



Proposed Greenhouse Gas Reduction Regulations

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Overview

- Global Warming Solutions Act (GWSA) – 2008
- Kain vs. DEP Decision – May 2016
- Executive Order No. 569 – September 2016
- Transportation Sector Greenhouse Gases in Massachusetts
- Revised Greenhouse Gas Reduction Regulations



Global Warming Solutions Act (GWSA) of 2008

- Executive Office of Energy and Environmental Affairs (EOEEA) is primarily responsible for implementing the Act.
- Act requires EOEEA to establish:
 - Greenhouse gas (GHG) reporting regime and registry (by January 2009);
 - Baseline emissions equal to all MA emissions from 1990 (by July 2009);
 - Statewide emissions limit for 2020 under ‘business as usual;’ and
 - Plan for reaching 10-25% reduction levels below 1990 baseline by 2020 (by 1/2011).
 - Plan for reducing GHG emissions in the Commonwealth by at least 80% below 1990 baseline by 2050.
- By January 2012, EOEEA was to promulgate regulations, Section 3(d), to “establish a desired level of declining aggregate emissions...” to take effect in 2013.



GWSA Transportation Regulation

- The Department of Environmental Protection (DEP) promulgated a regulation to implement GWSA for the transportation sector
- 310 CMR 60.05, effective January 2015, is entitled Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation.
- The regulations require MassDOT to:
 - Require Metropolitan Planning Organizations (MPOs) to evaluate and track GHG emissions and impacts of their plans
 - Demonstrate achievement of GHG reduction commitments and targets in the Clean Energy and Climate Plan



Kain vs. Department of Environmental Protection (DEP)

- In the lawsuit brought by Kain et al, the Supreme Court disagreed with EOEEA's claim of accomplishing the requirements of Section 3(d) of the Global Warming Solutions Act.
- The Court ruled that it is the duty of DEP under Section 3(d) to “promulgate regulations setting declining annual aggregate limits for regulated sources or categories of sources of GHGs.”
- Per the ruling, DEP must:
 - Promulgate regulations on sources or categories of sources of emissions;
 - Impose limits on the aggregate emissions from each group and in total; and
 - Set overall limits, by source, which decline on an annual basis.



Massachusetts Executive Order No. 569

Signed by Governor Charlie Baker on September 16, 2016, designating EOEEA to lead efforts to:

- Continue to work with the existing GWSA Implementation Advisory Committee
- Expand strategies for reducing GHGs from government operations
- Work with MassDOT and regional transit authorities to reduce transportation GHGs
- Publish a 5-year comprehensive energy plan beginning in 2018
- Promulgate 3(d) regulations by August 2017
 - Revise the GWSA requirements for MassDOT in 310 C.M.R. 60.05 to establish declining annual limits
 - Consider limits on emissions from sources including the transportation sector and Commonwealth's fleet vehicles
- Designate a Climate Change Coordinator for each Executive Office



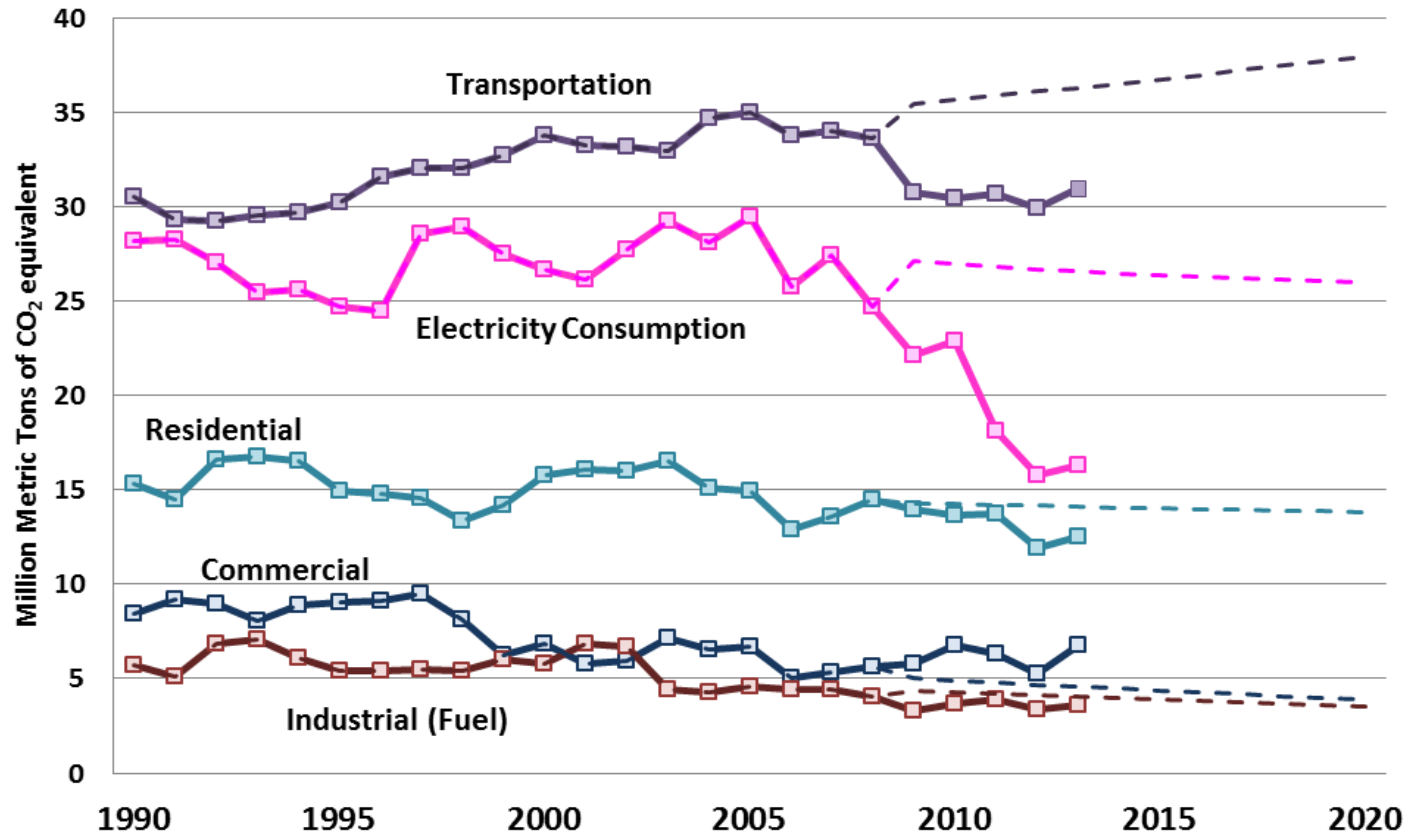
Proposed new/amended DEP regulations

DEP has proposed, in response to the Kain decision, multiple regulations that establish separate sets of declining emission limits (caps):

- Requirements for MassDOT (revised 310 CMR 60.05)
- Emission Limits for State Fleet Passenger Vehicles (310 CMR 60.06)
- Clean Energy Standard for Retail Sellers (310 CMR 7.75)
- Electricity Generator Emissions Limits (310 CMR 7.74)
- Methane Leaks from Gas Distribution System (310 CMR 7.73)
- Gas Insulated Switchgear (310 CMR 7.72)



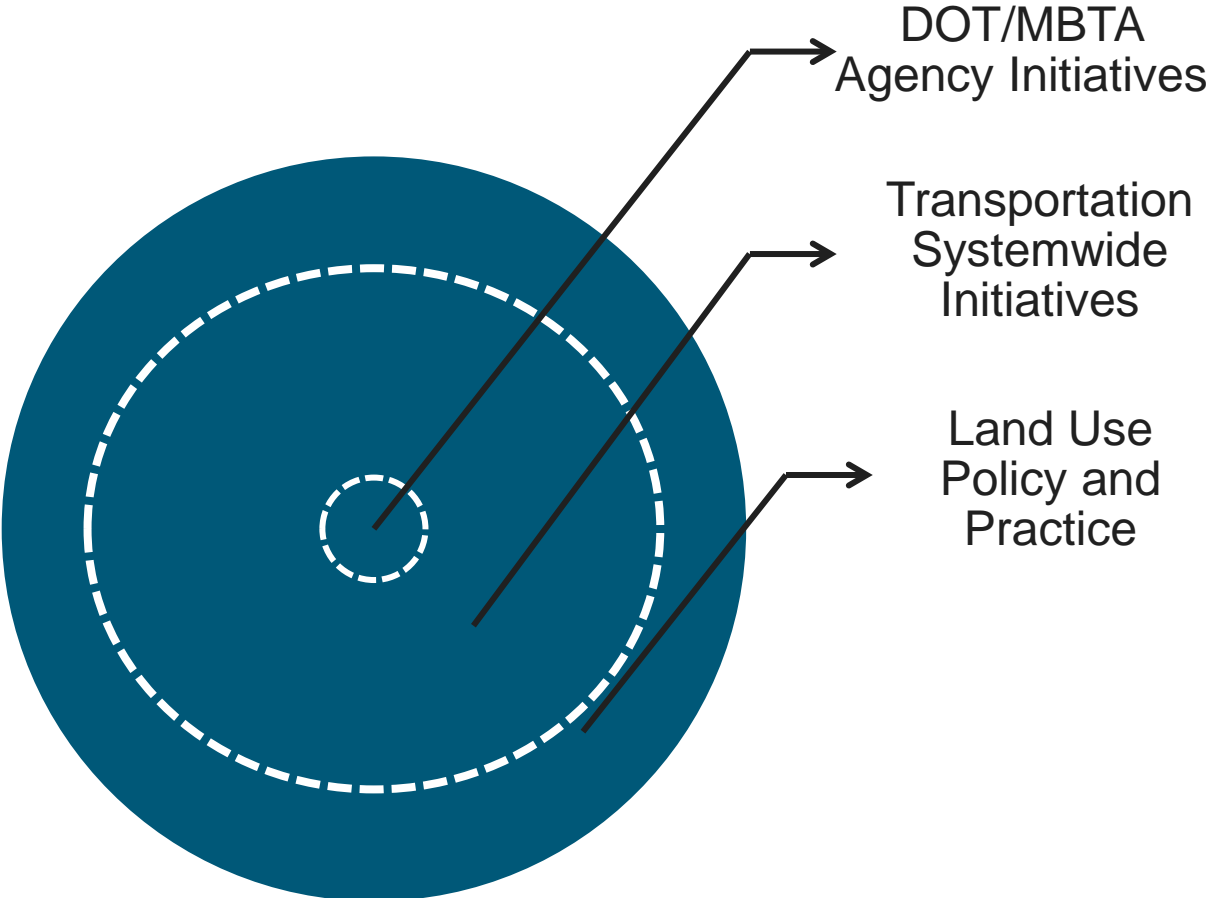
GHG Emissions by Sector in Massachusetts



Source: MassDEP's Statewide GHG Emissions Baseline and Projection



Tools for Reducing Transportation Sector GHGs



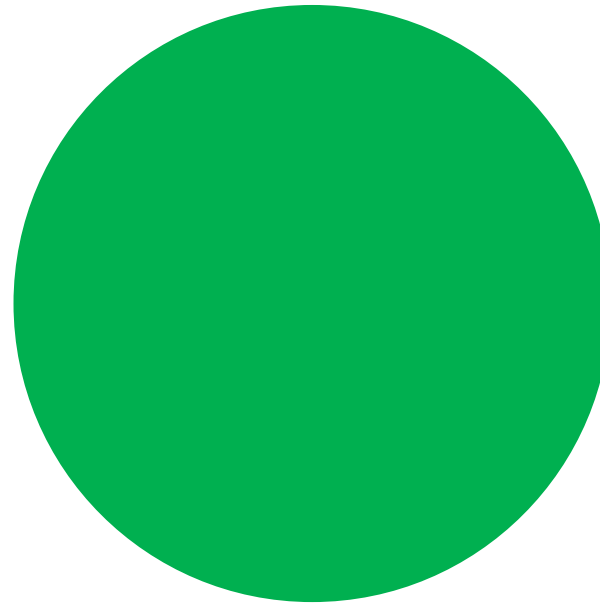
MassDOT/MBTA Agency Initiatives are Critical But Insufficient By Themselves

GHG Emissions from all transportation fuels in MA (2013)

30.9 MMt/year

GHG emissions from MassDOT and MBTA vehicles (2015)

0.284 MMt/year



Drawn to scale



MassDOT obligation: Reduce MassDOT/MBTA use of fossil fuels

- DEP has proposed annual limits that apply to MassDOT (i.e. an emissions cap)
- Must reduce GHG emissions from all fossil fuel combusted in MassDOT/MBTA vehicles and in buildings for heat on a calendar year basis.
- Must address any exceedance of these hard annual limits through “supplemental measures.”

GHG limits in 310 CMR 60.05(6)	
<u>Calendar Year</u>	<u>Maximum Allowable Aggregate MassDOT Transportation GHG Emissions (million metric tons of CO₂)</u>
<u>2018</u>	<u>0.299</u>
<u>2019</u>	<u>0.294</u>
<u>2020</u>	<u>0.289</u>

We must reduce annual emissions by 10,000 MT. Equivalent to reducing diesel use by 1,000,000 gallons



MassDOT obligation: Reduce MassDOT/MBTA fossil fuel used in our passenger vehicles

- A separate declining cap applies to a subset of MassDOT & MBTA vehicles.
- Applies to a much smaller amount of emissions/fuel use.
- All Executive Branch entities will have this obligation.



MassDOT obligation: Quantify and report sector-wide GHG emissions

- Quantify and report Massachusetts' aggregate (surface) transportation GHG emissions annually against the limits for the whole transportation sector set out in regulation 310 CMR 60.05(7).

Maximum Annual Aggregate Transportation GHG Emissions	
Calendar Year	Maximum Allowable Aggregate Transportation GHG Emissions (million metric tons of CO ₂)
<u>2018</u>	<u>24.582</u>
<u>2019</u>	<u>24.122</u>
<u>2020</u>	<u>23.682</u>

- MassDOT plans to use FHWA motor fuel and highway trust fund data for this purpose.
- MassDOT has no obligation in the revised regulation to ensure that sector limits are met, just to report.



MassDOT/MPO obligation: Incorporate GHG reduction into transportation planning process

- Use GHG impacts as a project prioritization and selection process, as has been required under initial version of 310 CMR 60.05.
- Evaluate GHG impacts of plans and projects.
 - MassDOT and MPOs are already using GHG impacts as a project selection criterion.
 - MassDOT has issued guidance and tools to MPOs on estimating and reporting GHG impacts and has already been producing GHG impact estimates of plans.



Next Steps

- Work with MassDOT and MBTA departments to achieve the annual 10,000 MT reduction.
- Convene working group on moving beyond 2020 transportation sector GHG targets.

