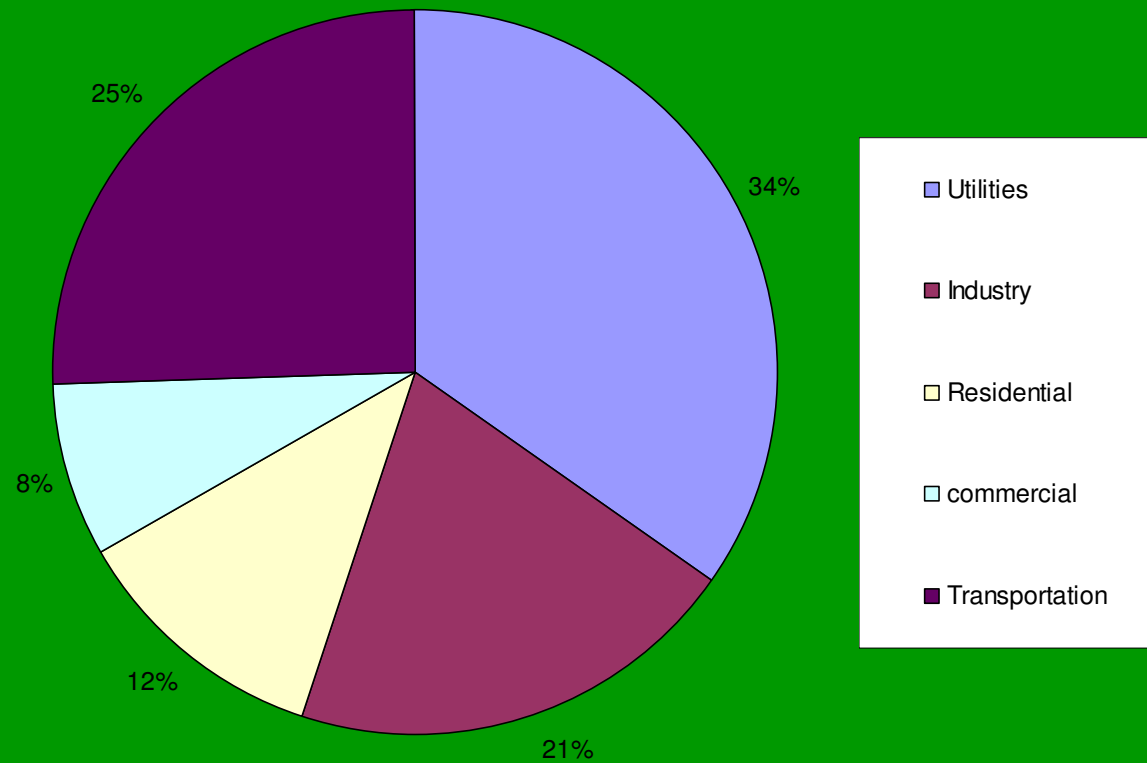


# the **Regional Greenhouse Gas Initiative**

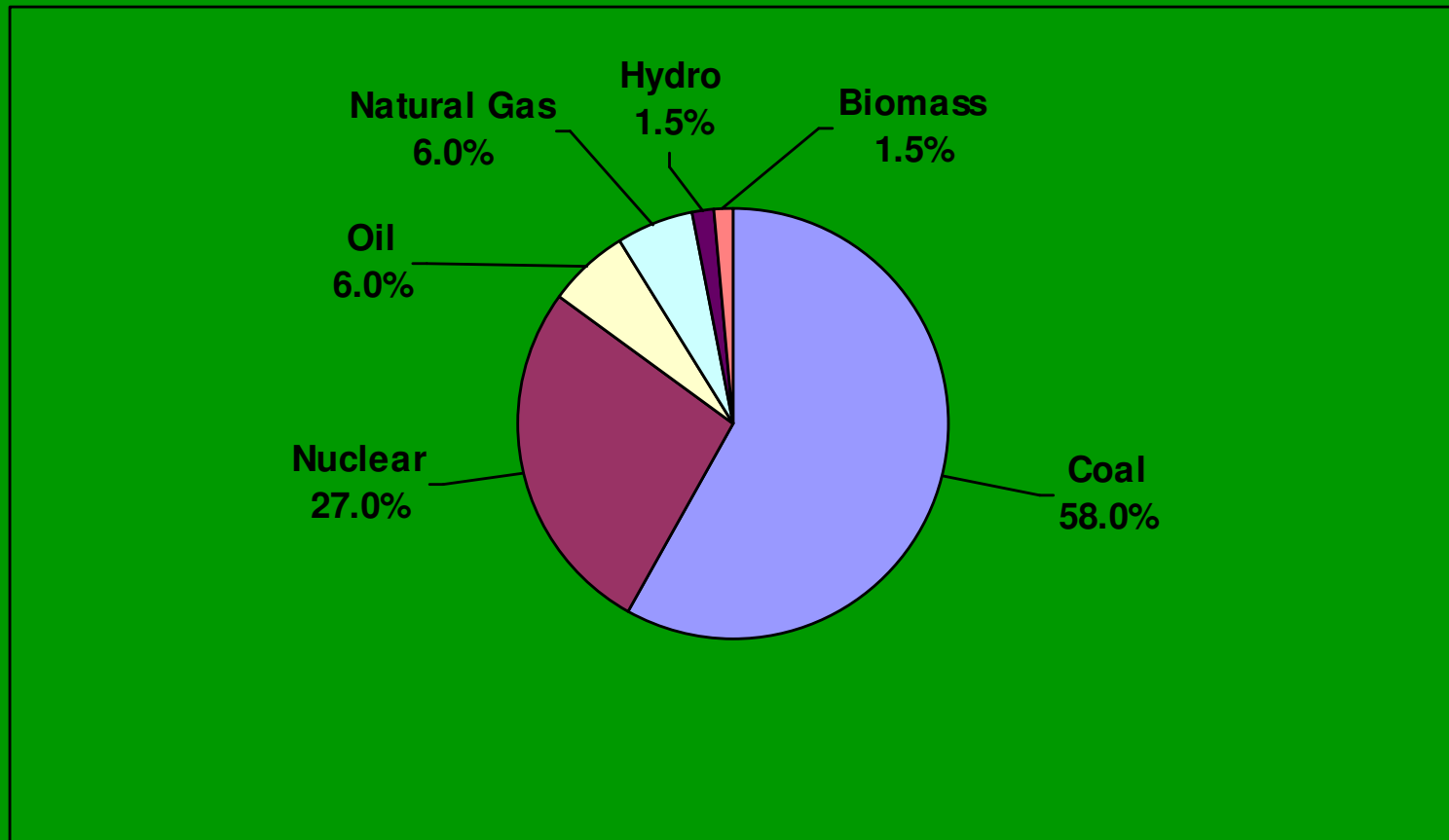
Philip Cherry  
Delaware DNREC

Council of State Governments  
December 5, 2008  
Omaha, Nebraska

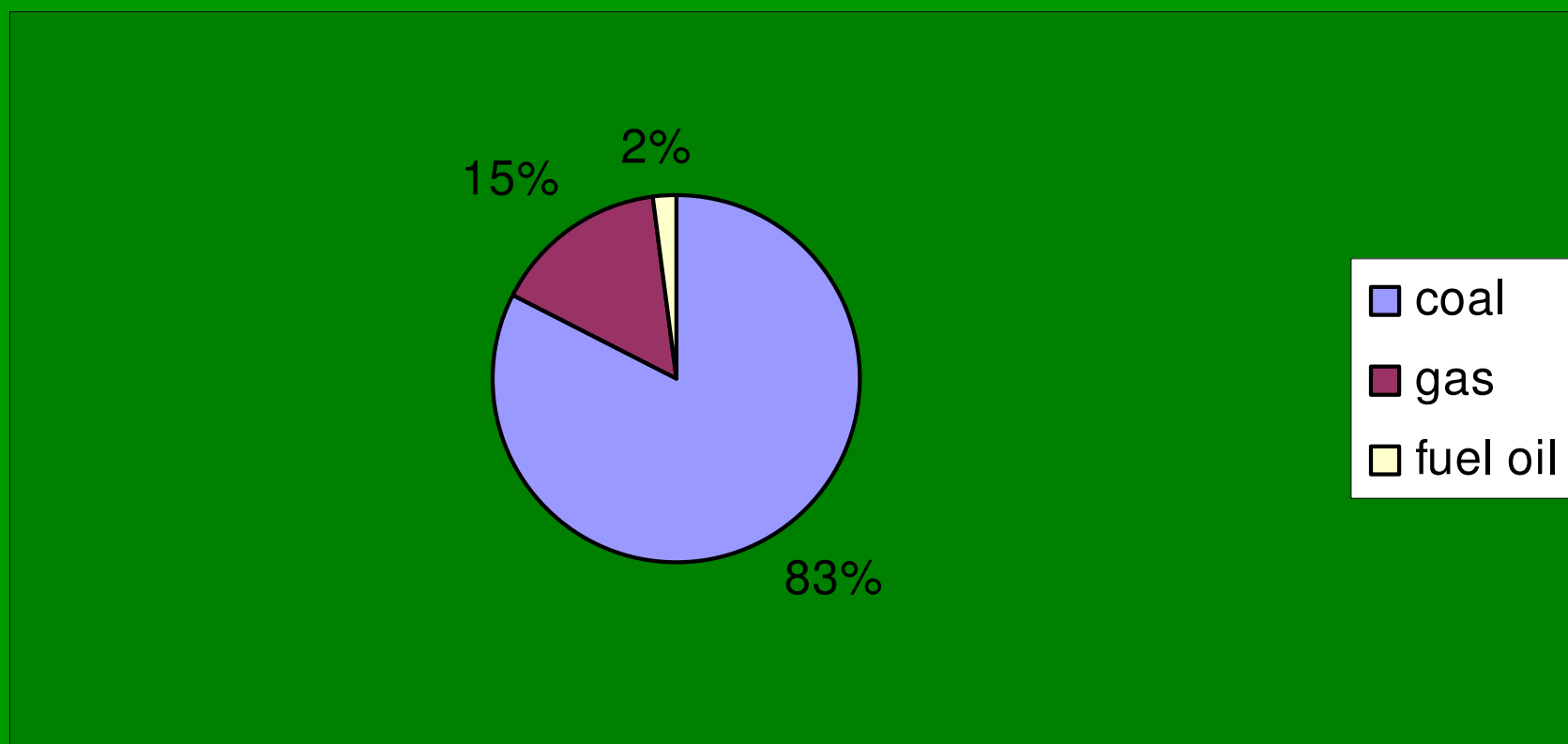
# Delaware and RGGI – CO2 Sources



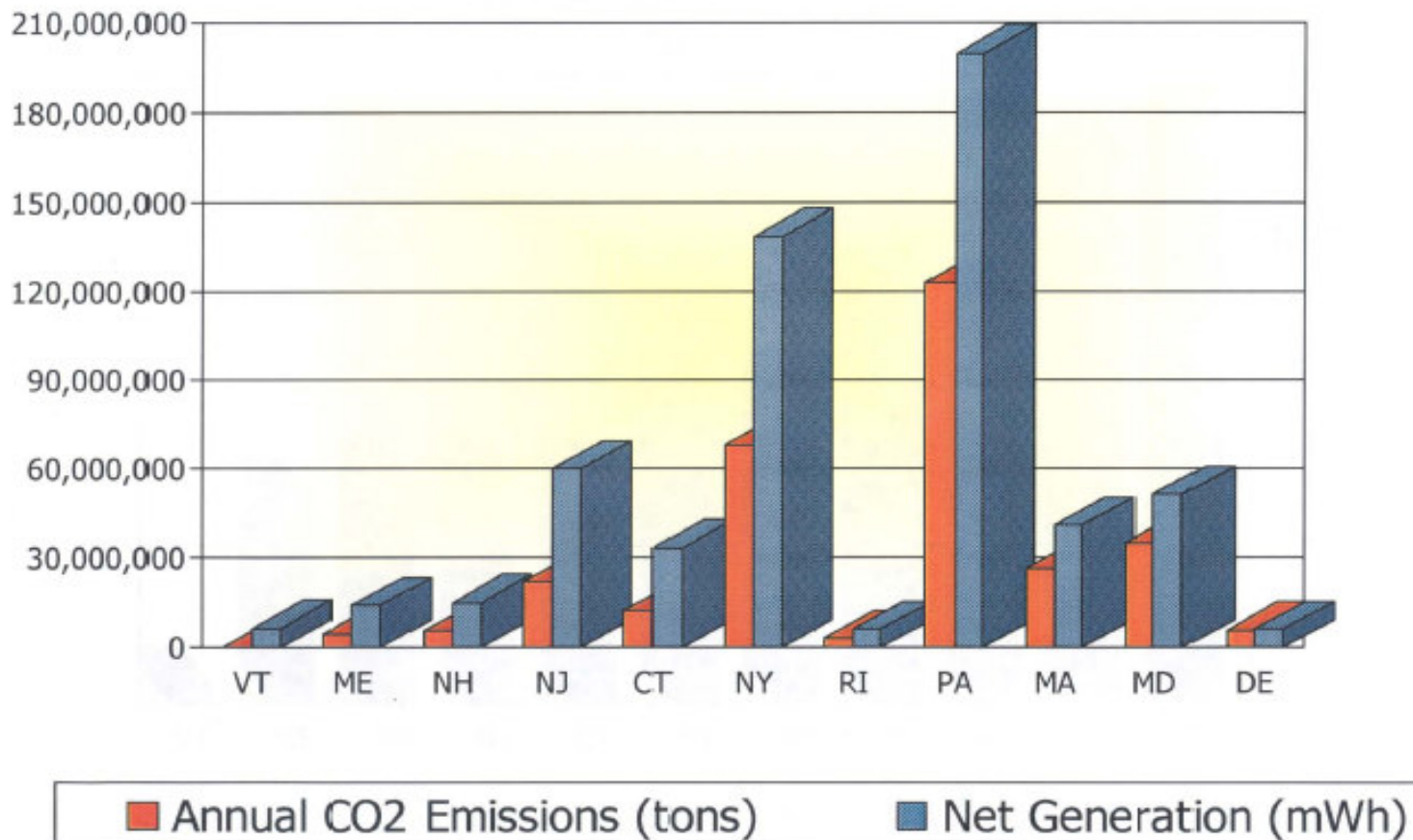
# Delaware and RGGI – Electricity consumed in Delaware



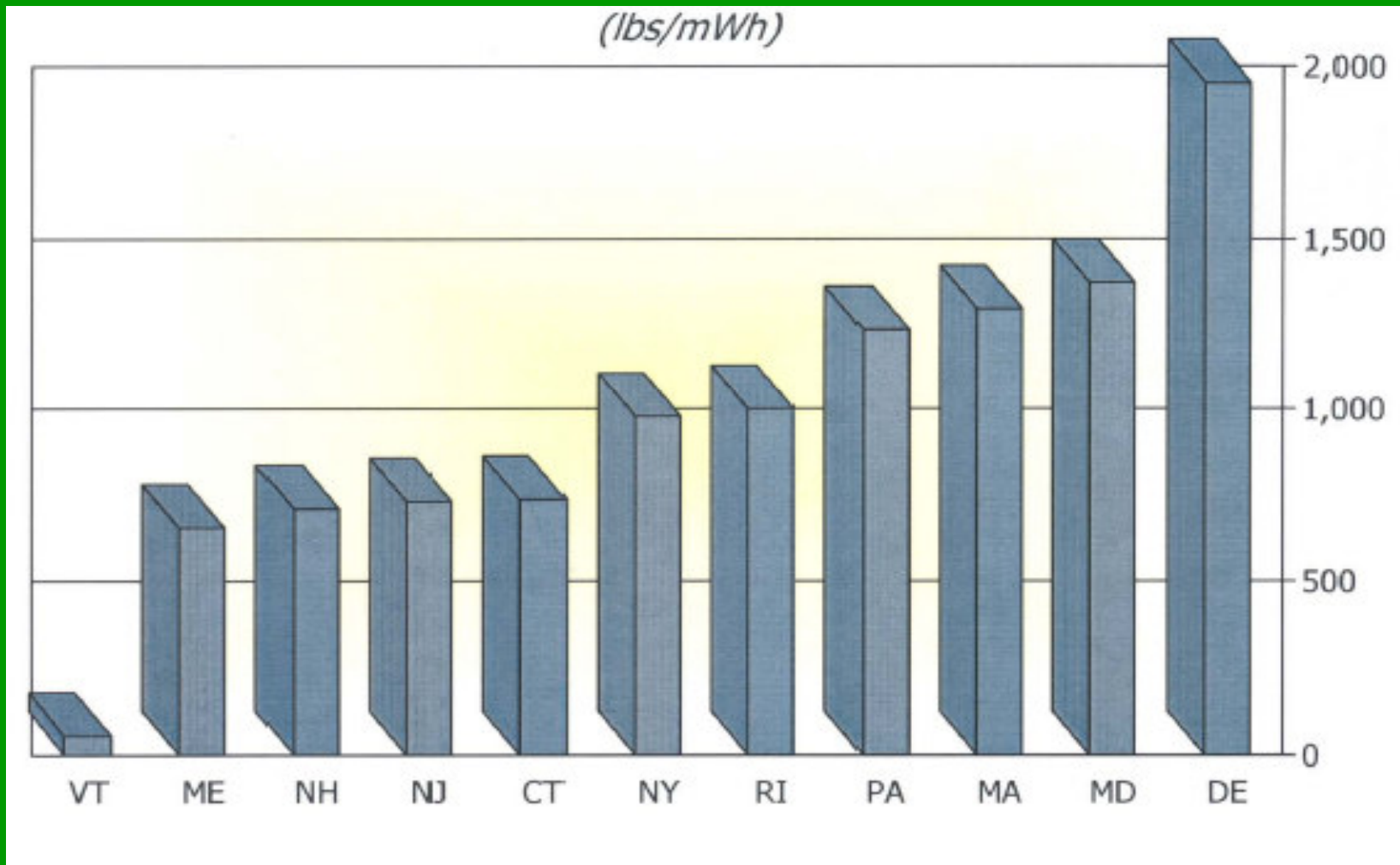
# Delaware and RGGI – Electricity Generated in Delaware



# RGGI State Electricity Profiles

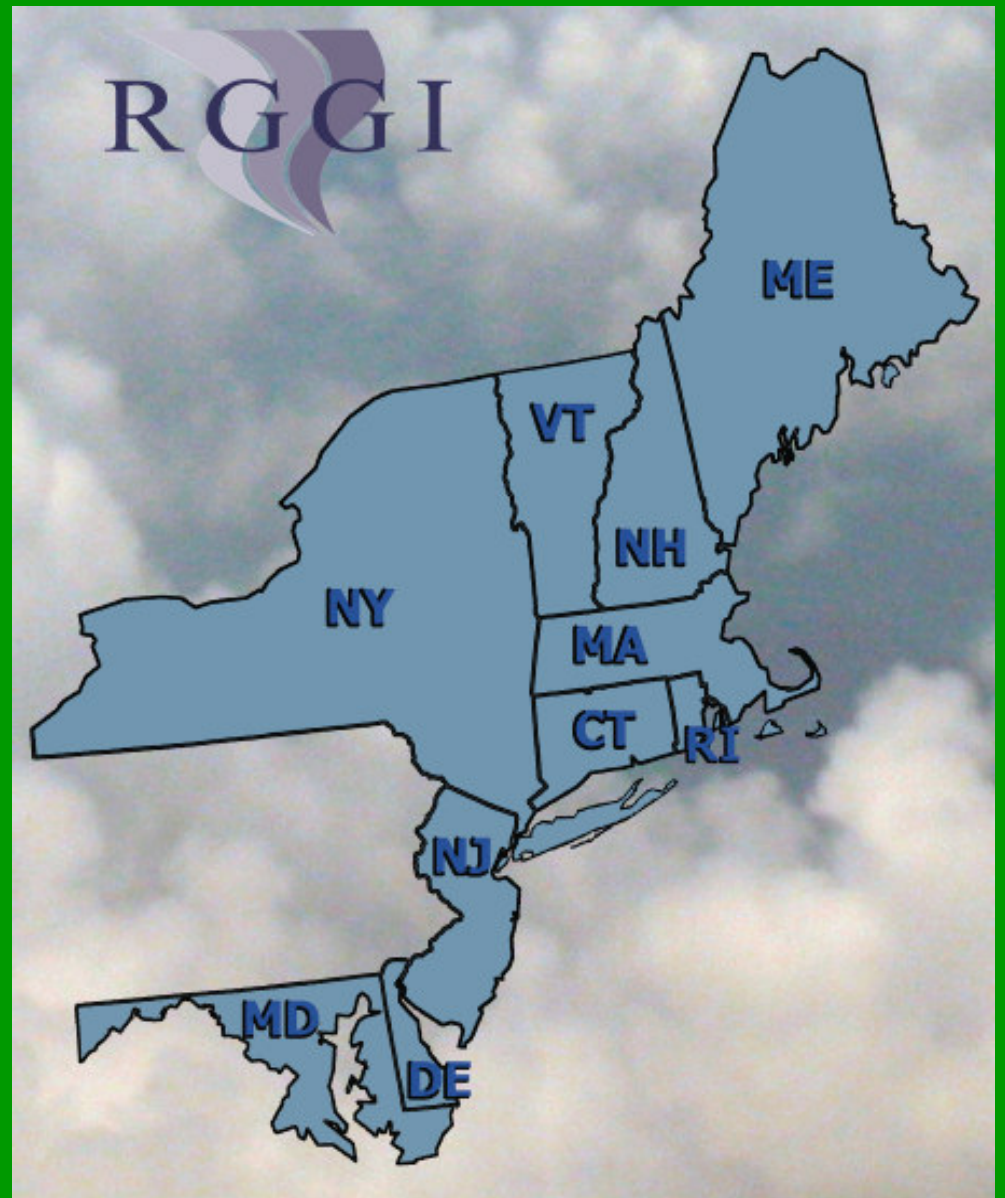


# RGGI States CO2 Output Emission Rate



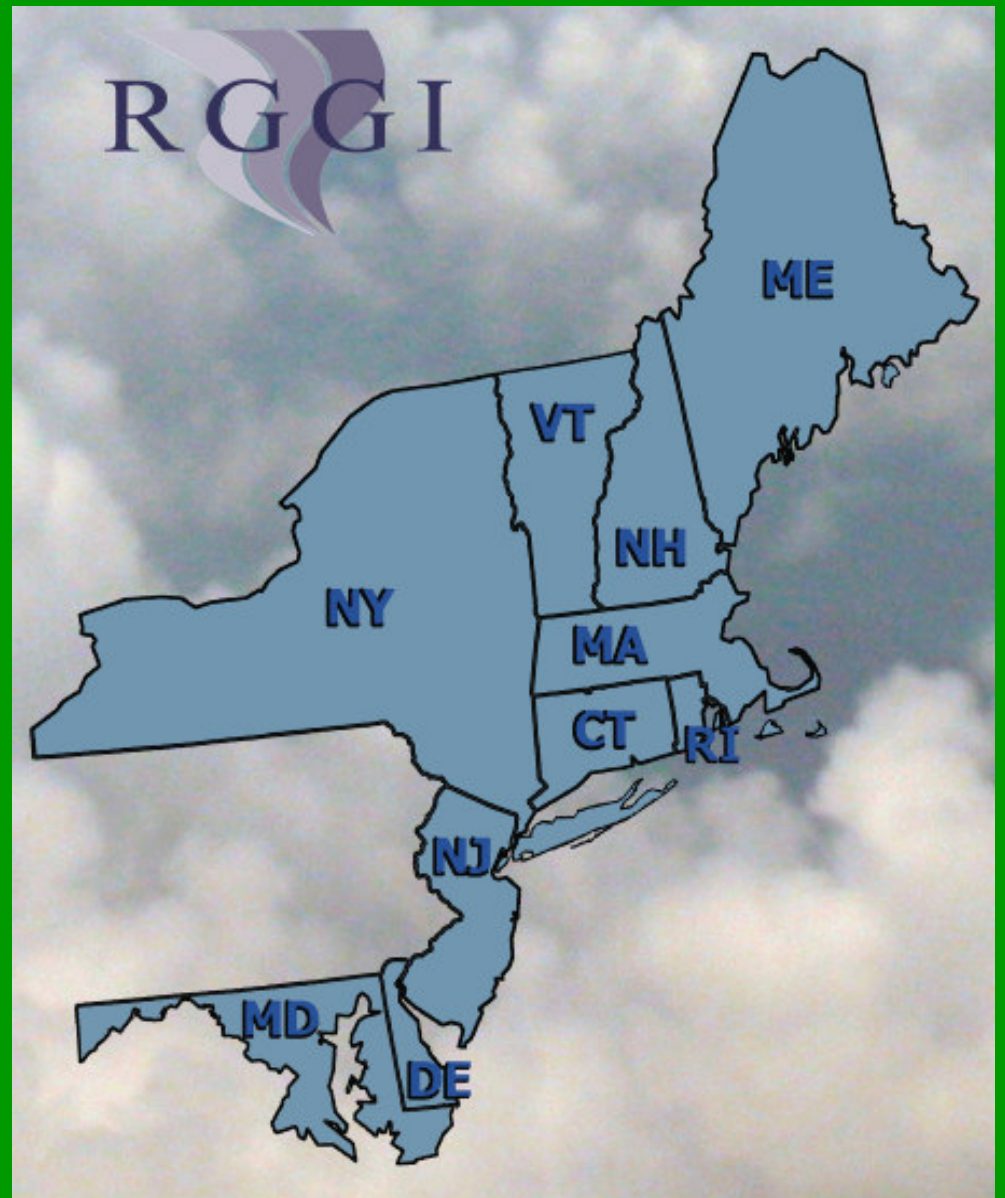
# Overview

- First in the nation cap-and-trade for CO<sub>2</sub>
- Innovative cost control features
- Pioneered new ground for auctions
- A model for Federal program?



# Overview (continued)

- 10 participating states (7, then 9, then 10)
- CO<sub>2</sub> emissions from large fossil-fuel-fired electric generating units (>25 MW)
- Stabilize emissions 2009 – 2014
- Reduce cap 2.5% per year from 2015 – 2018



# RGGI State Allocations\*

Connecticut:	10,695,036 tons
Delaware:	7,559,787
Maine:	5,948,902
Maryland:	37,503,983
Massachusetts:	26,660,204
New Hampshire:	8,620,460
New Jersey:	22,892,730
New York:	64,310,805
Rhode Island:	2,659,239
Vermont:	<u>1,225,830</u>
	188,076,976 tons

\*Based on adjusted actual annual average emissions from all affected facilities 2000-2002

# Compliance Options

- CO<sub>2</sub> allowances
- Efficiency improvements
- Fuel switching
- Combustion of eligible biomass
  - Emissions of CO<sub>2</sub> from eligible biomass can be subtracted from a facility's compliance obligation
- Limited use of project-based emission reductions (offsets) for compliance
  - 1/2 of reductions from program (3.3%)
  - May expand to 5% or 10% if triggers met

# Cost Control: Offsets

- Departed from CDM case-by-case approach.
- Employ benchmark / performance standards approach
  - Bulk of administrative work done up front to predefine protocols for approving offsets
  - Allows project developers and interested stakeholders to understand program requirements up-front
  - Increases transparency and provides certainty to project developers
- Positive list with 5 initial categories, may be expanded over time

# Additional Cost Controls

- Temporal flexibility
  - Early reduction allowances
  - Unlimited banking
  - 3 year compliance period
    - Limit effects of variable weather and fuel price spikes
- Price triggers (\$7, \$10)
  - Lengthen compliance period
  - Expand use of offsets (5%, 10%)
  - Allow use of international credits and allowances
  - Highly controversial feature (EUAs trading at \$35)

# Auction

- MOU commits states to allocate 25% of allowances to consumer benefit & strategic energy purposes
- Estimate that initially auction > 85% of allowances
- 1<sup>st</sup> auction September 25, 2008
- Price – \$3.07/ton
- Compliance entities purchased most (80%) of the allowances
- More than \$38.6m in proceeds
- Price is low, but program was intentionally modest
- 2<sup>nd</sup> Auction December 17

# Auction in Context

- Acid Rain Program (SO<sub>2</sub>)
  - 2.8%
- EU ETS auctions
  - 0.13% in Phase I (2005-7)
  - 3% in Phase II (2008-12)
  - Phase III (2013-20) discussions:
    - 100% of utility allowances
    - 20% of industry allowances in 2013, increasing to 100% in 2020
- Lieberman Warner
  - 21.5% initially, increase to 69.5%

# RGGI Challenges

- Regional Focus
  - Better done at a national level
  - Inequitable playing field
- Leakage
  - diminishes efficacy
  - Competitive disadvantage for generators
- Costs
  - Projections based on old economy
  - Uncertainty over 100% auction
- Over-allocation
  - Cuts both ways - costs are low, but so is program value
- Federal Uncertainty
  - Early mover disadvantage?
  - Value of allowances
  - Federal Pre-emption



# Midwestern Greenhouse Gas Reduction Accord

- Midwestern version of RGGI and WCI
  - IA, IL, KS, MI, MN, WI & Province of Manitoba as full signatories
  - IN, OH, SD and Province of Ontario as observers
-

# MWG Greenhouse Gas Reduction Accord

Complete development of proposed Cap & Trade agreement and model rule expected shortly

Preliminary indications are cap and trade program will cover electricity and large industrials (just under half of regional emissions)

Workgroup has recommended:

- 15-25% reduction from 2005 levels by 2020
- 60-80% reductions by 2050.
  - 2005 baseline levels
- Please refer to MGA for details

# Western Climate Initiative

- U.S. Partner States – AZ, CA, MT, NM, OR, UT, WA
- Canadian Partner Provinces – BC, MB, ON, QC
- U.S. Observer States – AK, CO, ID, KS, NV, WY

# Western Climate Initiative

- Program start date of January 1, 2012
- Regional greenhouse gas reduction goal of 15% below 2005 levels by 2020
- All GHG's (CO<sub>2</sub>, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride)
- Addresses in state generation, imports, industrial sources and transport sources
- Plan for auctioning a minimum of 10% of the allowance budget in the first compliance period increasing to 25% in 2020. Higher auction percentages possible.
- Please check with WCI for details.

# Questions, Comments?

Visit:

[www.rggi.org](http://www.rggi.org)

Email me at

[Philip.cherry@state.de.us](mailto:Philip.cherry@state.de.us)