

# Assessing and Addressing Leakage: Options for RGGI

RGGI Workshop – Vermont Law School

June 2006

Richard Cowart



## *The Regulatory Assistance Project*

50 State Street, Suite 3  
Montpelier, Vermont USA 05602  
Tel: 802.223.8199  
Fax: 802.223.8172

177 Water St.  
Gardiner, Maine USA 04345  
Tel: 207.582.1135  
Fax: 207.582.1176

Website:  
<http://www.raponline.org>



# Logical options for dealing with leakage

---

0. Watch and wait – do nothing now
1. Complementary policies only – EE, RPS, etc.
2. Measure, but don't cap: e.g., Carbon performance standards, Carbon adders
3. Count and account later – regional or state level
4. Count & cap – assign responsibility to LSEs




# Starting Points

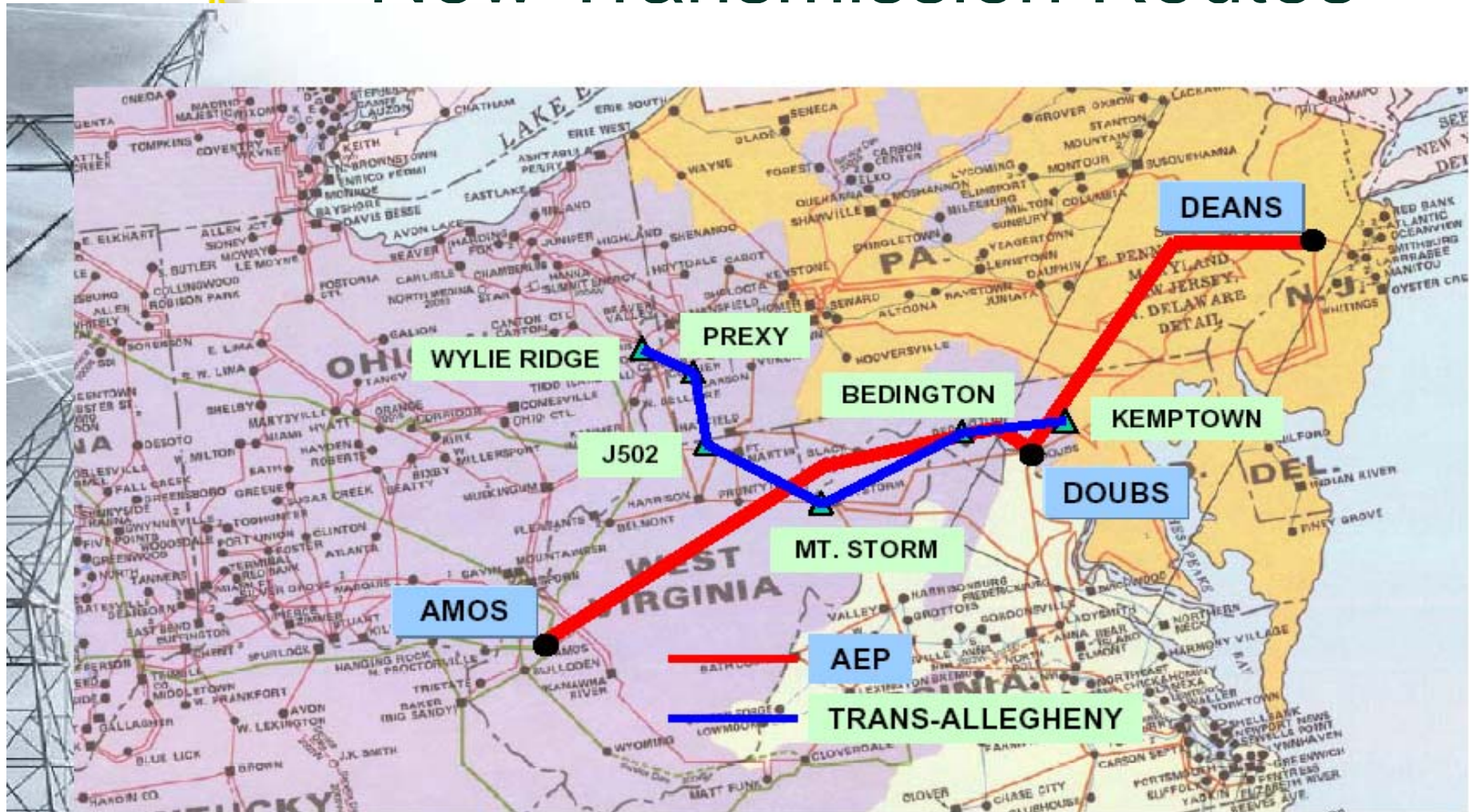
---

- “Causation” is a problem:
  - ❖ “Emissions from the **operation of the power sector** in State X” vs. “Only those emissions **deemed to be caused by** the creation of RGGI”
  - ❖ Causation “due to RGGI” will be highly debatable in practice
- Leakage will result from many factors:
  - ❖ Gas vs. coal price differential – likely greater than the RGGI “carbon bump”
  - ❖ Ease of siting coal plants in coal regions vs in RGGI
  - ❖ New transmission paths
  - ❖ “Rush to grandfather” coal outside of RGGI
  - ❖ Other market conditions – gas supply, outages, etc.

# How much leakage is too much?

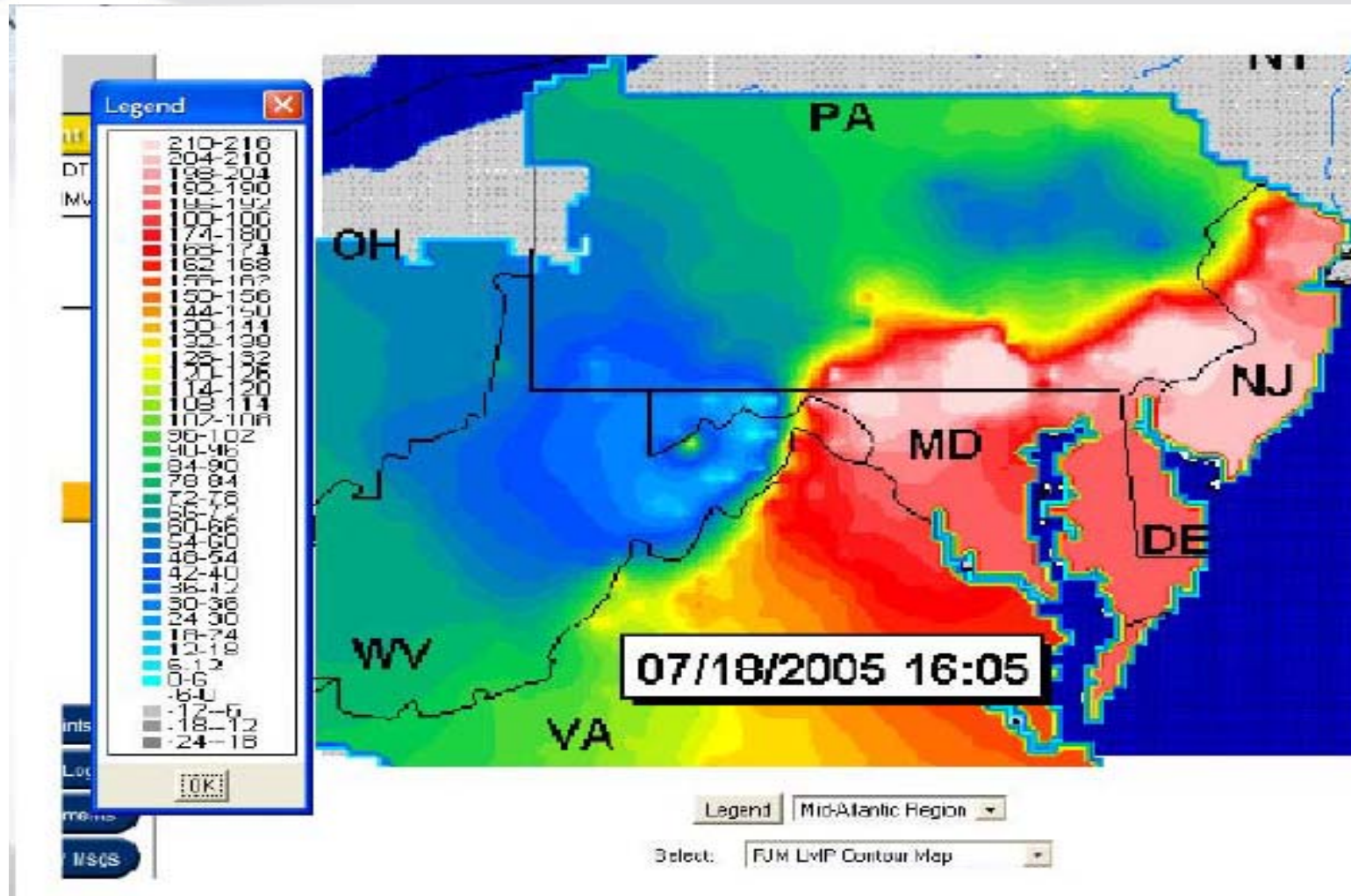
- 
- This is a judgment call for RGGI Principals
  - One way to look at it (back-of-envelope math):
    - ❖ RGGI *total reduction* is ~55 million tons 2009-2019 (more if BAU is the baseline, less if early reduction credits and other exemptions grow)
    - ❖ RGGI total MWH sales (7 states) will rise from about 275 to 380 million MWH per year
    - ❖ 5.5 million tons per year / 300 million MWH = 1.8%
    - ❖ SO: New coal imports equal to 1.8% of total regional sales each year could erase 100% of the actual reductions sought by RGGI


# New Transmission Routes



Map of the Proposed AEP Interstate Project 765 kV Transmission Line  
And Complementary Trans-Allegheny Interstate Line Project Routes

# Congestion relief could change import patterns





## Option #2: Measure but don't cap

---

### (A) **Carbon Emission Performance Standard:**

- ❖ RGGI states could adopt a carbon EPS for (a) all power sold in state, or (b) all new procurement
- ❖ PROs: Downward pressure on emissions, including imports; non-discriminatory; CPS for new procurement could slow out-of-region coal builds
- ❖ CONs: “Emissions intensity” is not a cap; still need complete tracking; small changes in imports could still erode RGGI goals
- ❖ NB: California is studying a CPS, but as an *interim measure*, pending adoption of a cap on all power serving load (including imports).

## Option #2

### Measure but don't cap (con't):

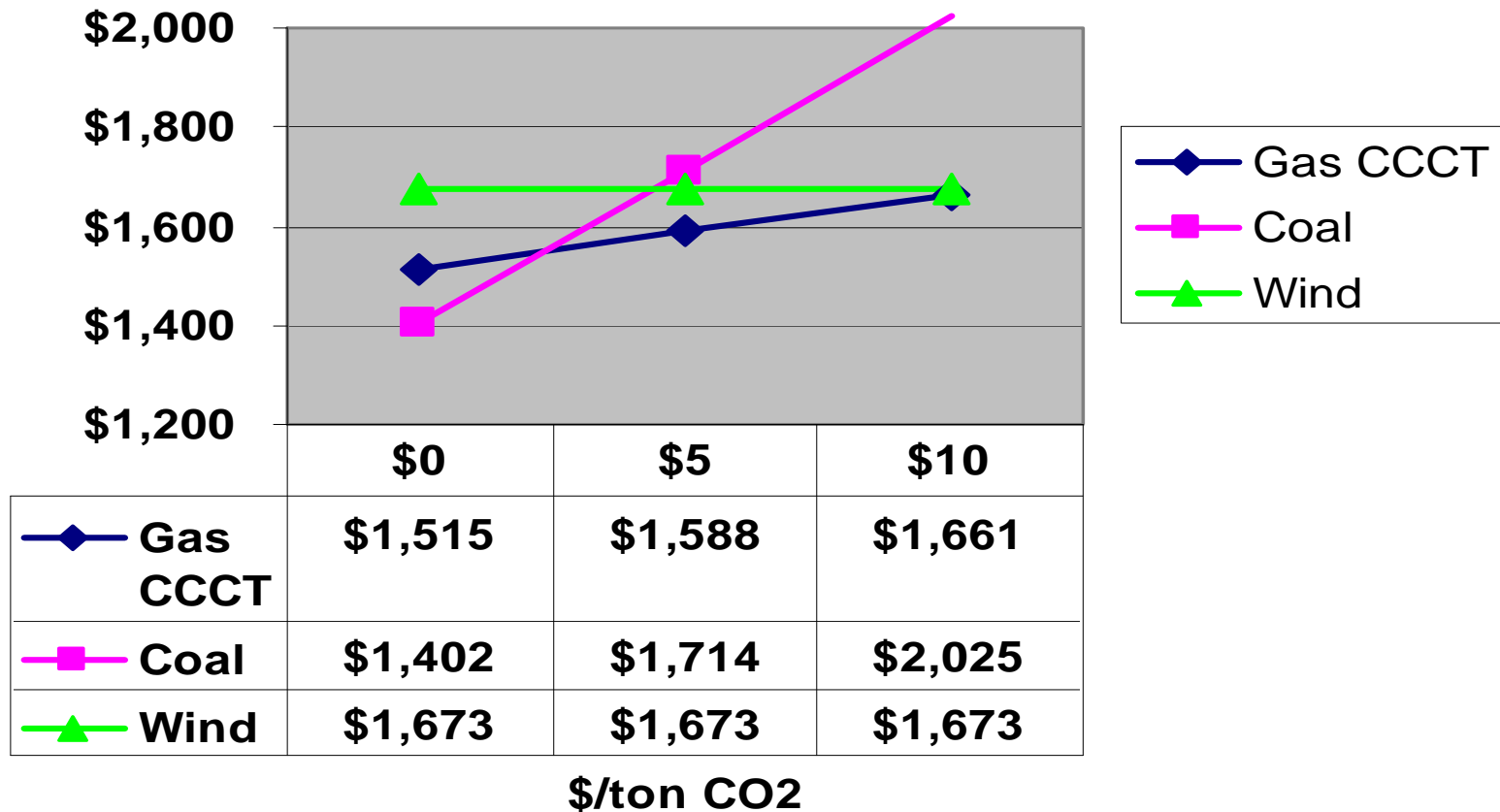
**(B) Carbon adders** -- RGGI states could adopt planning rules that require the use of carbon adders for LSE and POLR portfolios and/or plans

- ❖ Example: CA PUC : adder rises over time from \$5 to \$17.50 per ton
- ❖ Example: Puget Sound Energy planning process


# Puget Power example: Carbon price changes economics of wind vs. fossil

**Impact of CO2 Costs On Generation Economics**

PV Of Life-Cycle Revenue Requirement



# Carbon adders – pros and cons



---

## ➤ PROs:

- ❖ Recognizes the reality of future carbon risk
- ❖ **May** affect acquisition decisions
- ❖ Relatively easy to administer
- ❖ Does not require tracking

## ➤ CONs:

- ❖ Many transactions will not be subject to the analysis (opportunity purchases, buyers who don't do IRPs, etc.)
- ❖ Proxy value is not a real cost
- ❖ Proxy may not affect actions even where it is considered
- ❖ No definite effect on leakage



## Option #4: Assign Carbon Responsibility to LSEs

---

- Basic idea: Bring imports under the cap. (or, “treat imports like sources”)
- How? Assign responsibility to the LSE that sells imported power to in-RGGI load
- Effects: Caps total emissions (including both internal and external), but does not restrict imports per se.



# Imports under the cap - mechanics

---

1. Each LSE has a baseline –e.g., emissions associated with historic imports.
2. Changes\*\* from that level (up or down) either earn or require allowances.
3. For reductions (“counter-leakage”), LSE earns allowances. For increases, required allowances can be retired by any party (e.g., generator, broker, or LSE).
4. Uniform certification: LSE must certify that allowances were retired for all power supply, both RGGI-generated and imports.

\*\*This grandfathers historic imports, simpler than raising the entire cap and state apportionments to include historic imports in the baselines. Either way, it accounts for leakage going forward.



# Imports under the cap- Pros and Cons

---

## ➤ PROs:

- ❖ No cap erosion. Captures leakage 1:1.
- ❖ No discrimination against in-region, capped generation
- ❖ Aligns responsibility and opportunity within the LSE
- ❖ No free ride for leakers
- ❖ 100% certification = no commerce clause discrimination

## ➤ CONs:

- ❖ No leakage safety valve
- ❖ Requires **action** by LSEs
- ❖ Requires **regulation** of LSEs (by PUCs? by DEPs?)
- ❖ Must track power, assign emission attributes to MWHs
- ❖ Heck, plaintiffs will sue anyway



# For more information...

---

*“Addressing Leakage in a Cap-and-Trade System: Treating Imports as a Source”*

*“Why Carbon Allocation Matters – Issues for Energy Regulators”*

*“Another Option for Power Sector Carbon Cap and Trade Systems – Allocating to Load”*

Richard Cowart, Regulatory Assistance Project – Memos for the Regional Greenhouse Gas Initiative (RGGI)

--Posted at [www.raonline.org](http://www.raonline.org)

Email questions to [RAPCowart@aol.com](mailto:RAPCowart@aol.com)

