Economic and Allocation Advisory Committee

Allocation Methods Subcommittee

Vicki Arroyo * Jim Bushnell * Jim Boyce * Dallas Burtraw *
Robert Fisher * Larry Goulder * Chris Knittel * Nancy Ryan

Progress Report
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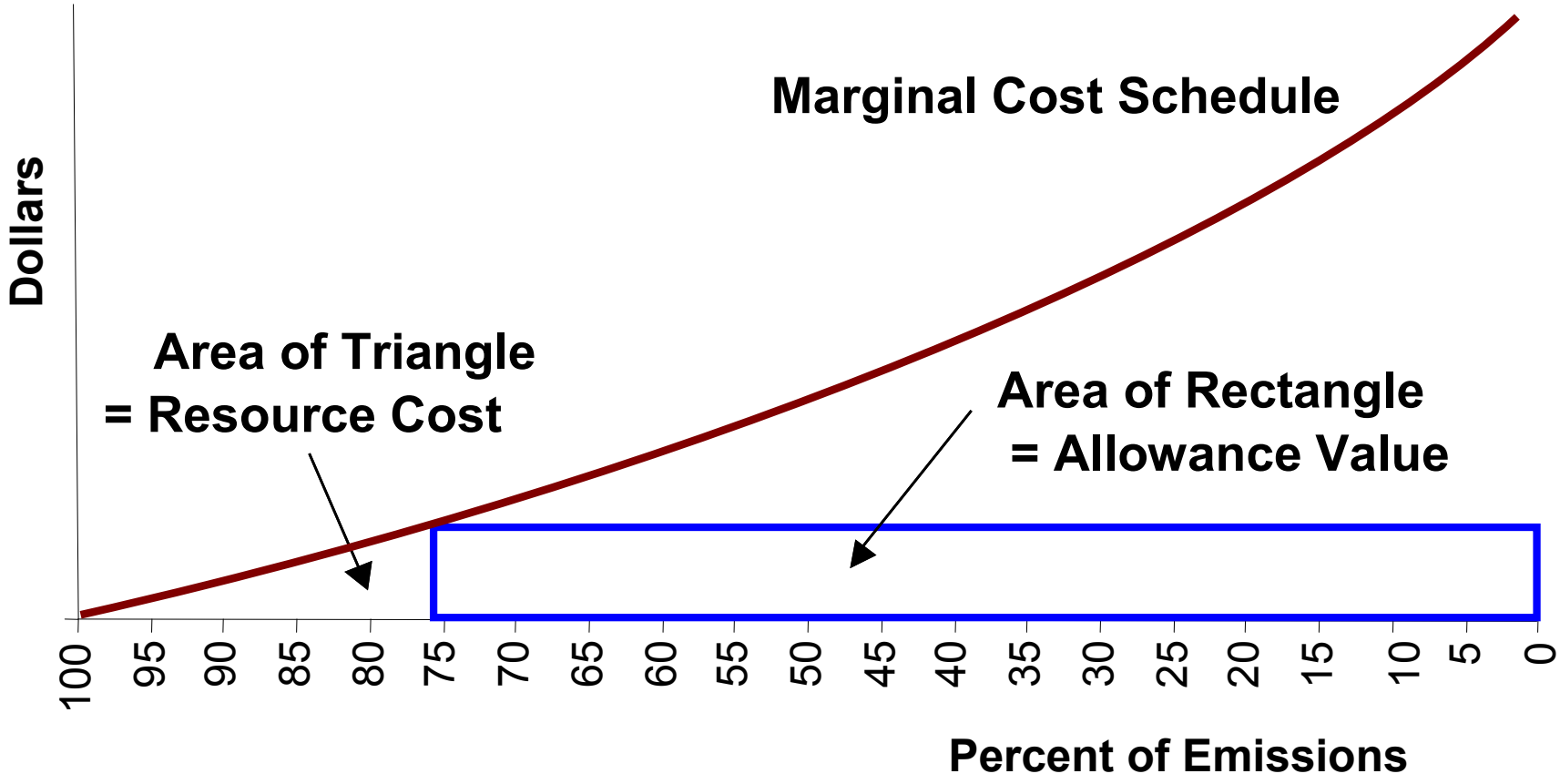
Four Tasks for the Subcommittee

1. Determining the value of allowances
2. Methods for free allocation
3. Auction design
4. General considerations

1. Determining the Value of Allowances



1. Determining the Value of Allowances

$\Rightarrow$ Allowance value is the product of allowance quantity and price.

Several pieces of information are needed to estimate the value:

a. Allowance quantity depends on the sectoral coverage and annual issuance of emissions allowances.

b. Allowance price depends primarily on the marginal cost of emissions reductions for entities covered under the cap. But,…

c. Marginal cost depends on availability of offsets, and the opportunity for banking and/or borrowing. Other program features also can affect marginal cost.

d. Allowance price also depends on the method for issuing allowances. Some approaches such as updating output based allocation or allocation to local distribution companies provide incentives that will drive up the price.

e. Allowance value invested in program-related goals such as energy efficiency measures can drive down the allowance price.

f. Additional standards and measures such as the renewable portfolio standard or efficiency standards will drive down the allowance price if they are outside the set of measures that would be implemented by the allowance market.

2. Recipients and Potential Methods for Free Allocation of Allowances

a) Emitters
   - Historic or updated measures?
   - Metrics: emissions, fuel (heat) input, product output

b) Economically affected (energy intensive) firms

c) Consumers (distinct from dividends to households)
   - Electricity & natural gas local distribution companies
     - Consumption, Emissions-intensity or population
   - Metrics: emissions, fuel (heat) input, product output

d) Local and tribal governments, non-profit corporations
   - Performance benchmarks
   - Cost basis
   - Competitive proposals

3. Auction Design

a. Develop evaluation criteria

   (e.g. efficiency, price discovery, market liquidity, minimize price volatility, guard against collusion, fairness & transparency, revenue, administrative and transaction costs, familiarity, align with energy markets)

b. General design:
   - Uniform or discriminating price auction
   - Sealed bid or multiple round
   - Reserve price
   - Noncompetitive (passive) bidding for small players

c. Spot and forward auctions

d. Frequency of auctions

e. Eligibility rules

f. Market oversight

g. Stress test for auction design

h. Choice of auction platform

4. Some General Considerations

- Be aware that allocation approaches may provide incentives that affect behavior. Ideally payments offset income effects while maintaining price signals of carbon.
- Any updating provides incentives to change behavior and sometimes it will importantly affect the allowance price.
- One ancillary purpose of allocation may be environmental integrity. Some approaches may mitigate economic or emissions leakage, or contract reshuffling in the electricity sector.
- Allocation (or revenue use) will trigger rent seeking. Principle-based approaches will be helpful.
- Complicated formulas create the optics of special interest & pork barrel politics. Simple & transparent approaches convey fairness.
- Some “purposes” or “uses” of revenues can be achieved with either free allocation or the distribution of auction revenue. Institutional and legal issues may be the determining factor.