

Integrating Economic Instruments in AB 32 Implementation

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Why Employ Market-Based (Or “Economic”) Instruments?

Market-based instruments:

cap and trade, emissions fees, subsidies to R&D

Touted virtue:

help engage lowest-cost abatement activities

- Cap and trade, in particular, has potential attraction of achieving given abatement target at lower cost than is possible under conventional regulation alone.
- Cap and trade also has the virtue of establishing an unambiguous cap on total emissions

Cap and Trade's Role under the AB 32 Draft Scoping Plan

	Recommended Reduction Strategy	Sector	2020 Reductions (MMTCO ₂ E)
<i>Non-Market-Based Regulation</i>			
	California Light-Duty Vehicle GHG Standards (Pavley Rules)	Transportation	31.7
	Energy Efficiency Standards (on buildings and appliances), Increased Combined Heat and Power, Solar Water Heating	Electricity, Commercial, Residential	26.4
	Renewables Portfolio Standard (increase to 33%)	Electricity	21.2
	Low Carbon Fuel Standard	Transportation	16.5
	Other Measures	various	38.0
	<i>Cap and Trade</i>		35.2
	<i>Total</i>		169.0

133.8

28% reduction from projected
BAU emissions of 596 MMTCO₂E

Cap and Trade Supplements (rather than displaces) Conventional Regulation

Transportation, Electricity, Residential/Commercial, and Industrial Sectors:

Projected business-as-usual emissions	512
Projected emissions with recommended non-market measures	400
Projected emissions with cap and trade as well	365

How? Allowance prices rise enough to bring about the extra needed reductions.

(Why not just tighten conventional regulations instead?)

Auction vs. Free Allocation Under Cap and Trade

Auctioning allows flexibility:

revenues can be used for ...

- compensation to groups (firms or households) with disproportionate adverse impacts
- promoting technological innovation (directly or through tax credits)
- financing reductions in existing distortionary taxes (income taxes, sales taxes, etc.)

Auctioning has potential to be more cost-effective:

- it is more cost-effective than free allocation to the extent that third option is exploited

Substantial revenues are involved:

- Under 100% auctioning, \$15/tonCO₂ allowance price yields \$5.5 billion in 2020
 - could be 4-6% of 2020 State budget.

What About Other Market-Based Policies?

Tax-Credits for GHG-Reducing Activities?

- only item listed is credit for solar roofs

Emissions Fees?

- some discussion but no numbers in Draft Scoping Plan
- consistent with cap and trade?

Tax-Credits or Subsidies for R&D?

- not much discussion in Draft Scoping Plan (except in context of use of allowance revenues)

Conclusions

I like the Draft Scoping Plan.

- Thoughtful, balanced, and clear presentation of the issues
- Effort to keep costs down: significant role for market-based approach (cap and trade)
 - contributes to about 21% of the needed reductions
 - applies broadly (to industrial, commercial/residential, industrial and transportation sectors)

Many important details (e.g., allocation method, initial cap level in 2012) still need to be worked out.