
Massachusetts Global Warming Solutions Act and Clean Energy and Climate Plan for 2020

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MA Energy Efficiency Advisory Council (EEAC) Meeting
November 12, 2013



Global Warming Solutions Act (GWSA) Requirements

- Collaborate across agencies to reduce greenhouse gas (GHG) emissions to the limits established in the law
- Adopt a statewide GHG emission reduction limit of 10-25% below 1990 baseline level by 2020 and at least 80% by 2050
- Create economy-wide *Clean Energy and Climate Plan for 2020* no later than Jan 1, 2011 to reduce GHG emissions
- Establish GHG emissions registry and reporting system
- Publish an inventory with estimates of GHG emissions no later than Dec 31, 2010 and every 3 years thereafter
- Publish 5-year report on GWSA implementation no later than Jan 1, 2014
- Update *Clean Energy and Climate Plan for 2020* by Jan 1, 2016

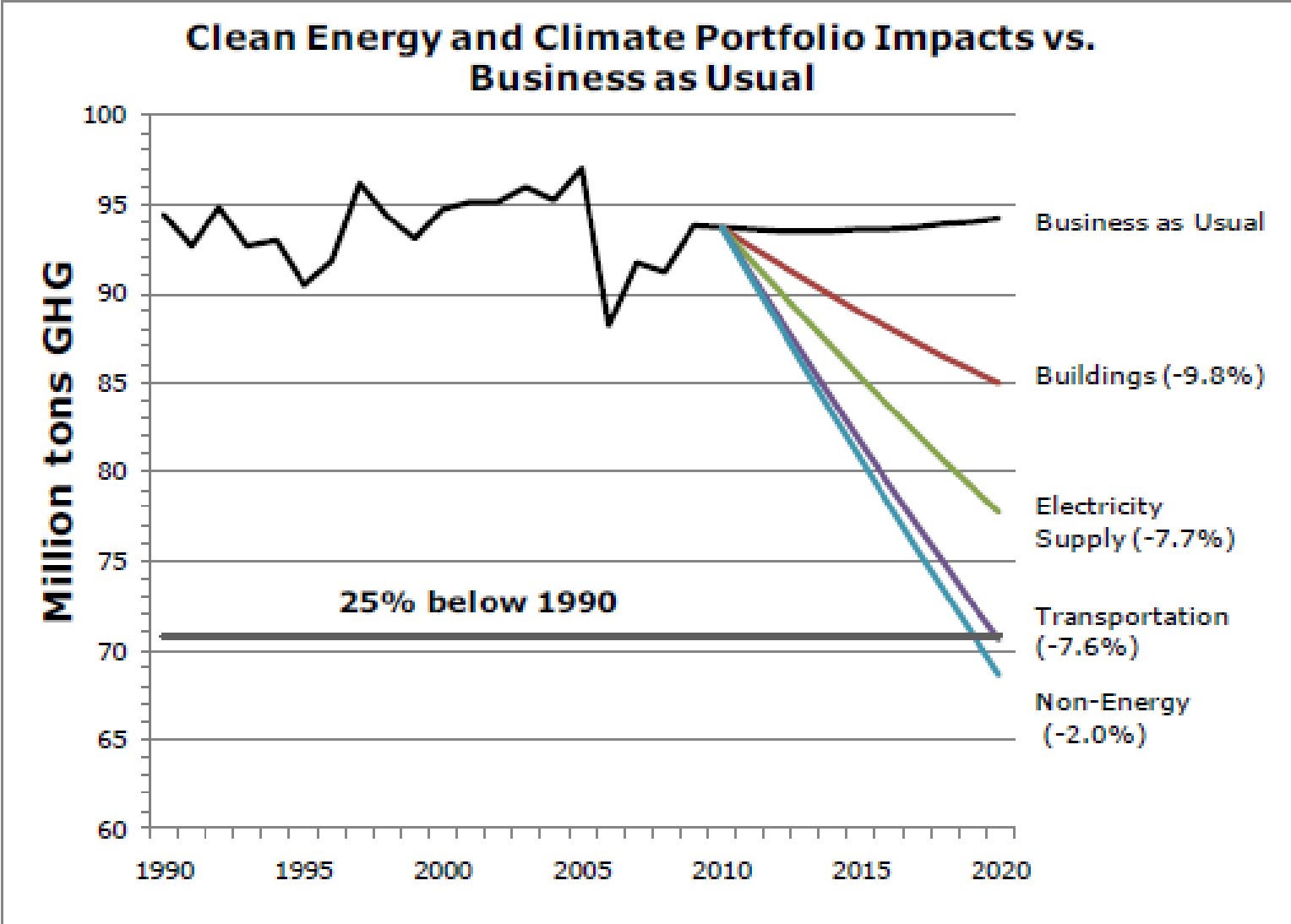


Massachusetts Clean Energy and Climate Plan for 2020 (CECP)

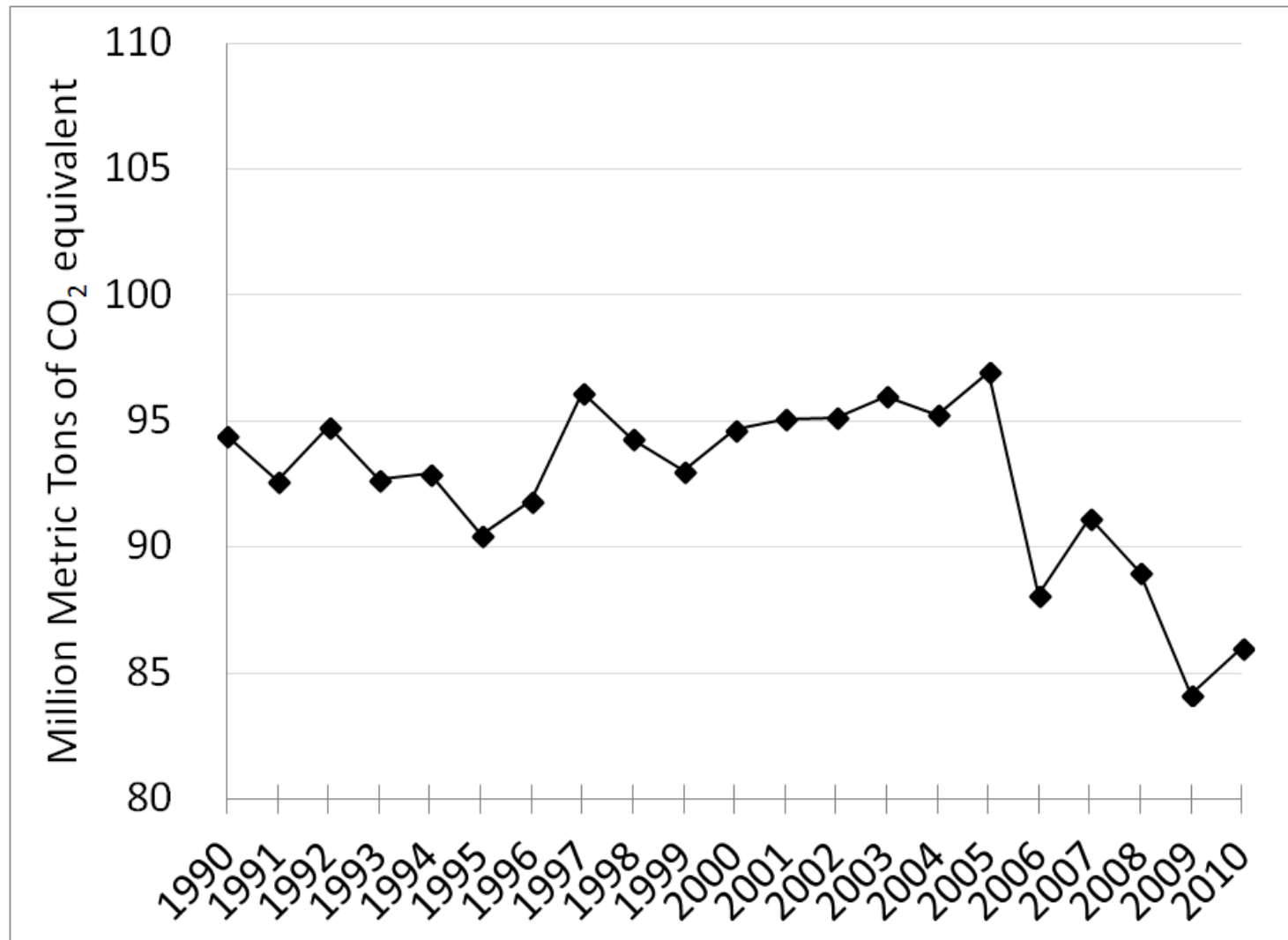
- In December 2010, the Massachusetts Executive Office of Energy and Environmental Affairs:
 - Set the 2020 emissions reduction requirement at 25% below 1990 levels; maximum amount authorized by law
 - Issued the CECP that lays out 28 programs and policies to reduce GHG emissions from 4 sectors to achieve 25% reduction goal by 2020



CECP Approach



Massachusetts GHG Emissions

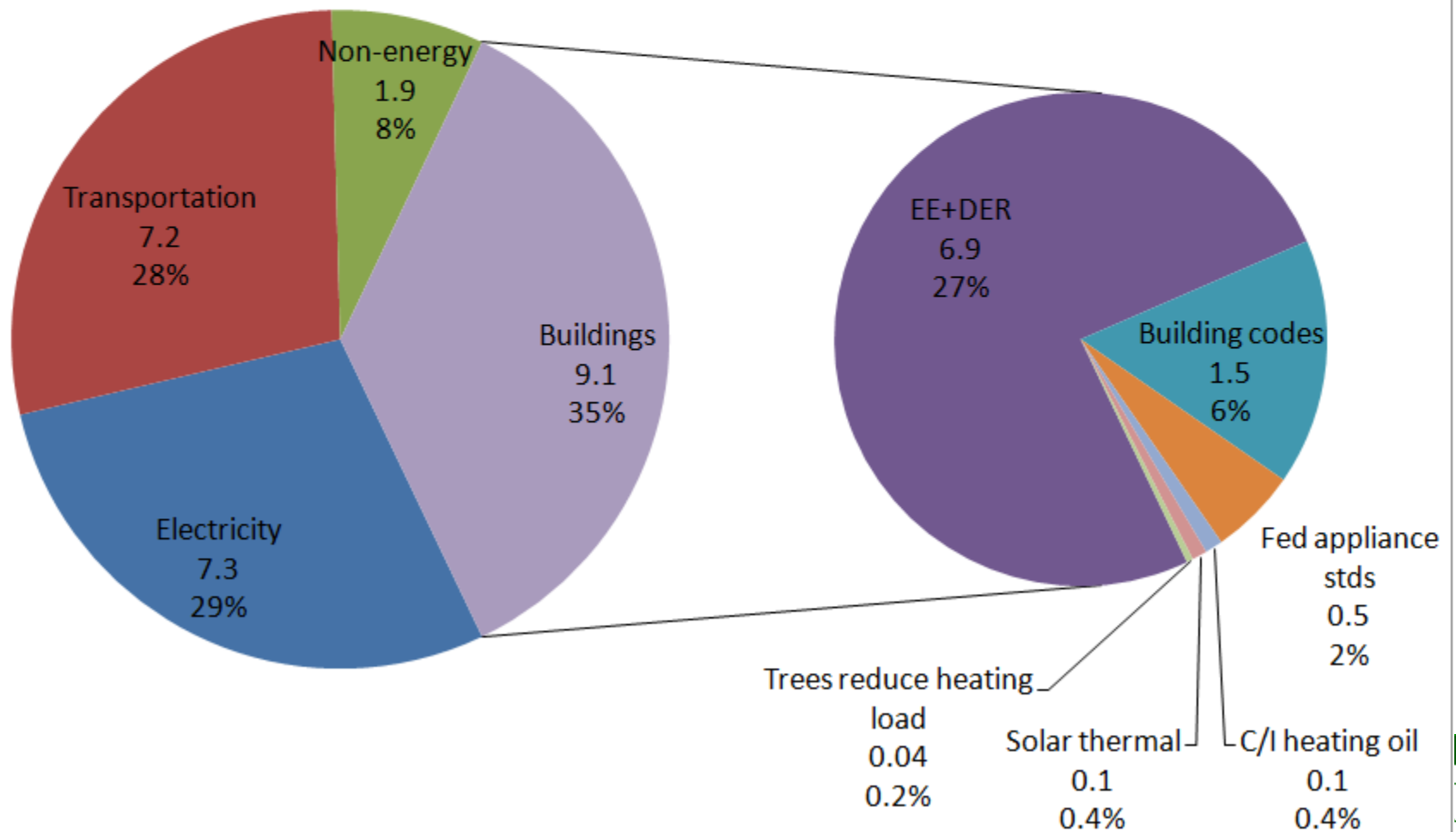


Massachusetts EE Policy Drivers

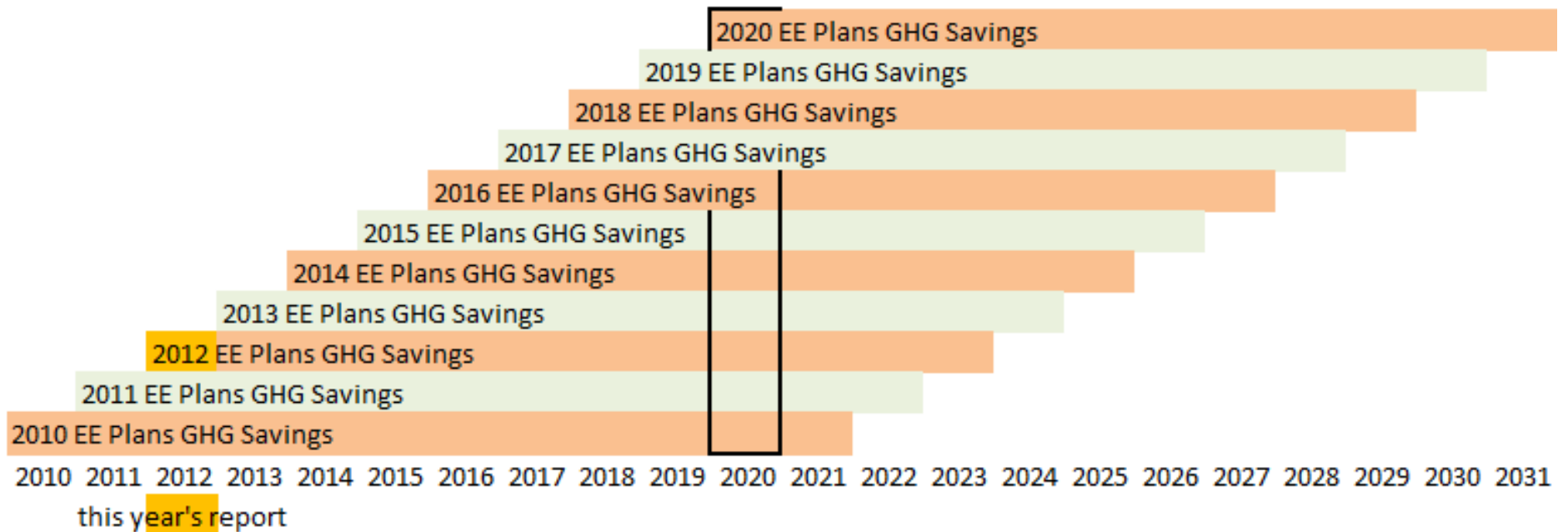
- Massachusetts *Global Warming Solutions Act* (2008) requires greenhouse gas (GHG) reductions of 25% by 2020 and 80% by 2050 (compared to 1990 baseline)
- *Green Communities Act* (2008) requires “acquisition of all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply” and uses RGGI auction proceeds for EE
- *Massachusetts Clean Energy and Climate Plan for 2020* relies on EE for largest segment of reductions (nearly one third of 25% reduction)



Massachusetts Clean Energy and Climate Plan for 2020 (MMT_{CO₂E} and % of total reductions)



Annual vs. Lifetime vs. Cumulative Annual EE Savings



CECP Energy Savings

	as % of Forecasted Retail Sales		Annual Growth Rate
	electric	gas	oil
2010	1.3%	0.6%	2010-2012 TYP
2011	1.9%	0.9%	
2012	2.2%	1.15%	
2013	2.4%	1.3%	5%
2014	2.5%	1.45%	5%
2015	2.6%	1.6%	5%
2016	2.7%	1.75%	5%
2017	2.8%	1.9%	5%
2018	2.9%	1.9%	5%
2019	2.9%	1.9%	5%
2020	2.9%	1.9%	5%

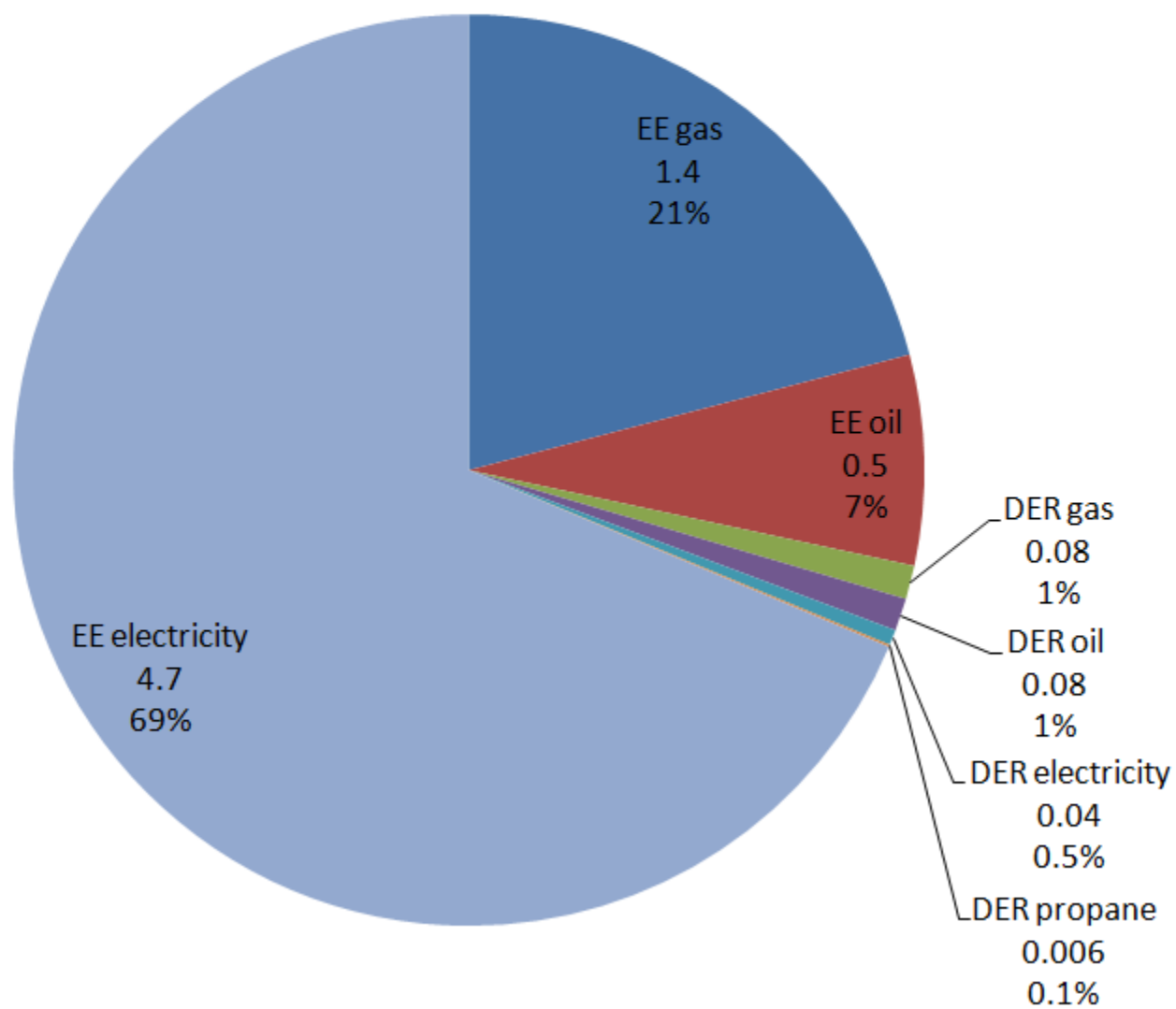
Next Steps

- Estimate EE GHG benefits for tracking purposes in:
 - GWSA-required 5-Year Report
 - forthcoming GWSA Dashboard

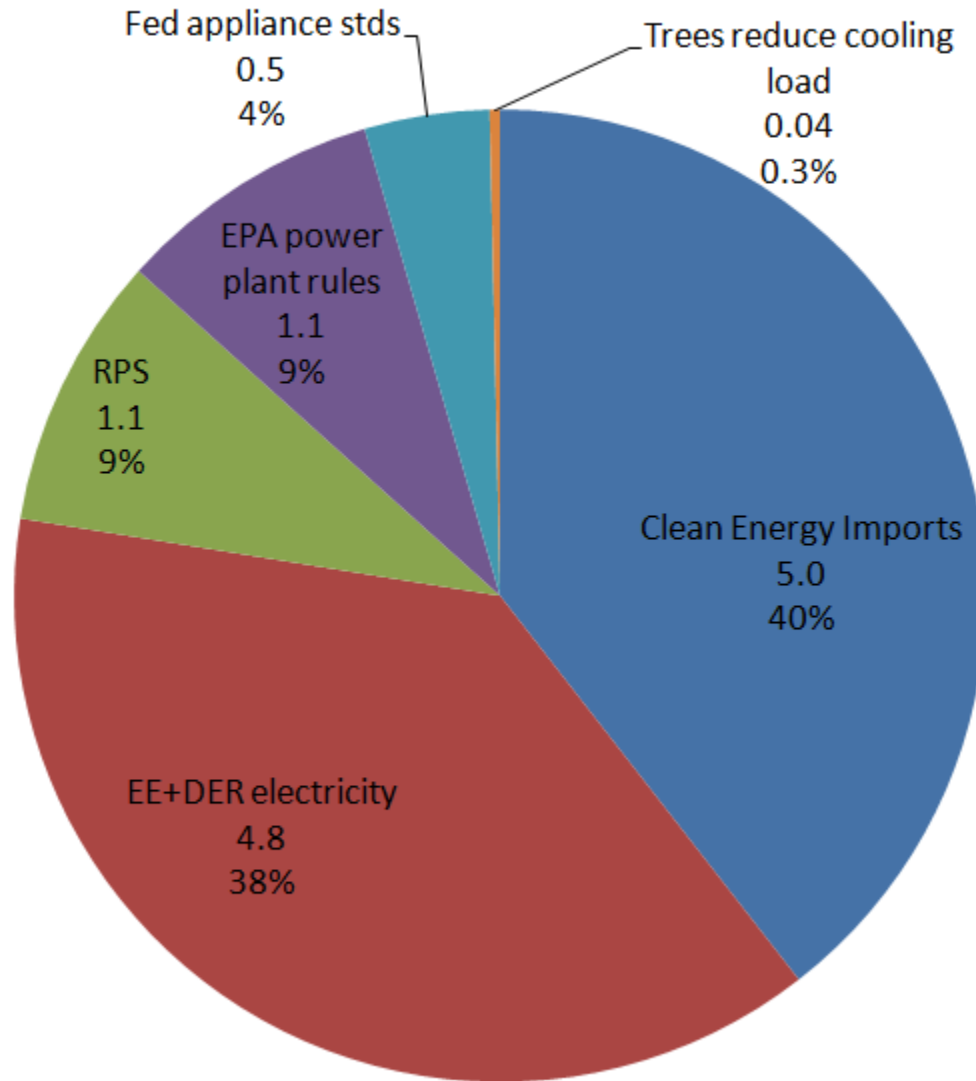
Questions/Comments?

Thank you!

Massachusetts Clean Energy and Climate Plan for 2020: EE+DER Strategies (MMTCO₂E and % of EE+DER reductions)



Massachusetts Clean Energy and Climate Plan for 2020: Electric Sector Strategies (MMTCO₂E and % of electric reductions)



CECP Emission Factors

- 1030 pounds carbon dioxide per megawatt hour (lb CO₂/MWh) saved
- 0.00585 short ton CO₂/therm gas saved
- 161.386 lb CO₂/million British Thermal units (mmBtu) oil saved
- 139.178 lb CO₂/mmBtu propane saved