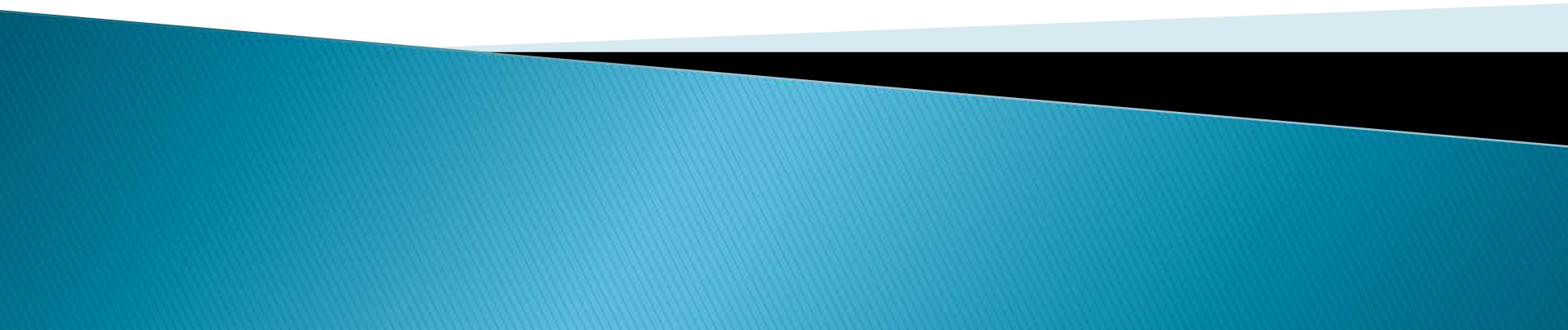



RGGI as a Model for Compliance under CAA § 111(d)

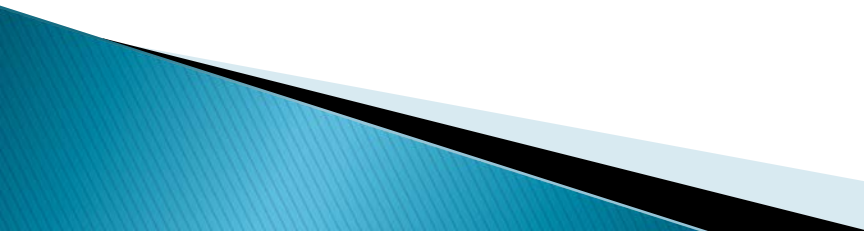
Kathy M. Kinsey
Maryland Department of the Environment
February 24, 2014



RGGI Program Basics

- ▶ Comprised of 9 Northeast and Mid-Atlantic states
 - Encompasses NYISO, NEISO, portion of PJM
 - ▶ Modeled on successful market-based trading programs for SO₂ and NO_x
 - ▶ Establishes regional CO₂ emissions cap
 - ▶ Three-year compliance period
 - ▶ Allowance budgets allocated to states proportionally based on 2000–2002 baseline average emissions
- 

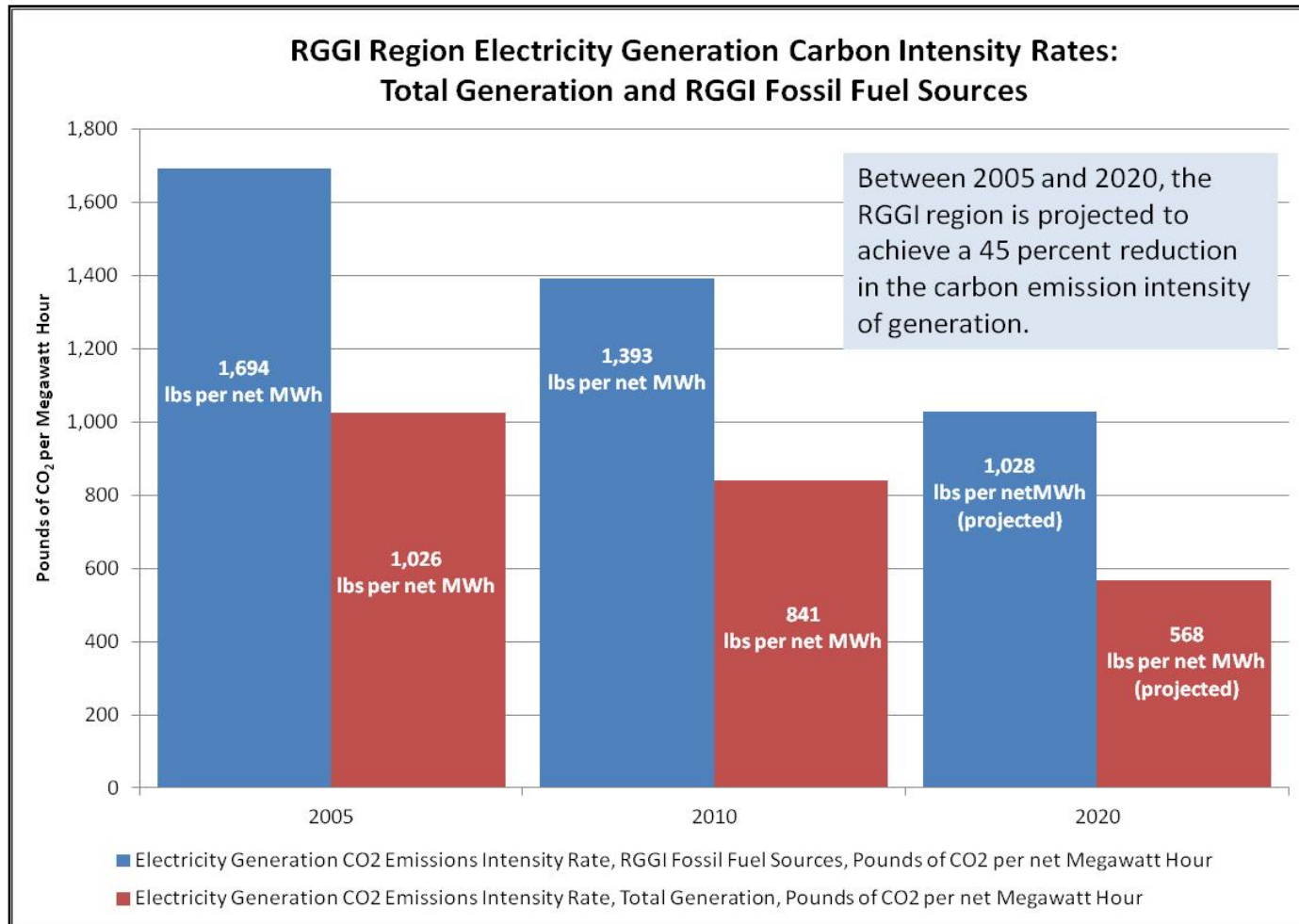
RGGI PROGRAM BASICS

- ▶ Quarterly allowance auctions
 - ▶ Generators must acquire and surrender number of allowances equivalent to emissions
 - ▶ Revenues invested in energy efficiency, renewable energy, ratepayer relief, other consumer benefit programs
 - ▶ Allows banking and future use of allowances
 - Ensures the value of the investment in allowances is maintained
 - ▶ Cost Containment Reserve (CCR) mitigates against unexpected price spikes and provides stability
- 

RGGI Program Basics

- ▶ January 2014 reduced regional emissions cap from 165 mmtCO₂ to 91 mmtCO₂
 - Locks in 43% reduction in emissions from 2005 levels
 - Cap continues to decline 2.5% each year
 - On track to achieve a 50% emission reduction by 2020
- ▶ Incorporated Cost Containment Reserve (CCR)
 - Mitigates against unexpected allowance price spikes
 - CCR + banking provides program stability

RGGI Region Electricity Generation: Carbon Intensity



Advantages of a Market-Based Regional Approach

Aligns with electricity markets

- ▶ Electricity markets are regional, not confined to state borders
- ▶ Grids allow electricity to flow from most efficient lowest cost generator to load wherever located in region

Regional approach to compliance preserves cost effectiveness

- ▶ Grid level programs very effective in achieving significant emission reductions in efficient cost effective way

No state disadvantaged by operation of electricity market

- ▶ Within region, emissions in a state with lowest cost generation may go up to serve load in other state
- ▶ State that reduced consumption could have increase in emissions

Advantages of a Market-Based Regional Approach

Avoids crediting complications between states

- ▶ In state-by-state approach, how to credit emission reductions in one state due to EE/RE or reduced demand in another
- ▶ Regional approach avoids having to allocate credit

Offers flexibility fence line approach doesn't

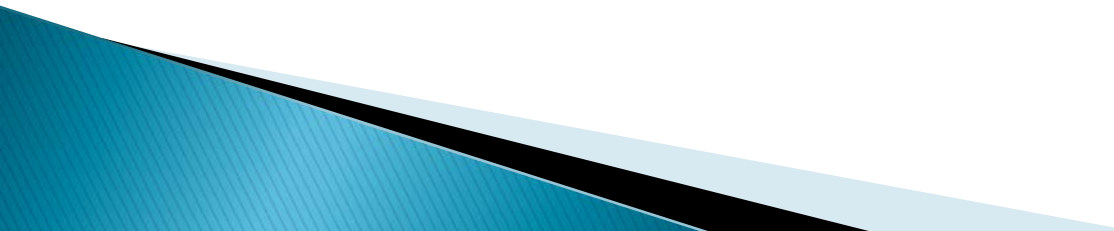
- ▶ Can account for remaining useful life of individual plants by allowing continued operation

Advantages of a Market-Based Regional Approach

Automatically credits EE/RE, fuel switching reductions

- ▶ Avoids need for separate accounting
- ▶ Avoids need for quantification of portfolio reductions

Transparent and straightforward compliance mechanism

- ▶ Generators must surrender one allowance for every ton emitted
 - ▶ Enforceable against individual sources
 - ▶ Avoids need for federal enforceability of state EE/RE, other portfolio programs
- 

Economic Benefits

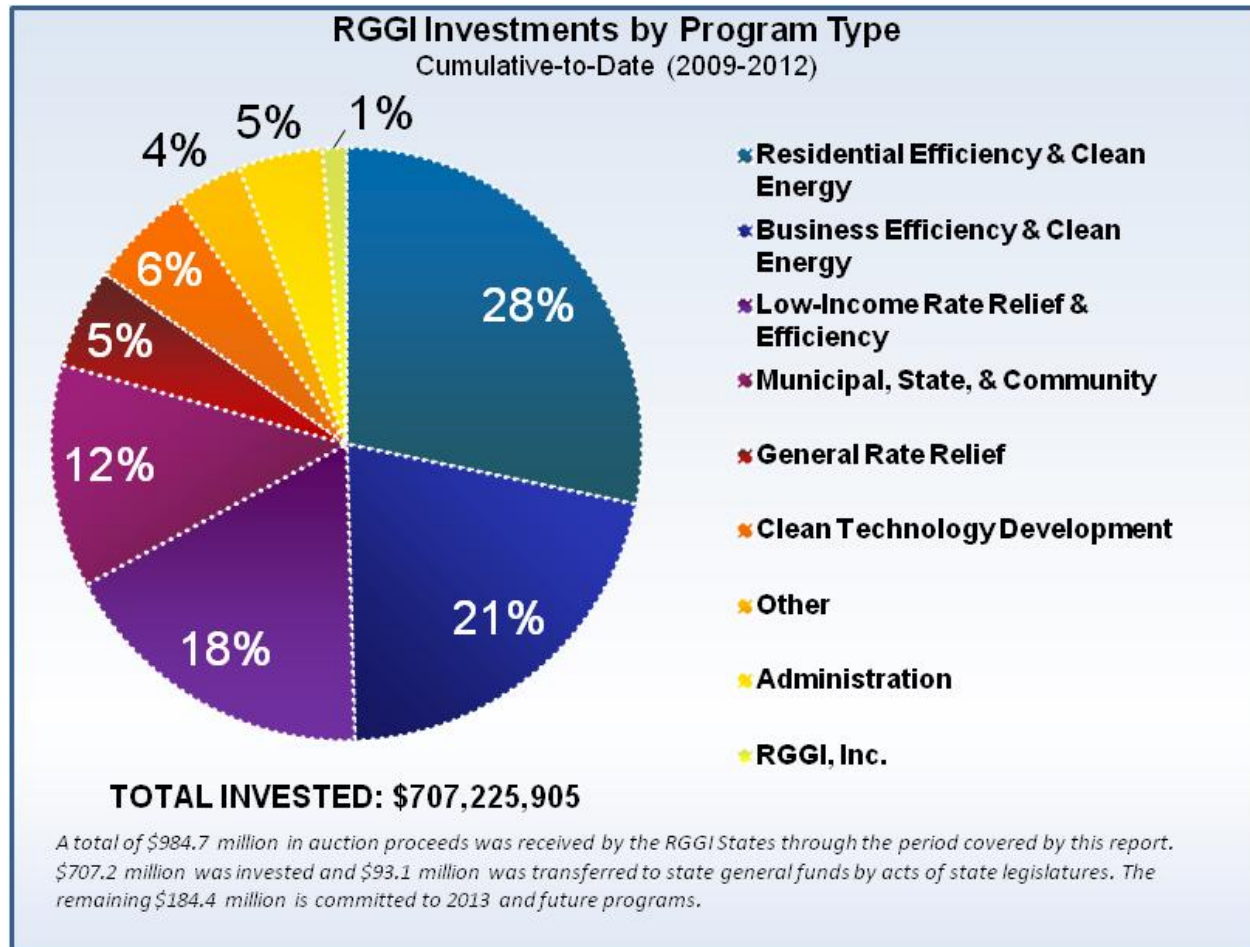
Generates significant revenue for re-investment in EE/RE, climate, ratepayer relief, other consumer benefit programs

- ▶ Through 2012, RGGI states received more than \$984 million in auction revenues
- ▶ 70% of revenues have been invested EE/RE programs
- ▶ Drives additional emission reductions
- ▶ Consumer savings on electricity bills

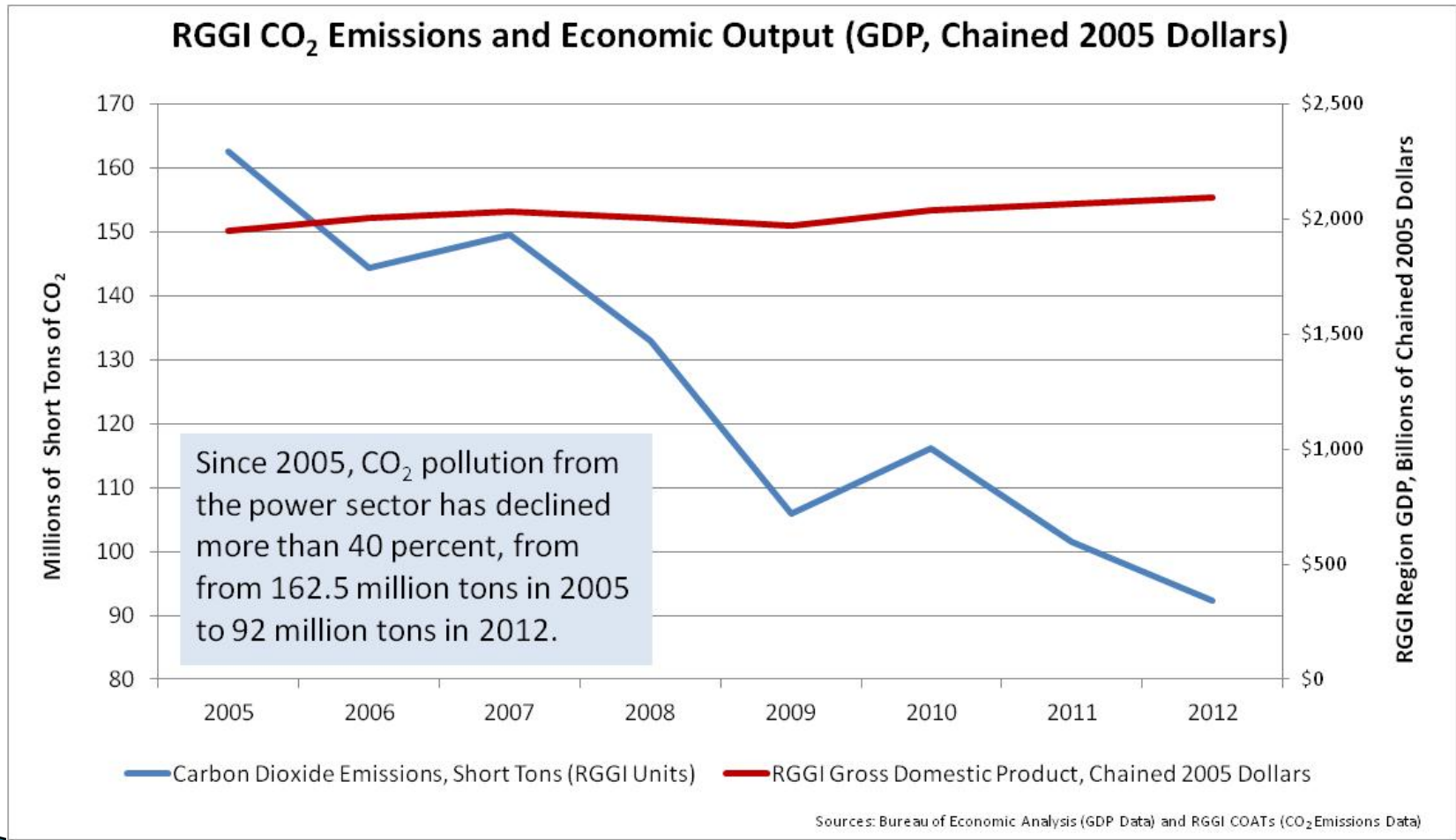
Modest impact on electricity bills

- ▶ Allowance prices resulted in bill impacts of less than 1%
- ▶ Project same modest increase under new 91 million ton cap

Investments of RGGI Revenues



RGGI CO₂ Emissions and Economic Output



Analysis Group Report Conclusion

RGGI Delivers Results: Savings, Value, Jobs



\$1.6
BILLION

In net economic benefit to the region¹

\$1.3
BILLION

In energy bill savings across the region¹

16
THOUSAND

Job-years created¹

\$765
MILLION

Kept in region (avoided fuel costs)¹

¹Source: Analysis Group (2011)