



**Regional Greenhouse Gas Initiative**

An Initiative of the Northeast & Mid-Atlantic States of the U.S.

# Regional Greenhouse Gas Initiative (RGGI)

Christopher Sherry

New Jersey Department of Environmental Protection

2008 New Jersey Clean Energy Conference

Jersey City

October 17, 2008

## Precedent Setting

---

- First carbon cap-and-trade program in the United States
- Unprecedented collaboration between energy & environmental agencies in program design
- New approach to program design
  - auction of allowances and use of revenue to reduce electricity demand and moderate allowance prices
- Key design elements being incorporated into federal cap-and-trade proposals (e.g., allowance auction)
- General design approach instructive for federal program
  - focus direct incentives at both the emissions source and end-user

## What is RGGI?

---

- 10-state cap-and-trade program addressing power plant CO<sub>2</sub> emissions
- Will regulate approximately 225 electric generation facilities in region
  - Representing ~ 95% of regional CO<sub>2</sub> emissions from electric generation
- A CO<sub>2</sub> allowance represents a permit to emit 1 ton of CO<sub>2</sub> (in total, regional “emissions budget” or cap)
- Regional CO<sub>2</sub> emissions held stable through 2014 and reduced by 10% by 2018
- Allocation of CO<sub>2</sub> allowances by auction
  - raise significant revenue to accelerate market deployment of energy efficiency and clean energy technologies



## Regulatory Structure

---

- Voluntary, non-binding MOU establishing framework of regional emissions trading program
- 10 individual state CO<sub>2</sub> Budget Trading Program rules
  - Consistency required to facilitate regional allowance trading
  - Based on model rule, with significant discretion among states in key areas, such as allowance allocation
- State programs linked through CO<sub>2</sub> allowance reciprocity
  - A CO<sub>2</sub> allowance issued by one state usable for compliance in another
- Regional implementation infrastructure supporting 10 state programs
  - Emissions and allowance tracking system
  - Auction platform



## RGGI Program Components

---

- Start date of January 1, 2009
- Covers fossil fuel-fired electric generating units 25 megawatts and larger
- Two-phase cap: stabilize emissions through 2014; reduce 10% by 2018
- Three-year compliance period
- Allowance banking allowed without limitation
- Allocations: minimum 25% allocation to Consumer Benefit or Strategic Energy Purposes
  - CO<sub>2</sub> allowances allocated at discretion of each state
  - More than 85% of regional CO<sub>2</sub> emissions budget to be auctioned
- Offsets allowed with limitations; requirements prescribed in rule

## Innovative Design Elements

---

- Allowance auction: warranted due to implementation in competitive wholesale power markets
  - Generates revenue to support end-use energy efficiency and clean energy technologies
- Consumer allocation approach: allows program that regulates power plants to also address electricity end-use
  - Addressing CO<sub>2</sub> requires new approach
  - Achieves emissions reductions at lower cost
- Compliance flexibility: package of compliance flexibility measures designed to reduce market volatility without using price caps or safety valves
  - Unlimited banking, multi-year compliance period, offset triggers
- Offset design: utilizes standardized approach to evaluating additionality through benchmarks and performance standards



## RGGI Consumer Allocation Approach

---

- Auction of CO<sub>2</sub> allowances and use of revenue to support greater end-use energy efficiency, clean energy technologies, and mitigate ratepayer impacts
- Allows program that regulates power plant CO<sub>2</sub> emissions to also address electricity end-use
- End-use energy efficiency avoids CO<sub>2</sub> emissions, resulting in lower CO<sub>2</sub> allowance prices (and lower ratepayer impacts)
- End-use energy efficiency investments provide additional ratepayer benefits
  - Bill savings; reduction in peak wholesale electricity prices; reduction in need for T&D investment; increased system reliability; creation of green jobs
  - Market transformation “spillover” effects



## RGGI Consumer Allocation Approach

---

- RGGI program to be implemented in deregulated wholesale electricity market
- Compliance costs of marginal unit incorporated into wholesale market clearing price, regardless of allocation method (e.g., free allocation or auction)
- CO<sub>2</sub> allowances analogous to a marginal O&M cost
- Generators “expend” allowances when generating electricity, resulting in forgone revenue that could be received through sale of allowances (“opportunity cost”)
- As a result, market price of allowances factored into generator bids into the wholesale market



## RGGI Approach: Use CO<sub>2</sub> Allowance Value to Provide Consumer Benefits

---

- Value of regional RGGI CO<sub>2</sub> emissions budget is approximately \$560 million annually (at \$3 per allowance market price)
  - New Jersey CO<sub>2</sub> emissions budget valued at \$69 million annually
- Auction and other sale of New Jersey CO<sub>2</sub> allowances projected to raise approximately \$60 million in 2009
  - Investment in programs to accelerate deployment of end-use energy efficiency and clean technologies, and provide protection for low-income ratepayers
- Examples: Combined heat-and-power in the commercial and industrial sector, municipal energy efficiency programs, low-income residential efficiency and weatherization programs



**Regional Greenhouse Gas Initiative**  
An Initiative of the Northeast & Mid-Atlantic States of the U.S.

## For More Information

---

RGGI Website: <http://www.rggi.org>

Christopher Sherry

New Jersey Department of Environmental Protection

[christopher.sherry@dep.state.nj.us](mailto:christopher.sherry@dep.state.nj.us)