

# CO2 Allocation and Auction Issues



Mountaineer Plant - New Haven, WV



Northeastern Plant - Oologah, OK

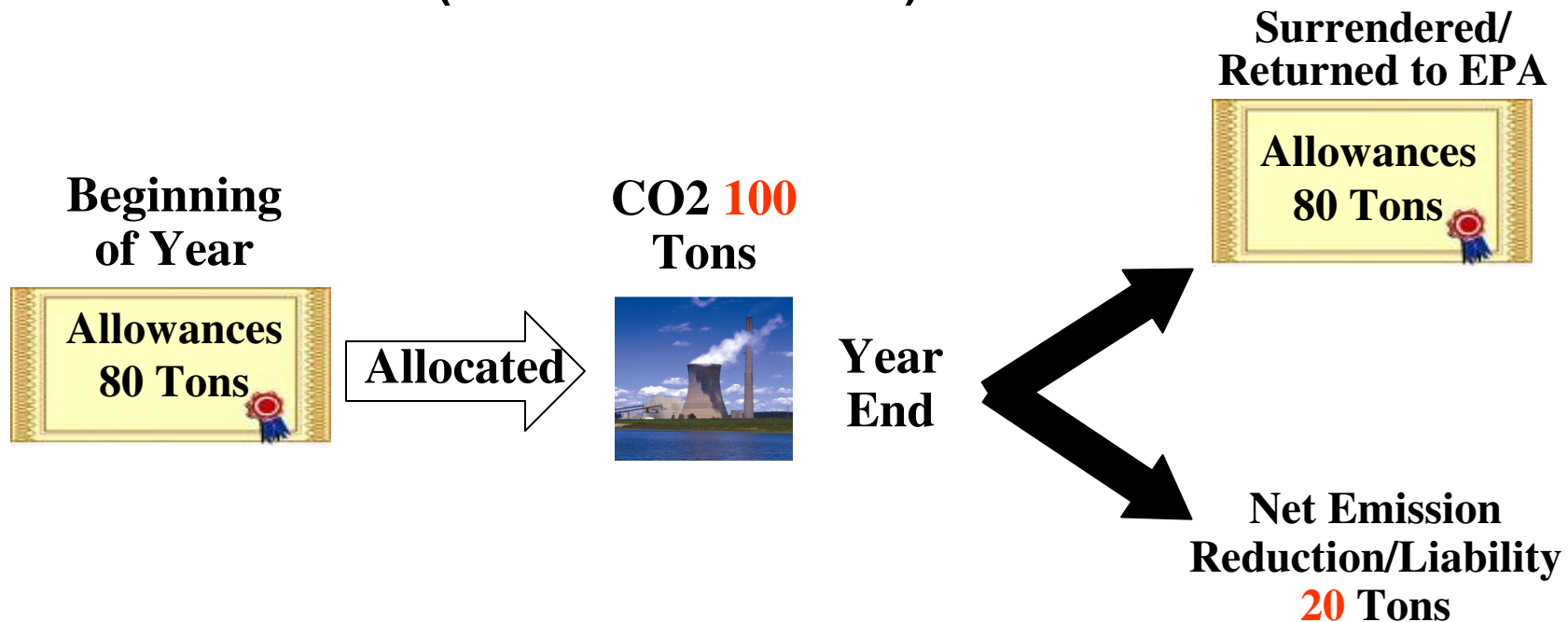
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# Background on Allowance Allocations and Auctions

- **“Allowance” = Right to emit a ton of emissions.** Each year allowances are surrendered to cover annual emissions.
- **Most programs (e.g. EPA’s SO<sub>2</sub> and NO<sub>x</sub>, CAIR and CAMR) allocate allowances (at “no cost”) to generators ( primarily based on historic emissions) with little or no auction.** The EPA SO<sub>2</sub> program has been hailed as a success because of its AFFORDABILITY due in part to a small (2.8%) auction.
- **Allowance allocation to emitters does NOT result in a “windfall”. CO<sub>2</sub> cap means ALLOWANCES < EMISSIONS. So reductions must be made at a NET COST.**
- **Importantly, whether allowances are allocated at “no cost” or auctioned has NO environmental impact, it is the overall CO<sub>2</sub> cap that determines the amount of reductions.**

# “Free” Allocation To Emitters Does Not Increase Profits

- Example: Co. Emits 100 Tons, Receives 80 “No-Cost” Allowances (i.e. 20 % Reduction).



- Full Allocation to Emitters Does NOT Create a “Net Asset” or Windfall because of the Liability of Complying with the CO2 Cap. In fact, it is a NET LIABILITY.

# Electricity Deregulated vs. Cost Regulated States

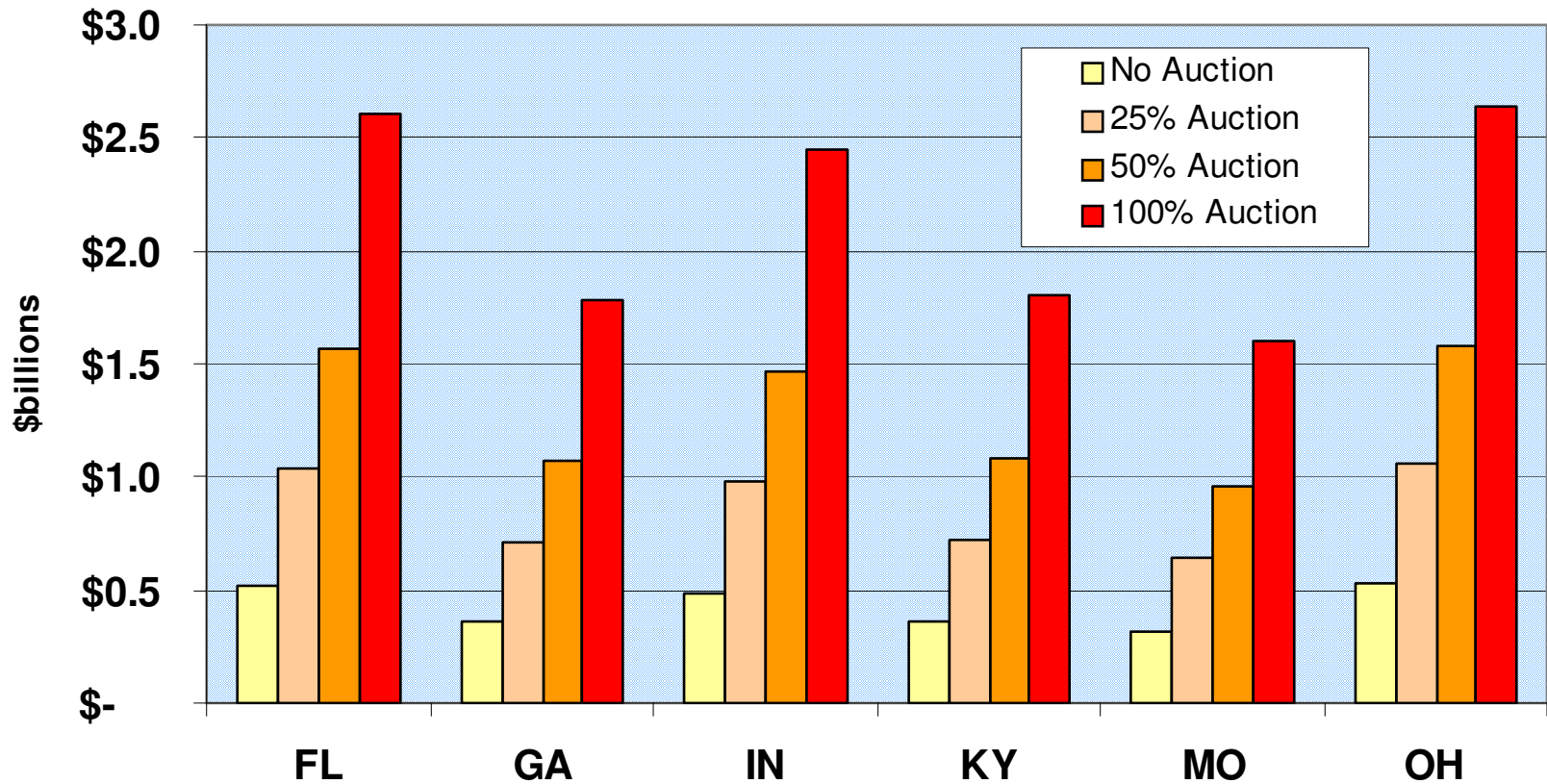
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- It is the CO2 cap that increases electricity costs and prices. The key distinction is whether a generator is subject to:
  1. Cost-of-Service Regulation
  2. Deregulated Generation Markets
- Most states and the vast majority of coal fired generation are subject to cost-based regulation. There are **NO WINDFALLS** or **PROFIT GAINS** for these generators because they are regulated and only can pass-thru their costs to customers.



# Increase in Customer Electricity Costs due to Allowance Auctions

Annual Increase in Electricity Costs (in Billions of Dollars)



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

# Summary-Allocation and Auctions

- **Auctions will raise electricity rates in most states substantially more than if allowances allocated at “no-cost”.**
- **Electric utilities/fossil-fuel generators should receive their full allocations at “no-cost”. This is essential to minimize electricity rate increases in these states.**
- **Allocations should not go to non-emitters such as nuclear, hydro or renewables. These sources already benefit from higher electricity prices in deregulated states. (Note that auction does not “tax” away these profits since these units do not need to buy allowances)**
- **Large administrative and transaction costs---**Large auctions could result in over \$100 billion per year in inflows/outflows into a government agency or agencies. These costs would be avoided if allowances were simply allocated to the affected industries.
- **Large Auction is a “tax”** that diverts funds needed by business (and consumers) to reduce emissions to government which cannot do this as effectively.
- **Auctions will disproportionately hurt states/regions dependent on coal power** which includes most of the Midwest and Southeastern U.S.

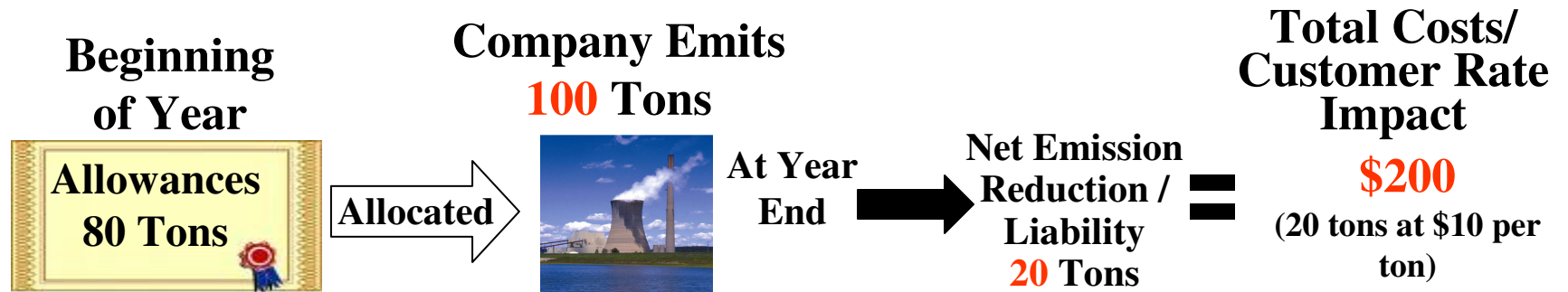
# Appendix

## Additional Information on Allocation

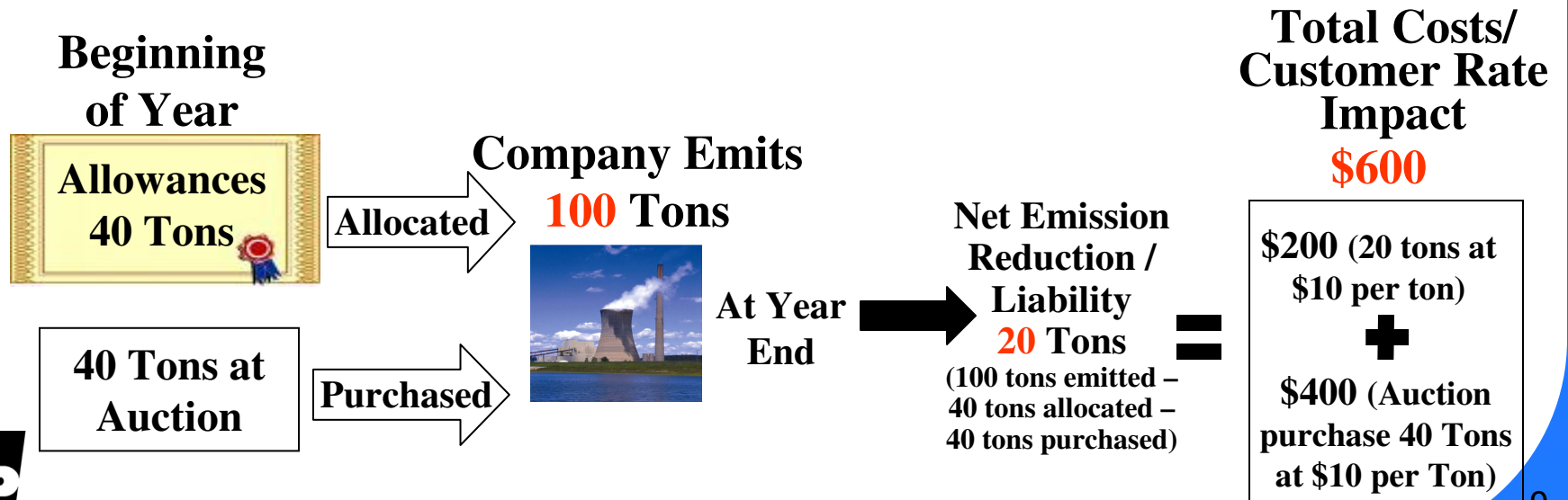
# Allowance Auctions Increase Customer Rates Significantly in "Regulated" States

- Example: Utility must reduce from 100 to 80 tons. Assume Allowances Price = \$10.

No Auction



50%Auction



# Allocations and Auctions—Price Deregulated States

- The CO2 cap (not allowance allocation) will increase electricity prices and for some participants increase profits. **BUT ONLY** in states (primarily in the Northeast and West), where generation is “unbundled” and retail prices deregulated.
- In these states, **SOME** generators will have higher profits **IF** their revenues increase more than their costs:
  - The majority of the profit increase will go to non-fossil generation (e.g. nuclear, hydro and renewables) because they have no emissions and because almost half of the generation is projected to come from non-fossil sources in these states.
  - Natural gas units will also see profit increases because their CO2 reduction costs are small.
- **Thus, auctions do little to “tax away” higher profits since most profits come from non-emitting or low emitting units that don’t need allowances. In fact, the main impact of auctions is to penalize ratepayers or coal fired generators.**

# Allowance Allocation Within the Electric Sector

- **Emissions-Based Allocations Are More Equitable---** Allowances should be allocated based on historic/current emissions to existing generators required to make reductions. **Allocation principle is all emitters make their “fair” pro-rata share of reductions.**
- **“Output” or Total KWh Based Allocations Create Large Windfalls for Some Generators and Major Losses for Coal ---**
  - Allowances should NOT be allocated to non-emitters such as hydro and nuclear. Gas fired plants should not receive “excess” allocations.
  - Nuclear, hydro and gas plants will already benefit (to the extent they are in “deregulated” states) due to higher power prices.
  - Output based allocations such as in the Carper bill increase costs to ratepayers of largely regulated, coal dependent states (e.g. Midwest and Southeast) and provide large windfalls to deregulated gas and nuclear plants. For example, output-based allocation would increase costs to AEP and its customers by about \$1 billion/year with no CO2 benefit.