

## How to Get An Optimal Balance of Economy and Environment in Cap-And-Trade\*

### 1. A Necessary Requirement: A Firm Ceiling on Cost Per Ton (“Safety Valve”)

We don’t need the word “safety valve.” Actually, I liked the words that President Obama used recently, something like: “Any company that emits more greenhouse gasses than it has allowances for should have to pay a fee to the treasury.” We could call it a “damage assessment fee,” to be paid at the end of the year, so long as the schedule is defined in advance. This also lets us promise a worst case upper limit on how high energy prices might rise. An upper limit on cost is essential to any rational government budgeting.

Fields of IPCC testified on 2/25/09 to EPW that estimates range from \$3 to \$95 for how much damage an extra ton of CO2 emission does to the environment. The average is \$12, he said. As a starter, I would propose a \$20 damage fee in the first year, to rise at a rate of 2% per year ever after. As in Bingaman/Specter, we could include expedited procedures if the President rules that new information says the damage from CO2 is more than we thought.

Economists tell us we should not charge a fee or demand a purchase of allowances at a price more than the damage. If companies find it expensive to reduce CO2 or pay for allowances... in the worst case, the treasury gets 6,000 million tons times \$20, a \$120 billion new source of revenue, reducing the deficit after the recession ends but limited to 1% of GNP. But if CO2 can be reduced at less than 1% of GNP – as many of us hope very strongly – this should be enough of an incentive to prove out the low-cost ways of solving the problem. We shouldn’t be encouraging investment in \$100/ton solutions before we give the market a full opportunity to show us how much it can do at \$20 per ton or less, which many believe is a lot.

### 2. Other Simplifications I Personally Hope For, For Efficiency and Simplicity

**March 14: [Click here for an important revision and extension](#)**

1. There should be only three ways to get official allowances – buying them at the annual government auction; getting certified offsets for agricultural activities (as in both the Lieberman-Warner bill and the Bingaman-Specter Bill); buying them from people who own them. Physically, allowances should be good only for the year obtained and the year after; they should be records in the agency that maintains the greenhouse registry. Borrowing and banking and government futures markets are not worth the trouble. The amount of allowances (A1) auctioned each year would equal the caps for that year minus the amount of agricultural offsets produced and certified in the previous year.
2. There should be no limit on companies buying domestic allowances from offsets – but the bill should be strict about demanding that offsets really have to be solid and real.

COMMENT: Lovelock – a leader in the CO2 cause – says our best hope now of deep enough reductions in CO2 is the use of a new practice in agriculture, converting biomass to charcoal and burying it in the soil. If this works as well as he says, it may be enough by itself to give us deep reductions in CO2. People should be given a full incentive to reduce CO2 as much as they can. But the certification needs to be rock solid.

3. Emissions attributed to a polluter should account for all major net emissions, including emissions during fuel production, and leakage, and also account for ways they avoid CO2. For example, if a coal plant converts its flue gas to a hydrocarbon fuel, they are responsible only for the CO2 which actually gets into the atmosphere, plus the CO2 value of the fuel. Shale oil producers would be responsible for the gasses emitted (and leaked out) as they “crack rocks.”
4. More than 95% of the government revenue should go to deficit reduction. I have ideas for how we could use 3% of the money to lead to huge new breakthroughs in energy R&D, and in early warning systems in case the climate damage turns out to be worse than we now expect. (Critical details, easy to get wrong, but beyond the scope of a one-pager.)
5. As in last year’s bills, imports from countries without a cap-and-trade system should be subject to a carbon assessment at the border representing total carbon content.

\*Views of the author only, though thanks are due to NSF and the Office of Senator Specter for ideas.