

# Massachusetts Global Warming Solutions Act

MIT SeaGrant  
Climate Change Symposium  
June 18, 2014

Aisling O'Shea, GWSA Manager  
Massachusetts Executive Office of Energy and  
Environmental Affairs

# What is the State of MA Doing?

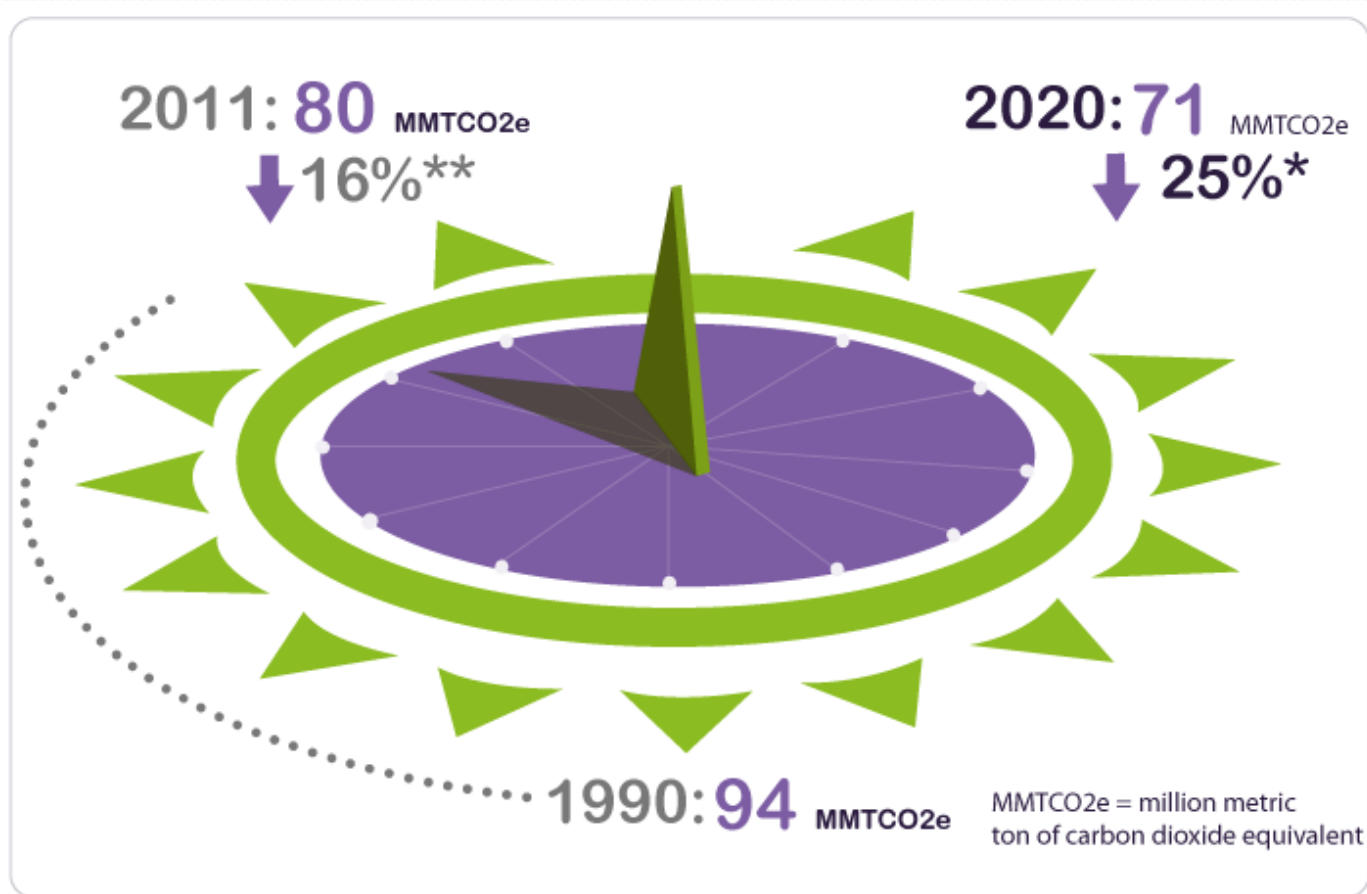
- Global Warming Solutions Act (GWSA), 2008
  - Greenhouse gas (GHG) reporting and GHG emissions inventory
  - 25% GHG emission reductions by 2020 and 80% by 2050 (reductions from 1990 baseline levels)
  - EEA Secretary convenes stakeholder groups for adaptation and mitigation
- Clean Energy and Climate Plan for 2020
  - December 2010 plan identifies 27 strategies for climate mitigation
  - GWSA 5-Year Progress Report, Dec 2013
  - GWSA Performance Management System and public facing Dashboard

# Climate Adaptation & Resilience

- Adaptation Report (2011) - climate change impacts and recommendations for natural resources and habitat, infrastructure, human health and welfare, local economy and government, and coastal zone and oceans.
- Governor Patrick's Coordinated Climate Preparedness Initiative (Jan. 2014) \$50 Million in funding
- CZM StormSmart Coasts Program  
<http://www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/>

# MA Progress – GHG Reduction

[www.mass.gov/eea/gwsa](http://www.mass.gov/eea/gwsa)



# MA Clean Energy and Climate Plan for 2020



Buildings,  
Energy  
Efficiency &  
Demand Side  
Management



Energy  
Generation  
and  
Distribution



Transportation  
Smart Growth  
and  
Land Use

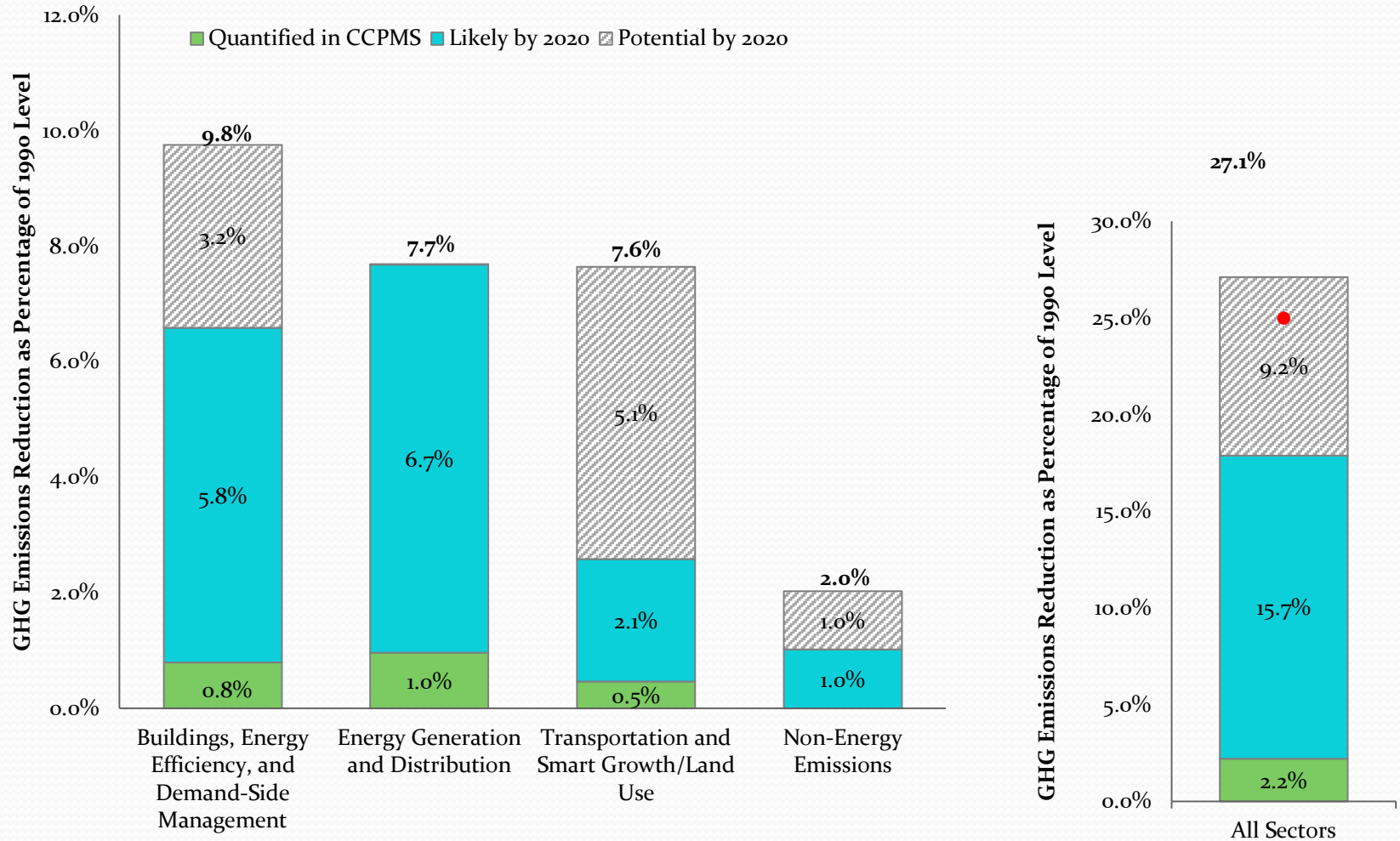


Non-  
Energy  
Emissions



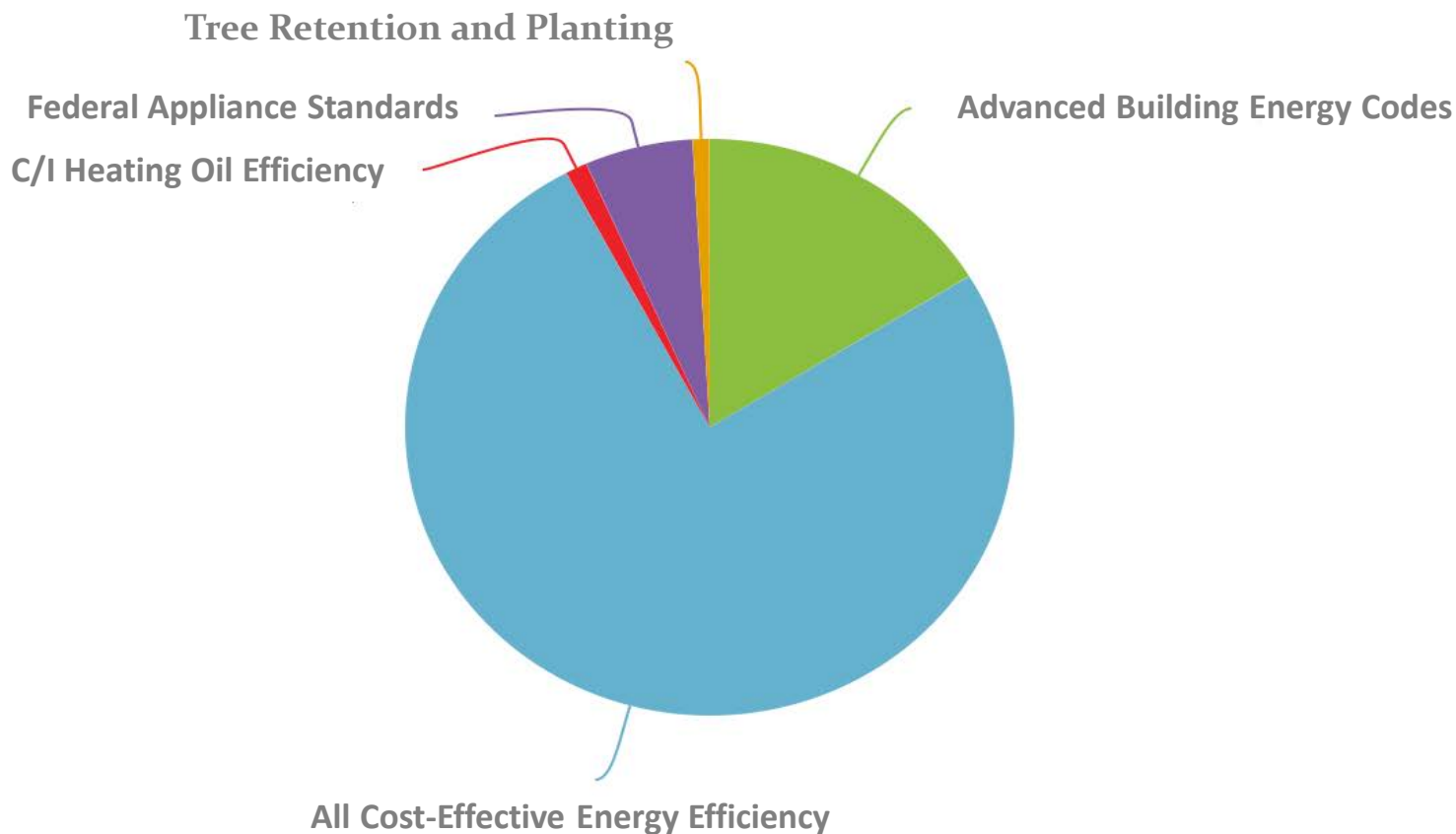
Cross-  
Cutting  
Policies

# Progress on GHG reduction strategies and the 2020 Limit



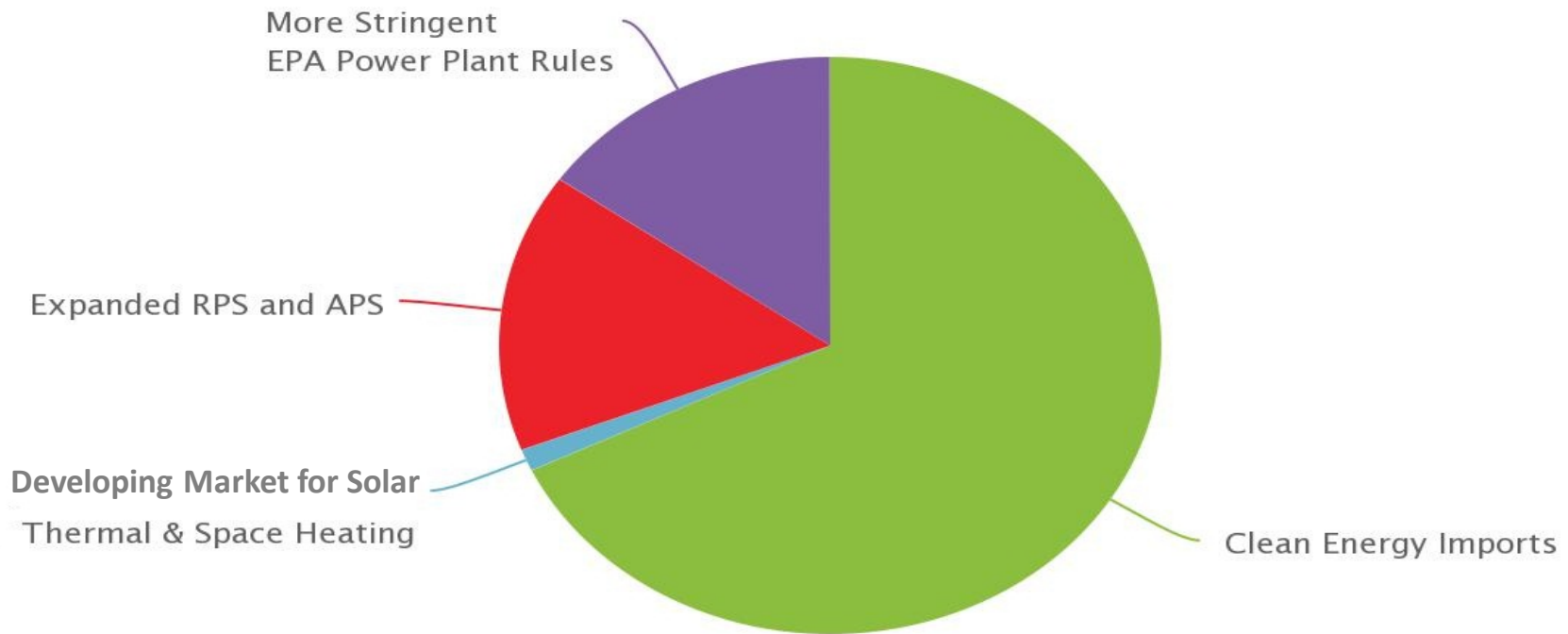
● 25% GHG Emissions reduction by 2020 (compared to 1990 baseline levels)

# 2020 GHG Reduction Strategies Buildings, Energy Efficiency, Demand-side Management



This Sector - 36% of 2020 Plan GHG Reduction Target (9.1 MMT CO<sub>2</sub>e)

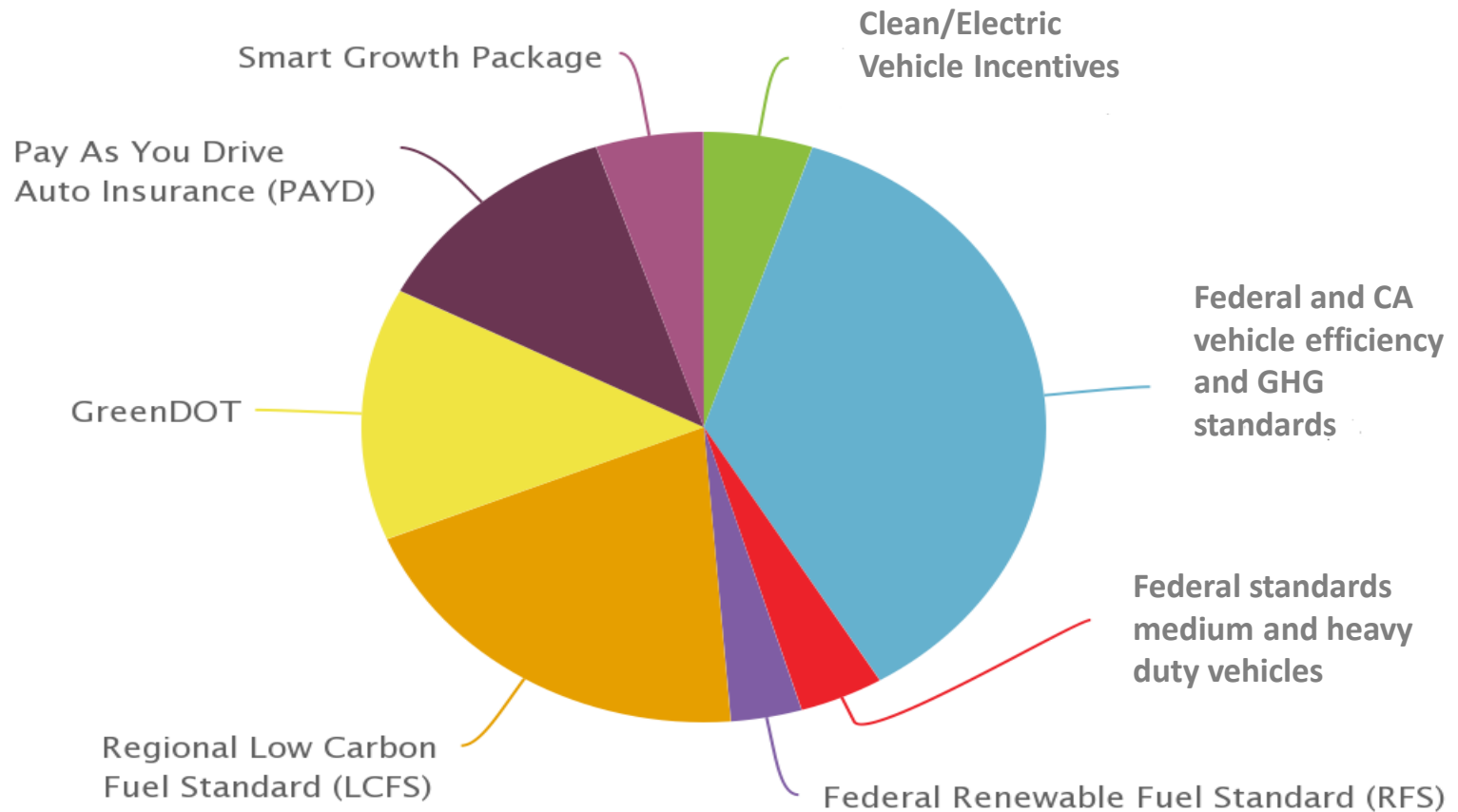
# 2020 GHG Emission Reduction Strategies Energy Generation and Distribution



This Sector – 29 % of 2020 Plan GHG Reduction Target (7.3 MMT CO<sub>2</sub>e)



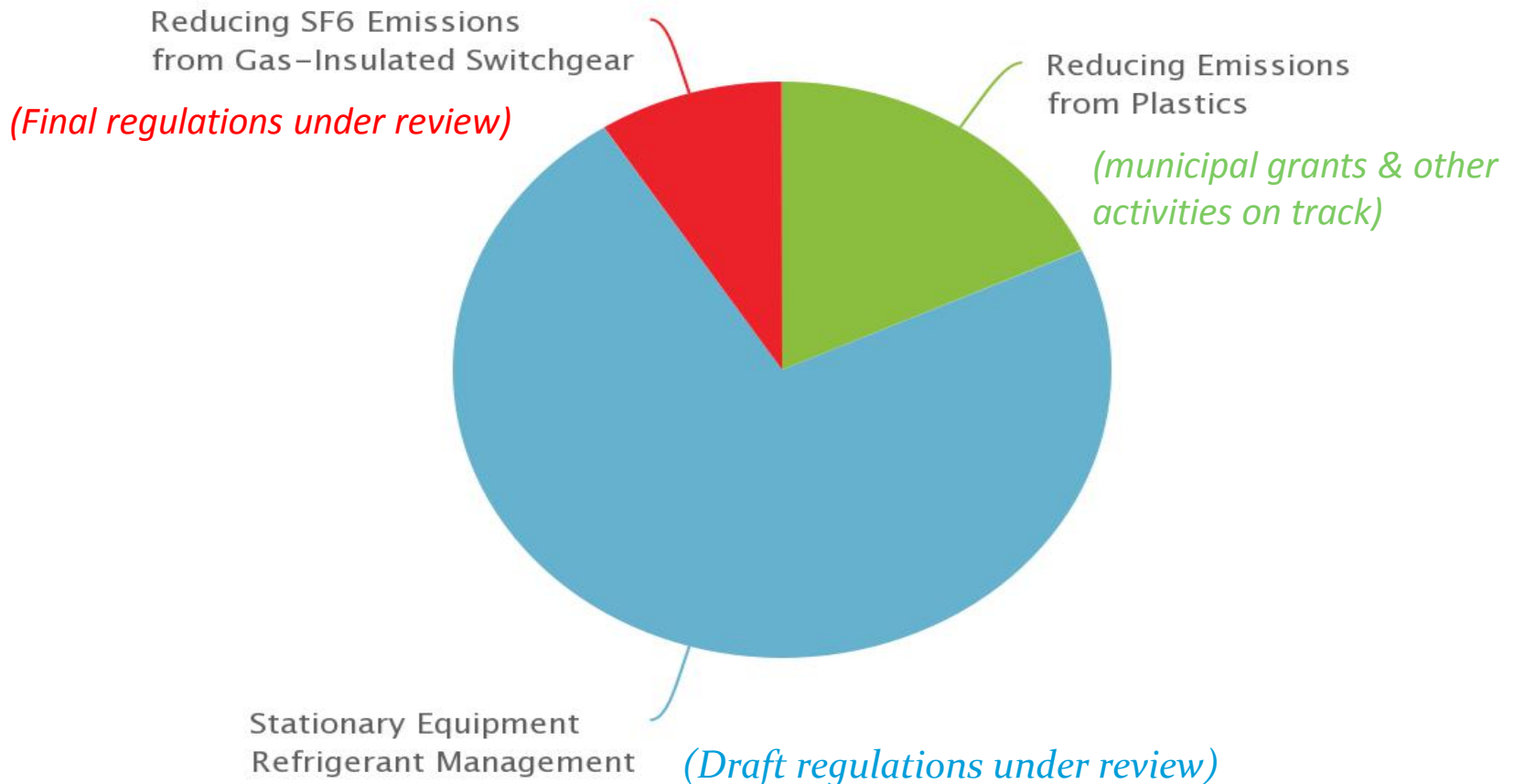
# 2020 GHG Reduction Strategies Transportation, Smart Growth and Land Use



This sector - 29% of 2020 Plan GHG Reduction Target (7.49 MMT CO<sub>2</sub>e)

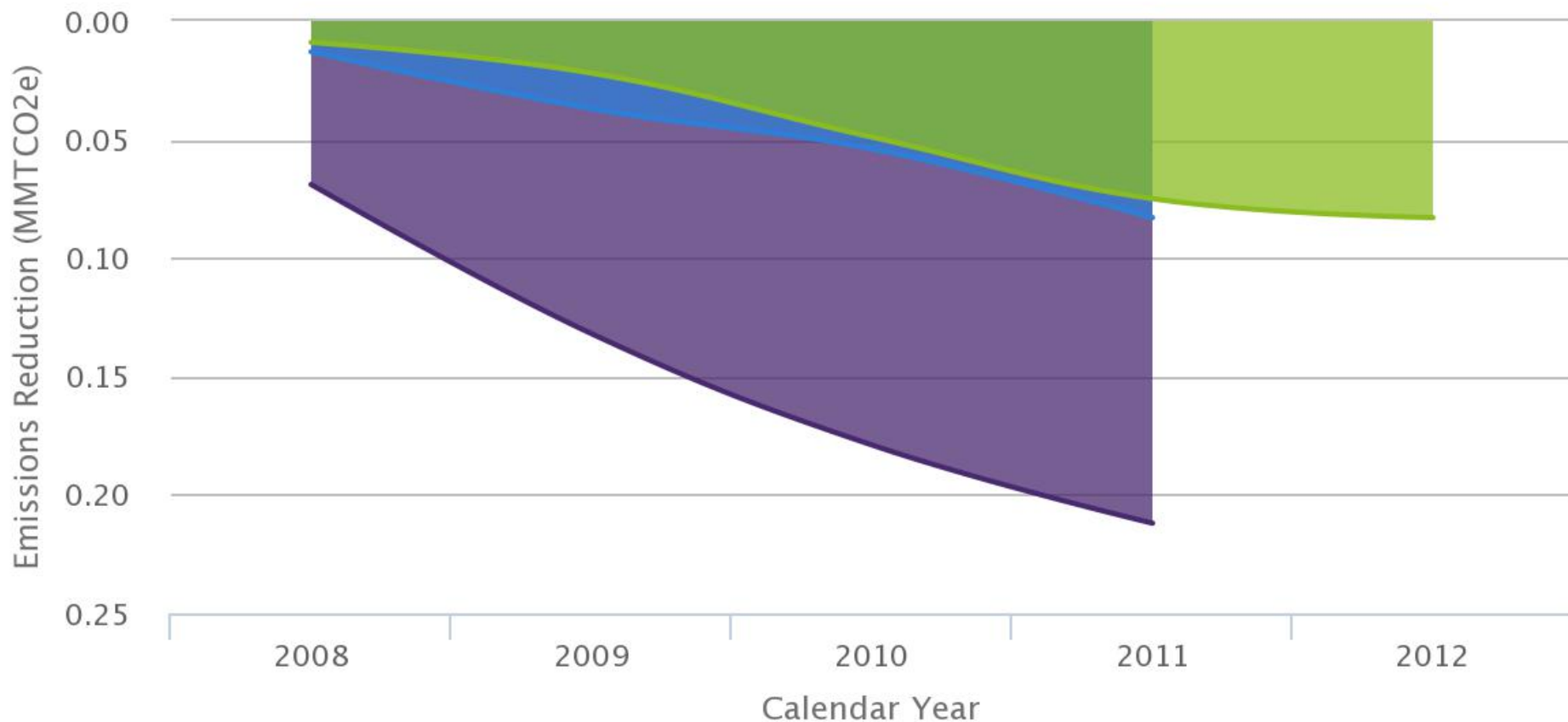
# 2020 GHG Emission Reduction Targets

(Million Metric Tons (MMT) CO<sub>2</sub>e/percent reduction compared to 1990 levels)



This sector - 6% of 2020 Plan GHG reduction target (1.65 MMT CO<sub>2</sub>e)

# Reductions in GHG Emissions from Cross-Cutting Policies



- GHG Emissions Reduction at State Facilities**
- Reported GHG Emissions Reduction from Green Communities**
- Committed GHG Emissions Reduction by MEPA Reviewed Projects**

# Renewables in Massachusetts

**2,000 MW Wind by 2020**  
**103 MW installed (06/14)**



Plus 330 MW of Combined Heat and Power (CHP) installed

**1600 MW solar by 2020**  
**520 MW installed (06/14)**



# Climate Mitigation – What's New?

- New Solar regulations in effect, supports market up to 1600 MW of PV capacity statewide
- *Pending* - Thermal Energy Bill, important vehicle to incentivize renewable thermal in MA (SB 1970)
- *Pending* - Clean Energy Resources Bill, supports long-term contracting for renewable energy (Bill H. 3968)
- *Pending* – Zoning Reform Bill (Bill H. 1859), *An Act Promoting the Planning and Development of Sustainable Communities*
- Updates to the 2020 plan (due Dec. 2015)
- Beyond 2020, planning for 2050

# Climate Adaptation/Resilient Infrastructure

- Summer 2013 – Governor Patrick announces Climate Change Adaptation as one of top 3 priorities for EEA
- EEA leads efforts to advance climate preparedness stakeholder process identifies priorities– Infrastructure (transportation, energy and built environment)
- Jan. '14 -Governor announces Coordinated Climate Preparedness Initiative
  - \$50 Million for programs to benefit municipalities
  - \$2 million FY15 budget for state public resource preparedness

# Critical Coastal Infrastructure Fund - \$10M

- Coastal Community Resilience and Green Infrastructure Pilots (\$2.3 m)
  - April '14, CZM awards \$1 million in grants to ten coastal communities to address coastal storms, flooding, erosion and sea level rise
  - May '14 CZM awards \$1.3m to 9 coastal communities for dune and shoreline stabilization and other green infrastructure
- Coastal infrastructure projects to repair and improve declining seawalls (\$7.6m)

# Community Clean Energy Resiliency - \$40M

For energy resilience, using clean technologies, at critical facilities

MA DOER Grants - Application deadline July 15, 2014

- Technical Assistance grants
- Project Implementation grants (round 1)

For more information

- <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/resiliency-initiative.html>



# Questions/Comments?



Aisling O'Shea, GWSA Manager  
Executive Office of Energy and Environmental Affairs (EEA)  
phone: (617) 626-1024  
email: [aisling.o'shea@state.ma.us](mailto:aisling.o'shea@state.ma.us)

[www.mass.gov/eea/gwsa](http://www.mass.gov/eea/gwsa)