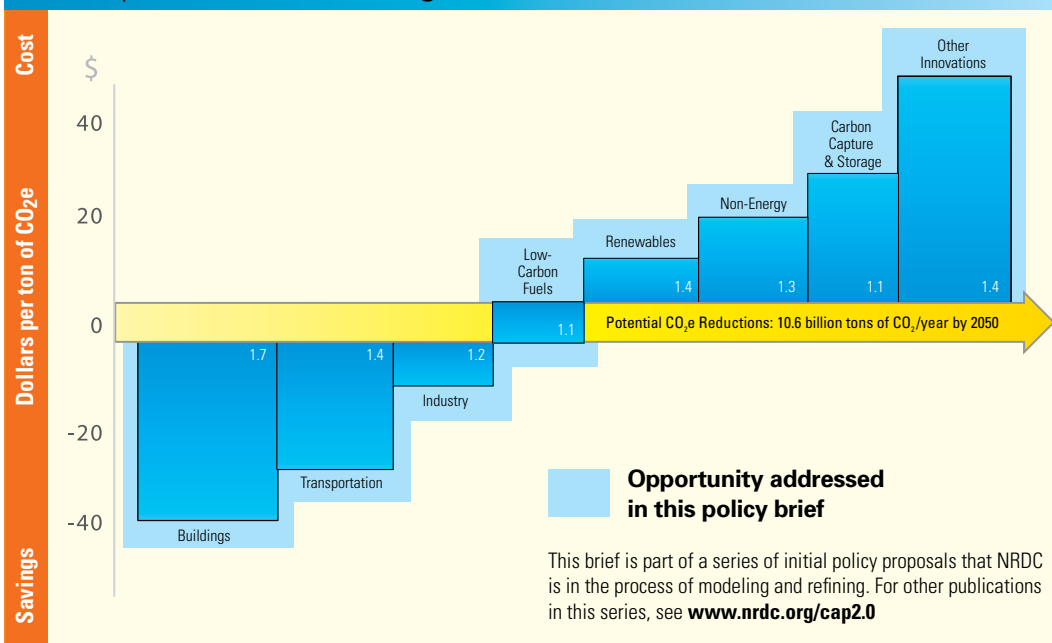


## Regulating trading: Simple regulations can ensure a fair and transparent carbon trading market



## Regulating Trading in the Carbon Market

America needs strong climate policy that will boost the economy and reduce dangerous global warming pollution. A key piece of successful climate legislation will be a carbon market that allows non-polluting companies to trade carbon credits. But unregulated or self-regulated trading involves important risks. Climate legislation should require strong carbon market regulations to ensure success.

For more information, please contact  
**Andy Stevenson**  
at (212) 727-2700  
and visit his blog at  
<http://switchboard.nrdc.org/blogs/astevenson/>

[www.nrdc.org/cap2.0](http://www.nrdc.org/cap2.0)

### Risks of Self-Regulated Energy Markets

Past attempts at self-regulating energy markets can teach us what not to do. Four key risks of self-regulated markets, as well as examples of their failure, are outlined below.

**Risk 1: Spot Price Manipulation** – A primary concern is the ability of individual market participants to control sufficient trading volumes to manipulate commodity prices. This is especially true for the carbon markets because the supply of carbon steadily declines over time, creating a known supply constraint on the market.

*Example:* During the five years leading up to the collapse of the unregulated electricity markets in California, Enron and others created “false shortages” or supply constraints in the electricity markets, resulting in \$23 billion in extra energy costs to the consumer, \$8 billion of losses for California’s largest utilities, and an end to California’s foray into unregulated electricity markets.

*Lesson:* Individual market participants and collusive groups can manipulate unregulated commodity spot markets, especially when these markets are subject to known supply constraints. Thus, climate legislation should prohibit collusion and limit individual market participants to position limits that would restrain manipulative behavior. A limit of no more than 5% of open interest over-and-above reasonably anticipated compliance obligations in short-dated carbon market futures contracts is recommended to achieve this end.

**Risk 2: Forward Price Manipulation** – Another concern is the ability of market participants to manipulate the future prices of a commodity. In particular, long-dated futures contracts, which allow market participants to hedge their future cash flows, are prone to market manipulation given the fact they are not commonly traded..



*Example:* The hedge fund Amaranth made large bets on long-dated natural gas contracts, which was extremely disruptive to suppliers and consumers of natural gas looking to hedge their future costs. Amaranth's strategy was to use as much capital as necessary to push around the natural gas forward contracts, forcing smaller market players to buy the forward contracts back from Amaranth at higher prices. This strategy ultimately led to Amaranth's downfall when the price of natural gas fell, making their contract manipulation efforts unsustainable. Amaranth suddenly lost \$6 billion of capital and consequently had to shut down their operations. In a regulated market that takes into account a firm's total exposure to a given commodity, Amaranth would have been unable to manipulate forward prices since it would have been restricted from owning such a high percentage of forward contracts.

*Lesson:* Unregulated commodity futures markets can be manipulated through the exercise of market power by individual market participants or collusive groups. Carbon markets regulations should limit exposures to longer term contracts and prohibit collusive behavior across exchanges to avoid disruptive price manipulation activities.

**Risk 3: Investment Class Risk** – As commodities have become an investment class in their own right, there is now considerable risk of market activity that has nothing to do with current supply/demand considerations for a given commodity. For example, investments by pension funds, endowments, and index funds that are betting on the long-term out-performance of commodities as an asset class can be disruptive to the market.

*Example:* Leading up to the oil price spike during the summer of 2008, large off-balance-sheet trades were taking place in the unregulated derivative markets for commodities, adding upward momentum to oil prices. Using the so-called “Enron Loophole,” large investors such as pensions and endowments were able to purchase exposure to oil futures contracts from investment banks via swap agreements without the knowledge of the regulators of the New York Mercantile Exchange (NYMEX). These positions ranged as high as \$1 billion and collectively they had a significant impact on the price of crude. As a result, the exchange had difficulty containing speculation in the oil market because large trader positions were not being effectively monitored. By some estimates, these Enron loophole contracts forced oil prices to rise an additional \$20-\$30/barrel during the peak trading period when oil reached nearly \$150/barrel. In a properly regulated market, investors would be forced to provide full disclosure of their derivative positions to the exchange, effectively limiting their activity to a permissible size that is subject to regulatory oversight.

*Lesson:* Investors can manipulate unregulated commodity markets through off-balance-sheet trades. Carbon markets should therefore exclude financial intermediaries from using the “Enron loophole” to expanding trading activity outside of a transparent regulatory framework.

**Risk 4: Counterparty Risk** – Counterparty risk represents the possibility that a bank or other business will default on their obligation prior to the expiry date of a contract, leaving their liability unanswered for.

*Example:* The credit default swap (CDS) market highlights the importance of counterparty risk in un-regulated markets. Designed to offer insurance against a corporation defaulting on its debt, these credit derivatives have instead become a source of systemic risk, where the loss of a single large player can prove disastrous. The default of Lehman Brothers is a case in point, with nearly \$8 billion in credit default swap liabilities expected to be left unpaid due to Lehman's collapse. This has been a substantial factor in destabilizing the entire interlocking system of commitments among financial institutions. Regulated markets avoid this kind of uncertainty by imposing margin requirements or good faith deposits for each transaction that must be paid into a well capitalized central exchange, limiting investor exposure to any single counter party default. As of this writing an exchange traded Credit Default Market is being created to replace the old way of trading these derivatives. Once the Credit Default Market is launched and the counterparties risk is netted at the exchange, it is estimated that the total number of outstanding CDS trades will shrink from \$55trln today to around \$4trln due to the netting of risk exposures, dramatically reducing potential losses from default

*Lesson:* Effective commodity market regulation requires consistent application of margin requirements commensurate with counterparty risk exposure levels. Carbon markets should require meaningful margin requirements for all carbon trading exchanges to limit losses if any participants fail to meet their financial obligations.

### Carbon Markets Should Be Regulated to Avoid Unnecessary Risks

To ensure a successful carbon market climate legislation requires four features:

- 1) **Mandatory contract limits in the spot market** (not just “where necessary and appropriate”) that include a firm's total exposure—and failure to stay within these limits should bring significant penalties;
- 2) **Sufficient margin requirements should be established** to discourage price manipulation by potential speculators;
- 3) **Prohibition of off-balance-sheet “Enron Loophole” style trades** to ensure that all investors trade on the exchange and are subject to associated regulatory oversight;
- 4) **Well staffed regulatory oversight** to monitor trading under either the Commodity Futures Trading Commission (CFTC) or the Federal Energy Regulatory Commission.