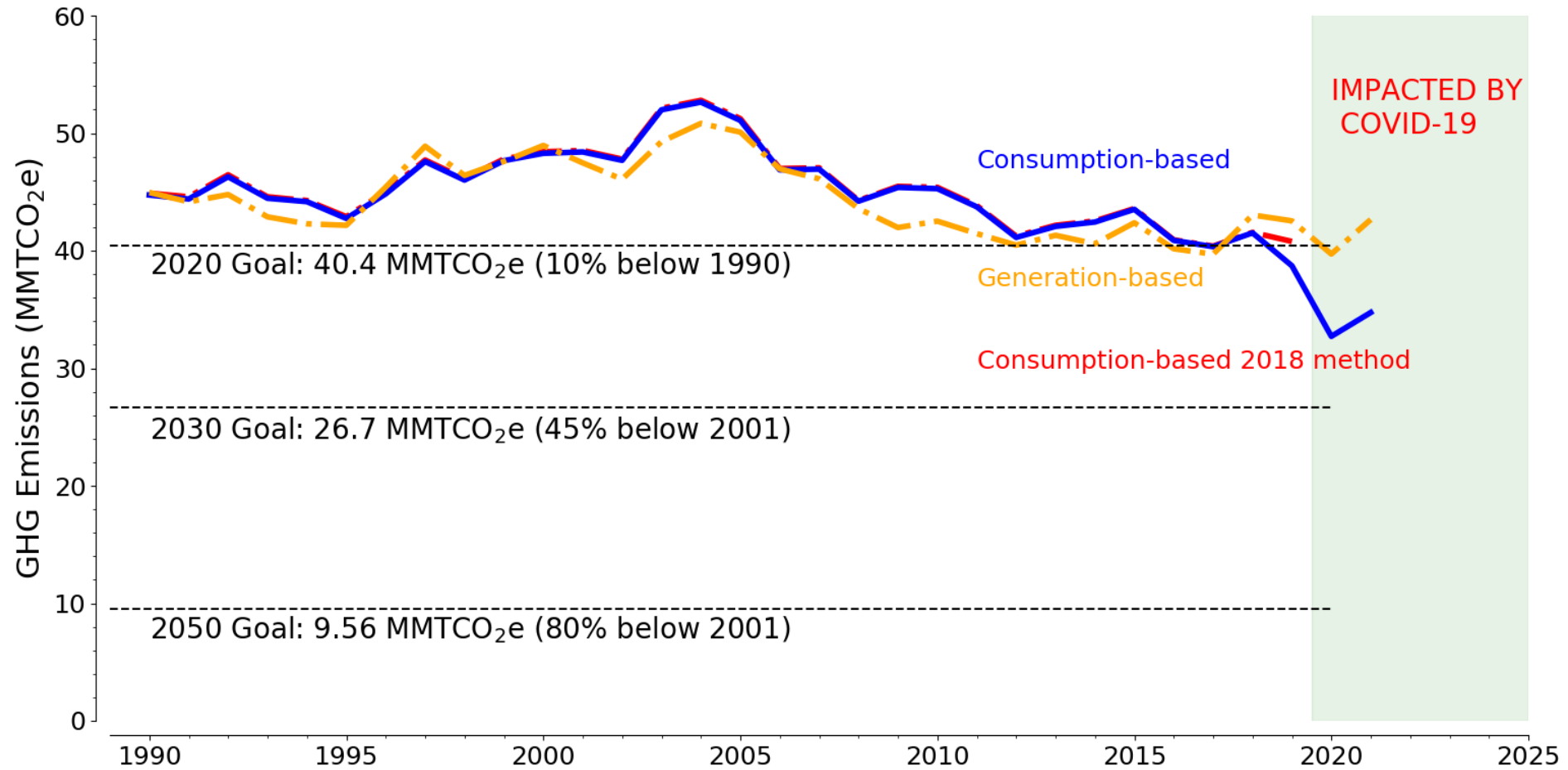
Connecticut met its statutory target of 10 percent emissions reductions below 1990 levels as of Jan. 1, 2020. In 2019, Connecticut had economy-wide emissions of 39.3 million metric tons (MMT) of carbon-dioxide equivalent (CO₂e) — a decrease of 13.9 percent from 1990 levels.

Highlighted Results *Continued*

An aerial photograph of a city, likely Storrs, Connecticut, showing a mix of modern and older buildings, parking lots, and trees with autumn foliage. A semi-transparent 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 brick building with a steeple in the lower right. The sky is clear and blue.

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

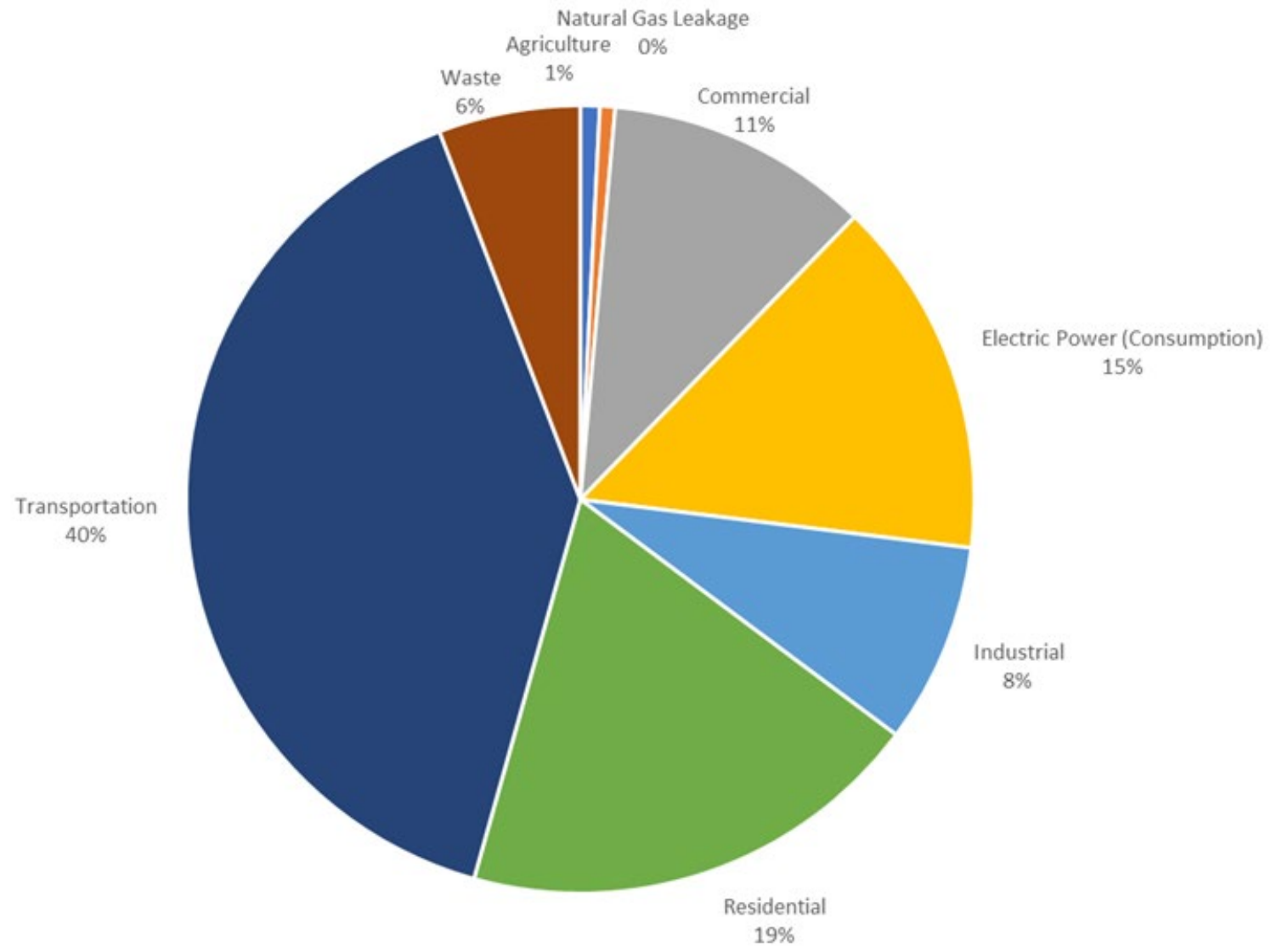


Highlighted Results *Continued*

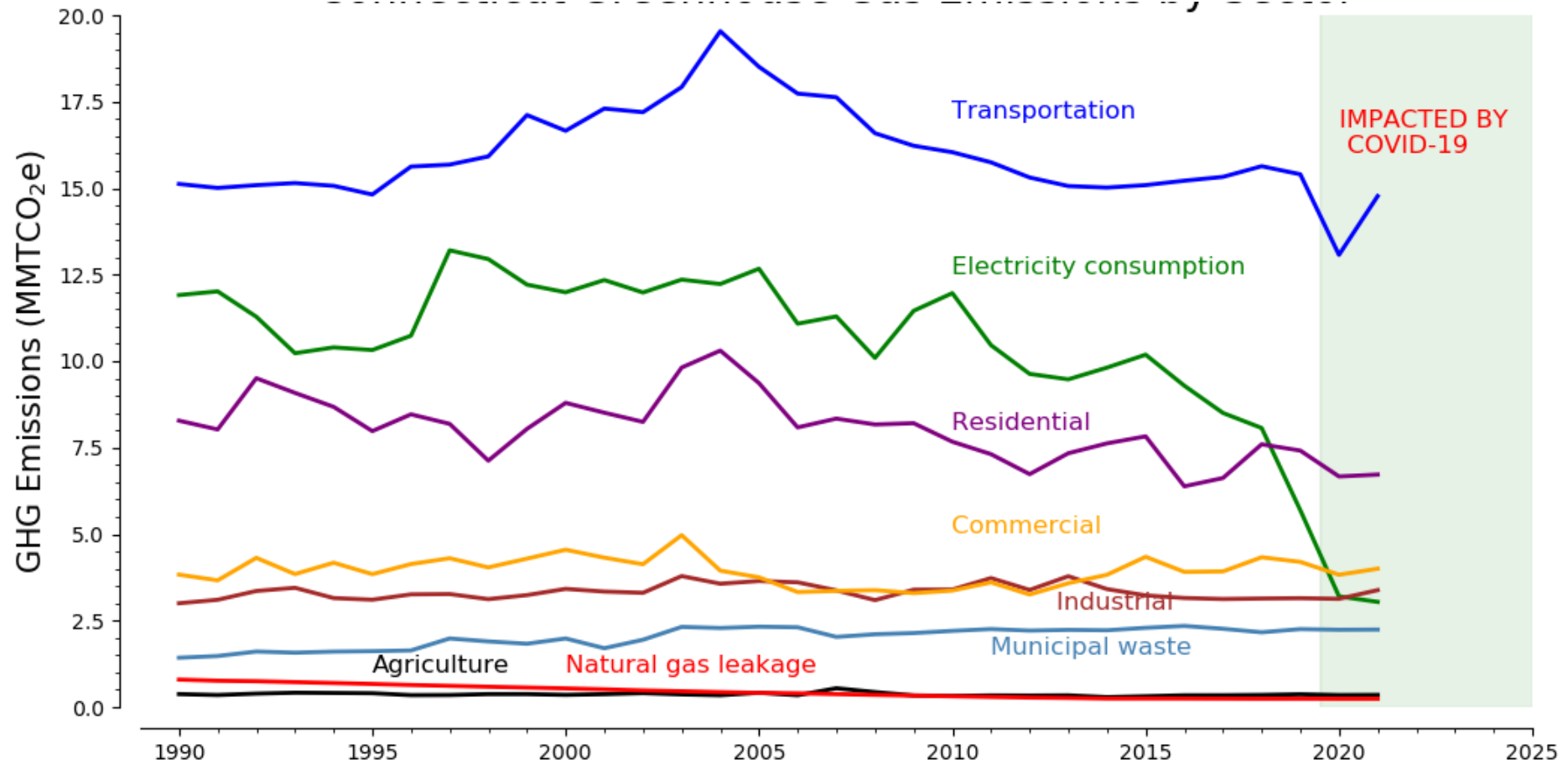
An aerial photograph of a city, likely Hartford, Connecticut, showing a mix of modern and older buildings, parking lots, and trees with autumn foliage. A semi-transparent green rectangular box is overlaid on the left side of the image, containing text. The background shows a dense urban area with various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

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

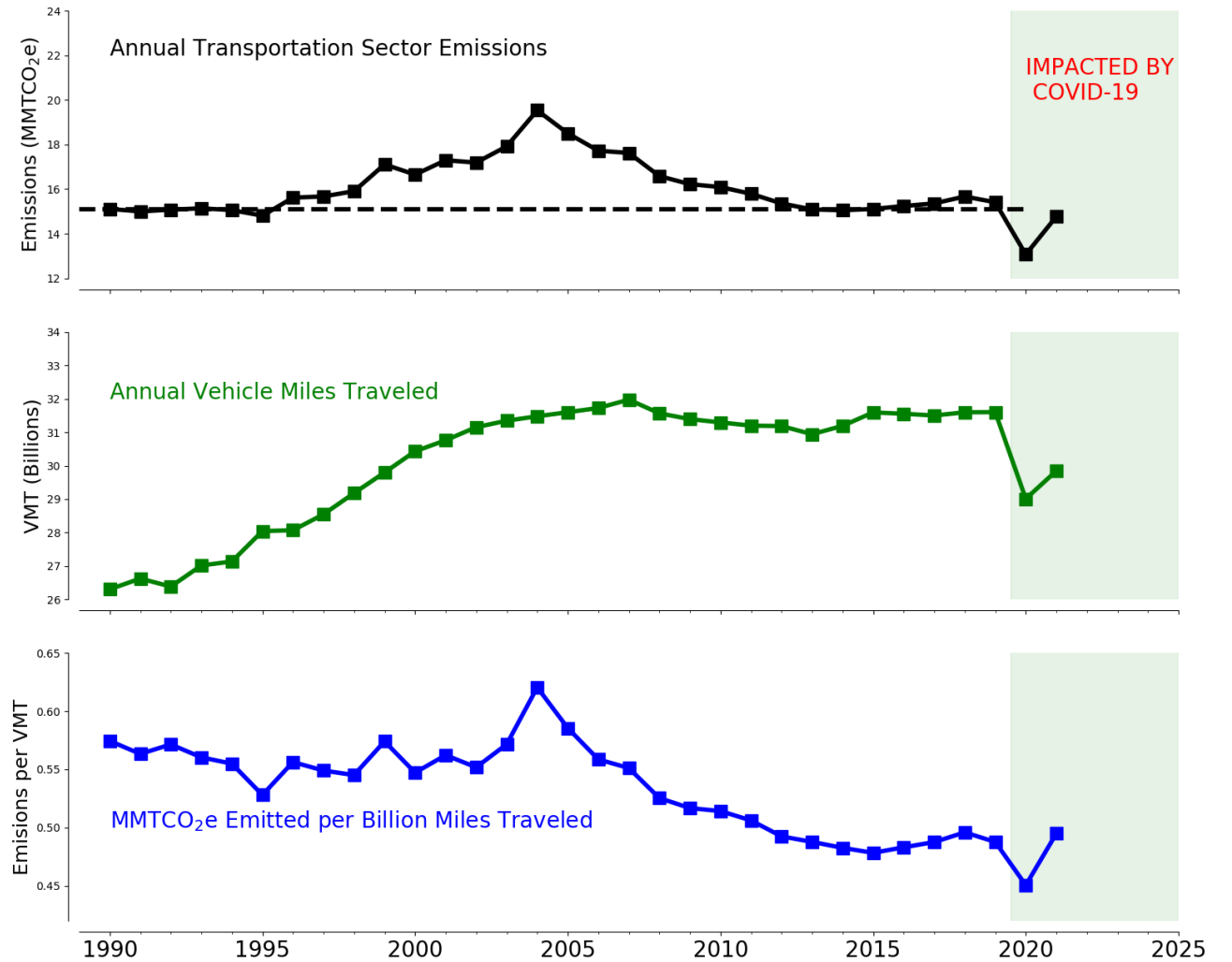


Highlighted Results *Continued*

An aerial photograph of a city, likely Storrs, Connecticut, showing a mix of modern and older buildings, parking lots, and trees with autumn foliage. A large, semi-transparent green rectangular box is overlaid on the left side of the image, containing text. The background shows a dense urban area with various structures and a clear sky.

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

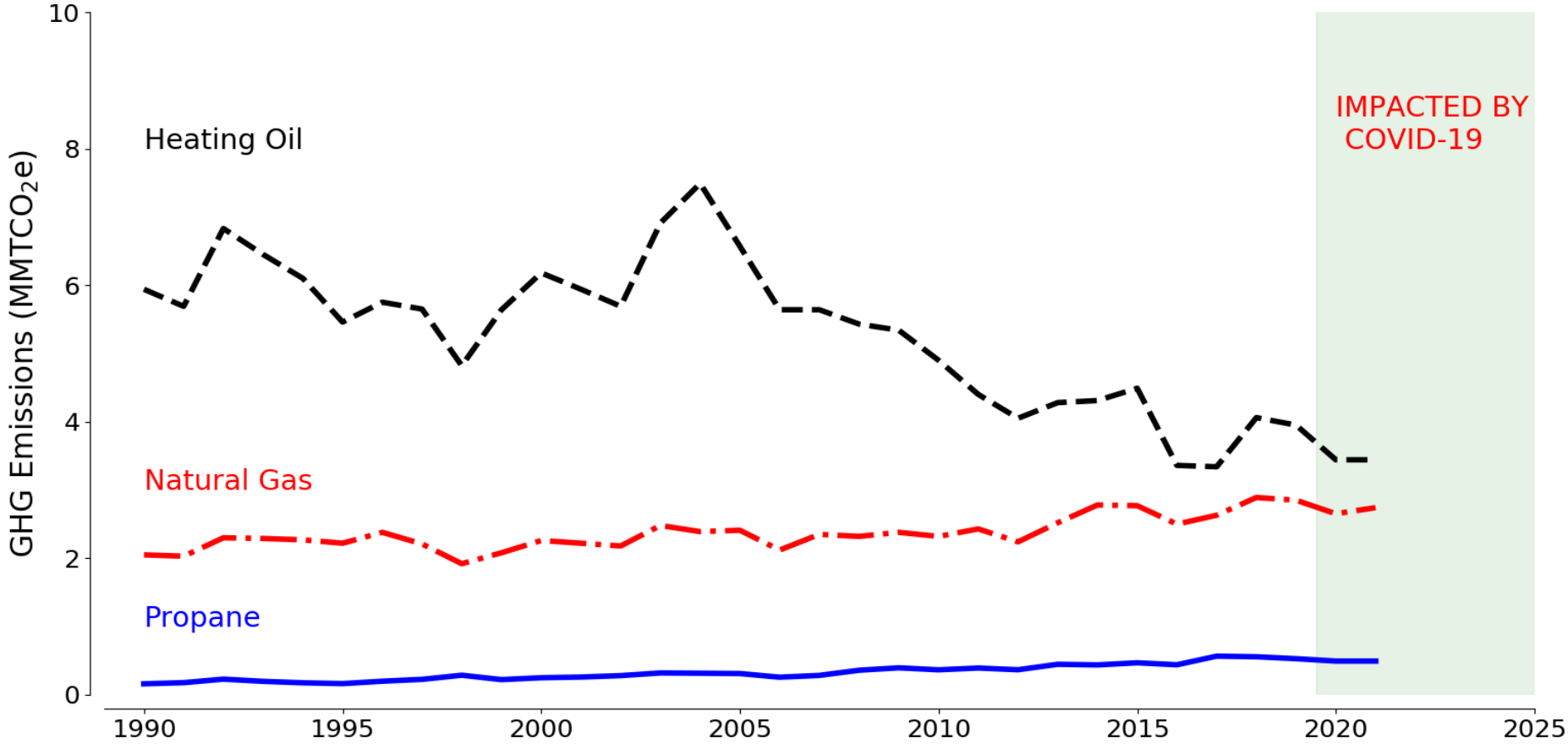


Highlighted Results *Continued*

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 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*

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

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*

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, streetlights, and trees. The text boxes are overlaid on the city skyline portion.

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.