

# New Jersey GHG Emissions Inventory -2018 Update

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# LEGAL MANDATE

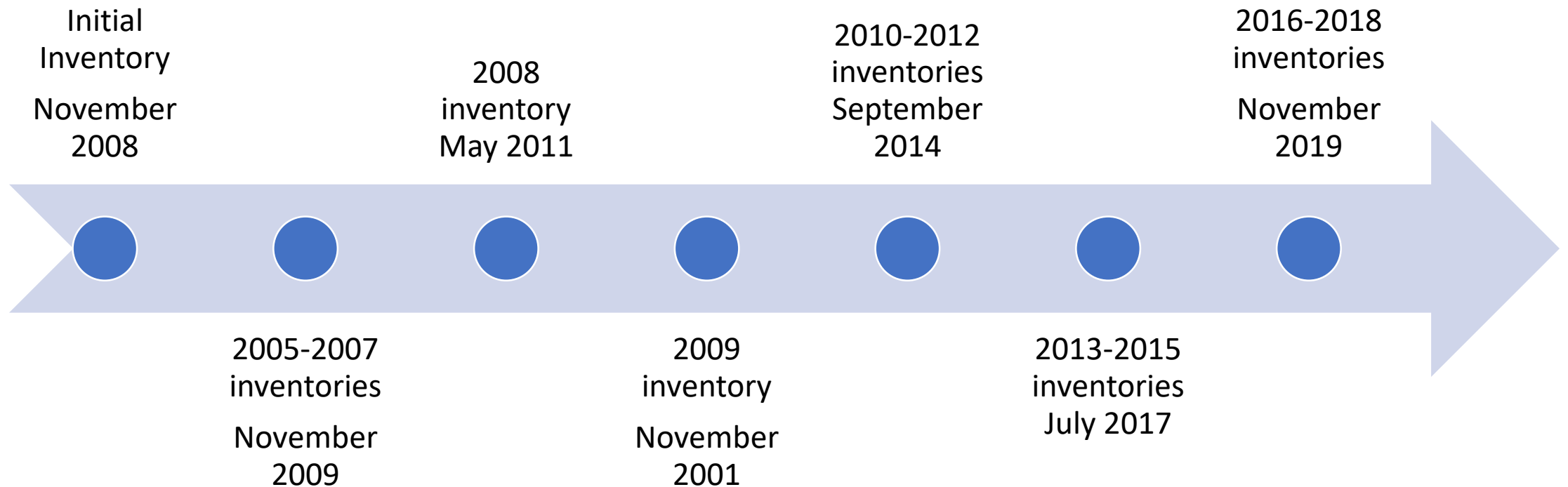
## 2007 Global Warming Response Act (GWRA)

- Section 7 a. No later than January 1, 2009, and biennially thereafter, the department shall prepare and transmit, in writing, a report to the Governor, to the State Treasurer, to the Legislature pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1) and to the members of the Senate Environment Committee and the Assembly Environment and Solid Waste Committee, on the **status of the greenhouse gas emissions monitoring and reporting program** established pursuant to this act, the current level of greenhouse gas emissions in the State and the progress made toward compliance with the 2020 limit and the 2050 limit established pursuant to this act. **The report shall also include updated and comparative inventories of Statewide greenhouse gas emissions.**

# RECENT AMENDMENT – An Act concerning the reduction of greenhouse gases and amending P.L. 2007, c.112 (23 July 2019)

- Requires the Department to adopt rules and regulations establishing a greenhouse gas emissions monitoring and reporting program to monitor and report Statewide greenhouse gas emissions no later than 18 months from the effective date of this bill (which is July 23, 2019) – by approximately December 23, 2020.
- Adds “short-lived climate pollutants” to the greenhouse gas sources that need to be identified and included in monitoring and reporting efforts from the Department.
- Requires that the reporting of those emissions (including short-lived climate pollutants) and changes in those emission levels annually, commencing 18 months after the effective date of this bill – so by December 23, 2020.
- Requires the greenhouse gas inventory, status on the monitoring and reporting rule and program toward the 2020 and 2050 limits no later than 18 months from the bill’s effective date – December 23, 2020 -- and biennially thereafter.

# GHG Timeline



# Inventory Sectors – Estimating Emissions



**Transportation** – All inventories prior to 2016 were estimated from fuel sales reported to EIA. 2016 – 2018 inventories use USEPA *MOVES* which incorporates VMT.



**Electricity Generation** – emissions reported to NJDEP through the emission statement program.



**Residential/Commercial/Industrial** – estimated from fuel sales reported to EIA



**Halogenated Gases** – All inventories prior to 2016 were estimated from XXXX. 2016 – 2018 inventories use U.S. Climate Alliance (USCA) Tool

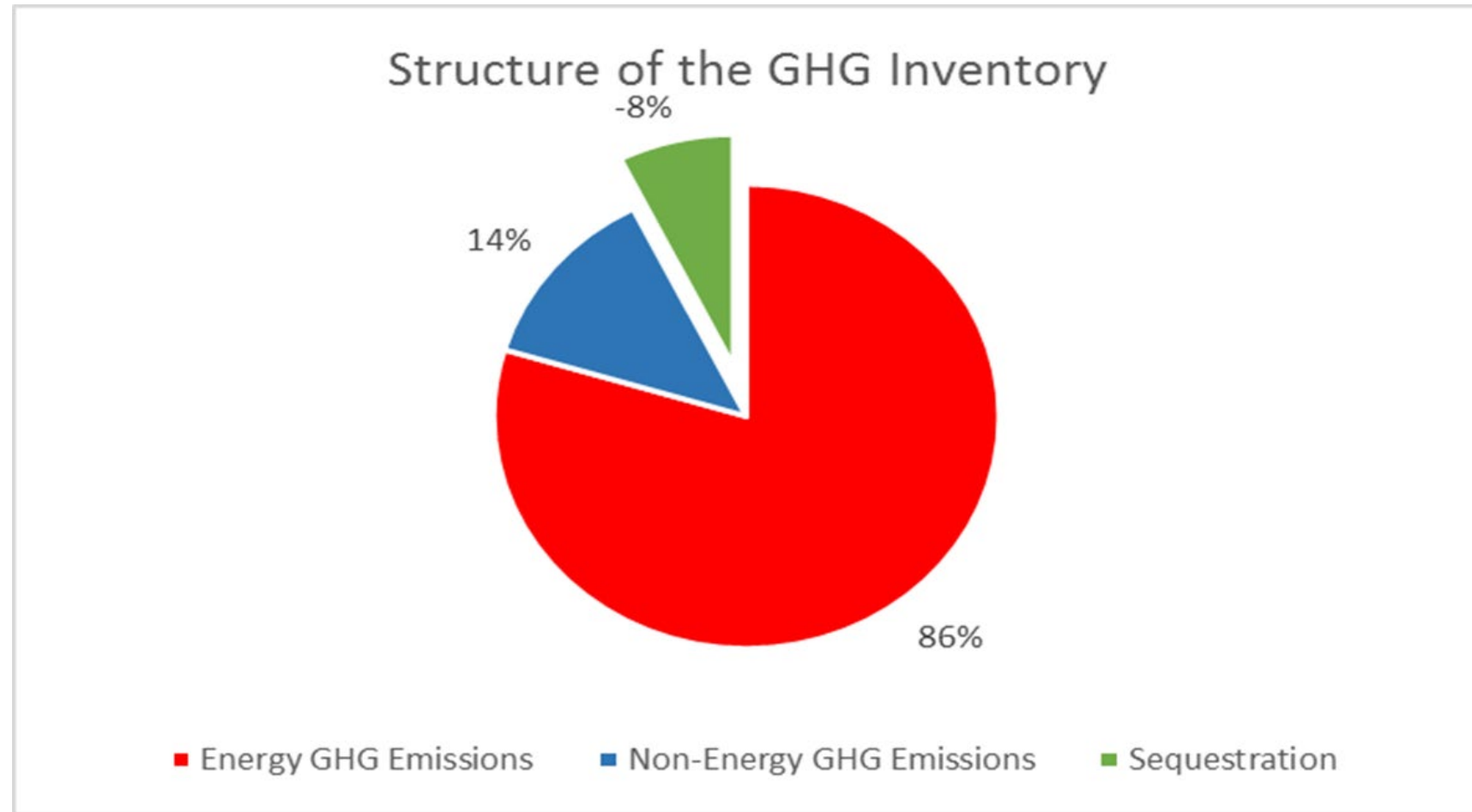


**Waste Management** – estimated using USEPA State Inventory Tool

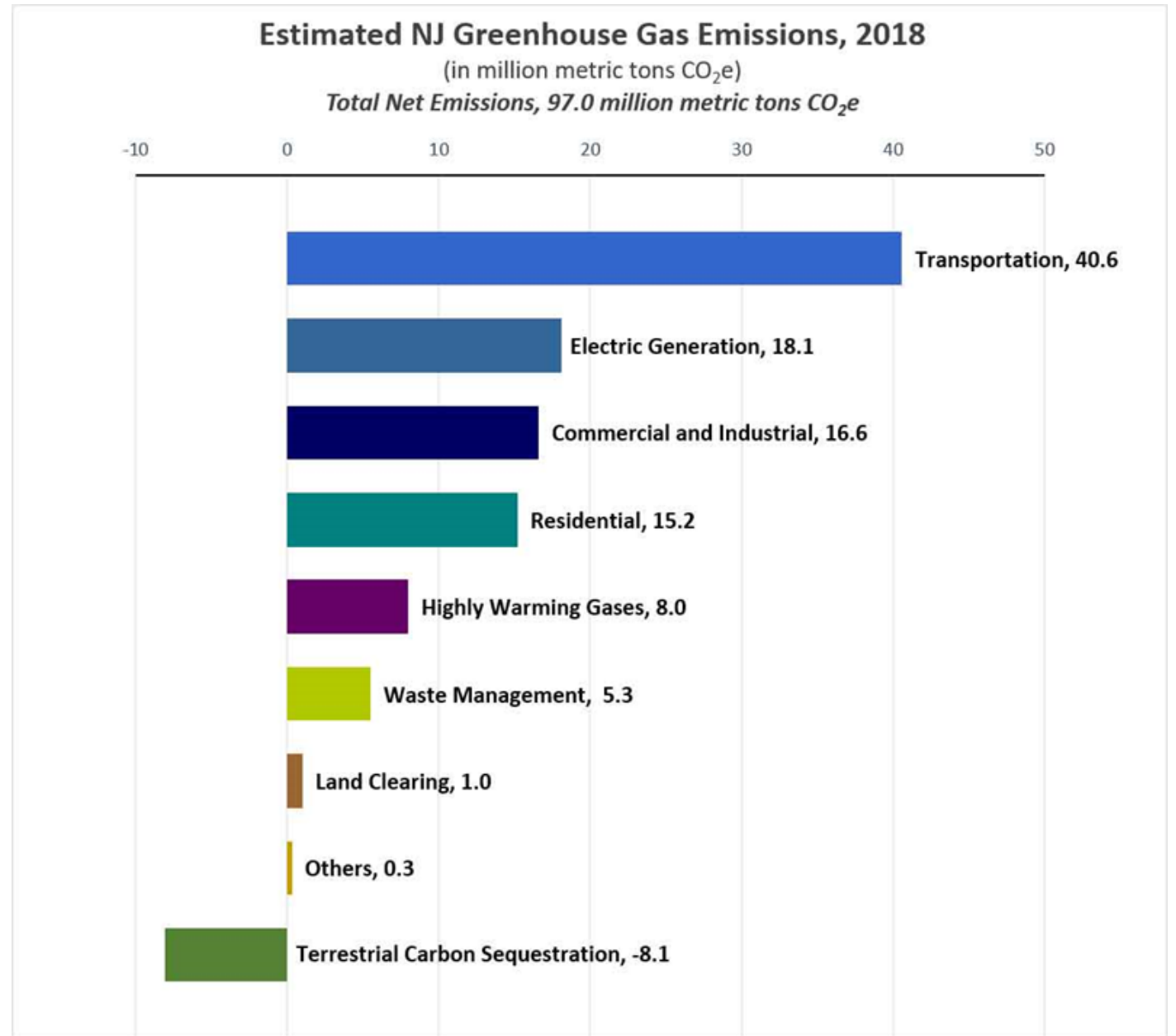


**Land Clearing and Carbon Sequestration** – based on NJDEP Land Use Land Cover Data

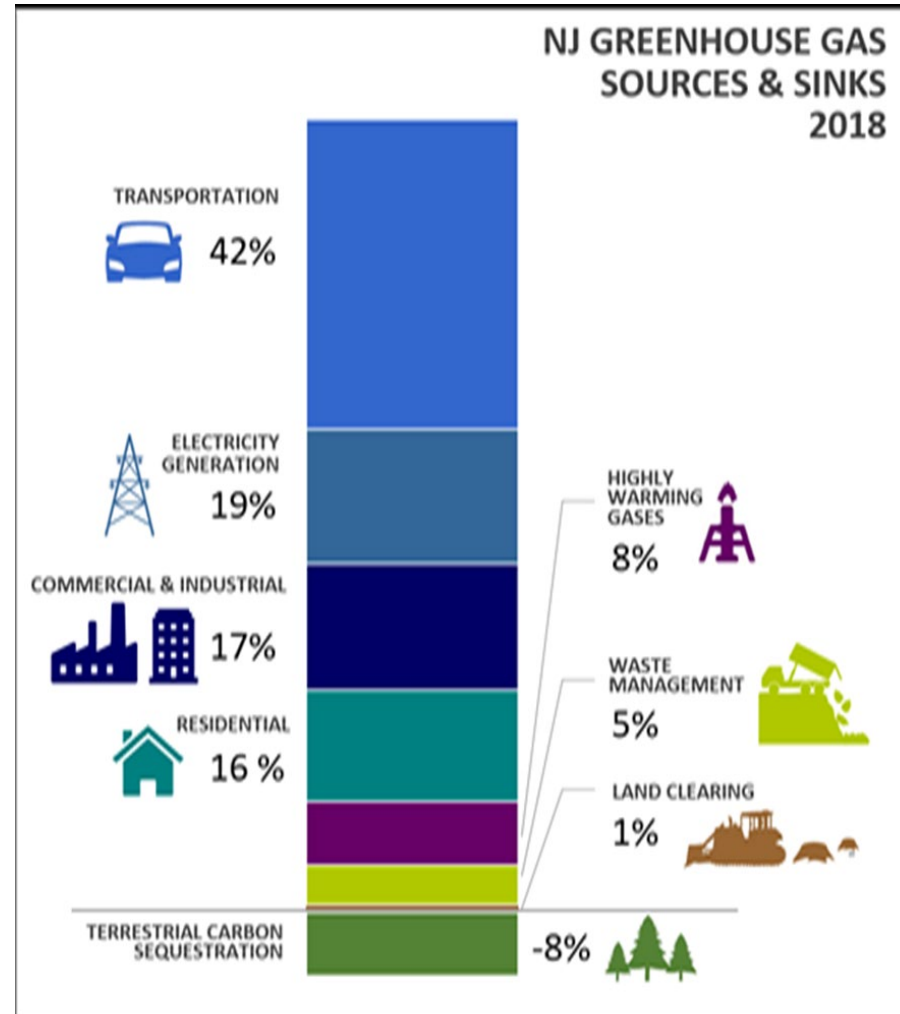
# 2018 UPDATE SUMMARY SOURCES & SINKS



# 2018 GHG Inventory Update

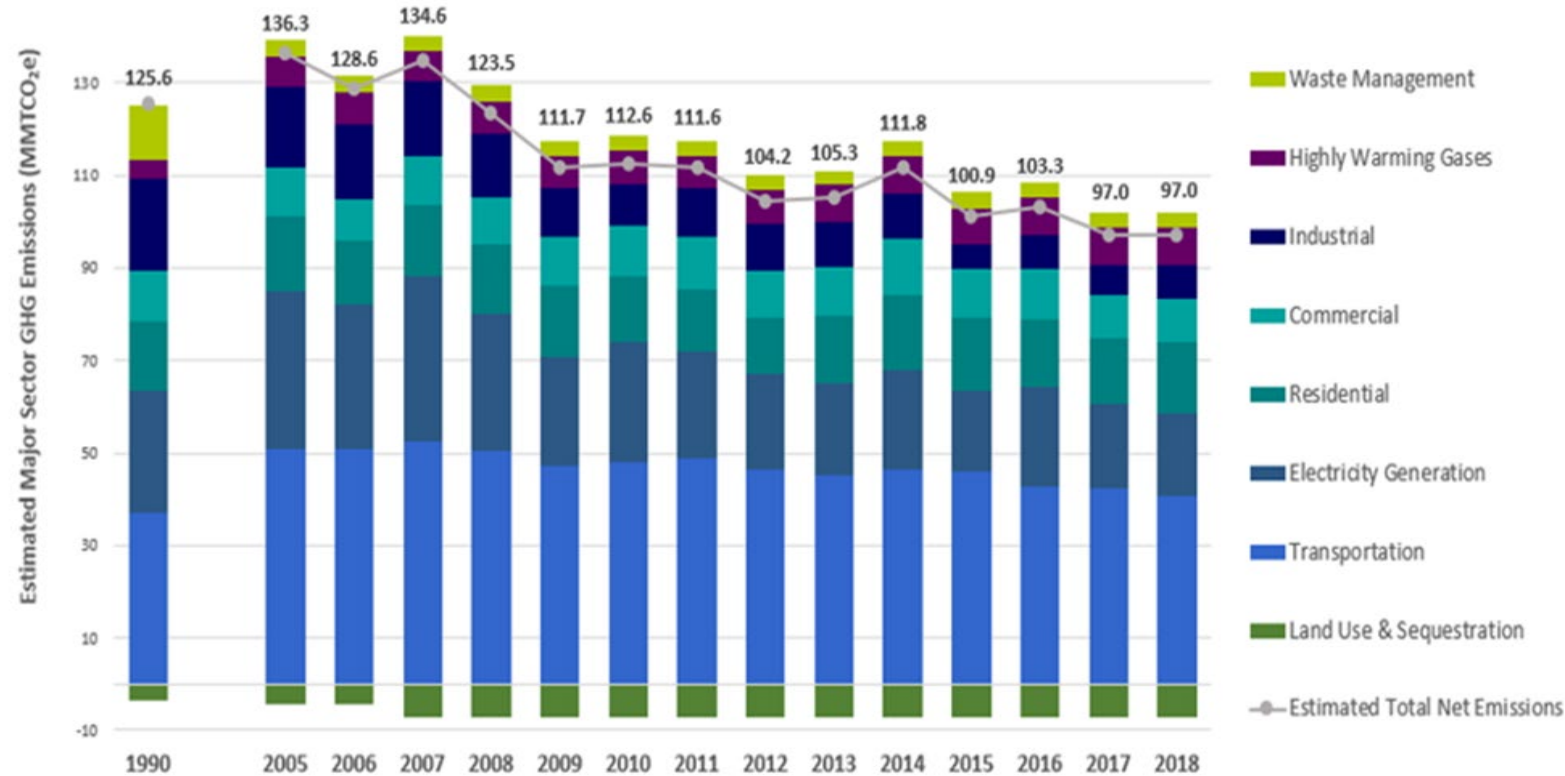


# Sectoral Highlights of 2018 Update

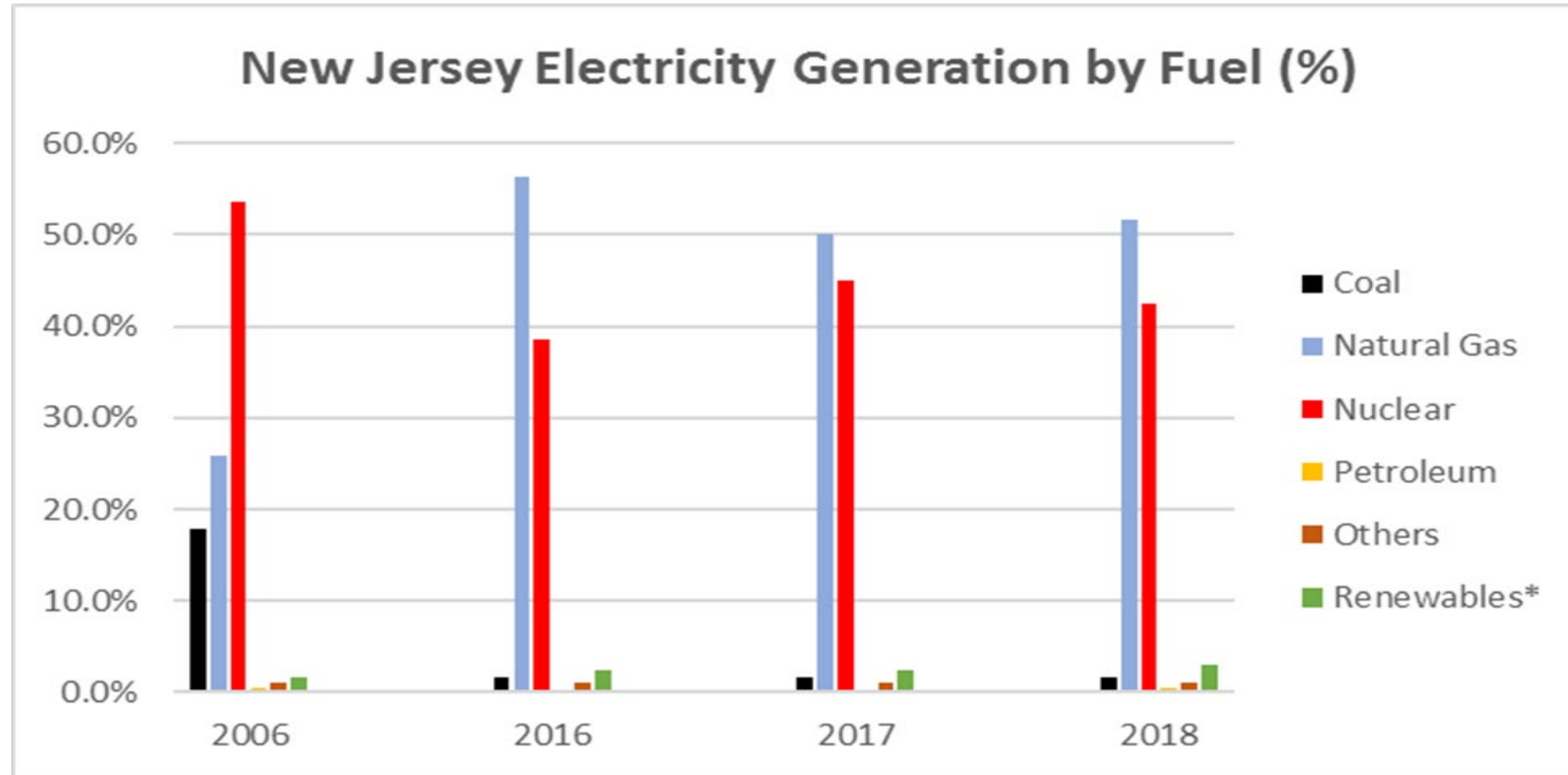




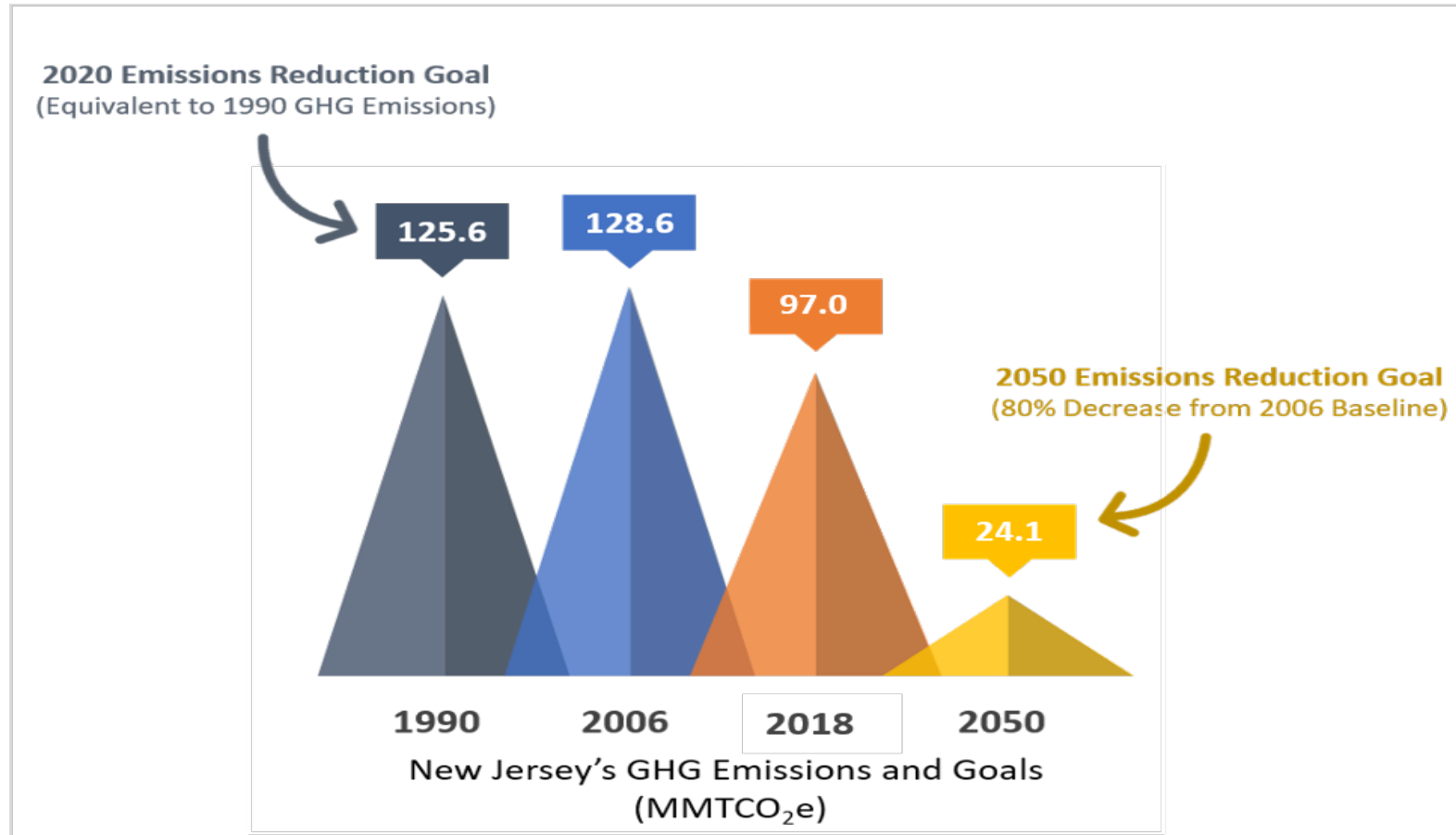
# GHG Emission Trends (1990, 2005 – 2018)



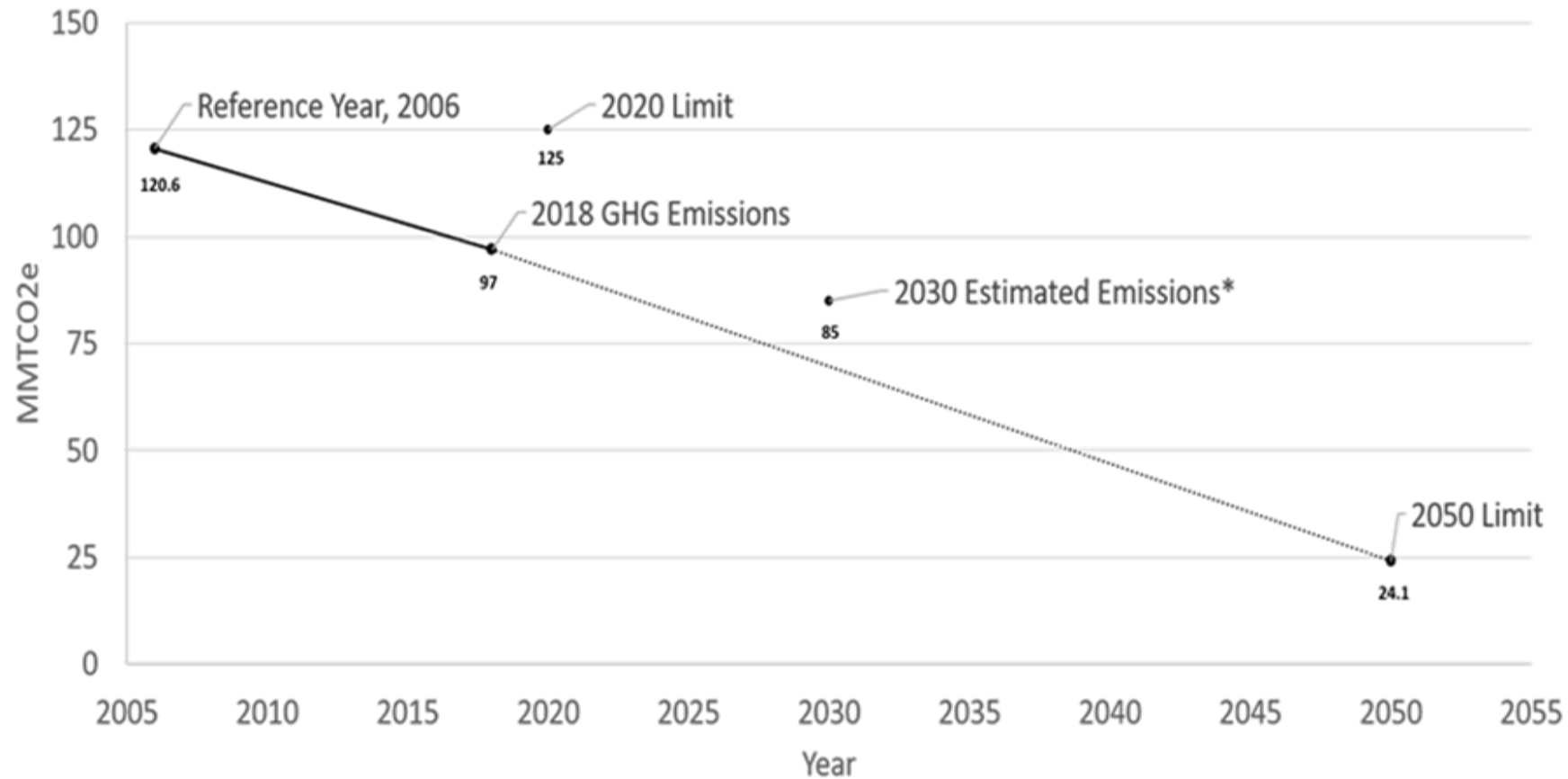
# Fuel Mix of Power Sector (2006, 2016 – 2018)



# New Jersey GHG Emissions Reduction Goals



# NJ 2050 Emissions Reduction Trajectory



# GWRA Goal Achievement

- Already below the 2020 goal of 125.6 million metric tons/year (the 1990 level)
- The longer-term 2050 GHG limit of 24.1 million metric tons/year (80% below the 2006 level) poses more challenges