

FIRST MEETING
of the
VERMONT CLIMATE
ACTION COMMISSION
AUGUST 15, 2017

VERMONT
GREENHOUSE GAS
EMISSIONS
INVENTORY
UPDATE
1990-2013

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

- 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)...

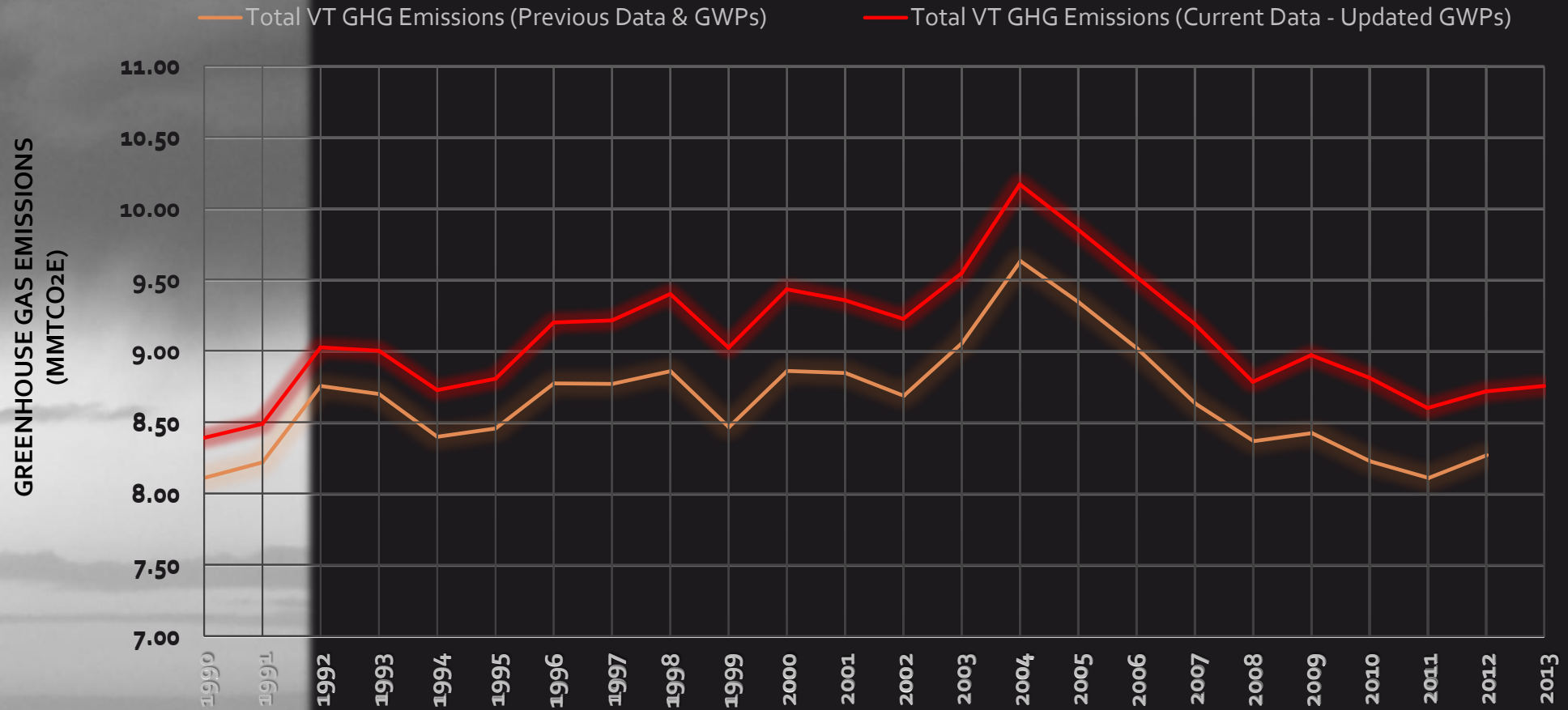
THE GOOD NEWS

- Calculations for the 1990-2014 update are underway...

THE LESS GOOD NEWS

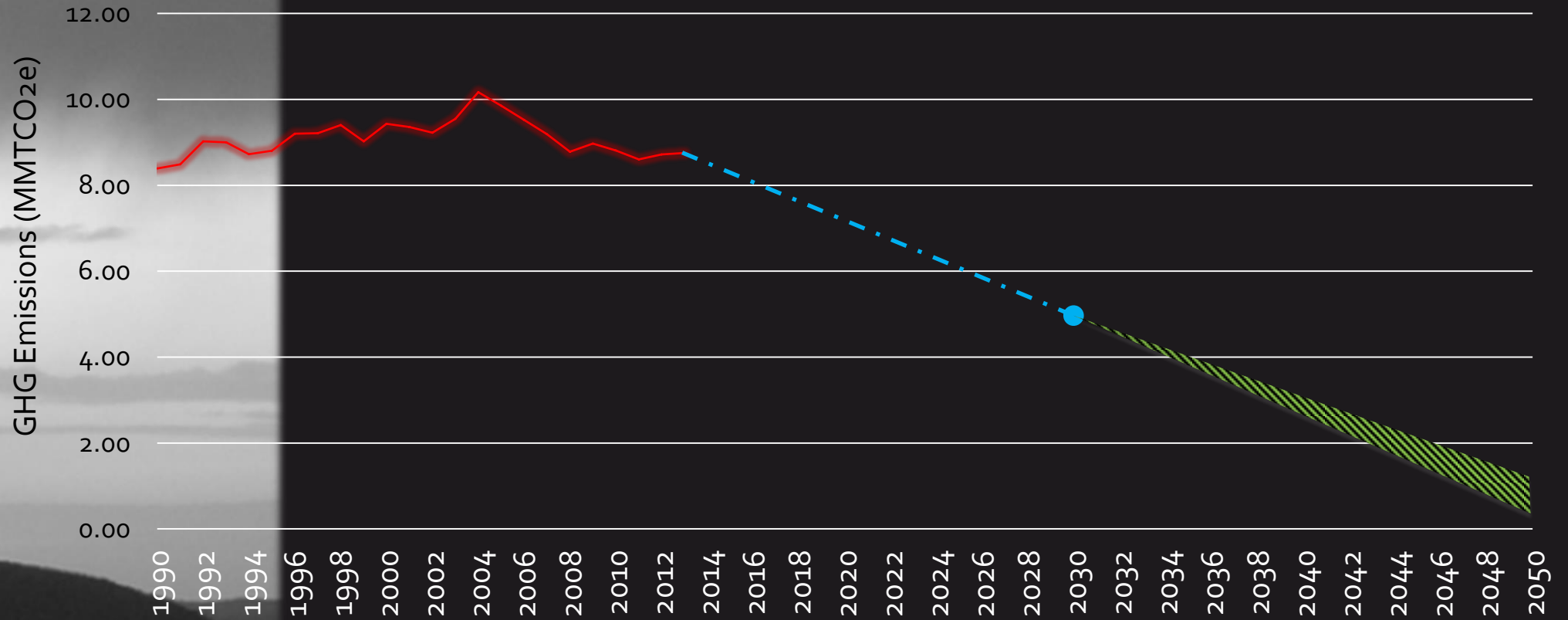
- Fate of key EPA data and tools for GHG emissions estimates are uncertain... so future updates could be further hindered.
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VERMONT'S GREENHOUSE GAS EMISSIONS

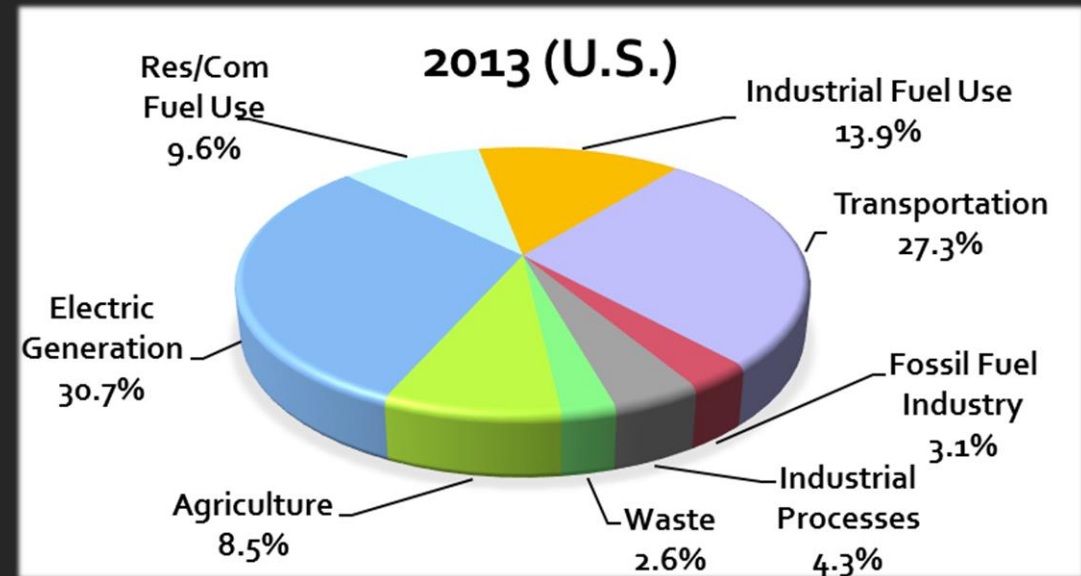
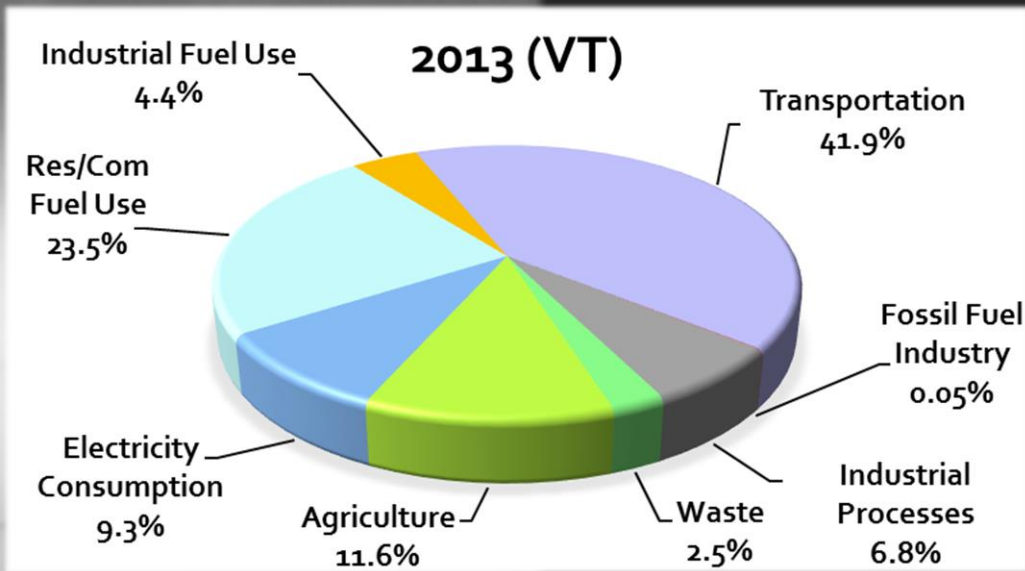


VERMONT GHG REDUCTION GOALS:

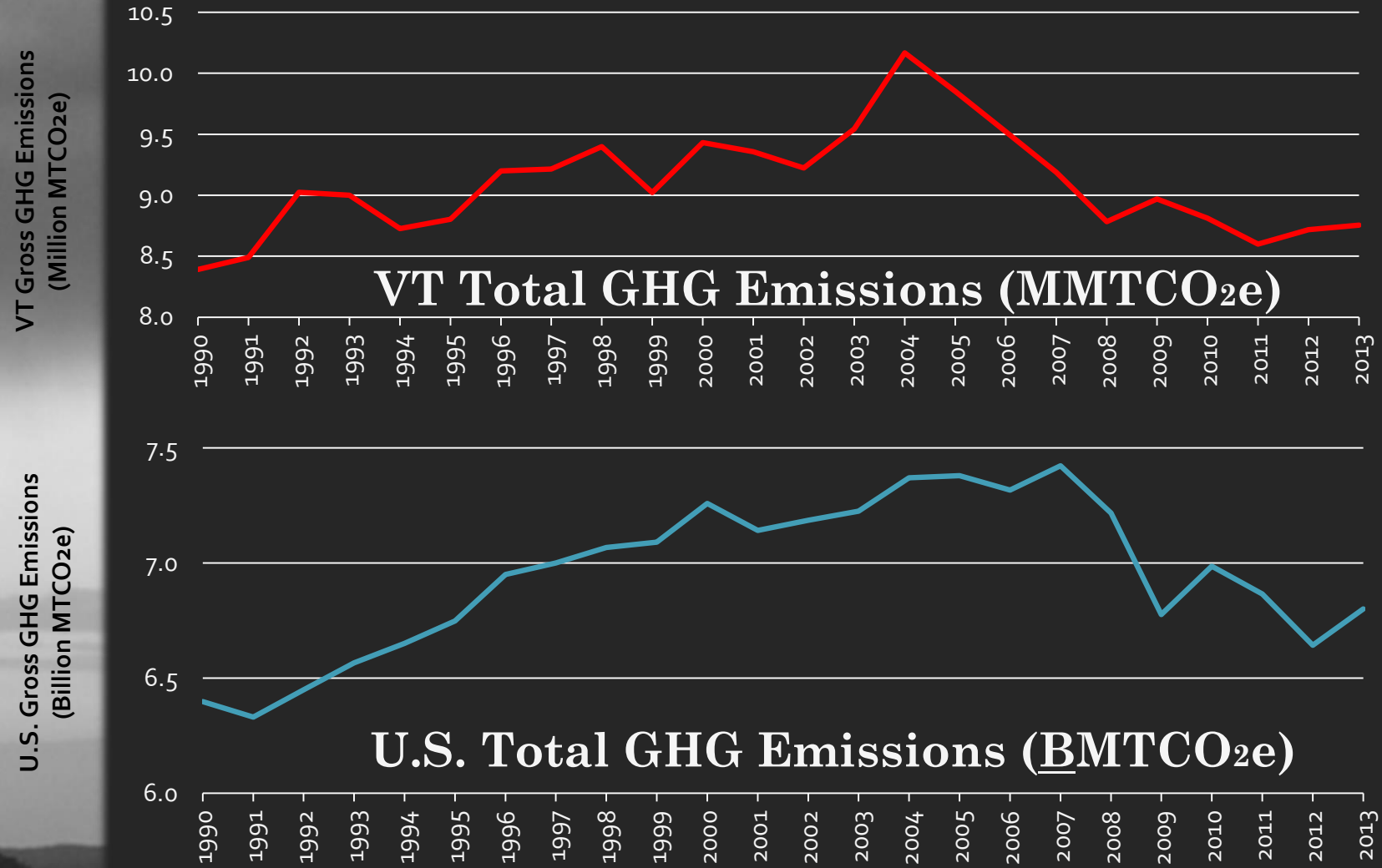
- At least 40% below 1990 levels by 2030
- 80% to 95% below 1990 levels by 2050



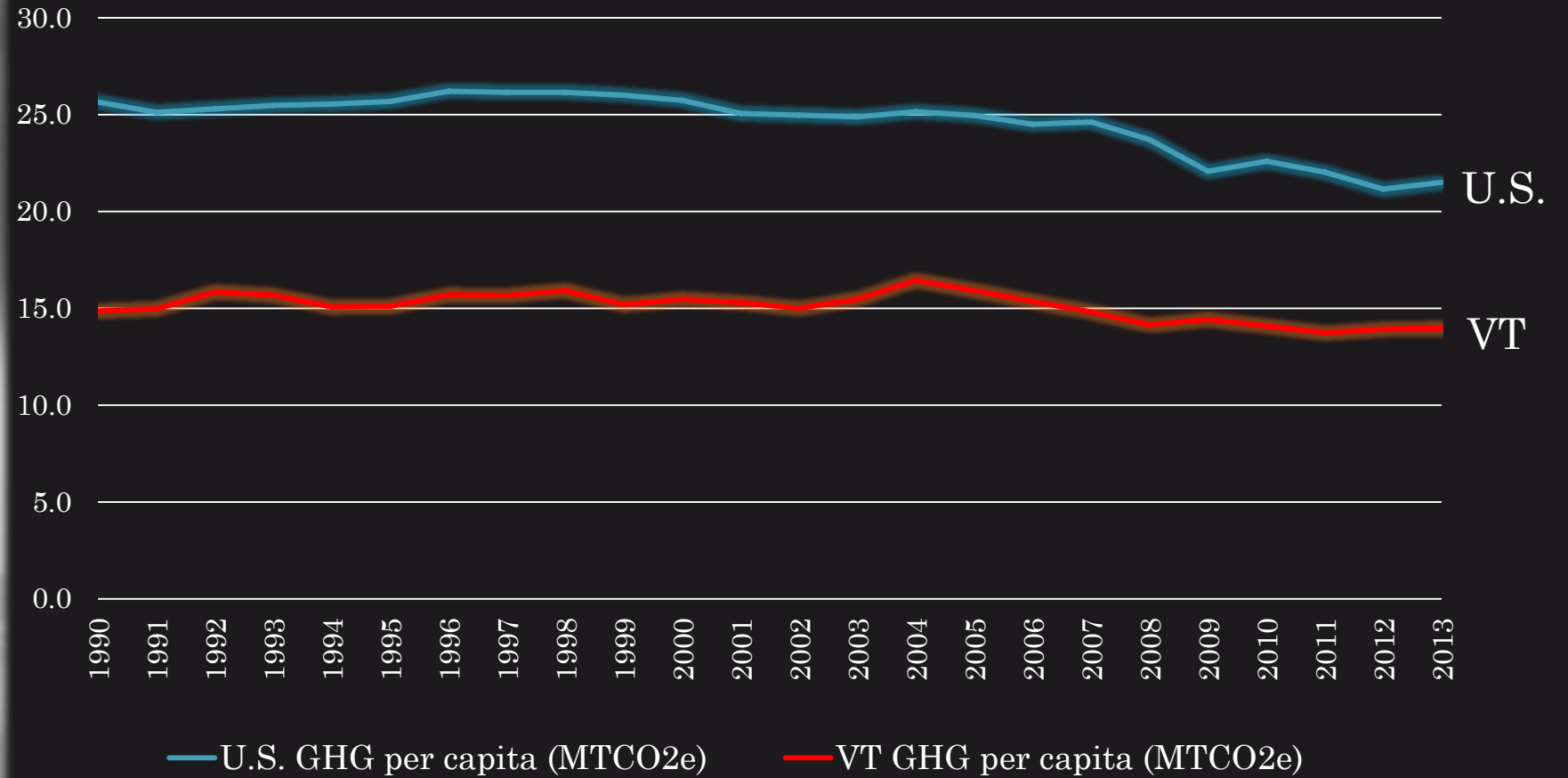
VT & U.S. EMISSIONS by SECTOR (2013)



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



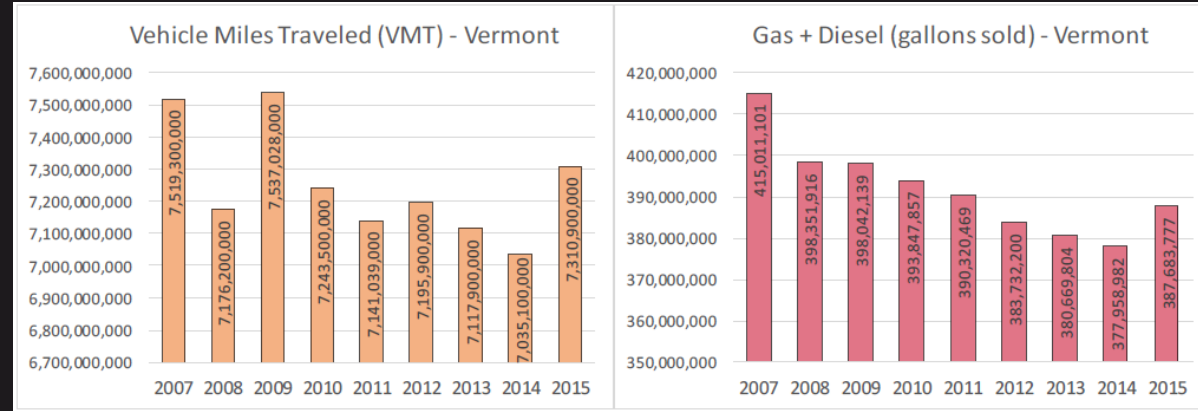
VT & U.S. EMISSIONS per capita (1990 - 2013)



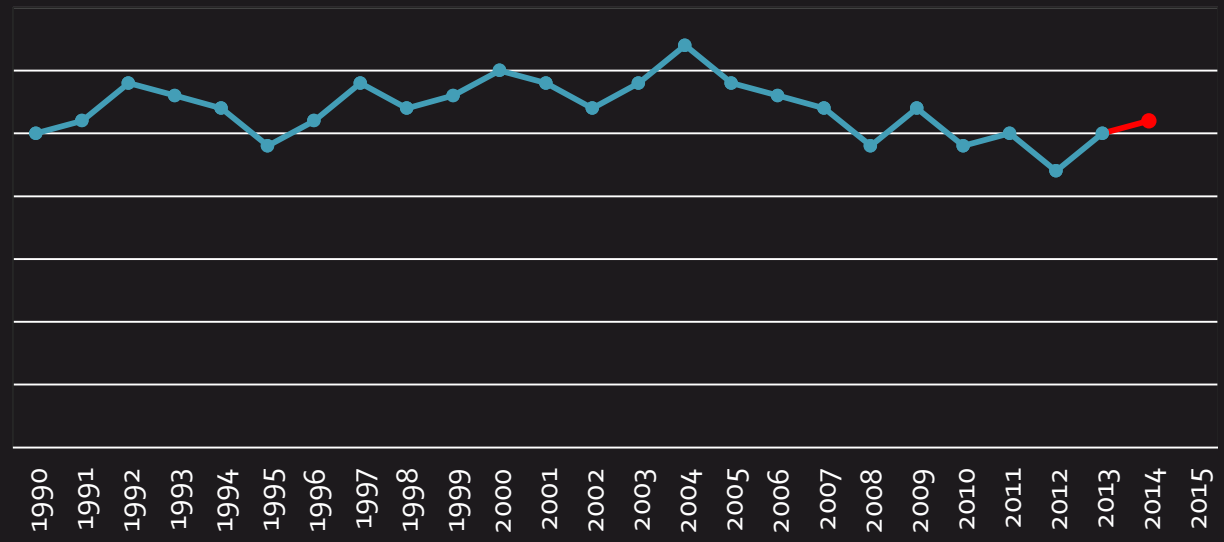
THE IMPORTANT WORK AHEAD...

➤ UNDERLYING DATA FOR KEY SECTORS SUGGEST VT GHG EMISSIONS INVENTORIES WILL SHOW A CONTINUED RISE AFTER 2013...

Transportation



Residential / Commercial / Industrial Fuel Use

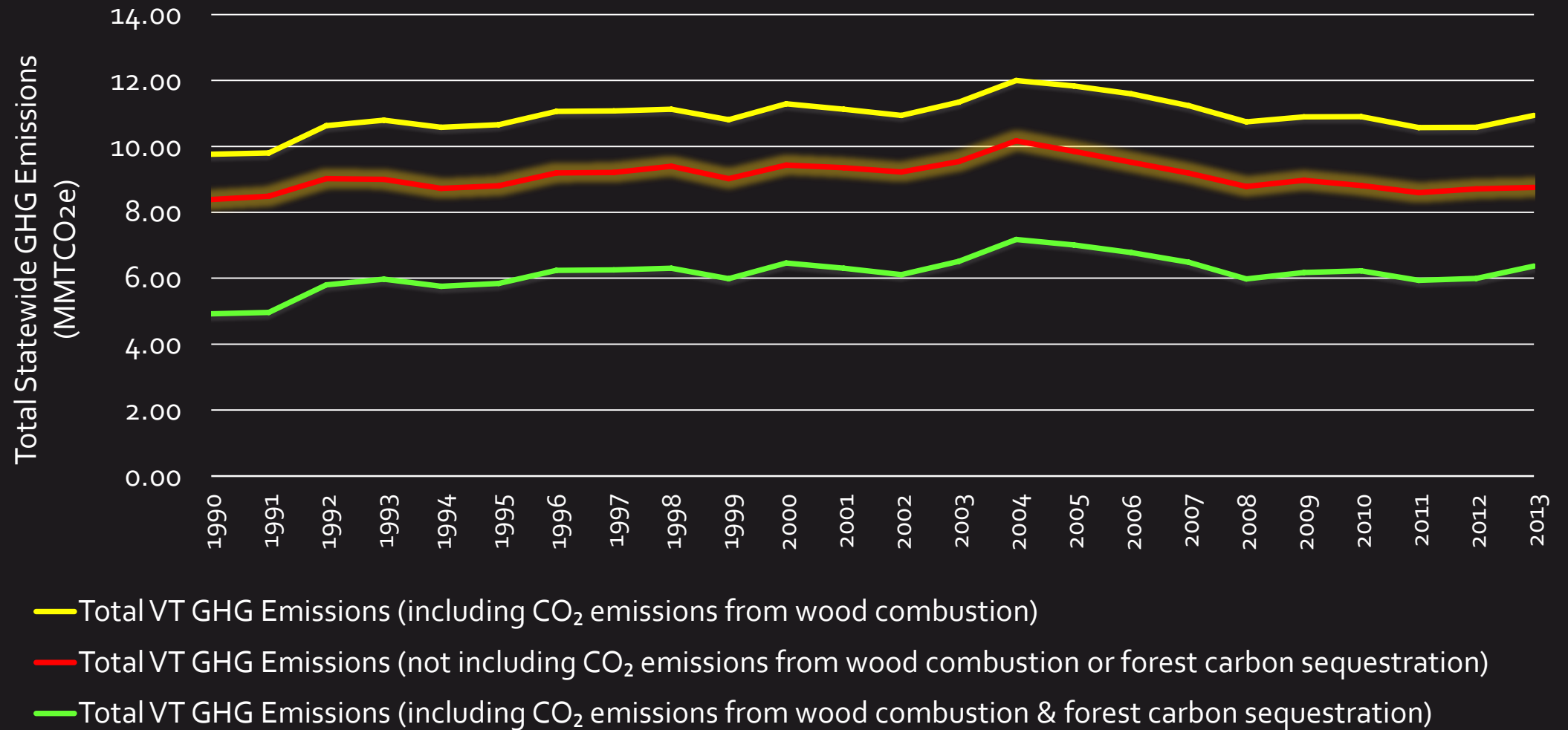




BIOGENIC CARBON: Sequestration

- 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>





THANK YOU!

...QUESTIONS?

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