
Regional Greenhouse Gas Initiative (RGGI; “Reggie”)

Will Space

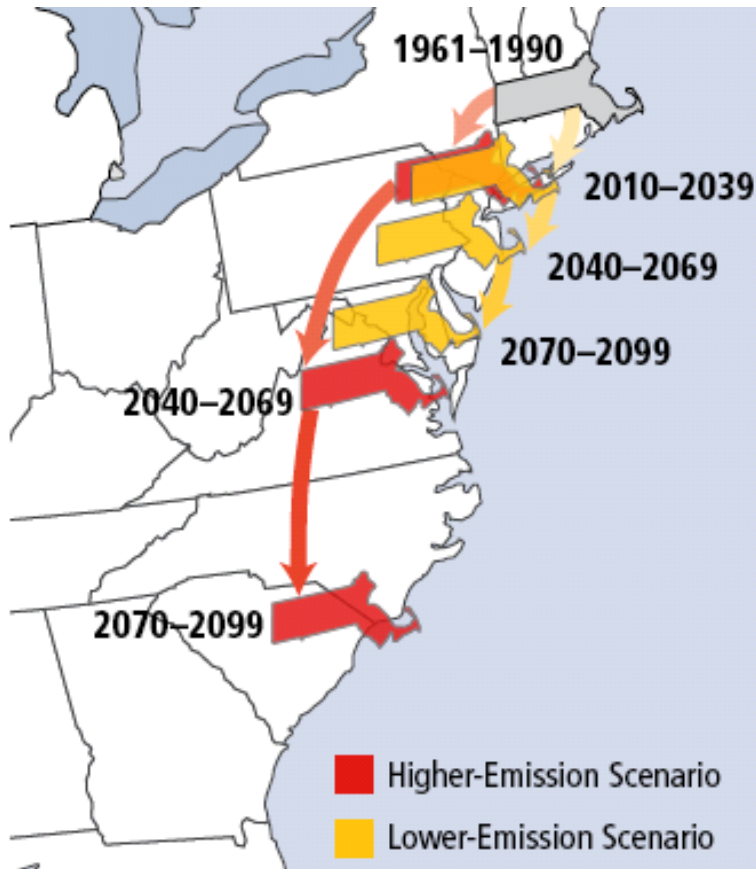
Massachusetts Department of Environmental Protection

Mexico City

May 8 – 9 2014



Climate Change: Massachusetts Impacts

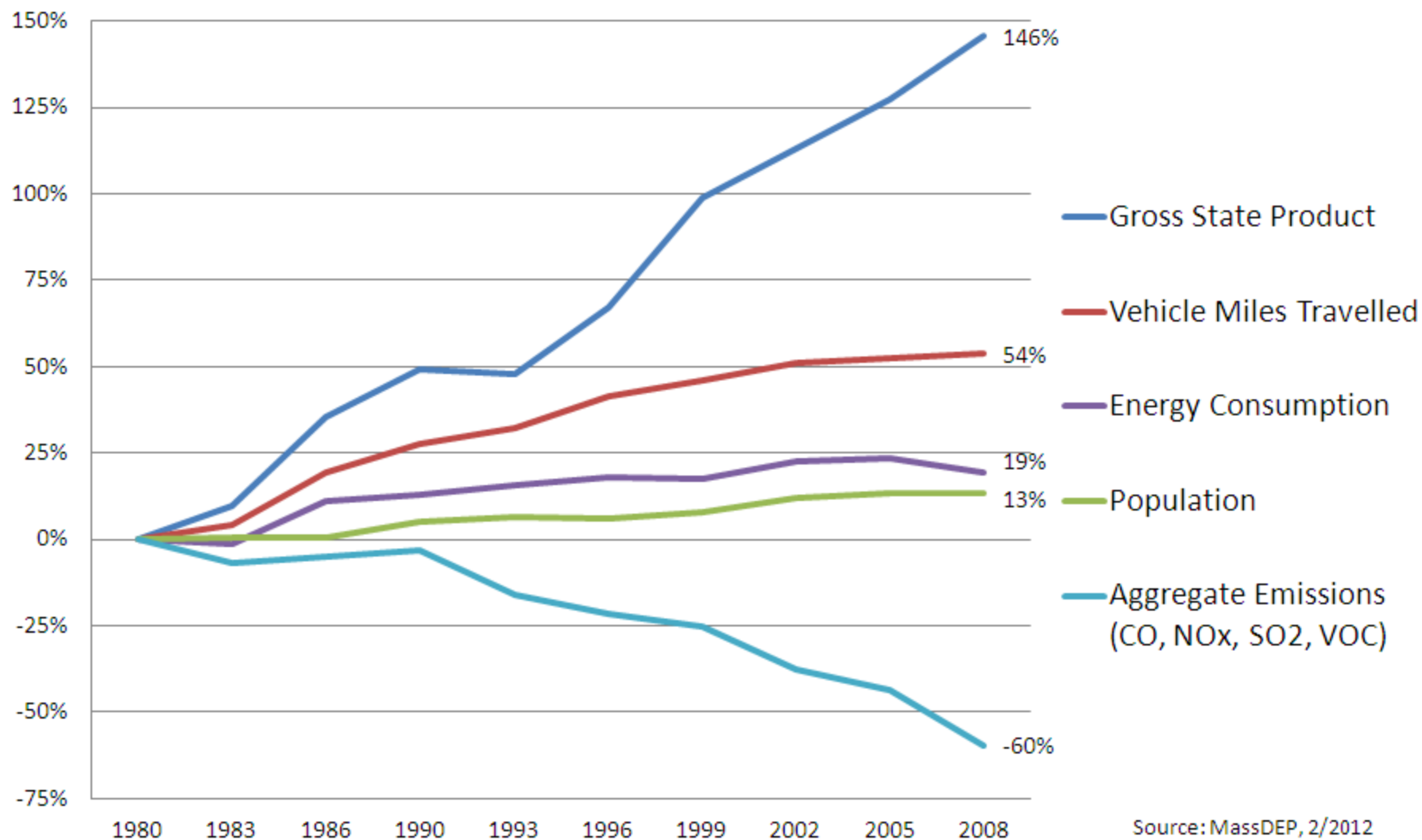


- Rising Sea Levels → Coastal Erosion
- Warmer Water → Degraded Habitats
- Hotter Summers → Health Impacts
More Droughts
- Warmer Winters → Less Maple Syrup
Less Snow/ Skiing

Source: UCS, 2007

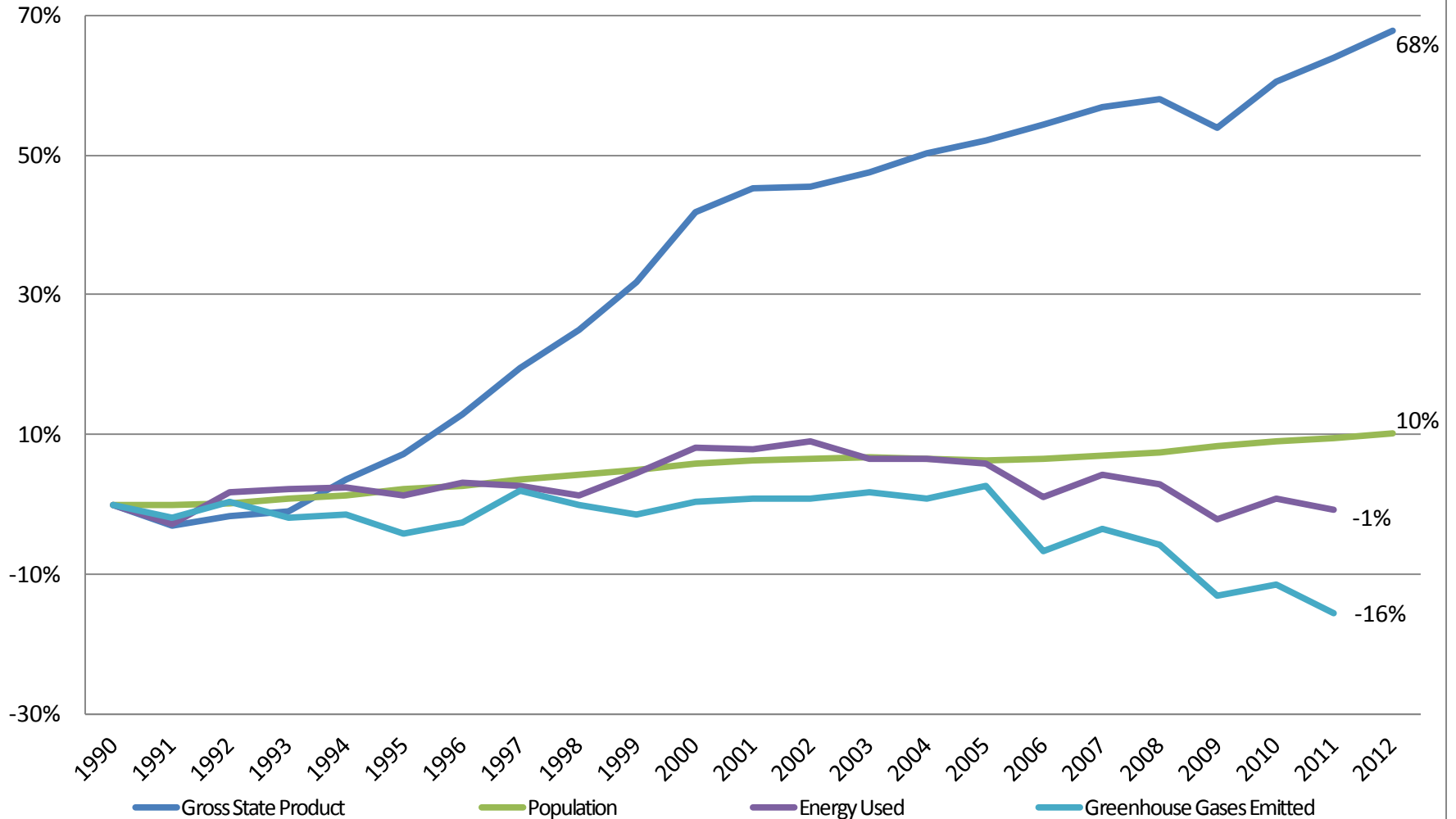


Massachusetts: Cleaner Air and a Growing Economy



Source: MassDEP, 2/2012

Massachusetts: Cleaner Air and a Growing Economy



Source: MassDEP, 4/2014

Regional Greenhouse Gas Initiative



- Cap and trade for carbon dioxide emissions from power plants in 9 US states
- Program changes effective in 2014
- Cap will fall by 2.5% per year 2015 - 2020

RGGI: Additional Information

- RGGI web page: <http://www.rggi.org/>
- Massachusetts RGGI implementation: <http://www.mass.gov/dep/air/climate/rggi.htm>
- Contact: william.space@state.ma.us



RGGI: Cap Setting and Allocation

- Cap set based on emissions targets and power sector and macro-economic modeling
 - 2008 – 2013 caps set to stabilize emissions
 - 2014 – 2020 caps adjusted to account for reductions (~ 45%) and banked allowances
 - Cost containment reserve reduces price volatility
- Nearly all allowances sold at auction
 - Provides revenue for energy efficiency, clean energy, direct bill assistance, and other uses
 - Avoids windfall profits for generators



RGGI: Key Technical Components

- Emissions reporting: CO₂ emissions are reported to US EPA database, shared with RGGI database
 - CO₂ data based on fuel and stack monitor data
- RGGI COATS (CO₂ Allowance Tracking System):
 - Operated on behalf of states by contractor
 - Tracks accounts, allowances, emissions, offsets, etc.
 - Includes public reports and non-public transaction and account data



RGGI: Use of Offsets

- Five project categories:
 - Agricultural manure management
 - Forestry
 - Landfill methane capture and destruction
 - Reduction in emissions of sulfur hexafluoride
 - Reductions due to end-use energy efficiency
- Specific standards established in regulations
- Limited use: 3.3% of compliance obligation
- No complete applications received



RGGI: Auction Mechanics

- Sealed bid, single clearing price
- Open to all market participants, including banks, NGOs, etc.
 - Submit Qualification and Intent to Bid applications
 - Meet financial security requirements
 - Bid limit of 25% (including affiliated bidders)
- Minimum reserve price (\approx \$2 per allowance)
- Administrator: World Energy (under contract)
- Market Monitor (Potomac Economics)



RGGI: Auction Experience

- Clearing prices: \$1.86 – \$4.00 per short ton
- Over 650 million allowances sold \approx \$1.7 billion
 - 200 million unsold allowances
 - Most (78%) bought by regulated facilities
 - Most others re-sold to regulated facilities
- No anti-competitive behavior observed
- Two thirds of revenue used for energy efficiency



Economic Impacts of EE Investments



The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States

Review of the Use of RGGI Auction Proceeds from the First Three-Year Compliance Period

Paul J. Hibbard
Susan F. Tierney
Andrea M. Okie
Pavel G. Darling

1.3
BILLION
in energy bill savings across the region¹

1.6
BILLION
in net economic benefit to region¹

16
THOUSAND
job-years created¹



RGGI: History and Timeline

- 2005: States agree on RGGI design features
- 2006 – 2007: Model rule development
- 2008: State rulemaking processes
- 2008: Creation of RGGI, Inc.
- 2009 – 2011: First compliance period
- 2012 – 2014: Second compliance period
- 2011 – 2013: Program review
- 2014: Program changes implemented
- 2016: Program review planned



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RGGI: Caps, Emissions, Prices

Year	States	Cap*	CCR*	Emissions*	Prices**
2005	10			184	
2009	10	188		124	\$2 – \$3
2010	10	188		138	\$2
2011	10	188		124	\$2
2012	9	165		92	\$2
2013	9	165		86	\$3***
2014	9	91****	5 @ \$4		\$4*****
2015	9	89	10 @ \$6		
2016	9	86.5	10 @ \$8		
2020	9	78	10 @ \$11		

*in millions of short (not metric) tons

**\$2 is minimum auction price

***after announcement of 2014 cap

**** before adjustment for bank

***** CCR sold out in March



Massachusetts RGGI Investments by Category

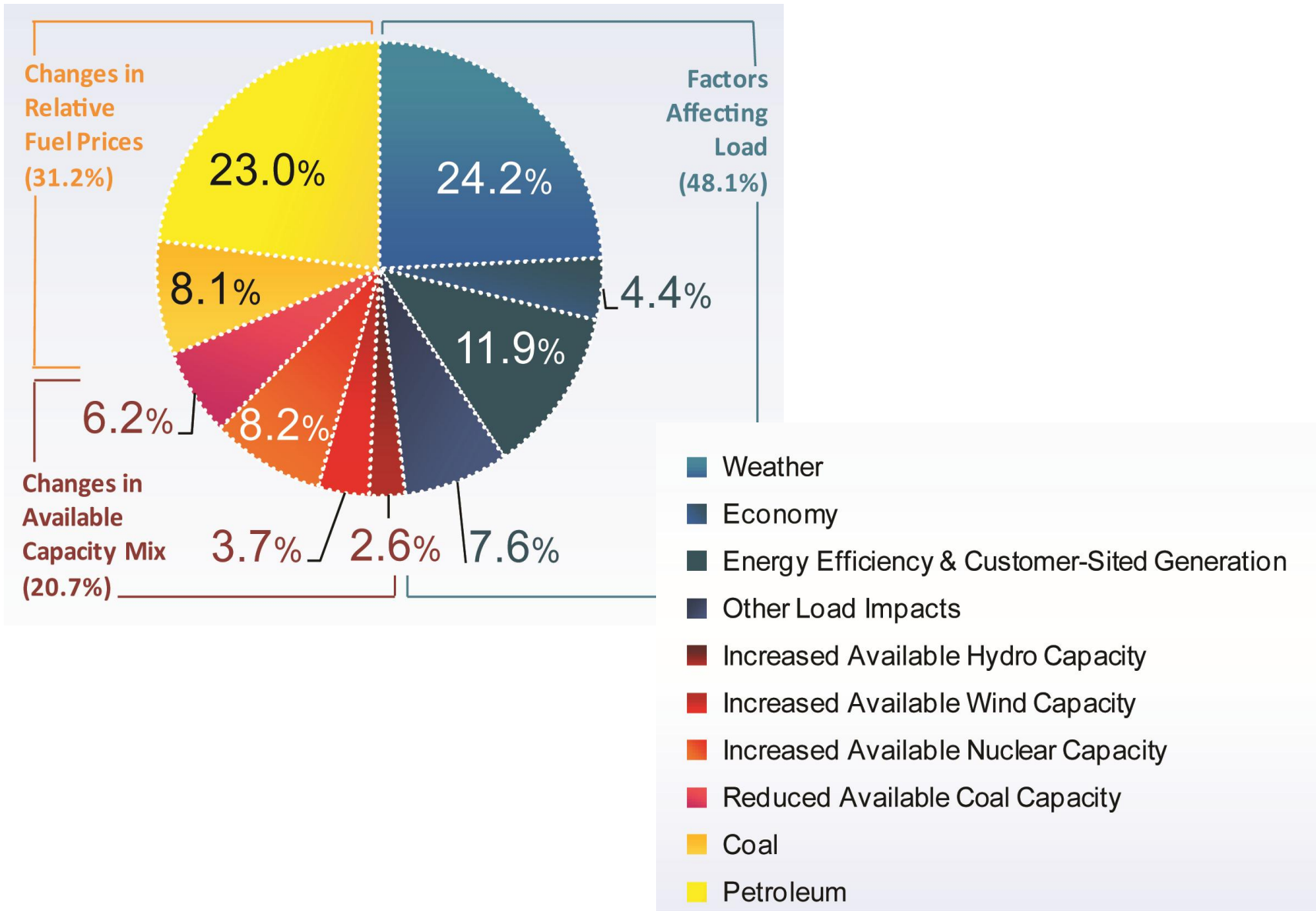
Cumulative-to-Date



TOTAL INVESTED: \$150,383,182

* Massachusetts received \$150,391,182 in auction proceeds through December, 2011. An additional \$8,000 of future auction proceeds is committed to 2012 and future programs.

Massachusetts ranked #1 in the U.S. in the *American Council for an Energy Efficient Economy's* 2011 Scorecard.



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