

Draft Outline for EAAC Allocation Report – version 20 October ‘09

1. Introduction

Seriousness of climate problem – rationale for AB 32

Role of cap and trade in AB 32 (as indicated by Scoping Plan, etc.)

Significance of allowance allocation to cap and trade

Formation of EAAC

EAAC’s mission; critical roles

- economic impacts role
- allocation role
 - elements of allocation role
 - evaluate alternative mechanisms for distributing allowance value (free allocation and auctioning)
 - consider relative emphasis (at various points in time) on free allocation vs. auctioning of allowances; recommend specific designs of free allocation and auctioning mechanisms
 - recommend alternative ways to distribute allowance value for competing potential functions (compensation, dividends to households, investments, tax relief)
- This report documents the committee’s work relating to its allocation role

Criteria for choosing among the alternatives

- the criteria
- their relationship to specified objectives of AB 32

2. Mechanisms for Allowance Distribution

| 2.1 The general alternatives:

2.1.1 free allocation – strictly exogenous or with updating (e.g., output-based)

2.1.2 auctioning – differing in number of rounds of bidding and in the way price is set

| 2.2 Specific alternatives for free allocation

2.2.1 General attraction of free allocation

2.2.2 Alternative methods of free allocation:

- Exogenous: historic (special case: grandfathering)
- With updating: output-based

2.2.3 Pros and cons of the alternatives for free allocation (based on theory, historical experience, and simulation modeling)

| 2.3 Specific alternatives for auctioning

2.3.1 General attraction of auctioning

2.3.2 Alternative dimensions of auctions

- Number of bidding rounds
- Nature of price setting

2.3.3 Criteria for choosing among auction designs (admin. costs, perceptions of fairness, economic efficiency, minimizing price volatility, etc.)

2.4 Advantages and disadvantages of free allocation relative to auctioning

3. Total Allowance Value

3.1 General discussion:

3.1.1 Importance of total allowance value to potential uses

3.1.2 Allowance value as product of allowance prices and quantities

- allowance quantities as a policy choice
- allowance prices as function of stringency of cap and abatement costs
 - abatement costs, in turn, depend on (a) technological/behavioral factors and (b) various policy-related factors

3.2 Factors determining abatement costs (relevant to determining allowance price):

3.2.1 Technological/behavioral factors:

- fuel-substitution or process change
- reduction in level of *output*
- invention of new, low-GHG technologies
 - The first two apply in short and long run. The third becomes increasingly important as time passes.

3.2.2 Policy-related factors:

- extent/nature of complementary policies
- provisions for offsets
- banking/borrowing provisions
- limits on trading (e.g., separate trading zones)
- linkages with cap-and-trade programs outside of California (this effectively alters the stringency of the California cap)
- <include estimates of total funds and their timing...>
- existence/absence of a federal cap-and-trade program (affects leakage from firm migration as well as emissions leakage)

(Also, the choice of allocation method can affect allowance prices directly -- rather than via abatement costs -- by affecting firms' output levels and associated demands for allowances)

3.3 Plausible range of allowance prices

3.4 Plausible range for allowance value:

4. Making Use of Allowance Value – General Considerations

4.1 The alternatives:

4.1.1 Compensation (to producers, disproportionately affected households, and displaced workers)

4.1.2 Dividends to the general public

4.1.3 Financing investments (e.g., in new technologies, job-training, or community development) and other public spending

4.1.4 Tax reduction: using revenues to finance reductions in existing taxes or in future taxes (via deficit-reduction)

4.2 Rationales for the various alternatives (can relate these to AB 32 objectives)

4.2.1 fairness considerations: what are the ethical bases for --

- compensation (discuss when compensation is appropriate)
- providing “dividends” to households – recognizing their “ownership” of environmental resources and their right to payment for the climate-regulating services they provide
- tax reduction (reducing the burden on future generations by reducing the deficit)

4.2.2 cost-effectiveness and efficiency considerations:

- using auction revenue to finance cuts in tax rates can lower overall policy costs
- financing investments in new technologies improves economic efficiency when such financing overcomes inefficient market barriers

4.2.3 environmental effectiveness considerations:

<what to say here?>

4.3 Precedents

5. Making Use of Allowance Value – Weighing the Needs and Claims

5.1 Compensation:

5.1.1 To Industry:

- What industries likely to be most affected?

- High elasticity of demand (e.g., highly trade-exposed industries)
- High intensity of carbon fuel use, combined with significant difficulty of fuel-substitution
- Lack of access to capital (to finance adjustments)
- Difficulties in targeting compensation
 - Assessing trade-vulnerability difficult
 - Some shareholders already suffered losses (prior stock sales) and disappeared
 - Compensate Californians? Or shareholders to CA industry?
- To what extent is compensation the goal, as opposed to helping firms make the transition to a lower-GHG economy?
- Findings on relative impacts across industries, absent compensation (fixed dollar fees and small businesses)

5.1.2 To Displaced Workers:

- Compensation for CA workers who lose jobs as a direct result of AB 32
 - Federal Trade Adjustment Assistance provides possible model
 - Compensation could come in form of cash transition payments and relocation allowances.
 - Close connection with investment in job-training (below)
- Findings:

5.1.3 To Disproportionately Affected Consumers (low-income households):

- How are households affected? (higher prices of energy and energy-intensive products)?
- An equity case can be made to provide relief to low-income households, who suffer the largest percentage reductions in real income (regressive impact)
- Findings on relative impacts across households, absent compensation

5.1.4 Environmental “Compensation:”

- Information sources: studies by Boyce and others

5.2 Dividends to the General Public:

5.2.1 Direct refund of some or all auction revenues on an equal per capita basis to the public (so-called “Cap and Dividend”)

5.2.2 Issues

- Equal per-capita payments to households would have a progressive effect.

- Close connection with the “compensation” objective above.
- If dividends are taxable, how much will return to the state and local governments?

5.3 Investments and Expenditure Financing:

5.3.1 Alternatives:

- Investments in GHG reductions
 - promotion of existing clean technologies
 - environmental remediation and adaptation
 - support for R&D toward new clean technologies
- Investments in other technologies; other capital investments (e.g., infrastructure)
- Financing other public expenditure: (e.g., to help existing agencies meet their legislated mandates, ITC to promote early action)
- Investments in job training
- Investments in disadvantaged communities (e.g., Community Benefit Fund)

5.3.2 Rationales for Investments:

- A principal basis for investments in new technologies is addressing a market failure (beyond the GHG-emissions externality). What types of market failure would justify devoting allowance value toward investments? [possible consideration: split incentives, lack of information, lack of access to capital, “excessive” personal discount rates] How might this relate to the choice between investments in applied vs. basic research?
- Investments in GHG reductions
 - promotion of existing clean technologies
 - environmental remediation and adaptation
 - support for R&D toward new clean technologies
- Investments in other technologies; other capital investments (e.g., infrastructure)
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5.3.3 Process for deciding among investment options

- What constitutes a useful and equitable process for deciding among investment options? And what institutions might be best suited to make decisions about the allocation of funds for investment?
 - Public Interest Energy Research
 - California Technology Investment Partnership

- Center on Energy Efficiency
- Institute for Energy Efficiency
(energy efficiency category...)

5.3.4 Other issues

- Should these investments be financed through allowance value? To what extent should they be financed through other public revenues?

5.4 Tax Shifting:

5.4.1 Tax shifting results when auction revenue is used to finance reductions in rates of current taxes or in future taxes (the latter is accomplished through deficit-reduction)

5.4.2 The taxes that are cut could be individual or corporate income taxes, or sales taxes

5.4.3 Rationales:

- Fairness: reducing burdens on future generations
- Cost-effectiveness: reducing cost of AB 32 by financing reductions in the rates of existing distortionary taxes

5.4.4 Estimates of potential cost-reductions from prior studies

6. Recommendations

- a. for relative reliance on free allocation and auctioning
- b. for specific form of free allocation (if applicable) and auctioning (if applicable)
- c. for use of allowance value