



Allowance Allocation in the U.S.: Policy Directions in Recent Proposals

Joe Kruger

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Emissions Trading
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Overview

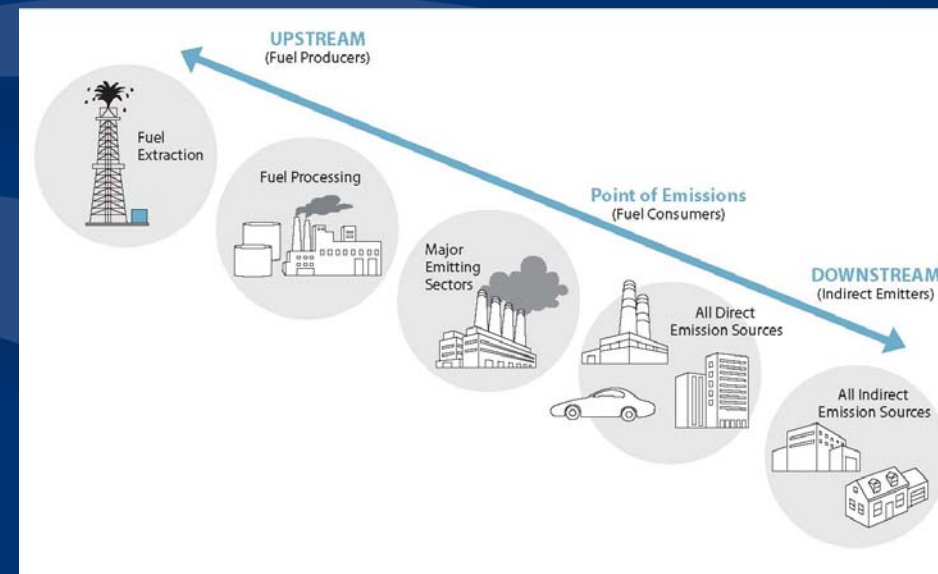
- What are the stakes in the U.S.?
- General principles guiding allocation policy
- How are allocation principles playing out in US climate proposals?
- Issues to watch going forward

What are the stakes in the US?

- A carbon trading program could distribute allowances or revenues worth \$40-100 billion dollars/ year
 - In contrast, the SO₂ program distributed \$1-2 billion per year of allowances
- Allocation is simultaneously the most difficult step and the key to a political agreement
- The general outlines of an approach may be forming, but the next level of detail will be challenging

Principle #1: The economic burden on a particular firm or industry sector is not a direct function of its emissions or fuel use

- Cost burden depends on:
 - ability to pass through costs
 - emission reduction opportunities
 - elasticity of consumer demand
- Allocation can be decoupled from point of regulation



Principle #2: Allocating most allowances for free to energy producers creates the potential for a large windfall

- If producers pass on cost, they “get paid twice”
 - From consumers via higher revenues from increased prices
 - From the government via allowances (a lump sum payment)

Principle #3: Allocation decisions in the power sector are complicated by different regulatory structures

- Competitive wholesale markets vs. cost of service
- Will allowance costs be passed through in regulated markets?
- Are there ways to compensate consumers without masking the price signal?
- Allocate to load vs. allocate to generation?

Principle #4: Allowance distribution (or auction) provides the opportunity to advance societal interests without diminishing the price signal

- Examples:
 - Support R&D or technology deployment
 - Mitigate impacts on low-income consumers
 - Fund adaptation activities
 - Reduce taxes on income or investment

Principle #5: A mixed approach (free allocation with auctioning) may offer significant benefits

- Balance of compensating industry with addressing other objectives
- How much free allocation? RFF study:
 - In RGGI region, allocation equal to 34% of emissions would compensate power sector
 - 77% would compensate all losers
- Phase out compensation over time?

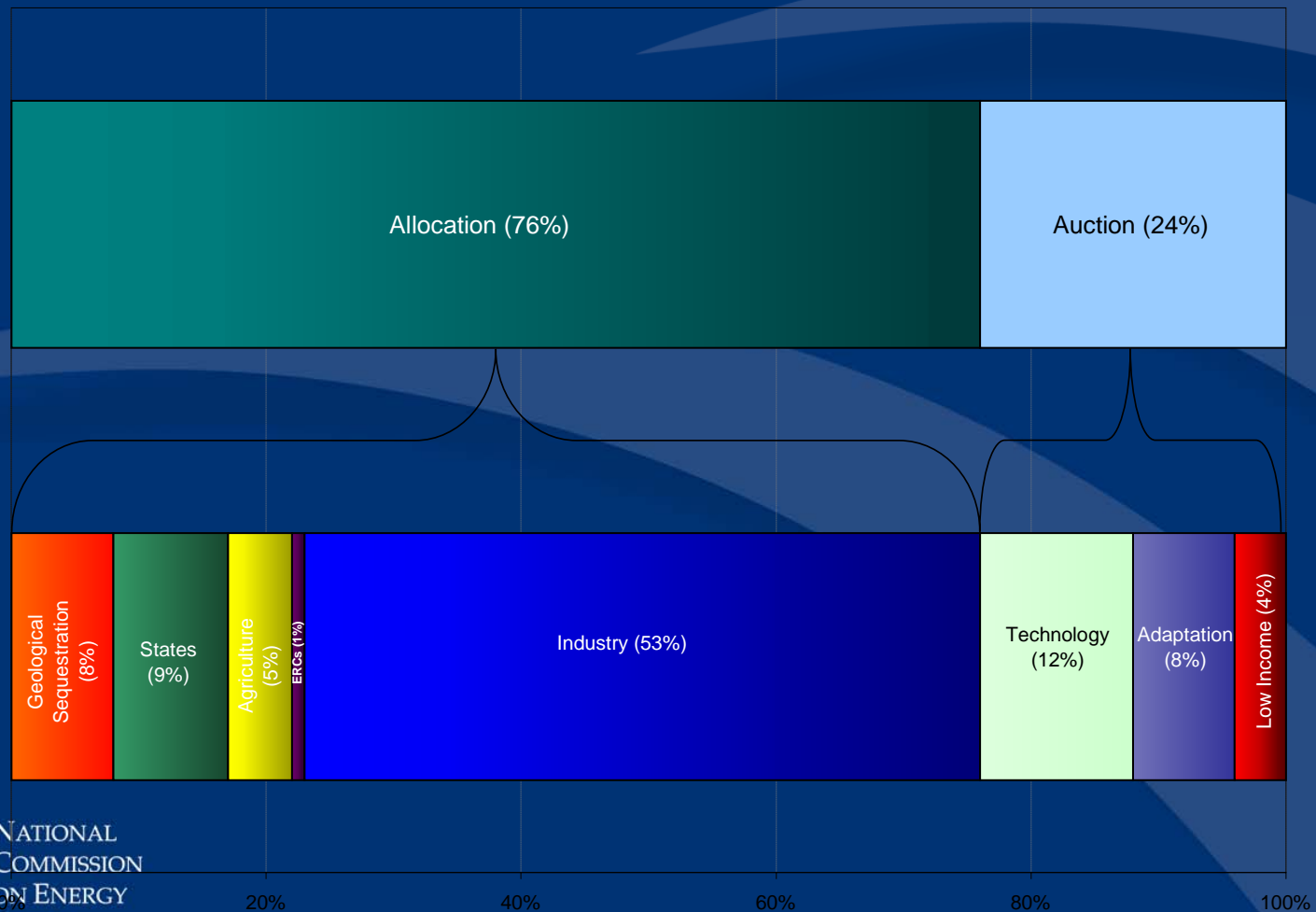
NCEP Allowance Recommendations

- Allocation should promote a more equitable distribution of costs
- Initially, about 50% of allowances (economy-wide) from total pool should be allocated for free
 - Would provide enough allowances to compensate adversely affected industries
 - Within free portion, shares for individual industry sectors should roughly reflect cost burden
- The free portion of the allocation should be phased out gradually with a bigger auction phased in

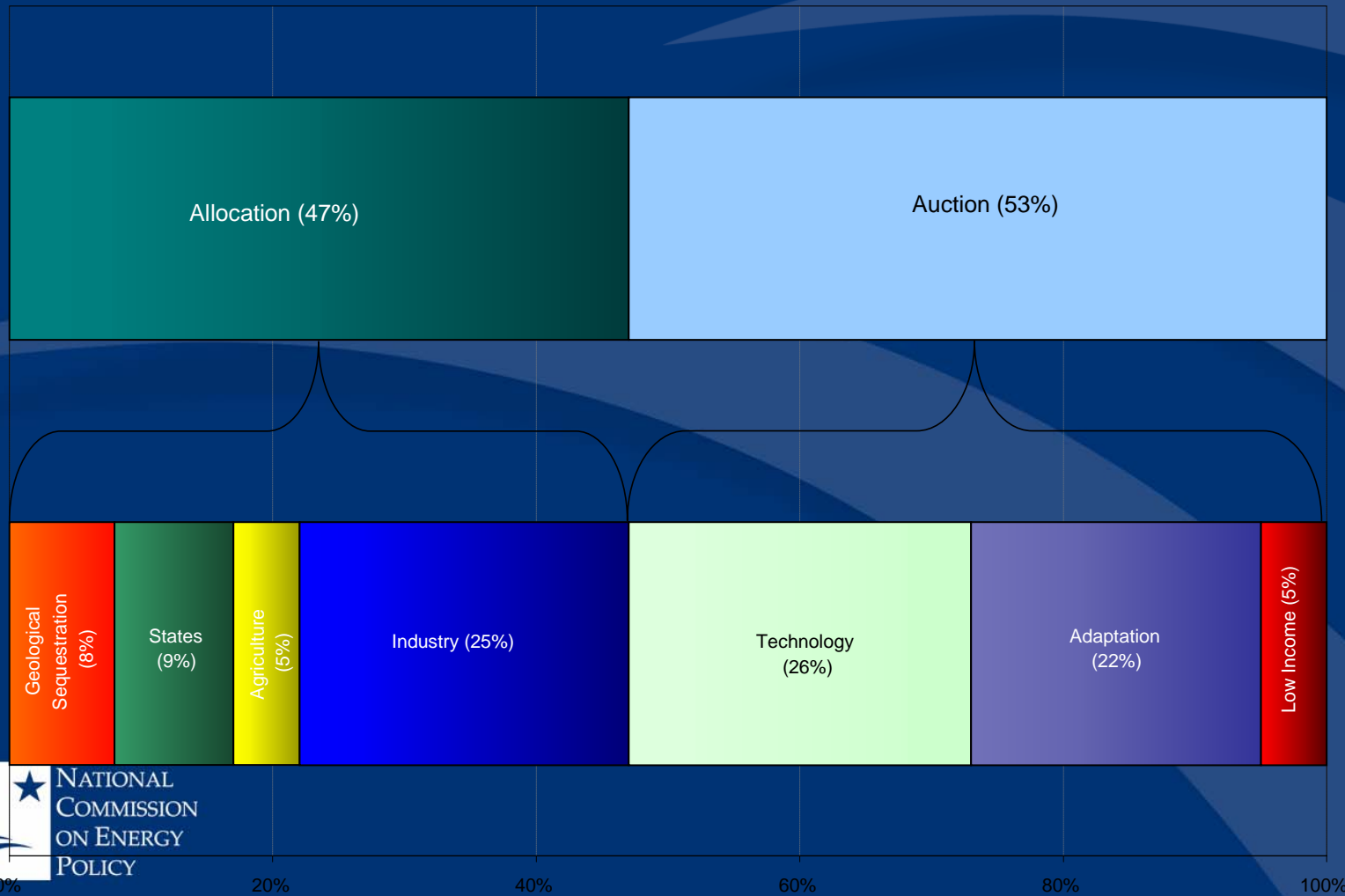
Allowance Distribution in Legislative Proposals (% of total U.S. allocation)

Bingaman/Specter	Lieberman/Warner (draft)
<p><u>Initial free allocation to industry: 53%</u></p> <ul style="list-style-type: none"> • Electric power (generators): 29% • Carbon-intensive industry sectors: 10% • Coal mines: 6% • Petroleum refineries: 4% • Natural gas processors: 2% • Non-CO₂ facilities: 2% <p><u>Other allocation: 23%</u></p> <ul style="list-style-type: none"> • States: 9% • Agricultural sequestration: 5% • Early reduction: 1% • Geologic sequestration: 8% <p><u>Initial Auction: 24%</u></p> <ul style="list-style-type: none"> • Transition to 53% auction by 2030. 	<p><u>Initial free allocation to industry: 56.5%</u></p> <ul style="list-style-type: none"> • Elec.power (generators and load): 30% • Industry emitters: 20% • Coal mines: 4% • Transportation fuel: 2.5% <p><u>Other allocation: 19.5%</u></p> <ul style="list-style-type: none"> • States: 4% • Ag. and forestry sequestration: 7.5% • Early reduction: 8% <p><u>Initial Auction: 24%</u></p> <ul style="list-style-type: none"> • Transition to 48% auction by 2030

Allowance Distribution in 2012 Bingaman-Specter Example



Allowance Distribution in 2030 Bingaman-Specter Example



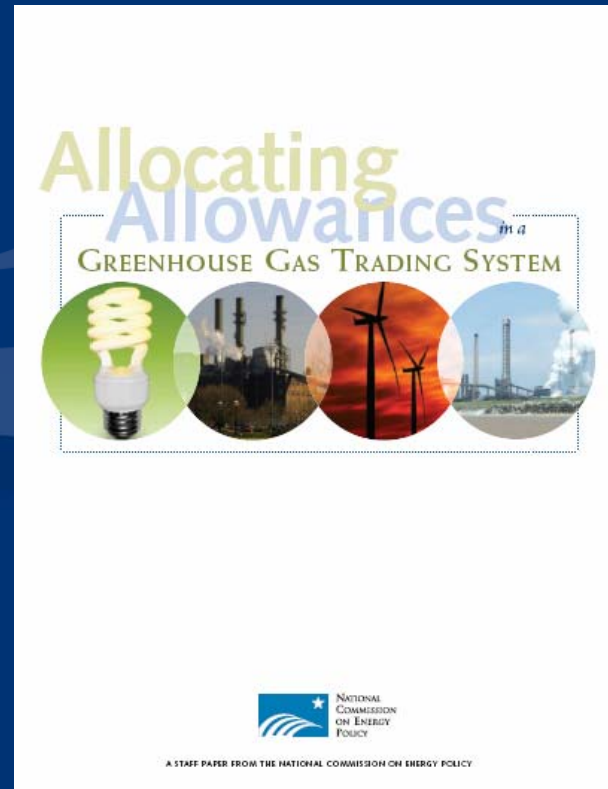
How are auction proceeds used?

- Both Bingaman-Specter and Lieberman-Warner use auction proceeds largely for
 - Technology deployment
 - Adaptation activities
 - Low income assistance
- Differences
 - Some differences in mix of technologies targeted
 - Institutions for implementing funds
 - Incentives for CCS

Five issues to watch going forward

- Electric power sector regional issues
- Energy intensive sectors starting to engage
- Reconciling state approaches with a federal approach
- Institutional issues associated with technology deployment and R&D
- Will House of Representatives agree to emerging approaches in Senate?

For more information...



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