# *A Climate of Change*

## *Taking Action in the Northeast*

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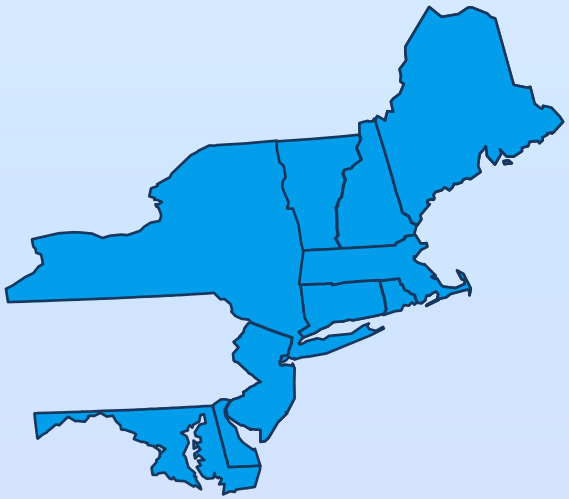
# RGGI Fundamentals

*The first mandatory, market-based system to reduce greenhouse gas emissions in the U.S.*

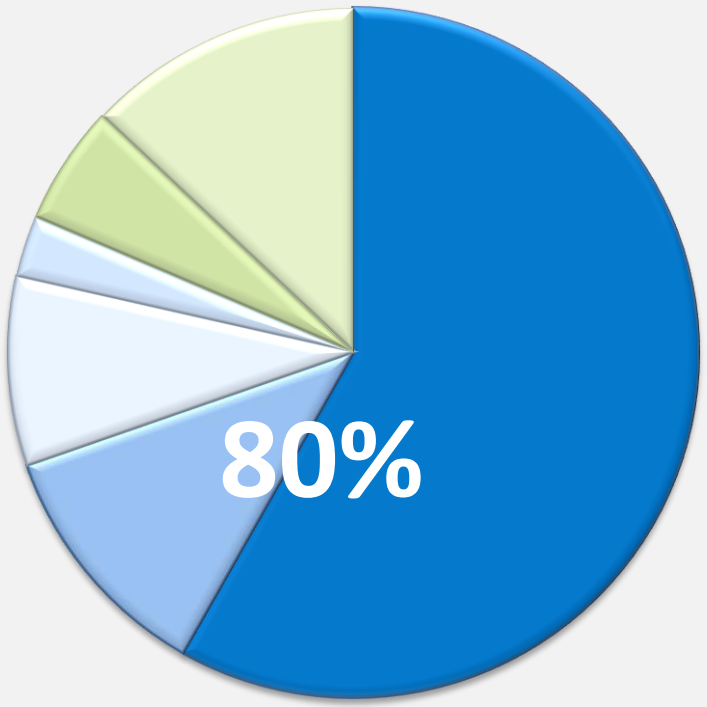
- Over 200 power plants regulated across 10 Northeast and Mid-Atlantic states
- *Power sector* emissions capped at 2000-2002 levels from 2009-2014, reduced by 2.5% per year 2015-2018 for total reduction of 10%
- Multi-year compliance period and unlimited banking of allowances to buffer volatility in emissions
- Nearly all allowances *auctioned* instead of free allocation



# *Reinvestment in the Clean Energy Economy*

*Strategic reinvestment of auction proceeds drives further GHG reductions and builds the clean energy economy*

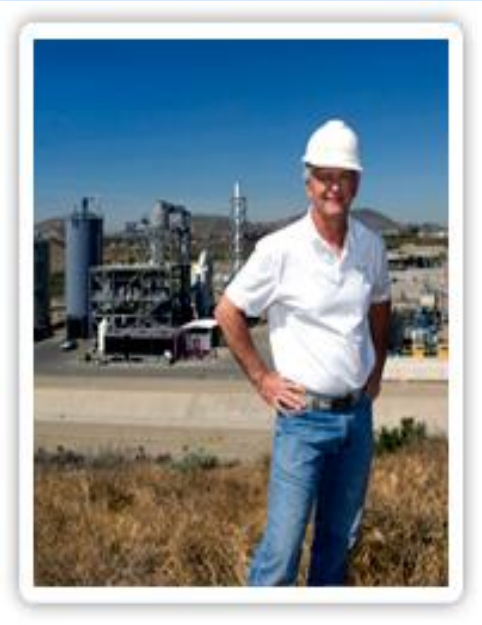
$777M in proceeds: 80% invested to benefit consumers




- Energy Efficiency
- Renewable Energy
- Direct Energy Bill Assistance
- Other Greenhouse Gas Reduction Programs
- Program Administration
- State Deficit Reduction

*Approximate figure, based on current state investment plans

# *Helping Small Businesses Cut Energy Costs*



- **Connecticut** provided efficiency services to more than 1,300 small businesses in 2009, helping those businesses save a total of more than $5 million each year**.**

- **New Hampshire** used $2 million to establish an energy conservation revolving loan fund that is helping New Hampshire businesses that employ over 600 workers lower energy expenses and improve their competitiveness. Loan repayments are being reinvested in the fund.

# *Reducing Electricity Bills and Saving Consumers Money*


- **Green Jobs Green New York:** $20 million for energy audits at 100,000 homes and small businesses and $50 million for efficiency projects at 55,000 homes and businesses, leading to $28 million in annual energy bill savings.
- **Delaware** and **Rhode Island** fund rebates for energy efficient appliances that reduce electricity bills.
- **Massachusetts** deployed $4 million in $CO_2$ allowance proceeds in 2009 to replace over 1,300 heating units in low-income households, saving $500 per household each year.

# *Deploying Renewable Energy*

- In **New Jersey**, 12 projects receive $29.6 million in grants or loans for CHP and commercial PV systems, totaling 29.6 MW.
- **New York**: deploying nearly 400 PV systems on homes, businesses & in utility settings; approximately 4,371 MWh annually.
- **Connecticut:** $4.7 million for 22 school/municipal PV systems; 1,456 MHh per year
- **Maryland:** $3.4 million for 820 geothermal, solar and wind systems;  over 4,000 MWh annually

# *Building a Green Collar Workforce*

- **New York's** Green Jobs Green New York program provides $8 million to train approximately 6,000 New York workers.
- **Maryland** is investing RGGI proceeds to provide "one-stop" training for any energy retrofit career path; more than 600 contractors received energy efficiency-related job training in 2009.
- **Massachusetts:** $1.9 million for a statewide community college training program and a clearinghouse for energy efficiency training activities and services.

# Empowering our Communities

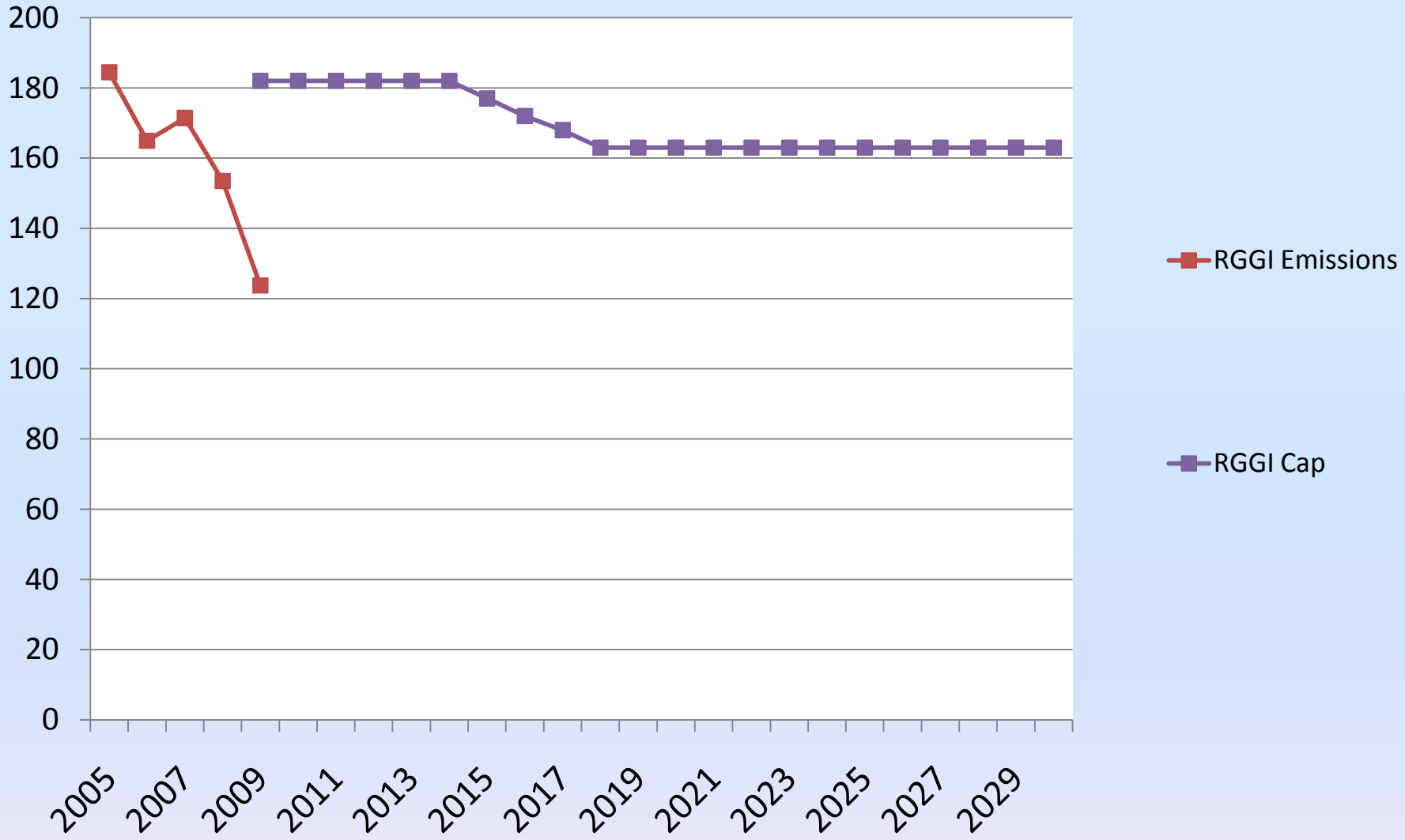

- **Massachusetts:** 35 “Green Communities” program have received $8.1 million in grants to expand municipal renewable energy and energy efficiency programs. Another $8 million in Green Communities grants will be awarded in the first half of 2011.
- **New York:** Climate Smart Communities program to use $1.7 million to develop greenhouse gas inventories and enable communities to commit to aggressive, achievable greenhouse gas emissions reduction targets.
- In **Vermont,** volunteers have visited 1,100 homes to install simple energy-saving measures and teach homeowners about larger opportunities for energy efficiency improvements that have saved an estimated total of 590,000 kilowatt-hours of electricity and 1,750 MMBTU of heating energy.

# *Preparing for RGGI Program Review*

*MOU requires evaluation of program's performance*

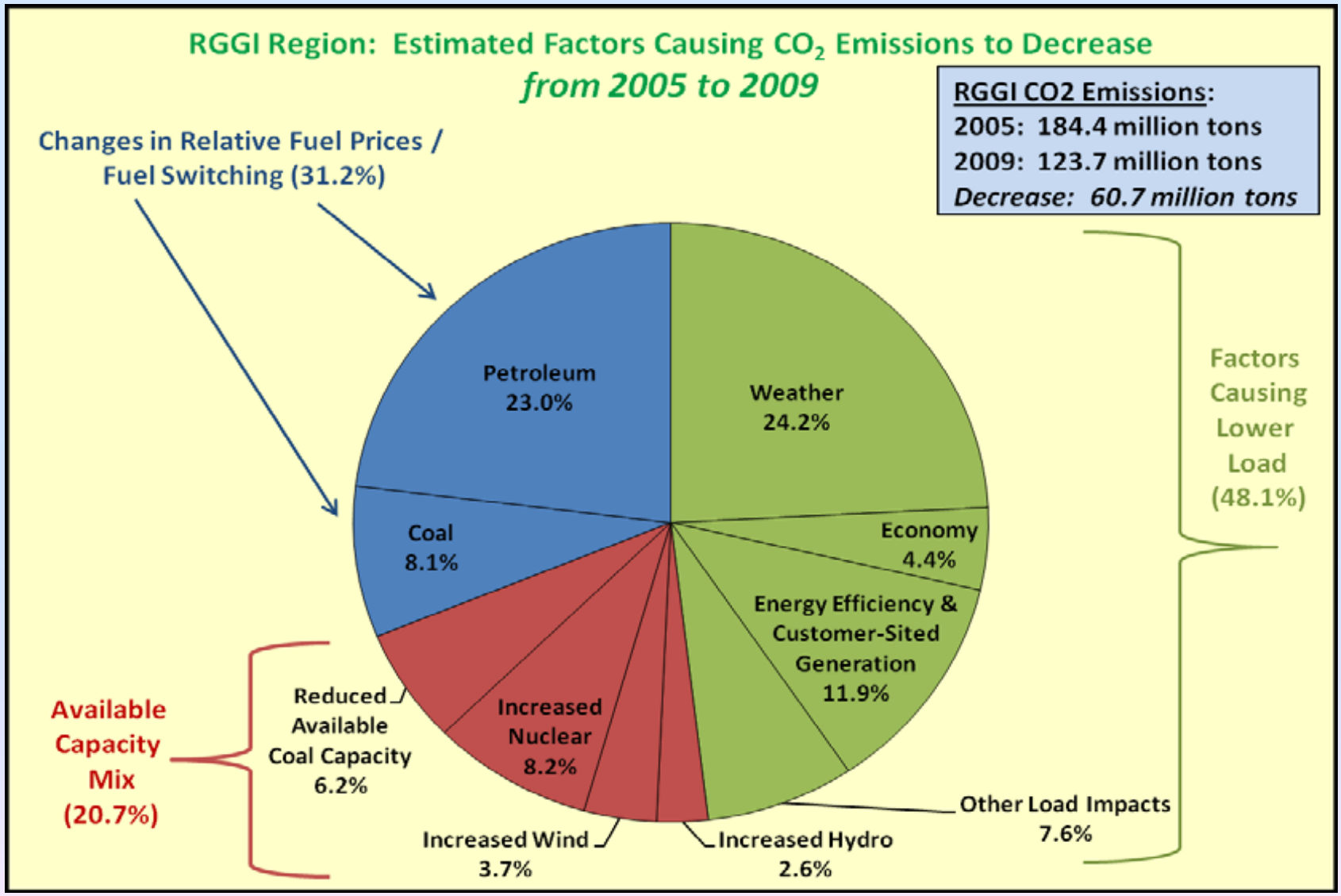
- Specifically consider impacts on price and reliability, leakage, and extending reduction schedule
- Begun by assembling data on performance
  - ***Retrospective analysis***

# RGGI Program Review: Retrospective analysis




(emissions in mtons)

# RGGI Program Review: Retrospective Analysis



# *Preparing for RGGI Program Review*

*MOU requires evaluation of program's performance*

- Specifically consider impacts on price and reliability, leakage, and extending reduction schedule
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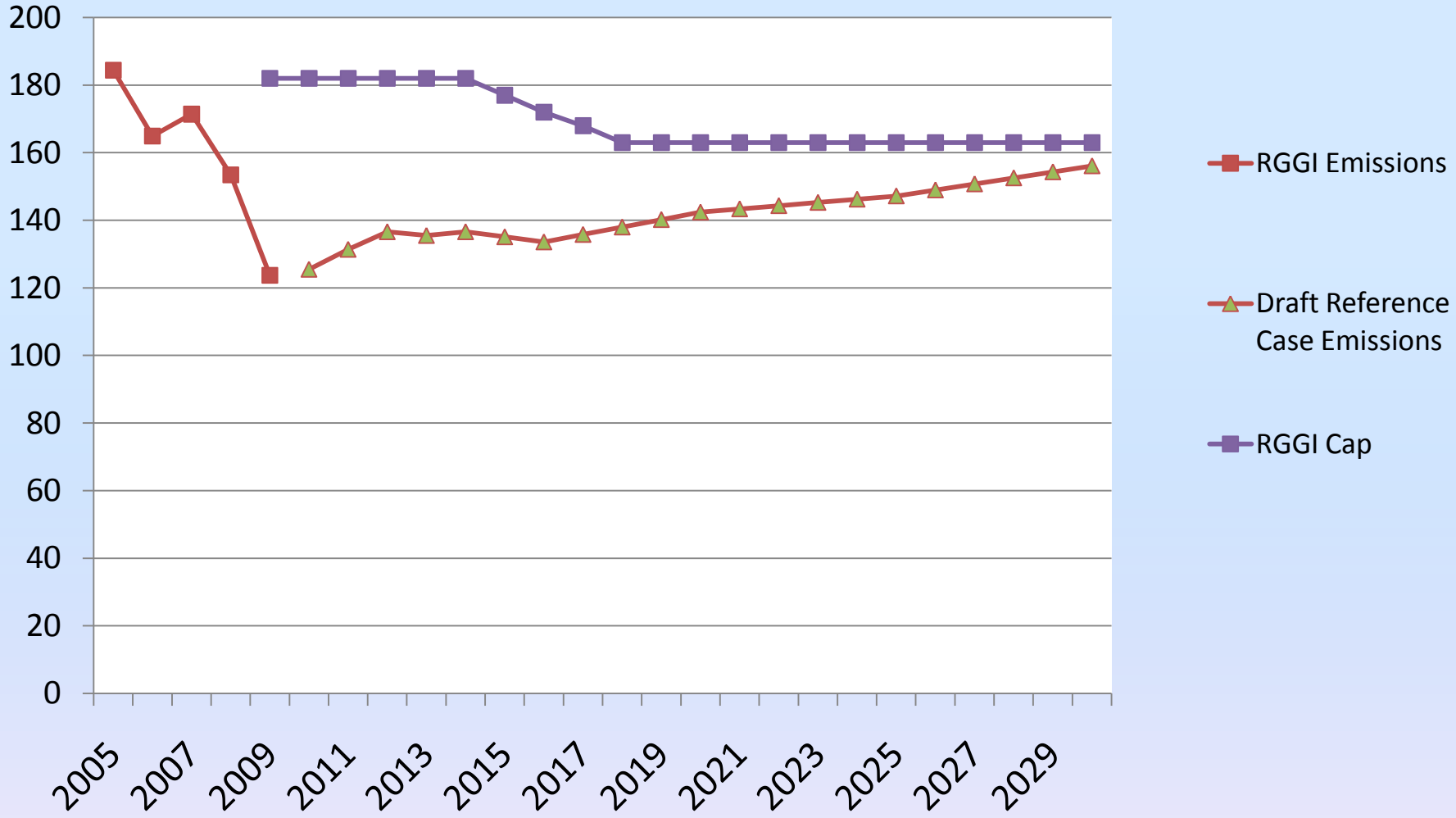
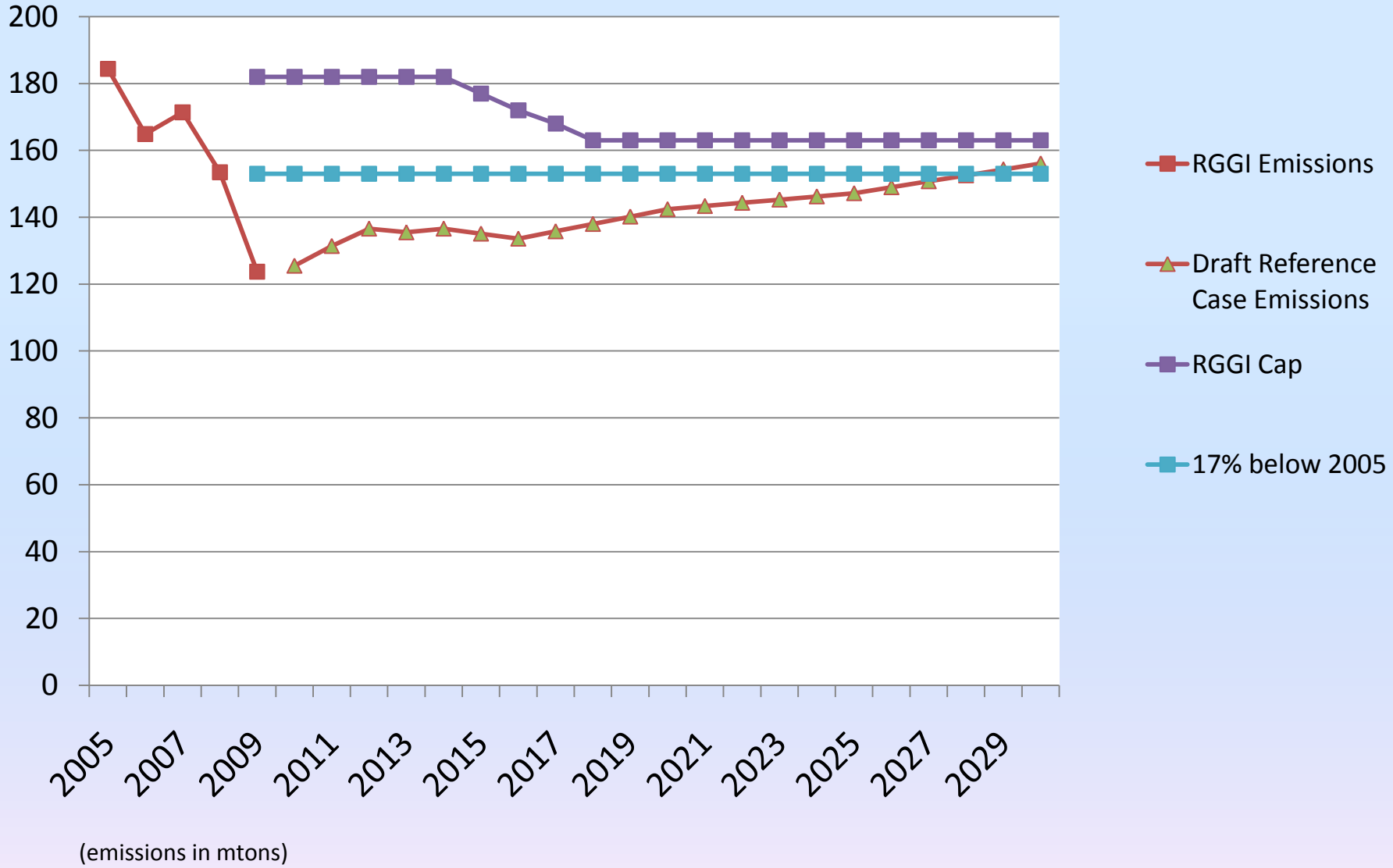
- ***Modeling reference case and sensitivity runs***

# *Preparing for RGGI Program Review: Emissions projections*




(emissions in mtons)

# Preparing for RGGI Program Review: Emissions Projections

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# *Preparing for RGGI Program Review*

*MOU requires evaluation of program's performance*

- Specifically consider impacts on price and reliability, leakage, and extending reduction schedule
- Begun by assembling data on performance
  - Retrospective analysis
- Modeling reference case and sensitivity runs
- Seek stakeholder input
- **Next step: consider any changes to the program**
  - ***Everything on the table***

# *Towards a National Program*

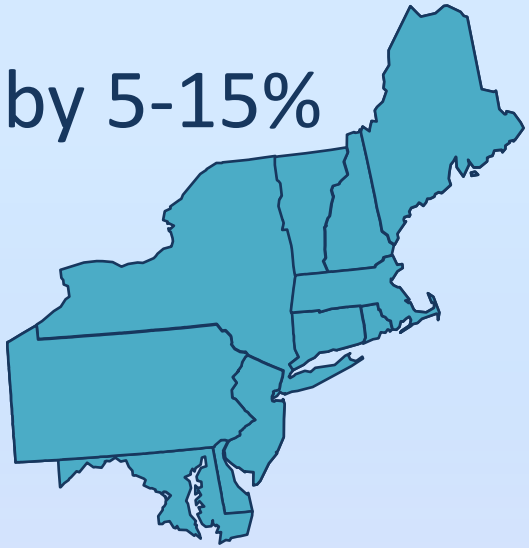
## *EPA action under Section 111(d)*

- EPA on schedule to propose guidelines by July 2011 for state regulation of existing power plants.
- Opportunity for EPA to >>
  - Encourage and empower state innovation
  - Maximize cost-effective reductions
  - Avoid redundant regulatory and administrative burdens
  - ***Help states build the clean energy economy***

# *Transportation – Clean Fuels*

## Developing a regional Low Carbon Fuel Standard

- Goal: Reduce carbon intensity by 5-15%
- Benefits
  - Energy independence
  - Economic development
  - Reduced air pollution
  - Energy efficiency



# *Transportation – Clean Fuels*

## LCFS Schedule

- MOU: December 2009
- Stakeholder input
  - Regulated entities
  - High carbon petroleum
  - Measuring carbon intensity
- Macroeconomic analysis nearing completion
- Framework: early 2011

# *Transportation and Climate Initiative*

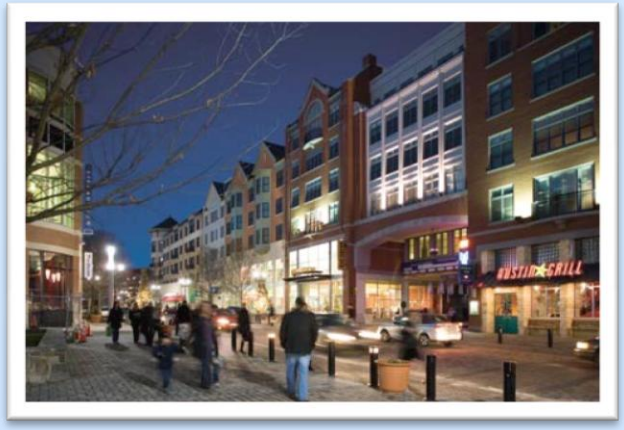
- Reduce greenhouse gas emissions
- Minimize reliance on high-carbon fuels
- Promote sustainable growth
- Addressing vehicle-miles traveled
- Help build the clean energy economy

# *Clean Vehicles and Fuels*

- Coordinating EV infrastructure policies at a regional level will hasten the spread of EV sales and use.
- Next step: a work plan to promote a regional EV network that would connect EV hubs with metropolitan and local EV networks and public transportation systems.


# *Sustainable Communities*

- Develop state-level policies that foster sustainable communities and smart growth to reduce travel demand and promote transit oriented development.

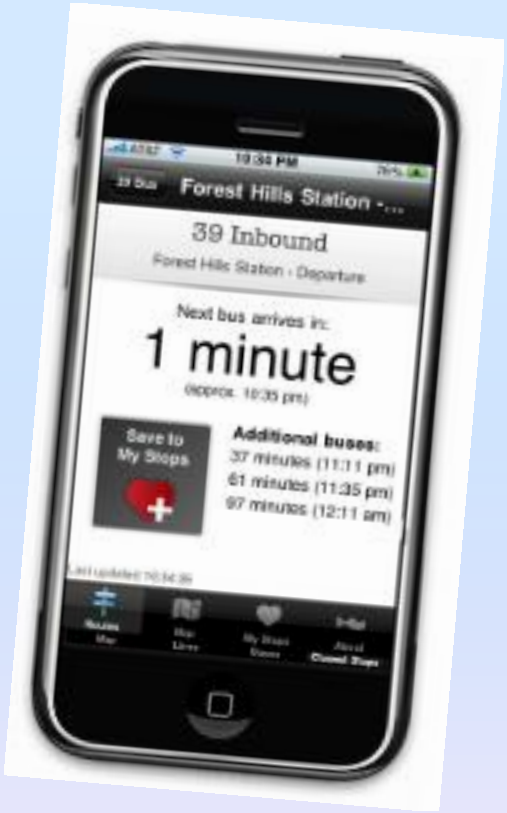


- Consider climate change in infrastructure investment
- Metrics to reflect climate impacts in state policies
- Developing best practices and model state policies
- Enhance and implement sustainable communities efforts within state climate action planning

# *Information and Communication Technology*

Can make transportation more energy efficient and sustainable. Implement emerging technologies to:

- Promote transit use
- Improve bus scheduling and routing
- Real-time information on traffic and alternative routes can reduce travel times and traffic congestion
- Reduce the amount of idling and unproductive run times for locomotives and other heavy-duty vehicles
- Benefits to public:
  - Reduce the cost of vehicle ownership
  - Improve public safety
  - Expand consumer travel choices



# Freight

- Promote sustainable economic development through better goods movement systems and technology.
- Reducing truck vehicle miles traveled
  - Mode shifting to rail and water
  - New technology for better routing and loading of trucks
  - Freight village and other Smart Growth strategies for goods movement
  - Linking “reindustrialization” policies with freight management