

*Presented to
The Senate Committee
on Natural Resources and Energy
on
April 4th, 2018*

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VERMONT
GREENHOUSE GAS
EMISSIONS
INVENTORY
UPDATE
1990-2013

IT'S ~~2017~~ ... WHY DO WE ONLY HAVE DATA THROUGH 2013? 2018

- Many different data sources with different release dates...
- Wide variety of complex methodologies, and time-consuming calculations...
- First GHG update where all years 1990-2013 needed to be recalculated (new Global Warming Potentials)...

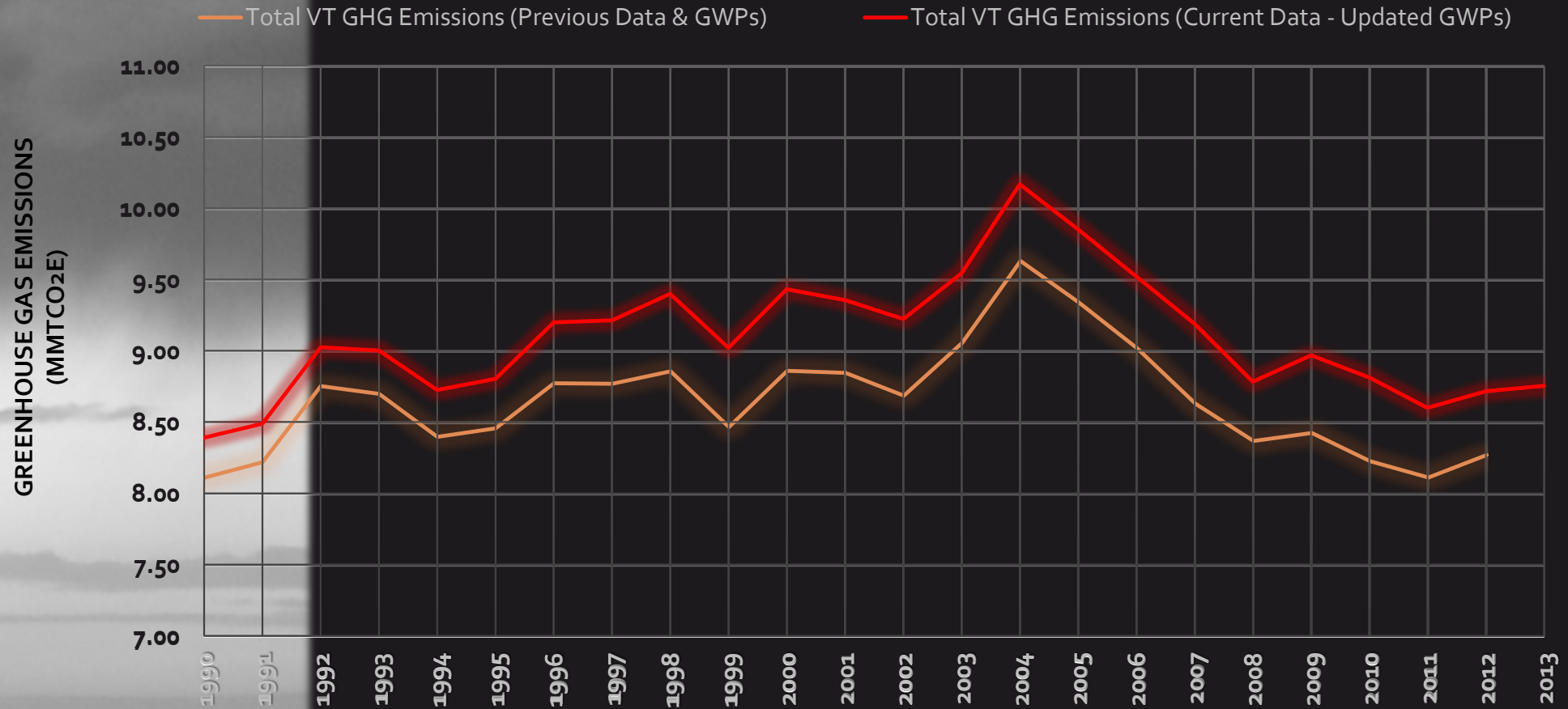
THE GOOD NEWS

- Calculations for the 1990-2014 GHG update are nearly complete...

THE LESS GOOD NEWS

- Fate of key EPA data and tools for GHG emissions estimates are uncertain... so future updates could be further hindered.
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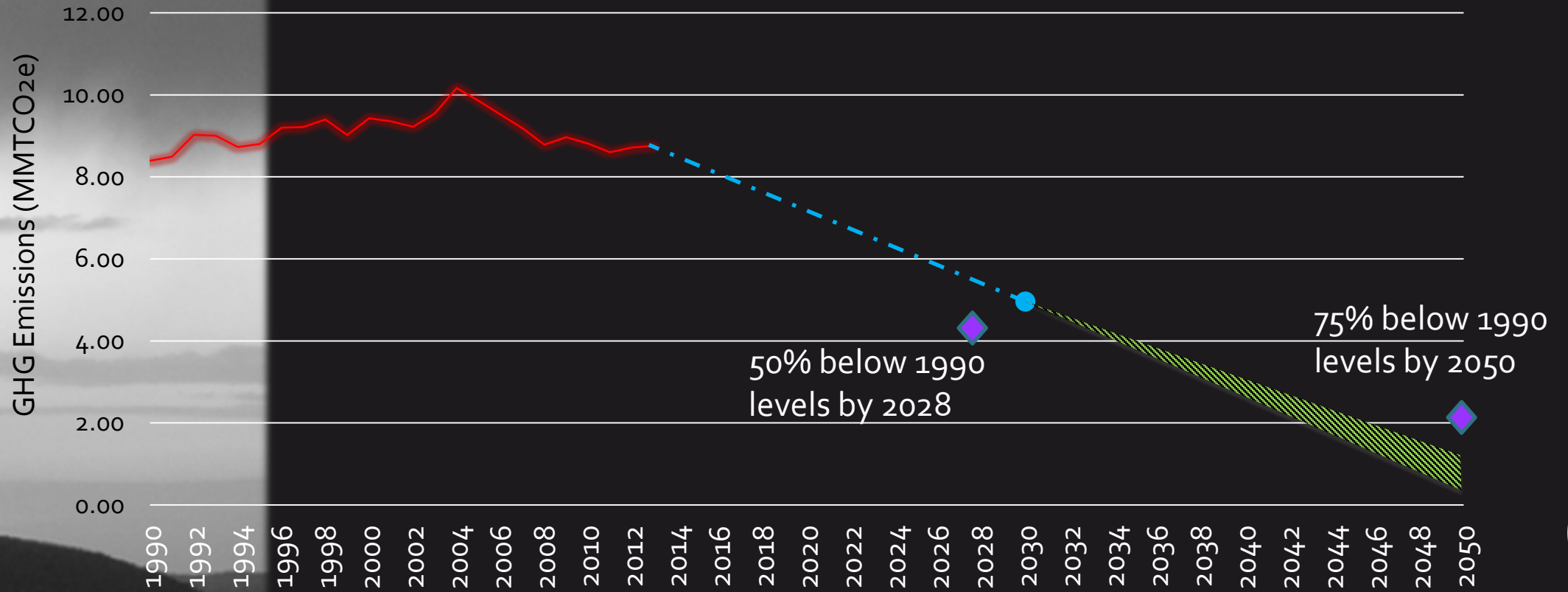
VERMONT'S GREENHOUSE GAS EMISSIONS



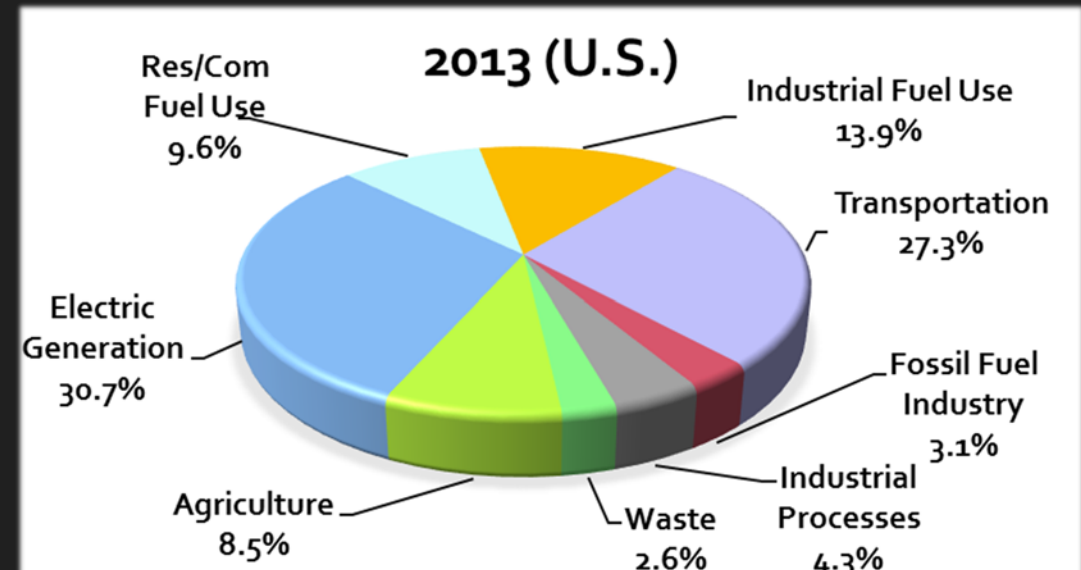
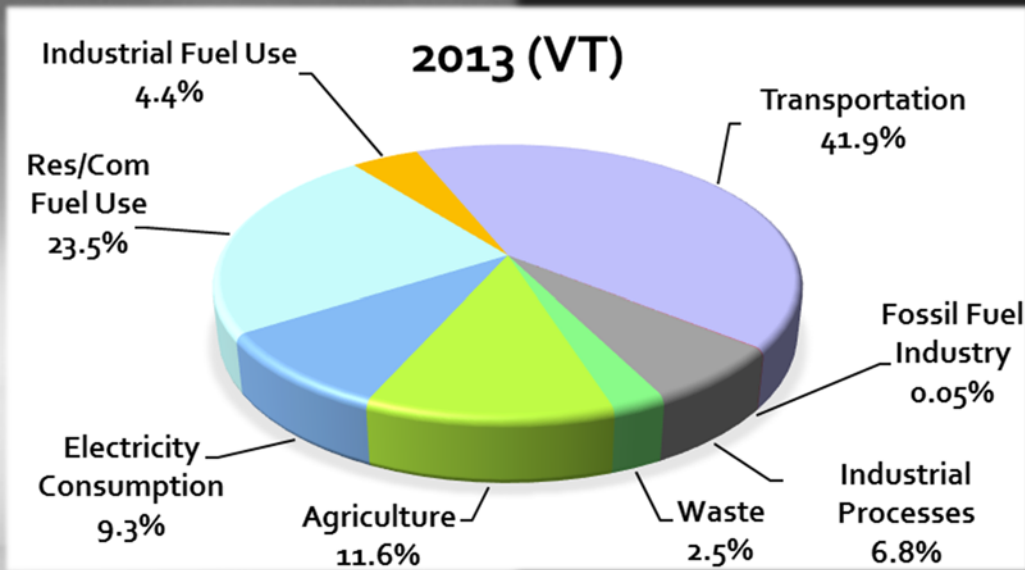
VERMONT GHG REDUCTION GOALS:

- At least 40% below 1990 levels by 2030
- 80% to 95% below 1990 levels by 2050

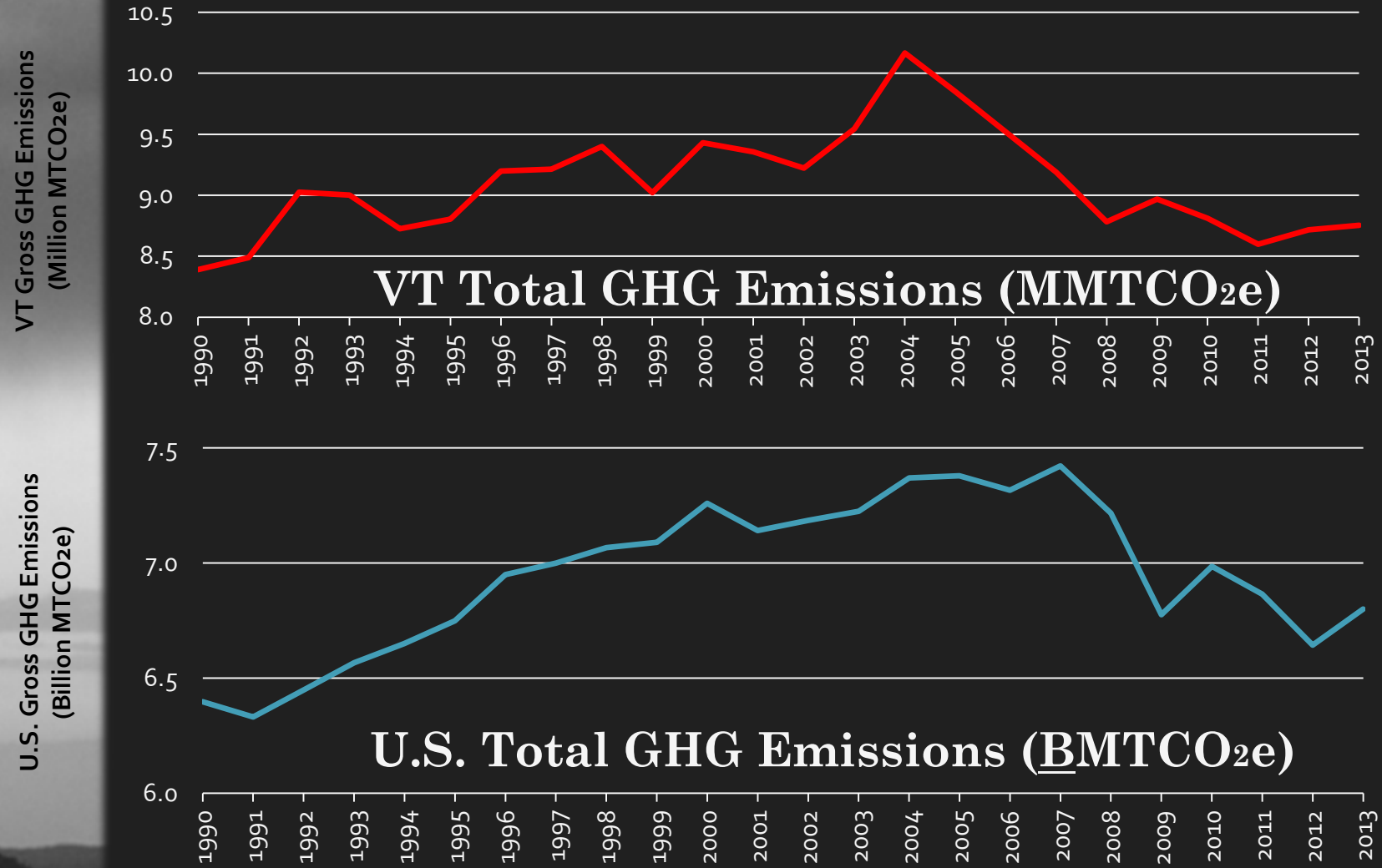
Vermont - Future Emissions Goals



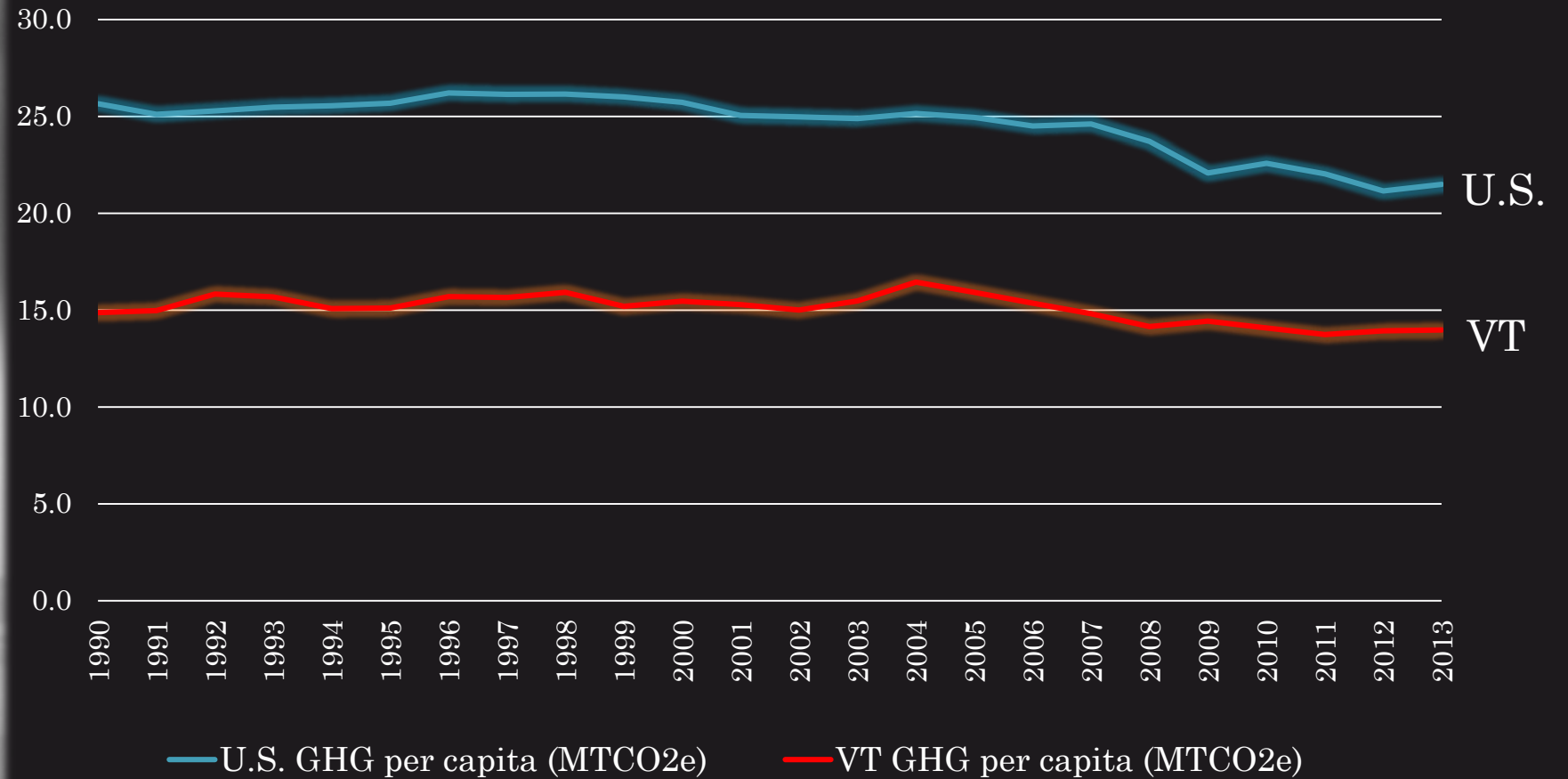
VT & U.S. EMISSIONS by SECTOR (2013)



VT & U.S. EMISSIONS (1990 - 2013)



VT & U.S. EMISSIONS per capita (1990 - 2013)



An official website of the United States government.

We've made some changes to EPA.gov. If the information you are looking for is not here, you may be able to find it on the EPA Web Archive or the January 19, 2017 Web Snapshot.

EPA United States Environmental Protection Agency

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State CO2 Emissions from Fossil Fuel Combustion, 1990-2015

The table provided here depicts the State CO2 Emissions from Fossil Fuel Combustion, 1990-2015.

You may need a PDF reader to view files on this page. See EPA's [About PDF page](#) to learn more.

- [State CO2 Emissions from Fossil Fuel Combustion, 1990-2015 \(PDF\)](#) (5 pp, 83 K)

<https://www.epa.gov/statelocalenergy/state-co2-emissions-fossil-fuel-combustion-1990-2015>

eia Independent Statistics & Analysis
U.S. Energy Information Administration

[Sources & Uses](#) | [Topics](#) | [Geography](#)

ENVIRONMENT

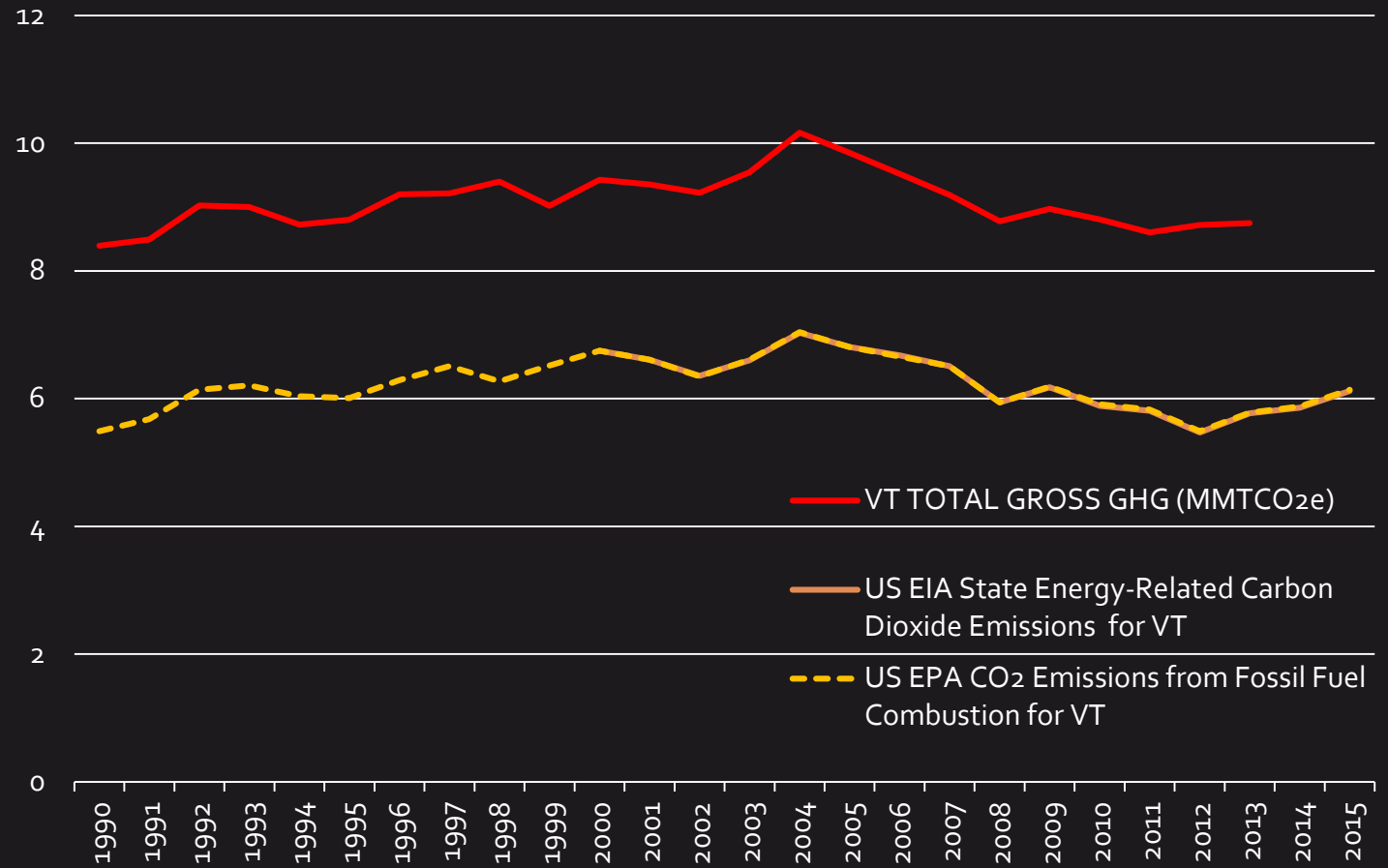
[OVERVIEW](#) | [DATA](#) | [ANALYSIS & PROJECTIONS](#)

Energy-Related Carbon Dioxide Emissions by State, 2000-2015

Release Date: January 22, 2018 | Next Release Date: January 2019 | [full report](#)

<https://www.eia.gov/environment/emissions/state/analysis/>

OTHER HELPFUL DATASETS...

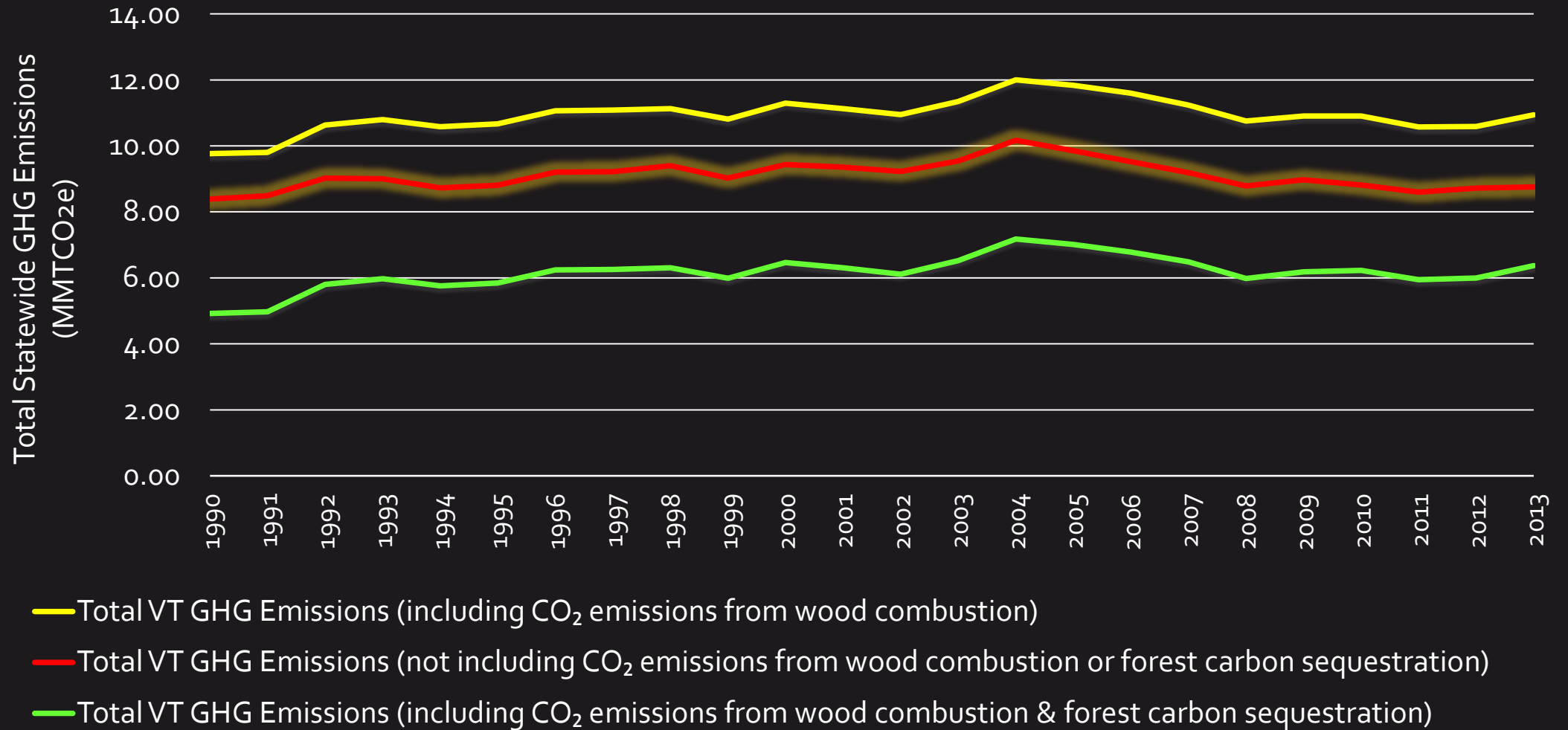




BIOGENIC CARBON: Sequestration

- To date, the GHG inventory has focused on gross GHG emissions, and less so on sequestration (i.e., net emissions).
 - CO₂ (but not methane and nitrous oxide) from wood combustion historically has been “zeroed-out”.
 - Ideally, the inventory would account for annual GHG emissions from wood burning, and CO₂ flux /sequestration
- Recent forest carbon flux data from EPA National Inventory Report and the U.S. Forest Accounting Framework.
 - Now able to calculate sequestration / flux values for:
 - *Aboveground biomass, belowground biomass, dead wood, litter, and soil organic carbon*

BIOGENIC CARBON: Emissions & Sequestration



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VERMONT'S GREENHOUSE GAS EMISSIONS



For historical reports documenting Vermont's GHG emissions, please see the following reports at the links below:

- [Greenhouse Gas Emissions Inventory Update \(1990 - 2013\)](#)
- [Greenhouse Gas Emissions Inventory Update \(1990 - 2012\)](#)
- [Greenhouse Gas Emissions Inventory Update \(1990 - 2011\)](#)
- [Greenhouse Gas Emissions Inventory Update \(1990 - 2009\)](#)
- [Greenhouse Gas Emissions Inventory Update \(1990 - 2008\)](#)
- [Greenhouse Gas Inventory and Reference Case Projections - Governor's Commission on Climate Change \(1990 - 2030\)](#)

<http://dec.vermont.gov/air-quality/climate-change>

VERMONT
Greenhouse Gas
Emissions Inventory
Update
1990 - 2013

July 2017



THANK YOU!

...QUESTIONS?

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