

# Who Slices the Pie in the Sky? Who gets a slice, and who pays?

## Allocation Issues in National Cap & Trade Legislation

National Association of Clean Air Agencies

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# Four allocation questions

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1. Who decides ? Allocation in DC, or by states?
2. Should credits be allocated (for free) or auctioned to covered sources?
3. If allowances are not given to covered sources, who gets the allowance value?
4. If 3<sup>rd</sup> parties get allowances or revenues, *who decides* what it is spent on, and what *should* it be spent on?



# 1. Who decides on allocation issues?

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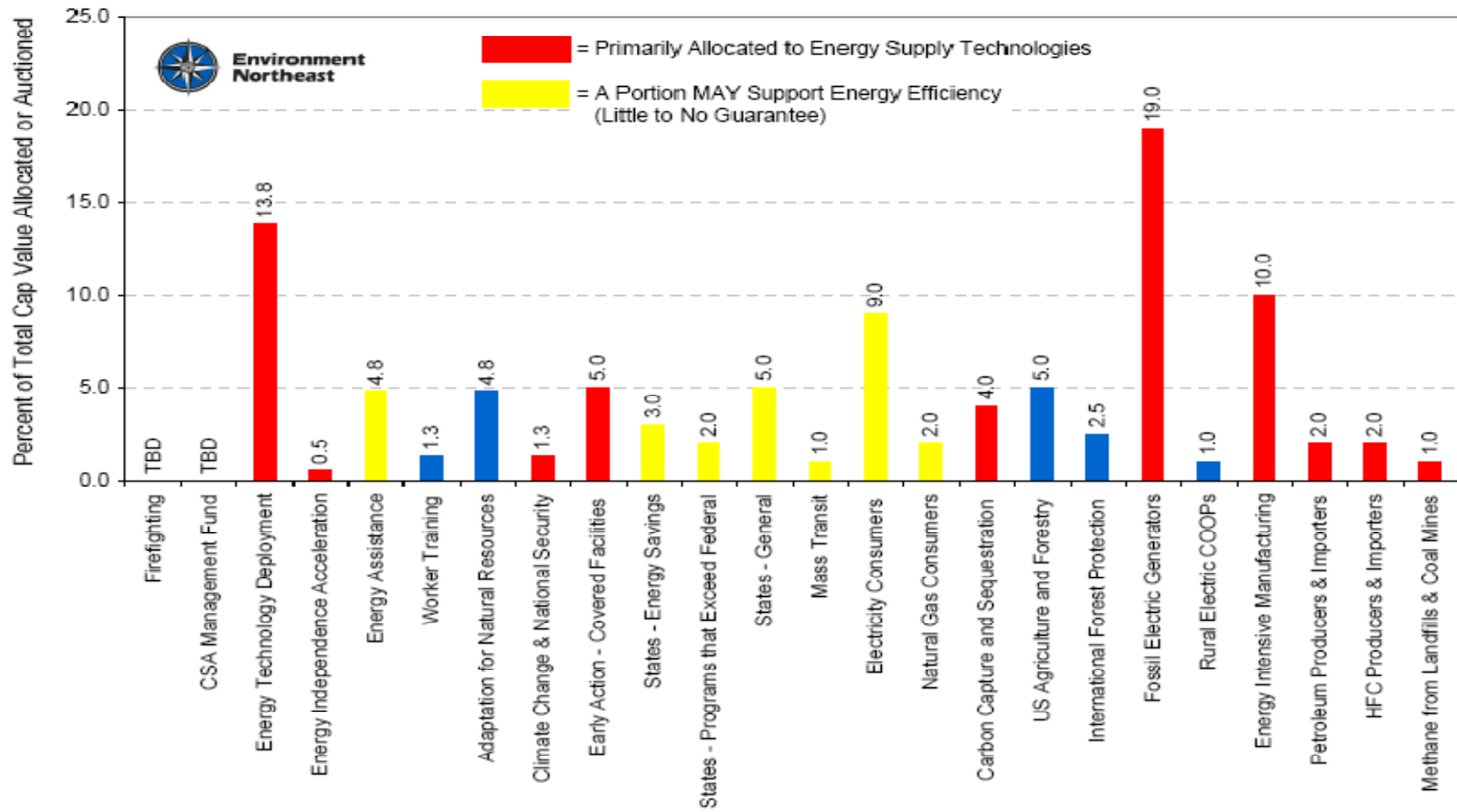
- Apparent prevailing assumption – all major decisions made in DC
  - Congress slices the pie, hands out the pieces
  - Authority and value relationship is between EPA and sources directly
  - Limited state role
- NACAA members (February conference) discussed a much stronger state role
  - State involvement is a practical necessity
  - State differences matter
  - Innovation is crucial – states as laboratories

DC version: allocation for 60 votes  
States' argument: allocation for policy




# L-W: One big national pie, lots of slices (mostly to the supply-side)

Percent of Total Allowance Value Allocated or Auctioned for which Activities or Programs (2012)



# What role for the states?

## A range of federal-state choices



<b>Issue</b> ↓ <b>Approach</b> →	<b>Nationalist approach</b>	<b>Strong state role</b>
<b>Cap level</b>	<b>Congress</b>	<b>Congress (but states could have tougher caps)</b>
<b>Which sectors are capped?</b>	<b>Congress</b>	<b>Congress + additional sectors by states</b>
<b>Allocation &amp; Auction revenues</b>	<b>Congress decides</b>	<b>States allocate within own apportionment</b>
<b>“Responsible entity”</b>	<b>EPA</b>	<b>EPA and states</b>
<b>Complementary policies</b>	<b>Congress or not at all</b>	<b>Mostly states</b>



## 2. Allocation or Auction?

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- Free historic allocation for SO<sub>2</sub> believed to work
- But free historic allocation for CO<sub>2</sub> in Europe led to large generator windfalls, political fallout
- RGGI states adopting a consumer/public benefit allocation
- One lesson: effects vary according to power mix, state of organized power markets, type of power regulation in different states
- NARUC now calls for allocation to load-serving entities, not generators

# Citigroup Report on the Impact of the EU Carbon Market on European Utilities (up to 2007)

## So Winners and Losers?

- All generation based utilities – winners
- Coal and nuclear generators – biggest winners
- Hedge funds and energy traders – even bigger winners
- Losers??....herm.....Consumers!

*avg energy hedge funds*  
2006 bonus { 1.5 %  
3.0 %  
5.0 %

*across Europe approx £1 bn paid from consumers → utilities → hedge funds, et al*





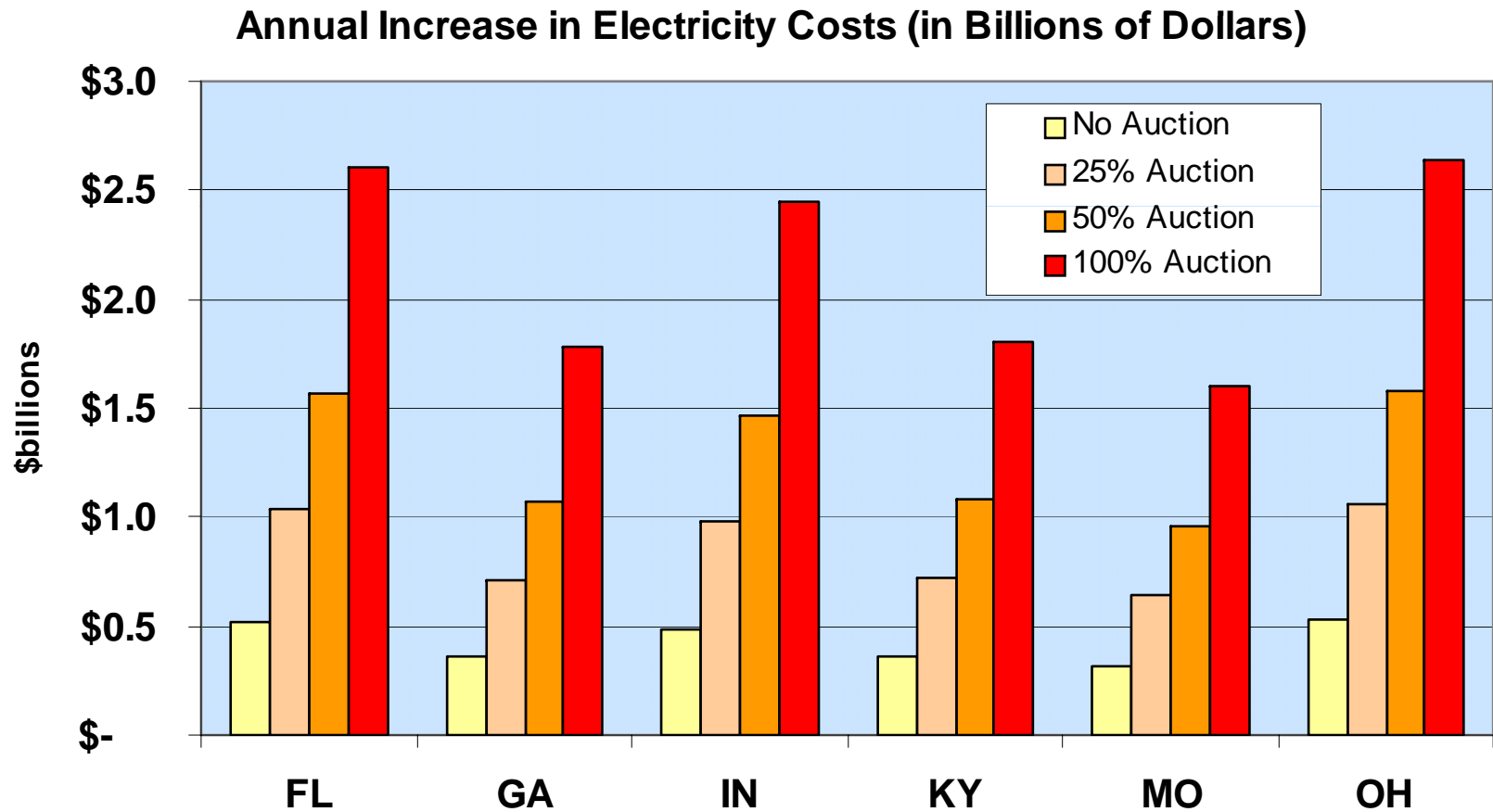
# AEP's view: stick with grandfathered allocations

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- **Auctions will raise electricity rates in most states (except for Northeast, TX and a few others) substantially more than if allowances allocated at "no-cost".**
- **Electric generators should receive their full allocations at no-cost in regulated states. This is essential to minimize electricity rate increases. At most, only a small number of the allowances should be auctioned or set-aside for public benefit purposes (I.e. about 5 percent)**
- In all states, auction is a "tax" that diverts funds needed by business (and consumers) to reduce emissions to government which cannot do this as effectively. It also increases transaction and administrative costs.
- Auctions will disproportionately hurt states/regions dependent on coal fired power-which includes most of the Midwestern and Southeastern U.S.

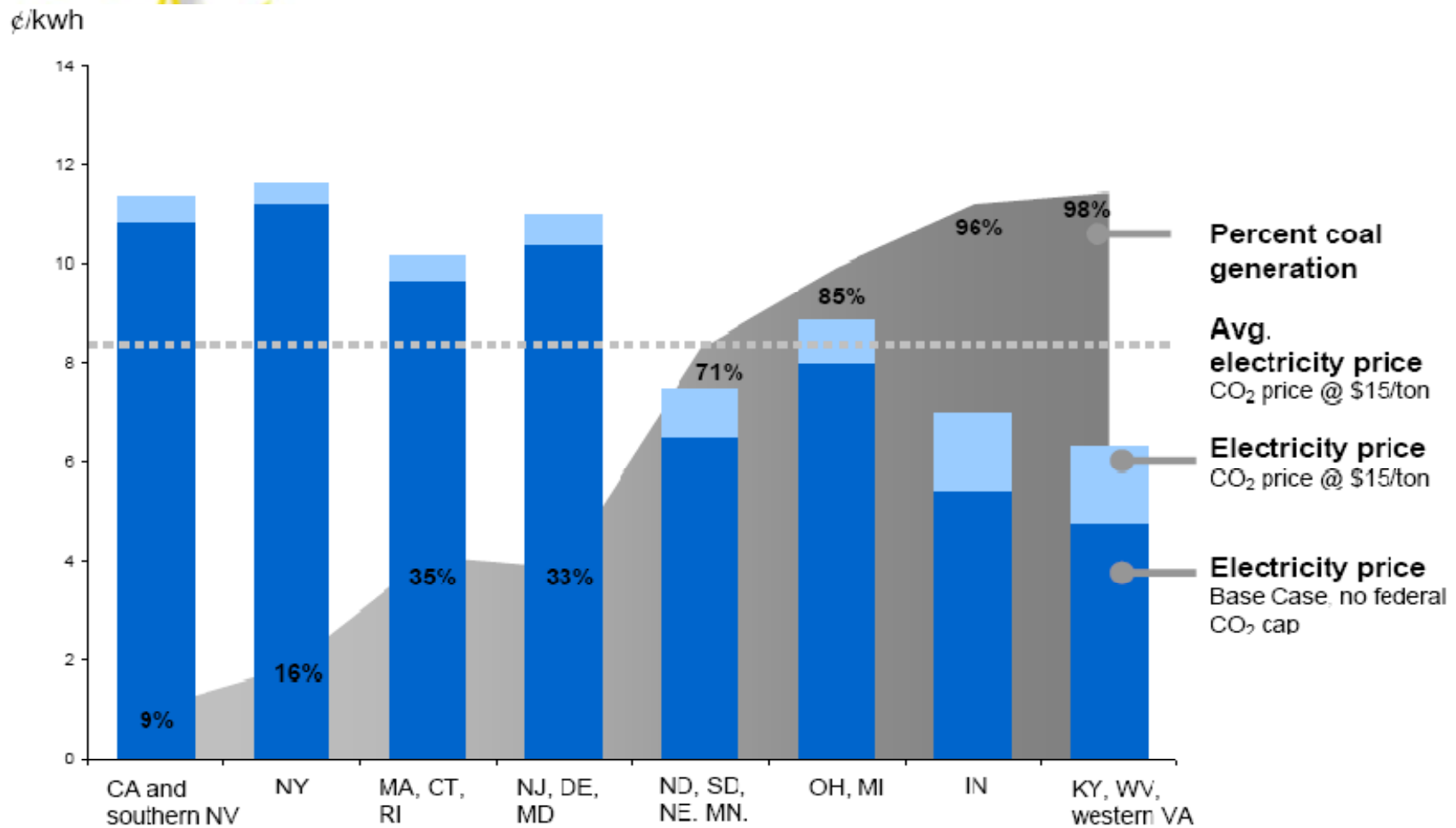
*Source: Presentation, "Climate Change Design Issues," Bruce Braine  
Vice President of AEP, May 14, 2007 NARUC Climate Webinar*

# Increase in Customer Electricity Costs due to Allowance Auctions – (AEP's view)



Based on a 20% reduction in electric sector GHG emissions with CO<sub>2e</sub> reductions/allowances costing \$20/ton

# Dallas Burtraw, RFF: Auction only partly corrects the cost advantage enjoyed by high-coal regions

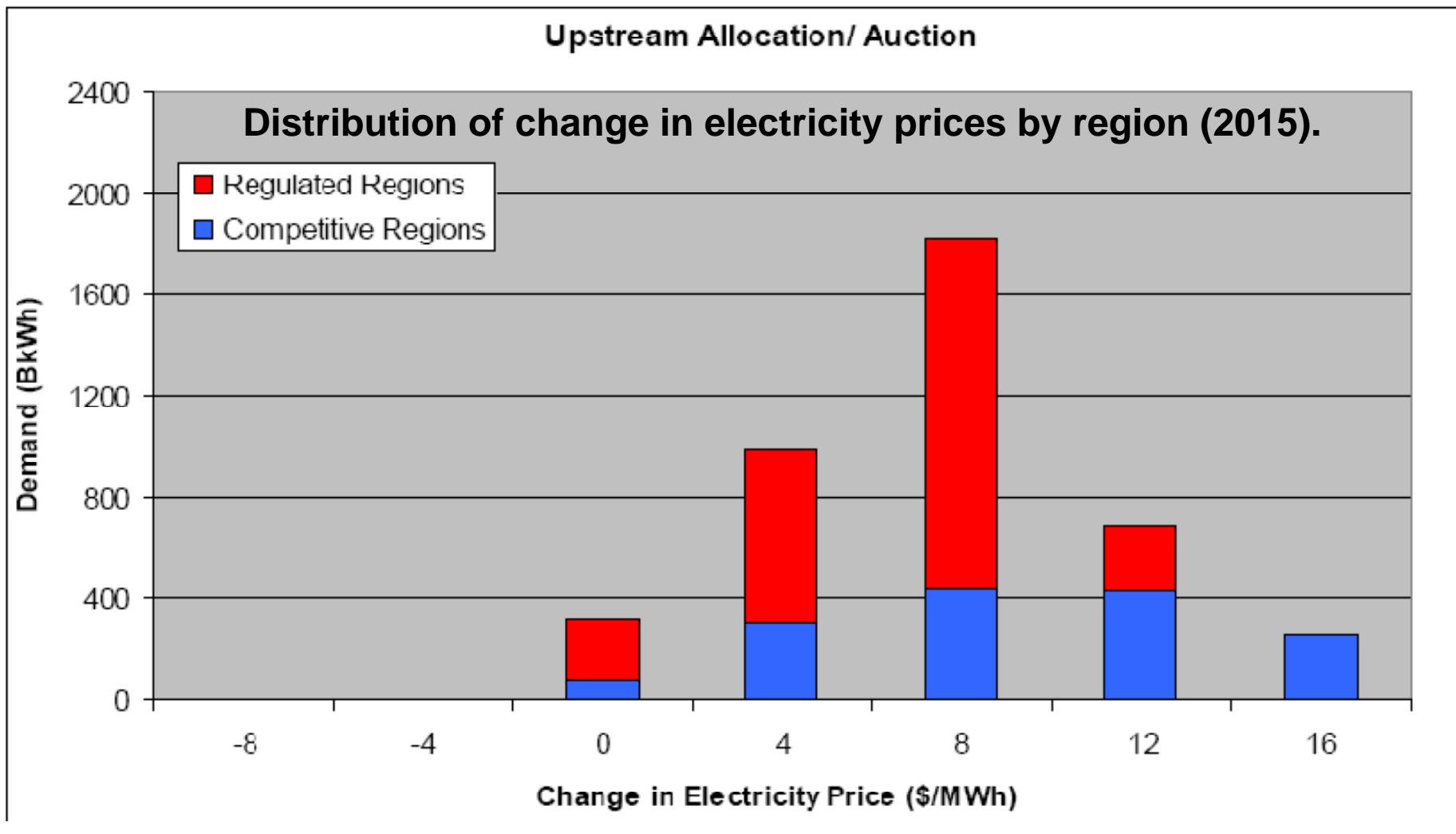


**Figure A.** Distribution of change in electricity prices by region (2015).

Source: Dallas Burtraw, Markey Hearing 1-23-08  
<http://globalwarming.house.gov/tools/assets/files/0326.pdf>

# Allocation options affect regulated vs competitive power markets differently:

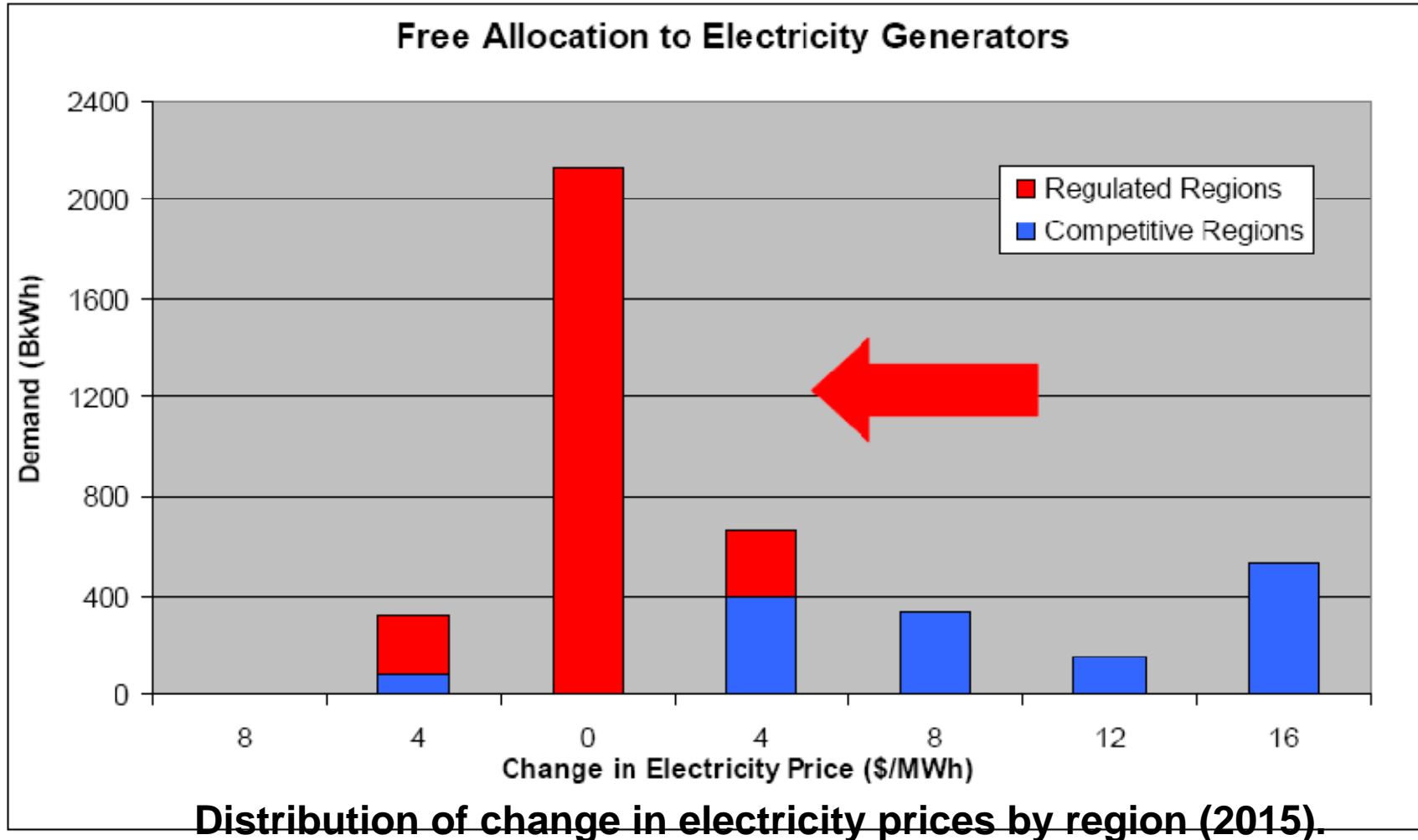
## Case 1: Full upstream auction



Dallas Burtraw, Markey Hearing 1-23-08

<http://globalwarming.house.gov/tools/assets/files/0326.pdf>

## Case 2: Free allocation to generators benefits regulated regions, consumers in competitive markets pay more

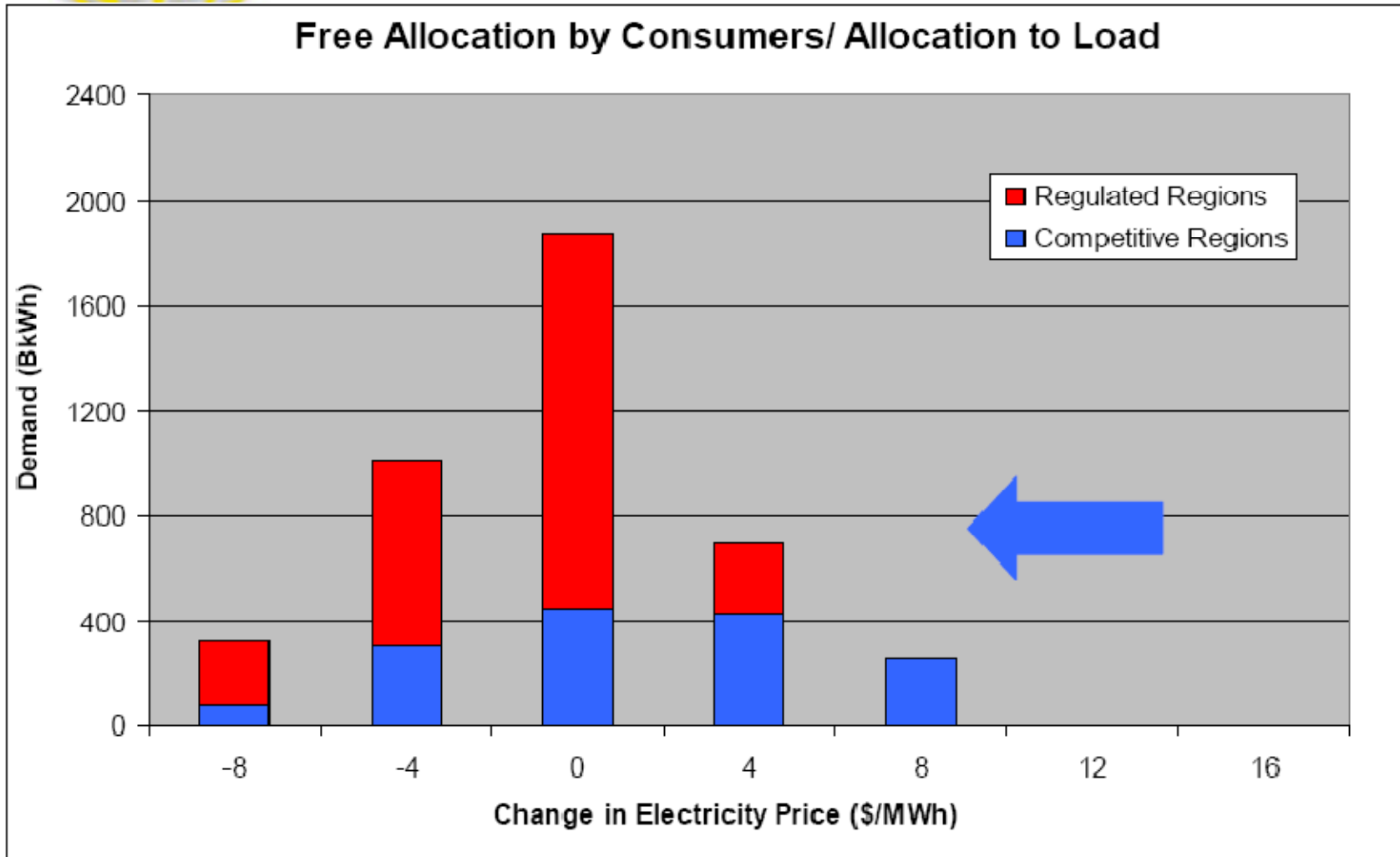


**Distribution of change in electricity prices by region (2015).**

Dallas Burtraw, Markey Hearing 1-23-08

<http://globalwarming.house.gov/tools/assets/files/0326.pdf>


# Case 3: Consumer allocation benefits consumers in both regions



Dallas Burtraw, Markey Hearing 1-23-08

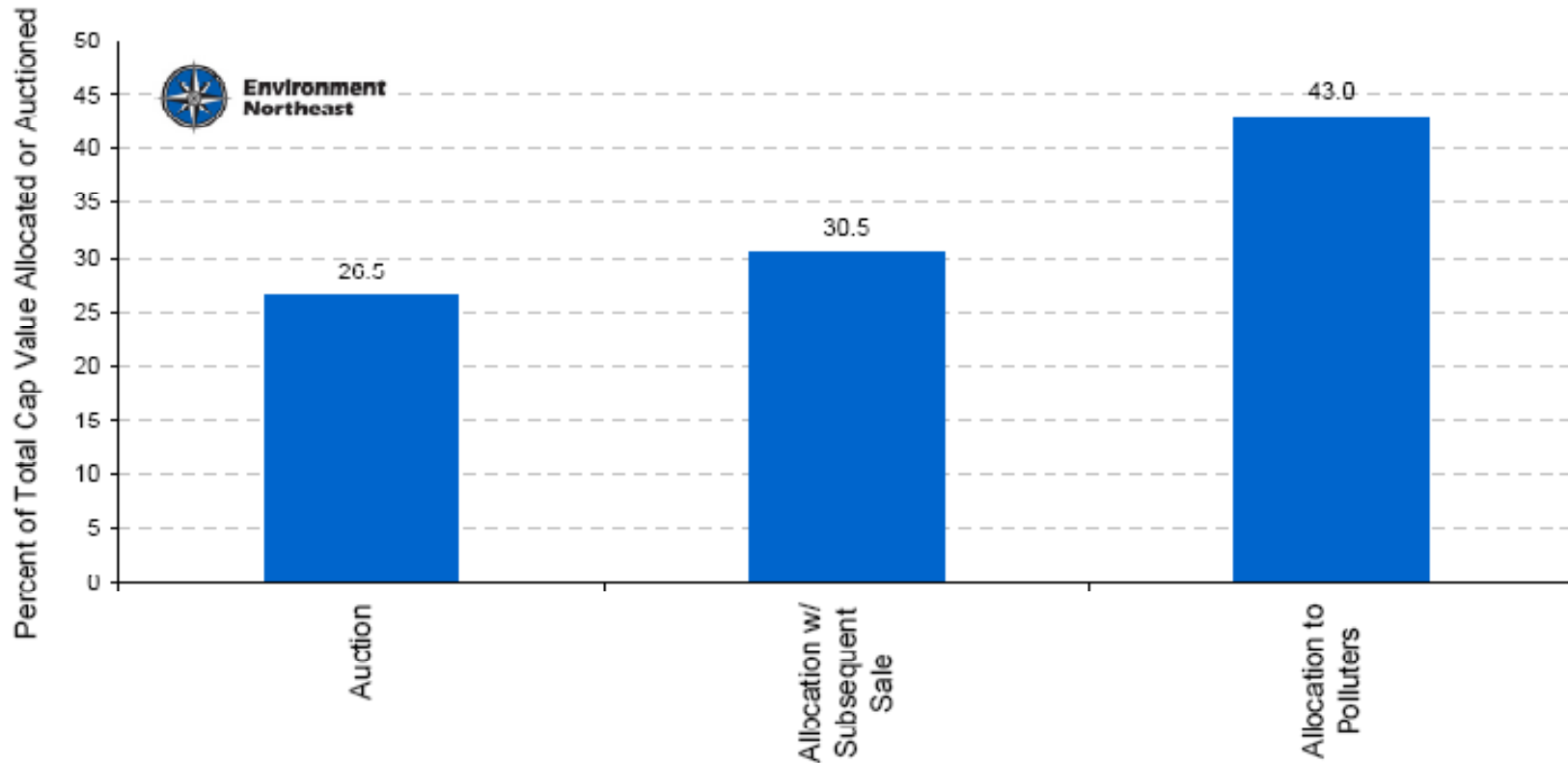
<http://globalwarming.house.gov/tools/assets/files/0326.pdf>

# Getting Beyond the Auction v. Grandfathering Debate: (A) The Consumer Allocation

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- Allocate up to 100% of initial credits to consumer representatives (eg, distribution utilities, Efficiency Utility)
    - RGGI MOU - state minimum commitment is 25%
    - Most states will be higher – Vermont law is 100%; NY & MA draft rules now at 100%; CT, NJ may follow
  - Generators need to purchase allowances, recycling the windfall revenue BACK to consumers
  - PUCs supervise use of the \$\$ for benefit of consumers
  - **Best result: focus these \$ on investments that lower carbon (EE &RE)**
  - Results: lower cost per ton avoided, lighter macro-economic impact >> quicker progress in reducing GHG emissions

# Allocation for resale now an accepted idea: L-W 30% of initial allocations are for resale

Percent of Total Allowance Value Allocated or Auctioned – by Category (2012)

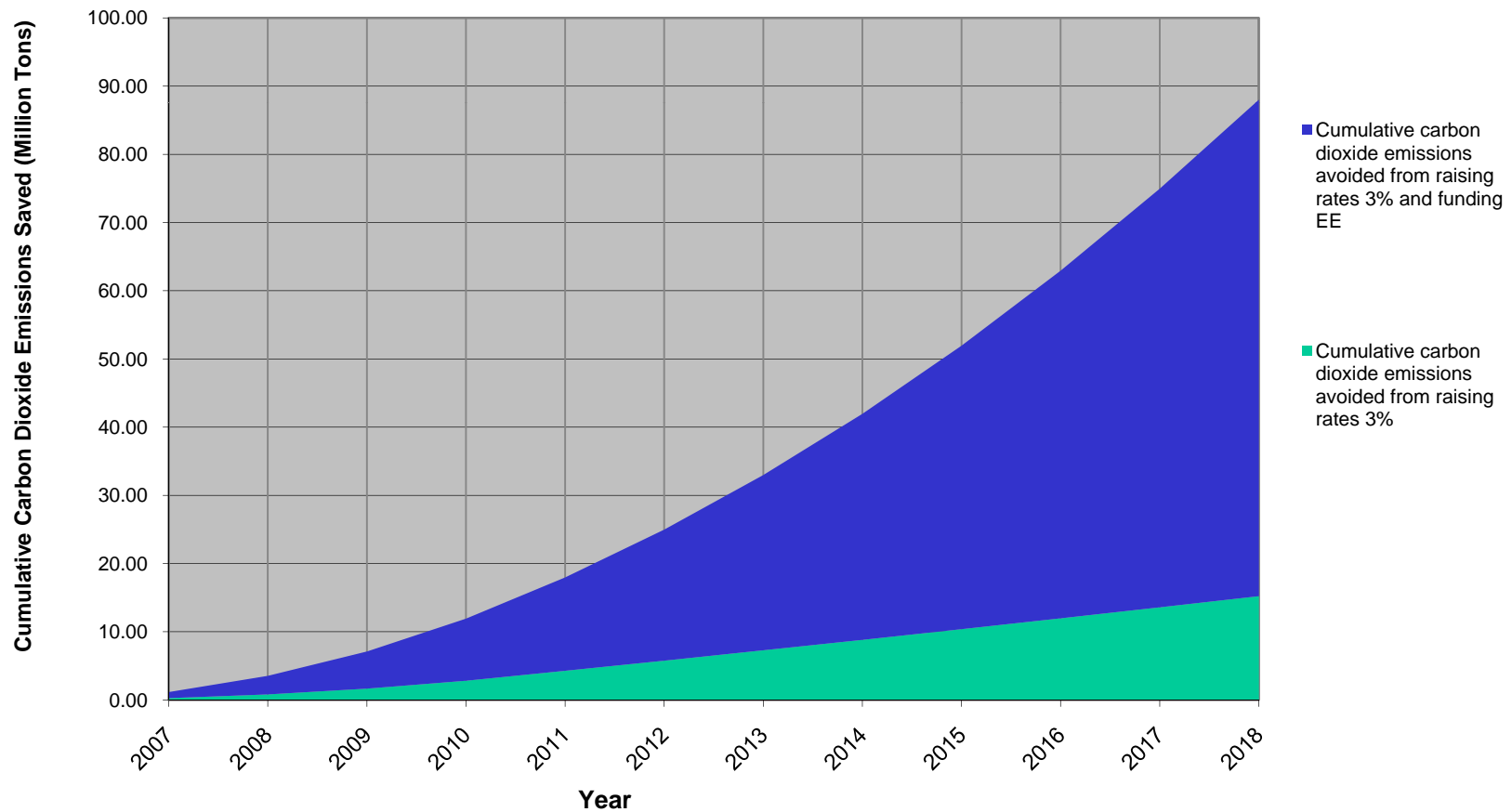




# Efficiency programs save more carbon than carbon taxes or auction prices (for the same consumer cost)



Cumulative CO<sub>2</sub> Emissions Saved by: Increasing Rates 3%; and Increasing Rates 3% to Fund Energy Efficiency (Ohio Example)



# Getting Beyond the Auction v. Allocation Debate:

## (B) A National Efficiency Allocation\*

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- Proposal: Allocate a pool of carbon allowances to states or LSEs to promote end-use efficiency
- **Allocation should be performance-based:**
  - Reward actual EE success, not expenditures or particular policy approaches
- **How to measure EE success?**
  - Key feature: % improvement compared to a baseline
  - Each state (or LSE) has its *own baseline*
  - *Indiana compared to Indiana, not Indiana compared to California*
  - *Sets up a “virtuous circle” of competition among entities – those who improve faster earn a bigger fraction of the pool.*

*\*As proposed by R Cowart (RAP) and S Nadel (ACEEE) March 2008 – comments and improvements are welcome*



# National Efficiency Allocation: Initial details

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➤ **1. How to get started?**

- Initially, allocate to everyone -- can supplement existing programs or jump-start EE where needed
- Phase this out over time (4-5 years?), phase up allocation for EE performance alone

➤ **2. How to measure performance?**

- Evaluate the options:
  - Broad metrics – e.g., total consumption per capita
  - Adjusted measures – e.g., btus per \$GSP
  - Bottom-up accounting – measures installed through defined programs

➤ **3. Issue:** A carbon program should reward performance in a state whether this is result of codes & standards, market transformation, or measure-by-measure utility programs.

# Efficiency Allocation

## more details



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### **4. What is being allocated? Allowances or revenues?**

- Could be either, but safest route is to allocate allowances to states (or regulated and public LSEs/LDCs) – avoids appropriations entanglements
- Allowances can still be sold in a national credits auction

### **5. Should Congress specify details?**

- Performance metrics should be left to DOE & EPA
- Where allowances are distributed based on EE performance, no need to specify how states or LSEs use allowance revenue

### **6. How big should the allocation program be?**

- Big enough to support all cost-effective efficiency measures needed to meet climate goals
- If revenues can be spent on any purpose, EE saturation is not a limitation.
- RGGI states are adopting nearly 100% consumer allocations.



# Questions for discussion

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1. Should states focus on (a) getting Congress to slice the pie “better”? or (b) getting a larger state allocation with state discretion?
2. Should states favor a “consumer allocation” to state-regulated distribution utilities?
3. If efficiency is the low-cost carbon scrubber, should there be an allocation for efficiency?
4. Should allocations to states be based on: performance, historic emissions, population, consumption, or...?



# Recommendations

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1. To moderate generator windfalls and lower the cost-per-ton-avoided: **auction allowances** or allocate them to **distribution utilities** on behalf of consumers.
2. Dedicate a large fraction of auction revenues to investments in **end-use efficiency**.
3. Focus on “**portfolio-up**” policies (e.g., RPS & EE programs and policies) not “price-impact” policies for power sector GHG reduction.
4. **Allocate allowances to states** on a performance basis to support these policies.



# For more information...

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- *Who Slices the Pie in the Sky?*

*(Framing paper prepared for NACAA January 2008)*

- *Carbon Caps and Energy Efficiency: The Marriage of Need and Potential* *(Energy Efficiency Finance Forum April 2007)*

- *“Power System Carbon Caps: Portfolio-based Carbon Management”* *(NREL Carbon Analysis Forum November 2007)*

- *“Why Carbon Allocation Matters – Issues for Energy Regulators”* *(March 2005)*

- *“Another Option for Power Sector Carbon Cap and Trade Systems – Allocating to Load”* *(May 2004)*

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

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