

# **Global Warming Solutions Act & Green Communities Act**

Nancy L. Seidman

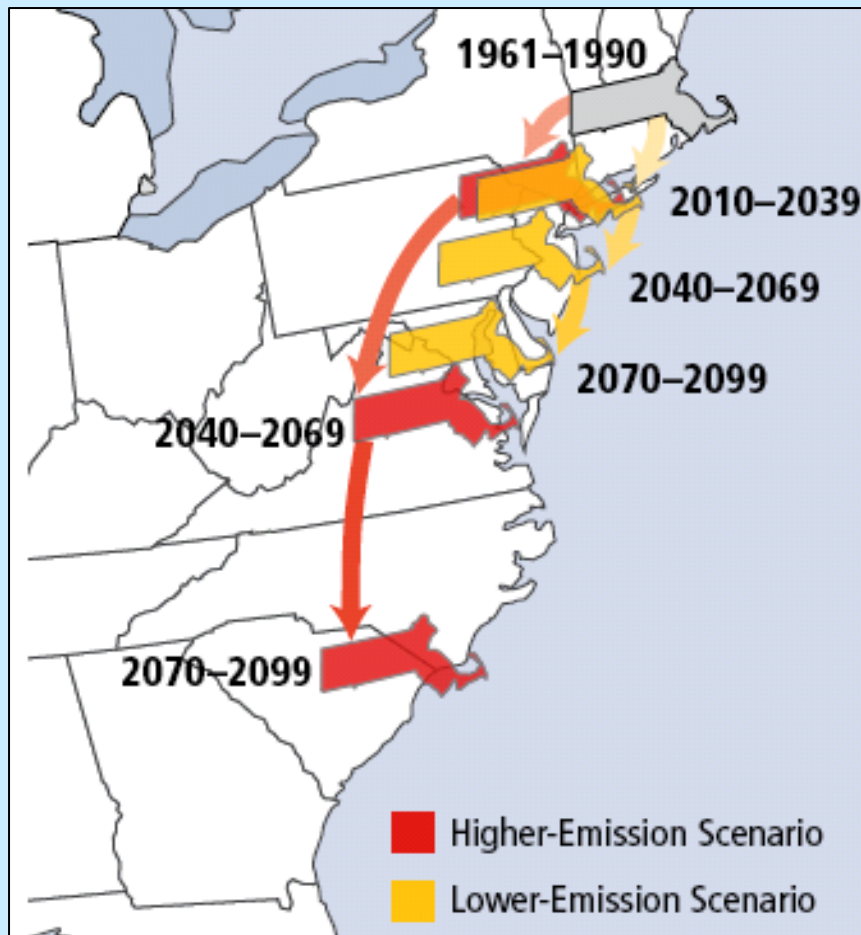
Deputy Assistant Commissioner for Climate Strategies

Bureau of Waste Prevention

Massachusetts Department of Environmental Protection



# Climate Change: Massachusetts Impacts



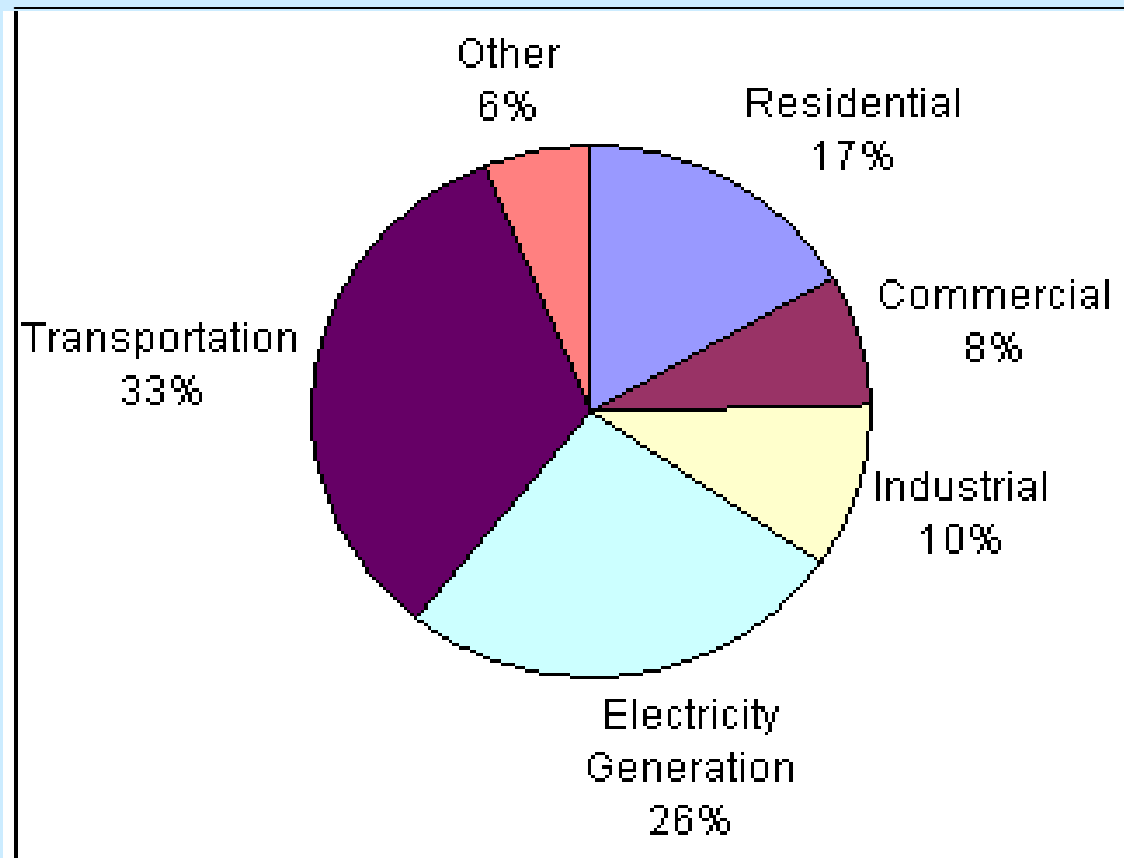
Source: USC, 2007

[http://www.climatechoices.org/assets/documents/climatechoices/massachusetts\\_necia.pdf](http://www.climatechoices.org/assets/documents/climatechoices/massachusetts_necia.pdf)

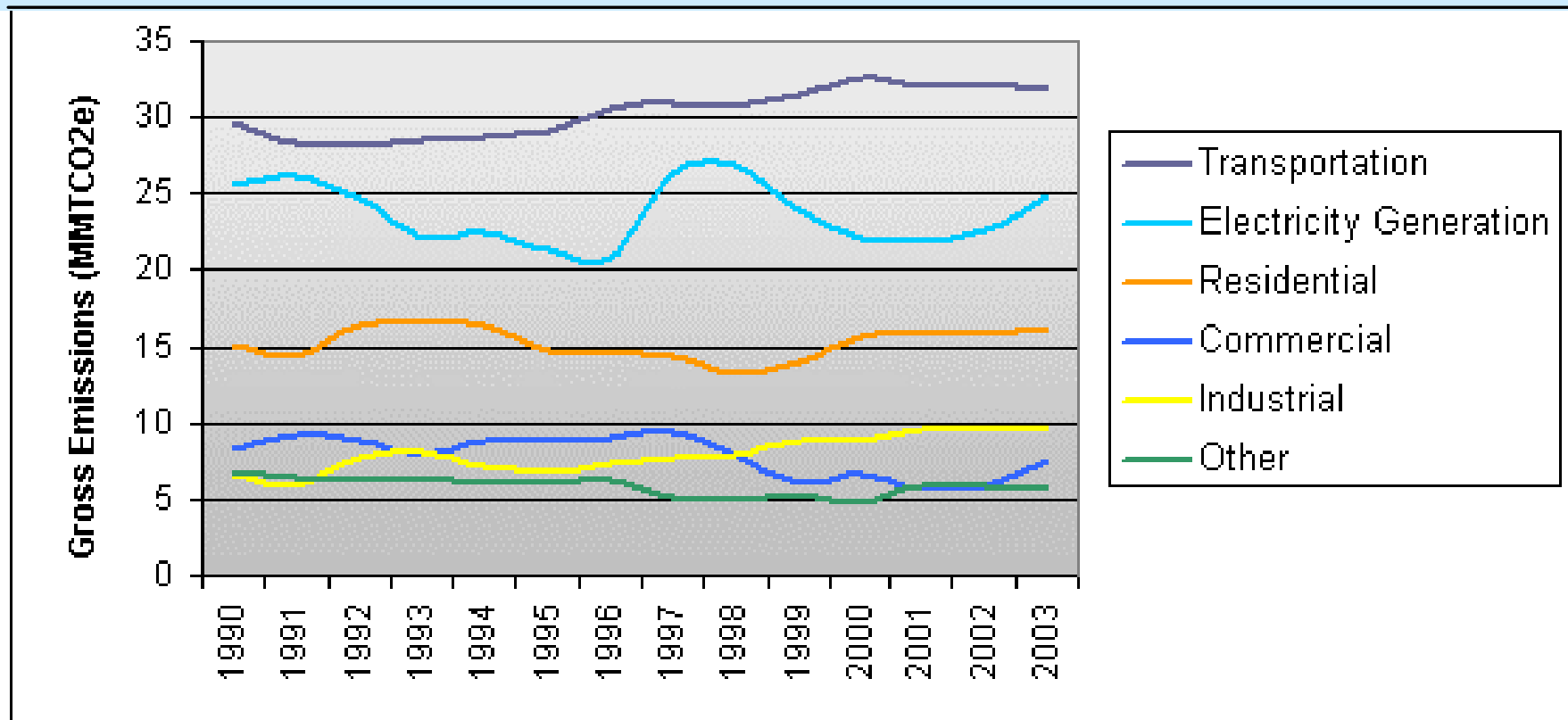
- Rising Sea Levels → Coastal Erosion
- Warmer Water → Degraded Habitats
- Hotter Summers → Health Impacts  
More Droughts
- Warmer Winters → Less Maple Syrup  
Less Snow/ Skiing

# MA GHG Emissions, 2003

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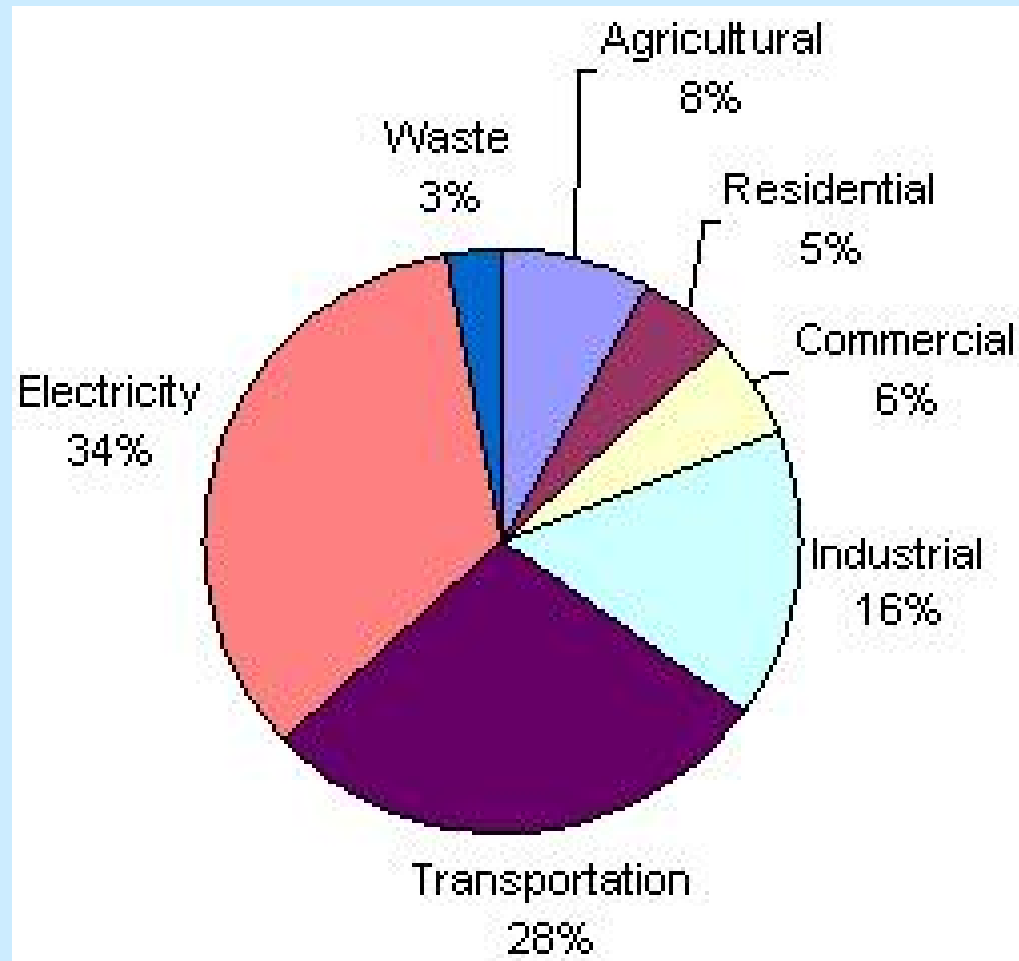


# MA GHG Emission Trends, by Sector



# US GHG Emissions, 2005

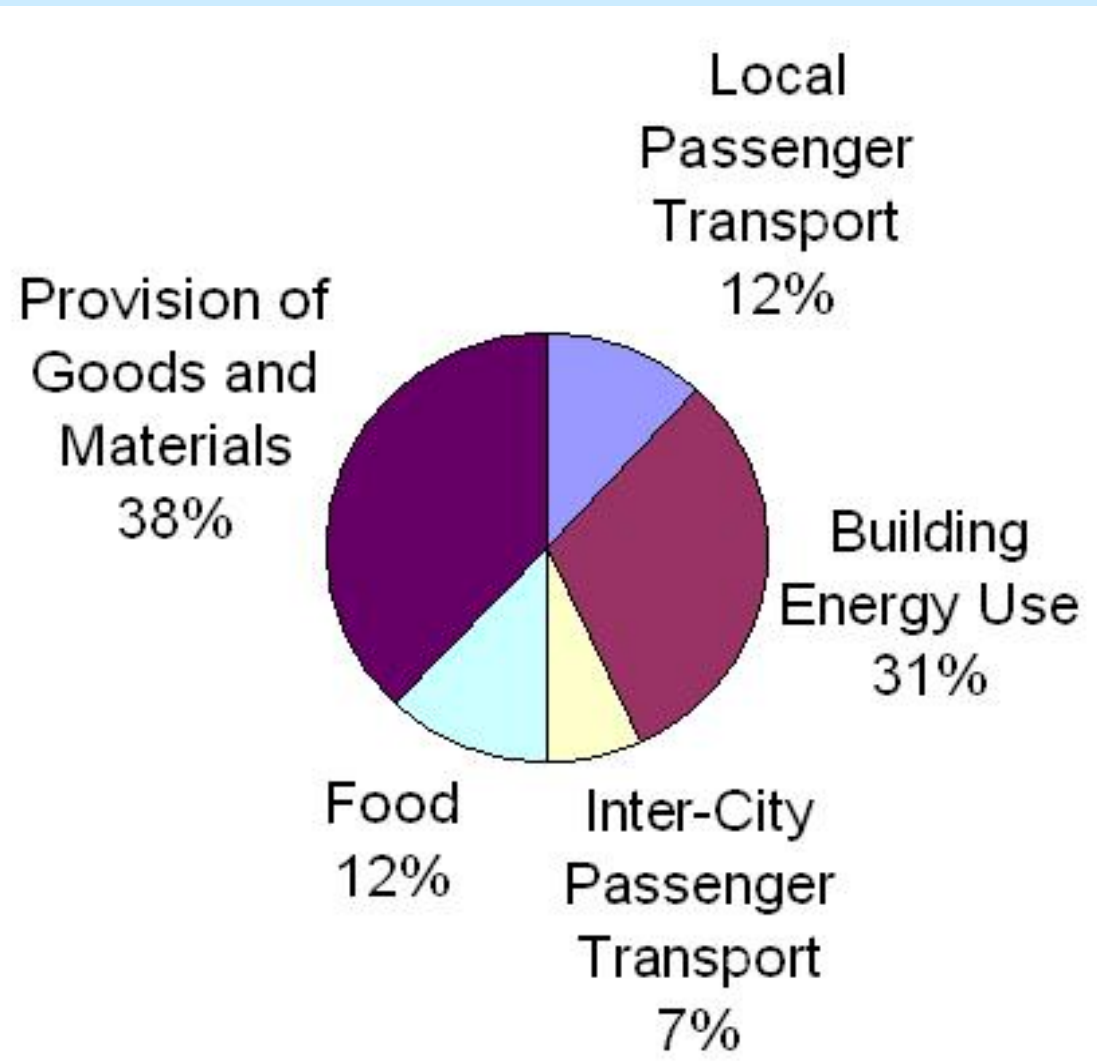
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Source: EPA (2007). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005*

# US GHG Emissions, Alternative View

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Source: *Source: USEPA (Prelim); from Allaway (ORDEQ)*



# Global Warming Solutions Act (GWSA)

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Full text of the GWSA can be found at:

<http://www.mass.gov/legis/laws/seslaw08/s1080298.htm>

## Major Provisions of the GWSA

- o Establish GHG Emission Limits
- o Mandatory Reporting of GHG Emissions

# GHG Emission Goals

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- Inventory Statewide GHG Emissions
  - Determine emissions level in 1990
  - Project 2020 level - 2020 Business as Usual
- Statewide GHG emissions limits:
  - 2020 emission limit - 10-25% below 1990 level
  - Interim 2030 emission limit
  - Interim 2040 emission limit
  - 2050 emission limit - at least 80% below 1990 level



# GHG Reduction Plans

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- Establish GHG reduction plans for 2020, 2030, 2040, 2050
- Establish GHG emission levels and limits for the electric sector
  - Based on consumption and purchase of electricity from regional grid
  - Consider RGGI and the Regional RPS
- Establish declining annual aggregate GHG emission limits for categories of sources.

# Reporting of Statewide GHG Emissions

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- Require the reporting and verification of statewide GHG emissions.
- Establish a regional GHG registry (The Climate Registry).
- Required Reporters:
  - Title V Facilities
  - Facilities that emit >5,000 tons/year in CO<sub>2</sub>e
  - Retail sellers to report GHG emissions from generation
- Other facilities may voluntarily report GHG emissions.
- Monitor and enforce compliance with reporting.

# Other Requirements

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- All State Agencies
  - Encourage energy efficiency and renewable energy in energy generation, building, and transportation sectors.
  - Consider climate change impacts when issuing permits.
- MassDEP
  - Review international, federal and state GHG emissions reporting programs and promote consistency/streamlined reporting.
  - Consider market-based compliance mechanisms, including multi-state programs (e.g., low carbon fuel).

# Green Communities Act

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## Major Provisions Include:

- Green Community Program
- RGGI
- Energy Efficiency Goals
- Renewable & Alternative Energy Portfolio Standards

Full text available at:

<http://www.mass.gov/legis/laws/seslaw08/s1080169.htm>

# RGGI Authorization

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- Provides authority for existing DEP and DOER RGGI regulations.
- Creates a RGGI Auction Trust Fund for auction proceeds. Authorizes spending on:
  - o Funding Green Communities program
  - o Providing zero interest loans to municipalities for energy efficiency projects
  - o Promoting energy efficiency, conservation, and demand response
  - o Reimbursing municipalities in which the property tax receipts are reduced as a result of RGGI mandates

# Energy Portfolio Standards

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- Renewable Energy Portfolio Standard (Class I)
  - Existing requirement to procure power from new renewable sources.
  - Annual increases of 1% of sales per year (from 4% in 2009).
- Renewable Energy Portfolio Standard (Class II)
  - New requirement for procurement from pre-1997 facilities.
  - Includes waste to energy facilities that spend 50% of REC revenue on DEP-approved recycling programs.
- Alternative Energy Portfolio Standard
  - Similar to RPS but for non-renewable technologies including gasification, flywheels, CHP, paper-derived fuel, and energy efficient steam.
  - DEP input on emissions and BUD for paper-derived fuels.

# Questions, Comments?

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Contact information:

nancy.seidman@state.ma.us

617-556-1020

MassDEP Greenhouse Gas & Climate Change

Website:

<http://www.mass.gov/dep/air/climate/index.htm>

