

# **Massachusetts: National Leadership in Climate and Energy Policy**

## **The Proposed 1990 Greenhouse Gas Emissions Baseline and 2020 Business As Usual Projection**

## Background

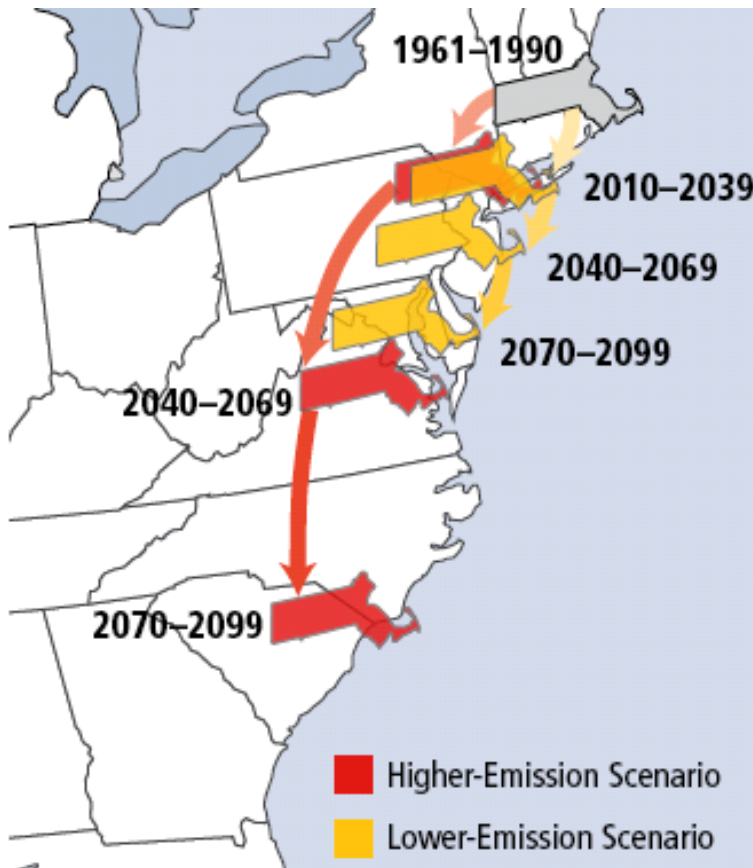
**The 2008 Legislative Session resulted in five nation-leading pieces of legislation that put Massachusetts at the national forefront addressing climate and building a clean energy economy.**

- Improving energy reliability & security**
- Lowering energy costs**
- Growing clean energy jobs and businesses**
- Addressing climate change**

## Overview

- The Global Warming Solutions Act (GWSA)
- The Green Communities Act (GCA)
- The Proposed 1990 Greenhouse Gas (GHG) Emissions Baseline and 2020 Business as Usual Emissions Projection

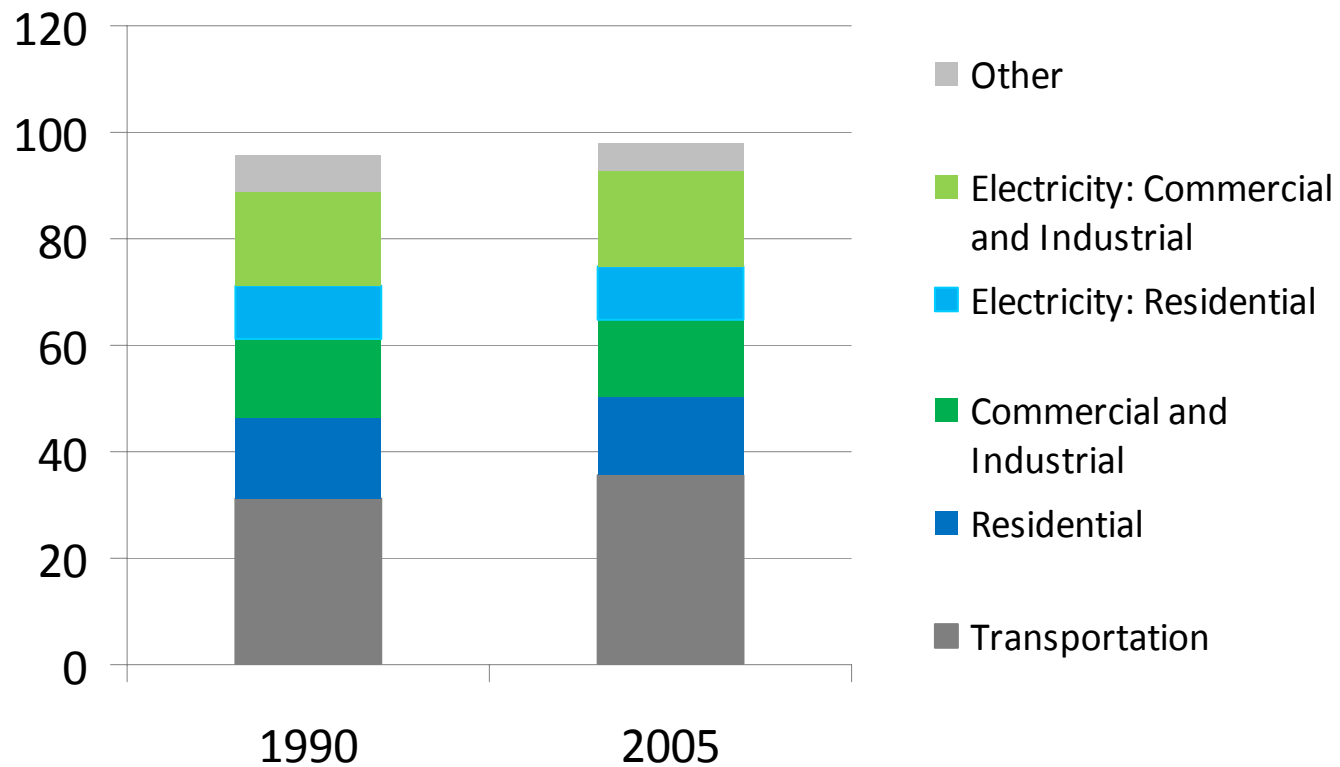
# Climate Change: Massachusetts Impacts



Source: UCS, 2007

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

# Massachusetts GHG Emissions by sector



\*\*"Other" includes Agriculture, Waste, and Natural Gas transmission and distribution

## The Global Warming Solutions Act

- Mandatory Reporting of GHG Emissions
- Track Statewide GHG Emissions
- Develop 1990 Baseline and 2020 BAU Projection
- Develop Plans to Achieve Statewide Reductions
- Convene Advisory Committees

## **GWSA - Reporting of Greenhouse Gas Emissions**

- Require the Reporting and Verification of GHG Emissions
- Establish a Regional GHG Registry
- Required Reporters:
  - Facilities that emit >5,000 tons/year in CO<sub>2</sub>e and certain other air pollution sources
  - Electricity Sellers in Massachusetts
- Other Facilities May Voluntarily Report GHG Emissions

## **GWSA – GHG Emissions Baseline and Projections**

- 1990 Baseline Emissions Level, and
- 2020 Business As Usual Projection



## GWSA - Emission Reduction Targets and Plans

- 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
- Economy-wide emission reduction plans



## **GWSA 2009 Milestones**

- 1/1/09 – Initial GHG Reporting Regulations
- 7/1/09 – Comprehensive GHG Reporting Regulations
- 7/1/09 – Complete and Publish 1990 Emissions Baseline and 2020 Business as Usual Projection (Hearing May 19, 2009)

## **GWSA 2010-2013 Milestones**

- 1/1/11 – Executive Office of Energy and Environmental Affairs (EEA) Set Reduction Target for 2020, Including Plan to Achieve Target
- 1/1/12 – MassDEP Promulgate Regulations for 2020 Plan
- 1/1/13 – Regulations to Take Effect

## GWSA - Reporting Requirements

- Every 3 years - Publish Statewide GHG Inventory
- Every 5 years - Publish a Report Regarding GWSA Implementation Including:
  - Costs, Impact on Low Income, Impact on Other Pollutants and Other Overall Social Benefits

## Climate Protection and Green Economy Advisory Committee

- Members represent all sectors of the economy and key stakeholders, including
  - commercial, industrial, manufacturing, transportation, low-income consumers, energy generation and distribution, environmental protection, energy, local government and academia
- Advise EEA on development of the Commonwealth's economy-wide plan to meet the goals of the Act using strategies that combat climate change and drive job creation and economic prosperity
- First Meeting: May 11, 2009

## GWSA and a Federal Program

- Massachusetts is implementing GWSA
- When a federal program is in place there will be a transition
- Massachusetts will insist upon:
  - Strong state-federal partnership
  - Credit to states who have implemented GHG programs
  - State role: monitoring, reporting, permitting, energy efficiency, siting & building renewables.

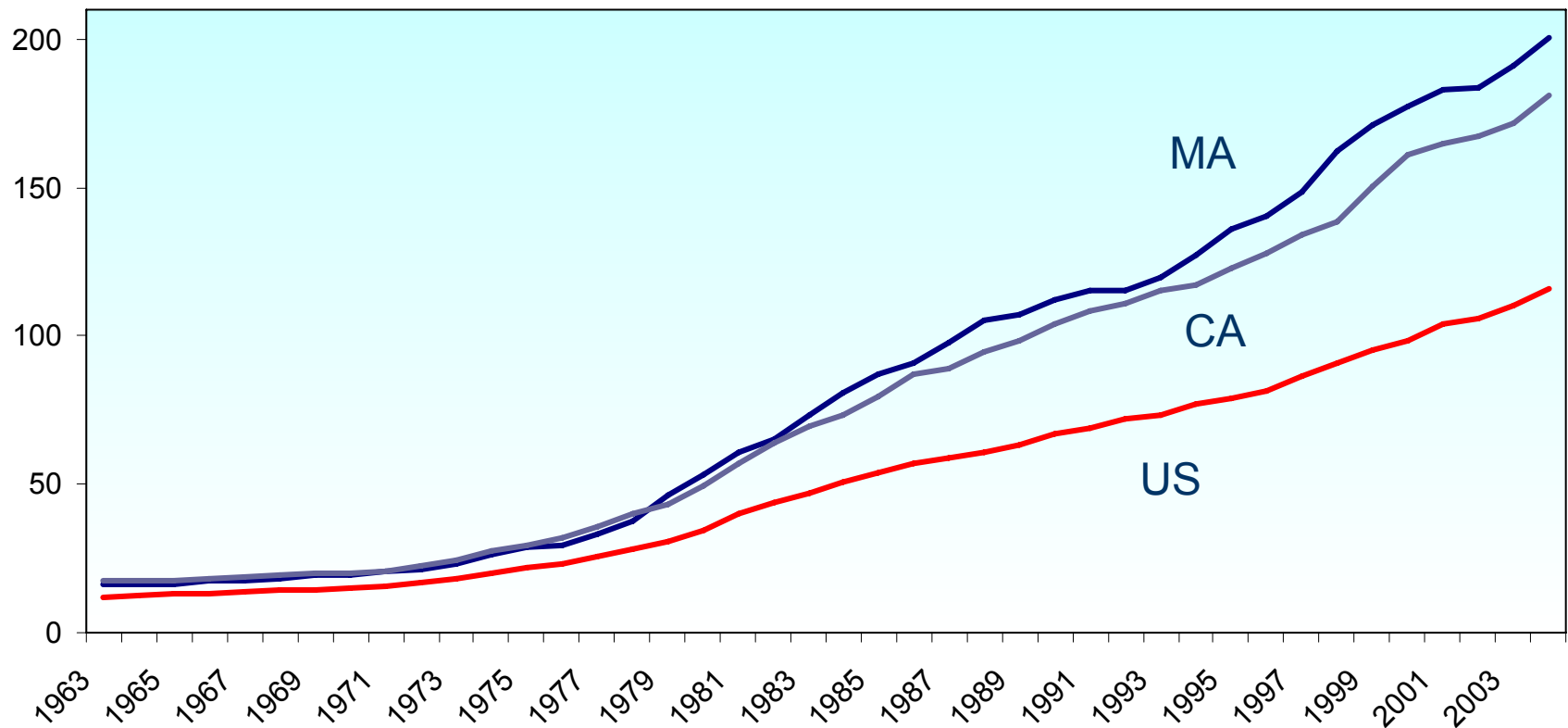
## The Green Communities Act

- Establishes Green Communities Program
- Expands Renewable Energy Goals
- Enhances Market Opportunities for Renewables
- Unleashes Energy Efficiency

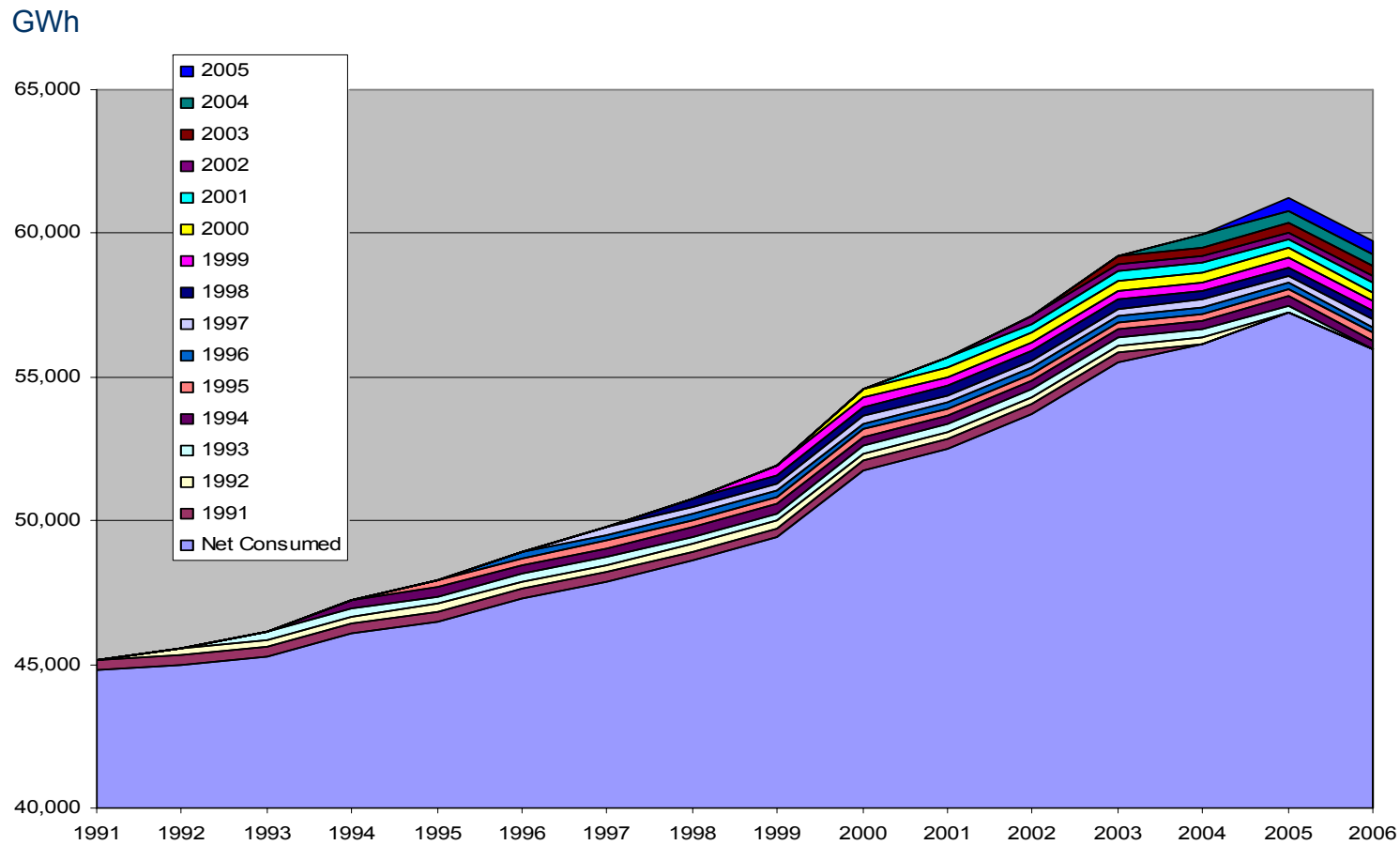
Also: RGGI authorization, MRET changes, State facilities, Ratepayer Advocacy in AGs office, DPU steam system oversight, support hybrids, form economic target areas

# Opportunity: Increasing Energy Productivity

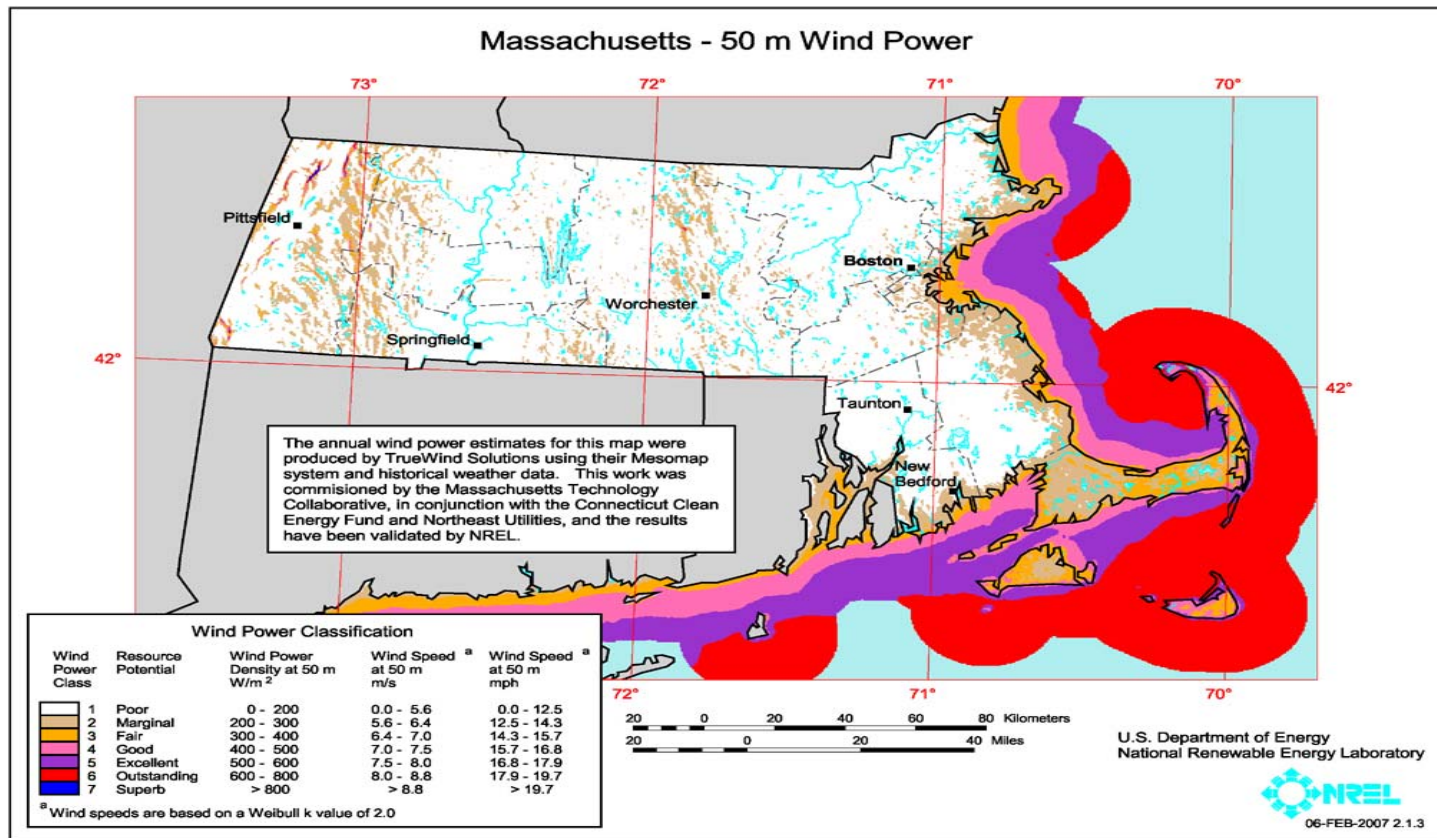
\$GDP/MMBTU



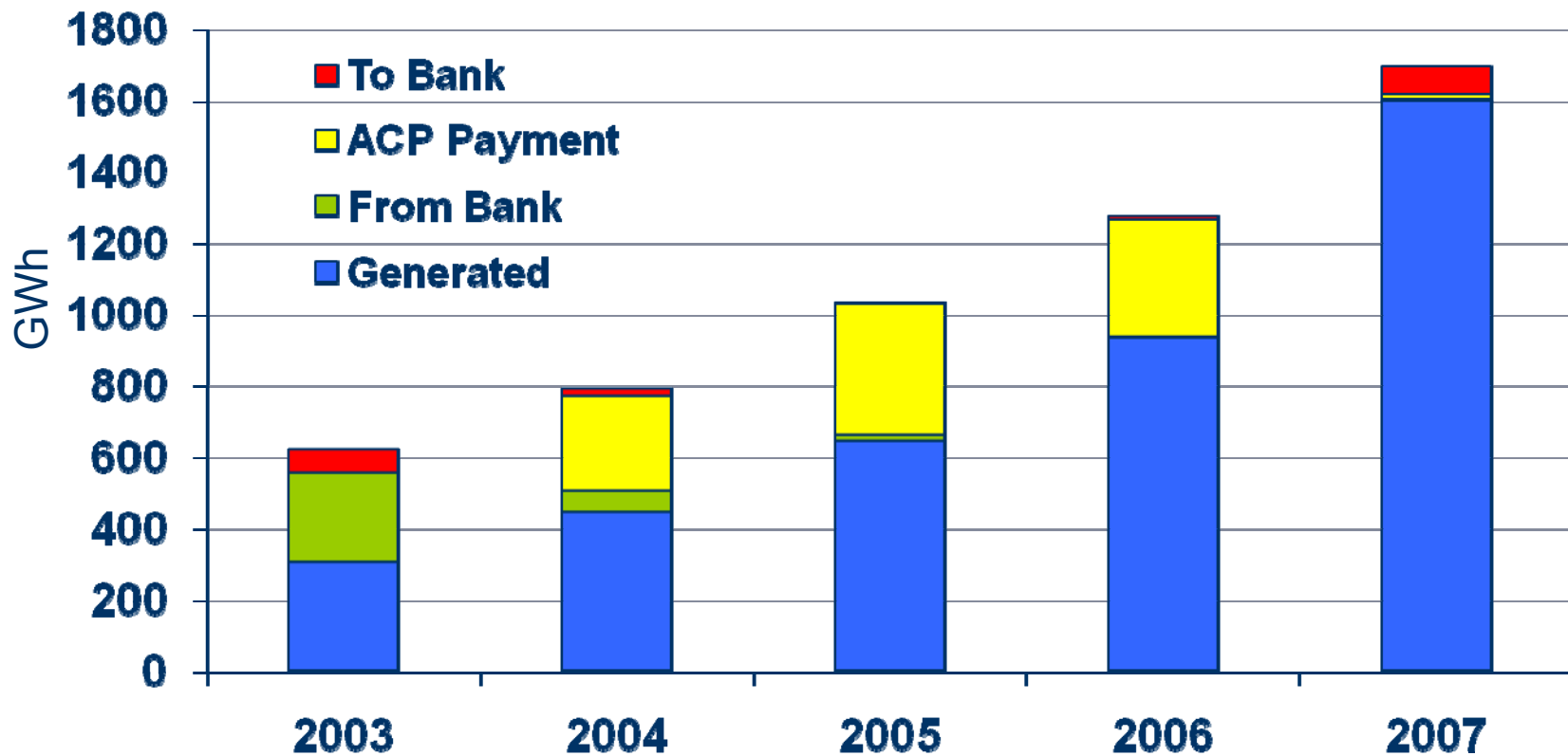
## Growing Share of Energy Needs Met Through Efficiency Programs



# Opportunity: Renewable Resources



## Renewable Portfolio Standard Driving Increased Renewable Electricity



## **GWSA – Proposed 1990 Emissions Baseline and 2020 Business As Usual Projection**

## **GWSA – Proposed 1990 Greenhouse Gas Baseline Emissions**

- Future emission reductions will be measured from the 1990 Greenhouse Gas Emission Levels.
- The proposed 1990 level was derived using a USEPA tool designed to estimate such emissions and using data on electricity imports.

# GWSA – 1990 Greenhouse Gas Baseline Emissions

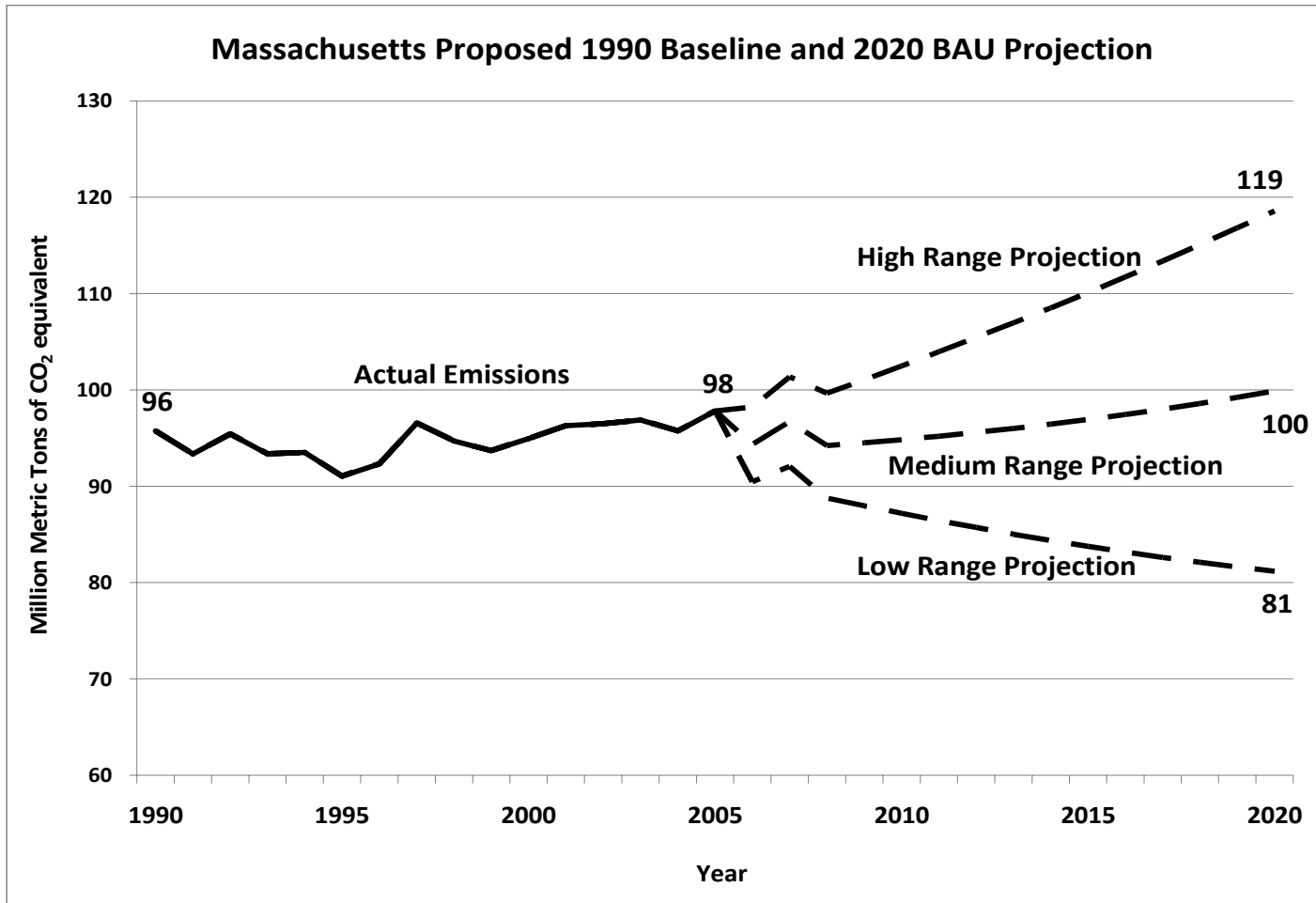
(million metric tons of carbon dioxide equivalents)

Transportation	30
Electricity	28
Residential	15
Commercial and Industrial	15
Other*	7
Total	96

\*"Other" includes Agriculture, Waste, and  
Natural Gas transmission and distribution

## **GWSA - Proposed 2020 Business as Usual Emissions Projection**

- BAU Projection has been developed based on a simple extrapolation of historical emission trends
- Because of uncertainties with projections, BAU is shown as a range



## Stakeholder Involvement for the 1990 Baseline and 2020 BAU Projection

- 6 Public Meetings, Including 1 Technical
- May 19, 2009 - Public Hearing
- June 1, 2009 - Comment Deadline
- July 1, 2009 - Publish Final 1990 Emissions Baseline and 2020 BAU Projection

## Additional Public Meeting on Data

- Technical Public Meeting
  - Proposed data for baseline
  - Proposed methodology for baseline and projection
  - Feedback on alternative approaches
- Monday May 18, 2009 from 1PM to 3PM
  - 100 Cambridge Street, Boston, Rooms 2B and 2C
- Technical Content Available on the MassDEP Website as an Appendix to the Proposal

## What is Ahead for GWSA

- Evaluate Economy-Wide Policy Options to Obtain GHG Reductions
  - State Agency Working Groups
  - Public Work Sessions
- Develop 2020 Emissions Target and Plan
- Summer 2010 – Public Meetings to Discuss Proposed Targets and Plan

## For More Information:

<http://www.mass.gov/eea/>

Marc Breslow

email [marc.breslow@state.ma.us](mailto:marc.breslow@state.ma.us)

<http://www.mass.gov/dep/>

Sue Ann Richardson

email [sue.ann.richardson@state.ma.us](mailto:sue.ann.richardson@state.ma.us)

phone 617.348.4098

<http://www.mass.gov/doer/>

Karin Pisiewski

email [karin.pisiewski@state.ma.us](mailto:karin.pisiewski@state.ma.us)

Phone 617.626.7334

