December 17, 2010

BY ONLINE SUBMISSION
Posted to CFTC website, http://comments.cftc.gov

Gary Gensler, Commissioner
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st St, NW
Washington, DC 20581

Re: FR Doc. 2010-29780
Public Input for the Study Regarding the Oversight of Existing and Prospective Federal Carbon Markets, 75 Fed. Reg. 72816 (November 26, 2010)

Dear Commissioner Gensler:

Environmental Defense Fund appreciates the opportunity to submit comments on CFTC's study regarding the oversight of existing and prospective carbon markets. This study represents an important opportunity for the CFTC and the rest of the interagency group to engage on a crucial but often overlooked set of issues regarding the regulation of carbon markets. A thoughtful study, conducted with input from a range of stakeholders, will lay the groundwork for a framework that can ensure that carbon markets meet their fundamental goal of facilitating the cost-effective reduction of greenhouse gas emissions.

Because of the unyielding urgency of addressing global warming, we fully expect the U.S. Congress to adopt federal climate legislation in the future. In addition, carbon markets are advancing at the state and regional levels: an active market is already underway in the northeastern states that make up the Regional Greenhouse Gas Initiative (RGGI); regulators in California are finalizing the rules governing the cap-and-trade program under that state's Global Warming Solutions Act (known as AB32); and a number of

states, most recently including New Mexico, are moving ahead with plans to join regional carbon markets in order to meet greenhouse gas emissions targets.

At the same time, the country is emerging from the deepest economic downturn since the Great Depression — a crisis whose roots lie in the failure of previous regulators to adequately monitor and limit risks in the financial system.

In this context — emerging state and regional carbon markets, and fresh evidence of the perils of lax oversight of financial markets — the CFTC and the interagency working group have a crucial opportunity to shape an effective regulatory framework for current and future carbon markets.

EDF has played a leading role among environmental organizations in developing constructive proposals for carbon market oversight and sharing them widely with regulators, Congressional staff, and other stakeholders. In this letter, we draw on that work to respectfully present a range of suggestions and comments on how the interagency study may further the goal of ensuring "an efficient, secure, and transparent carbon market."

The bulk of the letter is organized as answers to the eleven questions posed in the notice and request for comment filed in the *Federal Register*. Here we present 5 key conclusions:

1. *The fundamental purpose of carbon markets is to facilitate the cost-effective reduction of greenhouse gas emissions.* Unlike conventional financial or commercial markets, carbon markets are created by government in order to achieve a social purpose — namely, the cost-effective reduction of greenhouse gas emissions in order to limit global climate change. This feature implies that regulatory oversight should be designed to meet the needs of entities that are required to hold and submit emission allowances, as well as their consumers (e.g., households consuming electricity or purchasing manufactured goods). Ensuring transparent,[1] efficient, easily accessible markets with low transactions costs is paramount.

[1]It is important to clarify exactly what we mean by "transparent" throughout these comments. EDF recognizes the need to distinguish between information that should be made public versus information which should be available to the regulator and market monitors. The public's need for information can be met with aggregated market data, such as daily transaction prices and market volumes. Making more than that public raises the danger of market manipulation (e.g., collusion on the basis of published bids by particular entities at auction). On the other hand, regulators must have full access to detailed records of individual transactions.

2. *Five key objectives should guide regulators in designing a market oversight framework.* These objectives include the following:
    - Facilitate the goal of reducing emissions at the lowest possible cost,
    - Protect the public from fraud, abusive trading practices, and market manipulation
    - Protect the public and energy consumers from excessive price volatility,
    - Provide a compliance flexibility mechanism and risk management tools for covered entities, and
    - Ensure public access to appropriate information, such as daily transactions prices and market volumes, to ensure fair and efficiency markets and to help guide investments in clean energy technologies.

3. *All trading of allowances and allowance derivatives should be performed on registered exchanges.* The best way to ensure a transparent, efficient market is to require that all trades be executed on registered exchanges rather than in "over the counter" markets. Because exchange trading implies clearing of all trades, it reduces systemic risk. However, exchange trading has crucial benefits beyond clearing. Exchanges promote transparency through the real-time publication of relevant market data, ensuring that all participants have full information about prices and volumes of trades. Exchanges also facilitate robust market oversight by allowing regulators full access to underlying information on the positions and activity of market participants.

    Some market participants will object to exchange trading on the grounds of capital requirements and the supposed need for customized derivative contracts. Our extensive consultation with a range of experts, and our study of existing markets and the prospective needs of entities covered by a carbon market, leads us to conclude that the benefits of allowing over-the-counter trades (even if cleared) would be very small relative to the costs in terms of lost transparency. Instead, the main advantage of allowing over-the-counter trading would accrue in the form of large trading profits for major market participants, and correspondingly inflated costs for energy consumers.

4. *A number of tools exist to achieve the core regulatory objectives.* In particular, regulators should consider the use of traditional regulatory tools such as rules to detect and prevent trading abuses, position limits, price limits, margin requirements, restrictions on short sales, and rules governing market participation. Monitoring and reporting requirements, including mandatory audit trails, will be

crucial to ensure transparency and allow for robust oversight. Finally, it will be critical to provide regulators with adequate resources (both staffing and funds) to enforce market rules and deter abuse.

5. *Several aspects of cap-and-trade policy design, including cost containment mechanisms and offsets, raise particular issues for market oversight that deserve careful study*. EDF has championed the inclusion of an allowance reserve in carbon markets to protect against unexpectedly high costs, as well as the use of offset credits to tap into low-cost emissions reductions opportunities outside of the cap. The details of how these mechanisms are designed, however, have important implications not only for the performance of the carbon market, but also for regulatory oversight. The interagency group can perform an important function by examining the extent to which certain cost containment mechanisms might invite strategic behavior by regulated entities, along with remedies to discourage such behavior. The study should also consider appropriate frameworks for oversight of offset markets.

ANSWERS TO QUESTIONS 1-10 IN THE NOTICE AND REQUEST FOR COMMENT

1. Section 750 of the Dodd-Frank indicates that the goals of regulatory oversight should be to ensure that carbon markets are efficient, secure and transparent. What other regulatory objectives, if any, should guide the oversight of such markets?

The purpose of a carbon market is to facilitate cost-effective reductions of greenhouse gas emissions. This makes a carbon market fundamentally different from standard commodities markets, which have arisen on their own (rather than being created for a regulatory purpose) and which exist to facilitate commerce and economic activity. Any approach to designing the regulatory oversight of carbon markets should therefore start from the premise that the environmental objectives of the market must be of primary importance, and must be placed over the financial interests of traders. The regulators of a carbon market should maximize transparency, facilitate oversight, and enforce its rules. It is critical that this include protecting consumers by preventing market manipulation and fraud, limiting volatility driven by speculation, and guarding against systemic risk.

Again, a carbon market's purpose is to reach environmental objectives, specifically the reduction of greenhouse gas emissions. The policy achieves its targets by establishing a market under which allowances can be priced and traded, leading to cost-effective

emission reductions. Knowing current and future expected allowance prices (which indicate current and expected future marginal abatement costs of emissions) allow regulated emitters to make rational economic decisions about how to meet their compliance obligation at the lowest possible cost and in which abatement technologies they should invest.

Given the unique purpose of a carbon market, federal regulatory and enforcement focus should be on the following five overarching objectives:

1) Facilitate the goal of reducing emissions at the lowest possible cost.
2) Protect the public from fraud, abusive trading practices, and market manipulation.
3) Protect the public and energy consumers from excessive price volatility.
4) Provide a compliance flexibility mechanism and risk management tools for covered entities.
5) Ensure public access to information to help guide investments in clean energy technologies.

Unlike most financial markets, carbon markets should not be viewed as an investing opportunity or a means to facilitate commercial activities. Thus, the regulation must be directed toward reaching the environmental objectives of the policy, ensuring fair and stable pricing of the allowances, facilitating risk management, and providing regulatory oversight while allowing for sufficient liquidity for efficient trading of allowances.

2. What are the basic economic features that might be incorporated in a carbon market that would have an effect on market oversight provisions — e.g., the basic characteristics of allowances, frequency of allocations and compliance obligations, banking of allowances, borrowing of allowances, cost containment mechanisms, etc.?

The design of the carbon market will have an effect on market oversight provisions through its effect on the functioning of the market and the behavior of participants. A number of relevant design features, and their implications, are discussed below.

a. Offsets. Offsets are credits for verified reductions[2] in emissions, or sequestration of greenhouse gases, by entities that are not covered under the cap — either because they

[2] It is extremely important that offsets meet strict criteria for integrity (including rigorous scientific integrity) while still being practical. These criteria include additionality, reporting, monitoring verifaction, and permanence. Please see July 14, 2009

are in sectors outside of the cap-and-trade program, or because they are in other countries. Because they have the potential to lower the overall costs of emissions reductions by tapping into low-cost abatement opportunities, offsets have been an important part of virtually all proposed climate legislation to date.

From the perspective of market oversight, however, offsets raise a unique set of issues. Once the underlying emissions reductions or sequestration are verified and the resulting offset credits issued, those credits are fully fungible with emission allowances — implying that they should be subject to the same provisions for market oversight (for example, exchange-trading requirements). However, the process of generating offsets involves a very different contractual setting. Individual offset projects may be of a relatively small scale, with substantial performance risk; while some aspects of offset development contracts may be standardized, important details must be tailored to the specifics of the project. As a result, an offset development contract is more in the nature of a commercial transaction than a financial one — in contrast to the arms-length relationship that characterizes trade in emission allowances or issued offset credits.

This difference in the nature of contracts implies the need to draw a distinction between offset development contracts and subsequent trading of those offsets. In particular, while EDF believes that all trading of allowances and allowance derivatives should be required to take place on registered exchanges, an exception should be made for offset origination contracts — that is, the contract between the party actually producing offsets (e.g., a landowner) and the initial capital provider. A narrow exemption from the exchange-trading requirement might also be reasonable for the first sale (or "off-take") of offset contracts, i.e., the transaction between the initial offset developer and an "aggregator" who constructs a portfolio of offset projects. Similar exemptions might also be allowed for subsequent off-take sales where the underlying asset being traded is an individual offset development contract — i.e., the rights to the offsets generated by a specific project — even if many such contracts are bundled together). In contrast, any contract that represents a future obligation to deliver a certain number of issued offset credits, which are fungible with emission allowances, should be treated as an allowance derivative and subject to the same exchange-trading requirements.

---

testimony of Fred Krupp before the Senate Environment and Public Works committee for more information.
http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=c1aff9fd-47a2-4642-a829-9dcea286543e

Offsets also have important implications for the tracking and reporting of information. In particular, all underlying offset projects must be recorded by a registry and assigned a unique identification number, with the project information preserved and made available to market regulators upon request. Any party that buys or sells the rights to offsets from those projects must be required to track the underlying offset projects (e.g., by their project identification number); similarly, any party that sells any contract for delivery of issued offsets (e.g., futures or call options) must maintain, and provide to regulators and potential buyers upon request, a comprehensive record of the underlying offset projects in its portfolio.

b. Allowance allocation. How emission allowances are allocated will have a direct impact on market behavior and market oversight, through two channels: first, it will determine the degree to which market actors have short or long positions; second, it will shape the day-to-day activities of the agency charged with market oversight.[3] At one extreme, under full auctioning, essentially every market participant will be "short" allowances. In that case, regulated polluters are unlikely to be as willing to take long positions in futures or forward markets (although financial intermediaries may still serve that function). Moreover, the design and oversight of allowance auctions will take on central importance in such a scenario (see point (c) below).

Free allowance allocation can potentially help make markets (in particular futures or forward markets) more liquid, especially in the early years of the program. The extent to which it does, however, will depend on the details of allocation. Of particular importance is whether allowances are allocated in advance for future years. The further in advance allowances are actually distributed, the more active are forward or future markets likely to be. If allowances are allocated by statute or regulation but not actually distributed, their impact on market activity will depend on the extent to which they are seen as relatively certain; the greater the uncertainty, the higher the risk, and the less willing regulated firms will be to write contracts predicated on those allocations. For example, a firm might seek to monetize the value of their future allocation in order to finance the

[3] While decisions about allocation should be mindful of their impacts on the carbon market, the primary purposes for allocation remain to facilitate the transition for consumers and businesses by helping cushion the impacts on consumer prices, to transform technology and the nation's workforce to support a new energy economy, and to support adaptation efforts resulting from unavoidable climate change. See U.S. Climate Action Partnership, "A Blueprint for Legislative Action."

http://www.us-cap.org/PHPages/wp-content/uploads/2010/05/USCAP_Blueprint.pdf

installation of emissions control technologies. Since the purpose of the emissions market is to drive behavior towards emissions reductions, regulatory uncertainty in this context would serve to undermine the purpose of the market.

A specific design feature that bears on these questions is the use of "output-based allocations." For example, the cap and trade legislation enrolled by the House of Representatives (H.R. 2454), as well as the legislation proposed in the Senate, provided that certain regulated firms (determined to be energy intensive and trade-exposed) would receive free allocations based on their manufacturing output. In that case, allocations would be updated regularly, and would not be distributed or known with certainty in advance of the compliance year. EDF supports the use of output-based allocations to facilitate the economic transition to a low-carbon economy. To the extent practical, such allocation mechanisms should take into consideration their impact on certainty in the market.

c. Allowance auctions. We have already mentioned in general terms the importance of how allowances are allocated. In addition, under the likely scenario that some significant (and perhaps growing) fraction of allowances are auctioned, the design and administration of those auctions will be an important aspect of market oversight. In particular, auctions should be designed to limit the opportunities for strategic behavior that can undermine market integrity. For example, smaller and more frequent auctions — while potentially desirable on other dimensions — are likely to increase the likelihood of market manipulation. Similarly, sequential auction designs that allow updating and communication are likely to create opportunities for tacit collusion. Allowance auctions should offer sufficient volume (and hence infrequent enough) to prevent price manipulation, and should require one-shot, sealed bids. Limits must also be placed on purchases by individual entities, in order to prevent firms from cornering the market. The work done by researchers at Resources for the Future regarding the design of allowance auctions for the Regional Greenhouse Gas Initiative can be a useful reference here.[4]

d. Banking and borrowing. Most proposals for cap and trade legislation, including the legislation enrolled by the House and that proposed in the Senate, would allow covered entities to "bank" an unlimited number of emission allowances — using allowances issued in one year to meet compliance obligations in later years. Most

[4] "Auction Design for Selling CO_2 Emission Allowanes Under the Regional Greenhouse Gas Initiative," Charles Holt et. al., 2007. http://www.coopercenter.org/econ/rggi_final_report.pdf.

legislation would also allow covered entities to freely borrow allowances one year in advance (i.e. firms can opt to meet their compliance obligation on a biennial, rather than annual, basis), and to borrow a limited number of allowances (at interest) up to five years in advance. Such banking and borrowing provisions will affect the performance of the market, by determining the ability of covered entities and the market as a whole to "smooth" the supply of allowances over time to meet variations in demand.
Banking also has more immediate implications for market oversight. In order to prevent firms from cornering the market, regulators will need to impose position limits on covered entities — not just in terms of annual allocations or purchases, but also in terms of cumulative holdings (i.e., banks).

e. Cost containment mechanisms. Certain proposed cost containment mechanisms may create opportunities for strategic behavior and market manipulation, heightening the need for market oversight. A hard price cap, often called a "safety valve," represents an implicit commitment by the government to allow unlimited emissions at a specified maximum price.[5] An allowance reserve program, on the other hand, would effectively create a "soft" price ceiling, with a reserve pool of allowances becoming available when the market price reaches a pre-specified threshold. Depending on the details of their design, both approaches potentially create opportunities for "gaming the system," and a corresponding need for robust market oversight. In particular, record keeping and real-time reporting of trading can allow regulators to detect spurious price movements as they occur and who is behind these movements.

- First, any doubts about the credibility of the government's implicit commitments may affect market participants' behavior. Under a safety valve, for example, market participants might doubt that the government would be willing to allow genuinely unlimited emissions above the cap. If so, participants may attempt to buy allowances (i.e., take long position) in volumes large enough to put upward pressure on the price — much as currency traders may bet against a central bank's commitment to maintain an exchange rate. Their ability to succeed, and hence the incentive to engage in this behavior, depends crucially on the credibility of the government's commitment (and hence implicitly on the trigger price), on the potential for collusion with other participants, and on the elasticity of demand for emission allowances (equivalently the elasticity of marginal abatement cost).

[5] In addition to creating opportunities to game the market, the "safety valve" undermines the enviromental integrity of the emissions reduction program and stifles investment in and the development of new technology. See http://www.edf.org/documents/9689_EDF%20Fact%20Sheet%20--%20Safety%20Valve.pdf.

- The details of when and how market participants can access an allowance reserve, or buy allowances at the price cap under a safety valve, can also affect incentives for strategic behavior.[6] For example, if extra allowances are always available at the specified price threshold — i.e., there is a reserve window or safety valve that is always open — market participants may have strong incentives to purchase allowances even when the market price is below the threshold price, in order to "buy down" the future allowance price by effectively relaxing the abatement constraint. Again, the likelihood of such a tactic succeeding will depend on the trigger price chosen, the opportunities for collusion, and the elasticity of demand for allowances. An "always-open" policy may also create complex incentives for strategic behavior in the neighborhood of the price threshold, resulting in potentially erratic price movements and market activity.
- Any cost containment mechanism, whether implemented via a hard price cap or an allowance reserve, is likely to specify a rate at which the price ceiling increases over time in real terms (typically 5% above inflation in previous legislation). Setting this rate above the prevailing market rate of return in investments with similar risk profiles may invite strategic behavior: if the price ceiling is reached (and market participants expect the underlying conditions creating high prices to last), market participants will have an incentive to "buy and hold" allowances knowing that the market price will rise at an attractive rate over time.
- All of the scenarios mentioned here represent possible ways in which the design of a cost containment mechanism could invite or encourage strategic behavior by market participants. As a result, they underscore the need for robust market oversight by the CFTC or another body. However, market design features will play a critical role in limiting opportunities for manipulation and collusion, making the market more secure and easier for regulators to police . For example, the market could be designed (either by statute or regulation) to include the following limitations as a means to help prevent manipulation and gaming in relation to the allowance reserve:
    - Reserve allowances would be valid only for the compliance period in which they are issued.
    - Regulated entities would be denied access to the reserve in any compliance period in which they increase the number of allowances in their holding accounts (i.e., add to their allowance bank). This approach will not only prevent a regulated entity from buying reserve allowances and banking them, but also from buying reserve allowances and effectively substituting them for regular allowances which it could then bank.

---

[6] See Congressional Budget Office report, "Managing Allowance Prices in a Cap-and-Trade Program," November 2010. http://www.cbo.gov/ftpdocs/118xx/doc11872/11-04-2010-Cap-and-Trade.pdf

- As a further precaution against regulated entities effectively using the reserve to build up allowance banks, the regulation could deny access to the reserve to a regulated entity within 90 days of selling an allowance.
- Finally, the reserve would only be open for a three-month window prior to the end of each compliance period. Opening the allowance reserve toward the end of the compliance period is a sensible means to constrain access to the reserve and thus to increase the likelihood that only firms needing allowances to meet their compliance obligations will purchase reserve allowances.

Several of these mechanisms were included in draft climate legislation proposed by Senators Kerry and Lieberman (i.e. the American Power Act).

f. Linkage with other programs. A likely feature of a U.S. carbon market is linkage with markets in other countries, e.g., the Emission Trading Scheme (ETS) already underway in Europe. The extent to which trading between carbon markets is allowed has important implications for carbon market oversight. We discuss the details of linkage in the response to question 8 below.

3. Do the regulatory objectives differ with respect to the oversight of spot market trading of carbon allowances compared to the oversight of derivatives market trading in these instruments? If so, explain further.

In general, the regulatory objectives described in our previous answers apply both to the cash market for trading carbon allowances and to the markets where carbon derivatives are traded. Both spot and derivatives markets will play an important role in facilitating the cost-effective reduction of greenhouse gas emissions. At the same time, transparency and robust oversight is equally important in both types of markets.

In our answer to question 4, below, we present EDF's position that a crucial prerequisite to achieving these regulatory objectives is to require all trades of allowances and allowance derivatives to be executed on registered exchanges. As noted above, there may be some justification in permitting offset credits to be traded between private parties outside of an exchange, provided that offset credits trades may be of a relatively small size and involve participants who do have ready access to the exchange markets. However, such exceptions, if allowed at all, should be done only on a limited basis and if no other reasonable mechanism could be found that achieved the same purpose.

In contrast, there would seem to be little need to permit the trading of standardized derivatives contracts away from an exchange. Three arguments — none of them

convincing — are usually advanced by market participants who seek to trade derivatives in over-the-counter markets. The first is that exchanges raise the cost of trading by imposing margin requirements and refusing to accept real assets as collateral. This argument essentially boils down to a desire for taking on more leverage and increasing risk in order to increase firm profits; the effect is to shift risk from the buyers and sellers of contracts to the market as a whole. The recent financial crisis provides an object lesson in the flaws of this approach. In the absence of an explanation for why exchanges might systematically misprice default risk, this argument is not compelling. Furthermore, it is unclear what would prevent financial intermediaries from devising instruments (e.g., loans secured by real assets) to provide parties with the necessary capital to meet margin requirements.

A second argument often made for over-the-counter trading is that entities will require customized contracts to meet specific needs. This argument, too, is not compelling. One salient feature of a carbon market is that essentially every entity faces the same nature of compliance obligation: it must hold enough allowances at the end of each compliance period to cover its actual emissions. Even the timing of this compliance obligation is typically the same across all entities in a carbon market. As a result, standardized "plain vanilla" derivatives contracts are particularly well-suited to carbon markets. While one can surely speculate about some scenario in which a particular entity might benefit from a bespoke contract, the small potential for isolated individual benefits from allowing over-the-counter trading does not justify the substantial increase in risk and the large increase in costs to energy consumers from the loss of transparency associated with exchange trading.

A third argument for over-the-counter trading is that exchange-traded markets may be "thin" in certain contracts (e.g., long-dated futures contracts). This concern, however, appears to be based primarily on the observation that when given the opportunity, participants in some large energy markets (e.g., oil) prefer to trade forward contracts over the counter, rather than trading futures in an exchange. This preference may reflect the private benefits to both buyers and sellers from the opacity afforded by over-the-counter markets, but it does not suggest any benefit to the market as a whole, nor any inherent reason why exchange trading is incompatible with liquid markets. Indeed, in general, a requirement that all trading be done on exchanges is likely to enhance market liquidity rather than limit it.

4. Are additional statutory provisions necessary to achieve the desired regulatory objectives for carbon markets beyond those provided in the Commodity Exchange Act,

as amended by the Dodd-Frank Act, or other federal acts that may be applicable to the trading of carbon allowances?

EDF's view of the desired regulatory objectives for carbon markets is described above in our answers to-the preceding questions. In addition, as described below in our answer to Question 7, we believe that it is desirable to have a unified regulatory oversight program that would oversee activity in both the secondary carbon market and in the carbon derivatives markets.

The Commodity Exchange Act, as amended by the Dodd-Frank Act, provides a solid foundation for the regulatory oversight of commodity derivatives markets. However, the Commodity Exchange Act does not authorize the CFTC to regulate secondary cash markets for trading carbon instruments. As noted above, EDF believes that the secondary cash markets and the derivatives markets for carbon instruments should be regulated by the same agency under a unified statutory scheme. Accordingly, if Congress decides that the CFTC should be the unified regulator for those markets, the CFTC's statutory authority will need to be augmented. (Similarly, if a different federal agency is chosen to be the unified regulator, that agency's statutory authority will need to be augmented.)

EDF believes (as discussed above in our answer to Question 1) that some of the regulatory objectives for carbon markets go beyond the regulatory objectives for the traditional commodity markets that the CFTC has regulated for years. We believe that the regulator of the carbon and carbon derivatives markets should have the authority, and be directed to, regulate these markets in order to prevent volatile price movements, short selling of the cash instruments, and high leverage. The markets should be designed to enable the users of carbon allowances to buy and sell such allowances in a stable, predictable market environment in order to achieve their environmental objectives. These markets should NOT become just another financial trading vehicle for trading firms, banks, hedge funds, investment banks, etc. EDF believes that additional legislation is needed in order to provide authority and direction to the relevant regulatory agency so that the objectives for carbon markets described above can be achieved.

We also believe that, in some instances, the regulatory requirements for carbon markets should be more stringent than those for other commodity markets. In particular, the Dodd-Frank Act provides a "commercial end-user exemption" that allows a swap counterparty that (1) is not a financial entity and (2) is using the swap to hedge its commercial risks to "opt out" of the requirements that swaps be cleared and traded on a

regulated exchange or trading facility. EDF believes that such a broad end-user exemption should not apply to the markets for carbon instruments.

It is EDF's position that, with one exception noted below, all trading in carbon instruments and derivatives on carbon instruments should be done on a regulated exchange or trading facility and should be cleared by a regulated clearing organization. The only exception to those requirements should be for transactions that involve the creation, initiation or first sale of an offset credit, provided that each such transaction meets the following criteria:

(a) At least one of the principal parties to the transaction is a market participant that does not have ready access to a regulated exchange or trading facility;

(b) the transaction is of a limited size, as established by the applicable federal agency by rule or regulation;

(c) the transaction will not cause any party to the transaction to exceed any position limit, or to fall below any margin requirement, established by the federal agency by rule or regulation; and

(d) buyer and seller in each such transaction shall notify the federal agency of such transaction, which notice shall include the identify of all parties to the transaction, the value of the transaction, the nature and size of the transaction, the credit exposure of all parties to the transaction, transaction maturity or expiration date, and such other information as the federal agency shall prescribe by rule or regulation.

5. What regulatory methods or tools would be appropriate to achieve the desired regulatory objectives?

Regulation and enforcement of the carbon market should be centered around the five overarching objectives outlined in Question #1. Again, the purpose of establishing a carbon market (to achieve emissions reductions) is unlike that of most financial markets and therefore requires unique regulatory treatment.

Generally speaking, the following guidelines can be used to establish rules governing carbon markets (more specific suggestions are discussed in detail below):

1. The trading market should be protected from price manipulation.[7] Price manipulation involves a participant in the market who attempts to create artificial movements in the prices of the allowance products or who imposes a deceit on or abuse of the market.
2. The federal regulator should prohibit fraudulent activities connected to the market, such as misrepresentations designed to induce a person to buy or sell an allowance or allowance derivative.
3. The federal regulator should facilitate the maintenance of fair, orderly, and transparent markets. The rules should be designed so that no unfair trading advantages are created and that price movements are not distorted or disruptive. This also means that market activities are transparent and well-understood by regulators and the public, that rules and regulations do not contain loopholes that allow some trading activities to occur in an unregulated manner, and that the rules are designed in such a way as to make enforcement simple and effective.
4. Regulations should prevent excessive speculation in the market that could lead to price bubbles or excessive troughs. We recognize that this objective could prove to be challenging. On one hand, speculators can play an important role in providing liquidity and price immediacy to a market. If market speculators are severely restrained, the remaining market participants might not be able to provide sufficient continuous trading to facilitate liquid markets. On the other hand, unfettered speculation can contribute to strong price momentum or price movements unrelated to underlying fundamentals.
5. The federal regulator should have the legal authority and tools to severely sanction those who violate the rules. Market participants must keep sufficient and satisfactory records to enable federal regulators to assemble information about trading activity. This recordkeeping by traders would be in addition to any reporting and monitoring requirements that would be collected from the exchange activity. Regulators also need the legal tools and resources to effectively investigate and audit market participants to ensure that all activity is legal. These tools and resources include adequate budget and personnel to conduct investigations, and legal authorities such as subpoena power for records or for witness testimony. Finally, the fear of suffering substantial civil and criminal penalties for violating trading rules in carbon markets needs to be significant enough to act as a deterrent of illegal activity. That means that the federal regulator must both zealously investigate and prosecute rules violations, and that the penalties are severe.

---

[7] We note that the Dodd-Frank Act has strengthened the CFTC's authority to prevent market manipulation by making it unlawful for any person (a) to use any manipulative or deceptive device or contrivance in contravention of rules promulgated by the CFTC or (b) to engage in any of the following types of "disruptive" trade practices: (1) trading that violates bids and offers, (2) trading that demonstrates "intentional or reckless disregard for the orderly execution of transactions during the closing period" and (3) "spoofing."

Rules to Prevent and Deter Trading Abuses

The laws governing the trading of securities, futures and energy products contain prohibitions against fraud and manipulation.[8] Legislation authorizing the establishment of markets for trading carbon emission allowances and related derivatives should contain comparable prohibitions. The federal regulatory agency should be authorized to adopt rules that specify what constitutes fraud and manipulation in greater detail. In addition to being able to define what constitutes illegal market activity, federal regulators should have the ability to minimize opportunities for market participants to engage in unfair and manipulative trading practices (reporting requirements for trading activity is covered in our comments on Question 6). This means being able to restrict trading practices that can be used to manipulate prices or foster aggressive risk taking. As noted above, this also has implications for the size and frequency of auctions (to the extent that allowances are not freely allocated), and the rules governing allocations for future vintages of allowances.

Position Limits

Excessive speculation can lead to price distortions in the market. Section 4a(a) of the Commodity Exchange Act states that excessive speculation in a commodity traded for future delivery may cause "sudden or unreasonable fluctuations or unwarranted changes in the price of such commodity." The Act thus authorizes the CFTC to prevent or diminish such problems by imposing limits on the size of speculative positions that can be held in certain futures contracts.[9] Securities options markets likewise impose position limits.[10]

Determining the proper position limits requires a weighing of competing considerations. The limits need to be set at a level that is sufficiently low as to prevent the build up of

---

[8] See, e.g., Sections 4b, 4o and 9(a)(2) of the Commodity Exchange Act.

[9] The Dodd-Frank Act expands the CFTC's authority with respect to position limits. It directs the CFTC to establish limits on the amount of positions (other than bona fide hedge positions) that may be held by any person in (i) futures contracts on physical commodities, (ii) commodity options and (iii) "swaps" – defined broadly to include most types of derivatives – that are economically equivalent to such futures or options.

[10] See, e.g., Chicago Board Options Exchange Rule 4.11.

market power by any individual market participant. On the other hand, if limits are set too low, they might interfere with the ability of a firm to build up an allowance bank in used to protect against price volatility. In addition, there is tremendous variability in the size of firms' emissions, and some of the largest emitters may have annual compliance obligations that approach these limits (according to EPA's greenhouse gas inventory data, each of these firms have emissions approaching 5% of total U.S. emissions). Finally, the carbon market is a market that by design will see a diminishing number of allowances in circulation over time. A position limit that may be sufficiently low to prevent the build up of market power in the near term will over time become less effective as the total number of allowances outstanding decreases.

For these reasons, EDF recommends that the Congress avoid specifying position limits for allowances and allowance derivatives in statute, and instead require the federal regulator to set positions limits on all carbon allowances and related derivatives and to periodically revisit these limits to determine if they should be raised or lowered. At the start of the market, these limits should typically be set at levels that are low. The regulator should develop rules to handle the few firms whose expected annual compliance obligation may approach or exceed these limits. For example, the federal regulator could have a mechanism to establish a higher position limit for these firms. These position limits should be based on that firm's expected obligation, and be granted on a time-limited basis, with the ability of the firm to renew as necessary, provided it can demonstrate continued need. EDF would expect that most financial firms would not be eligible to petition for these higher position limits.

Price Limits

Some futures exchanges (notably exchanges that trade agricultural futures contracts) have rules that establish daily price limits.[11] A price limit prevents the price of the particular futures contract from moving more than a designated amount up or down from the previous day's settlement price. The stock exchanges have a less drastic means of slowing trading in falling markets. The stock exchange rules known as "circuit breakers" prevent market participants from trading during a brief "time out" when stock prices fall by a significant amount. The system of circuit breakers was recently revised following the "flash crash" of May 6, 2010, in which the prices of many stocks fell dramatically and then rebounded just as quickly. Under the revised circuit breakers, trading in designated securities (all stocks in the Russell 1000 Index and certain exchange-traded funds) is

[11] See, e.g., Chicago Board of Trade Rule 10102.D. (daily price limits for corn futures).

paused for a five-minute period if the security experiences a 10 percent price change over the preceding five minutes. We believe the recent experience with the flash crash underscores the continued need for price limits. Furthermore, EDF strongly encourages federal regulators to evaluate carefully the impact of so-called "high speed trading" practices on the market and what role (if any) these should be allowed to play in a carbon market.[12]

Short Sale Restrictions

In the context of the allowance cash market, federal regulators should consider whether to restrict the short selling of allowances. Derivative markets do not have any short sale restrictions, although they do maintain margin requirements for a short position. Starting in the 1930's, the stock markets have had certain restrictions on short sales. In 2007, the SEC removed all short sale price restrictions in the belief that these rules were antiquated and unnaturally restricted legitimate trading activity.[13] However, in light of the sharp market declines of the past few years, in particular the extreme drops in the prices of the stocks of financial companies, the SEC recently adopted a new rule (known as the "alternative uptick rule") to place certain restrictions on short selling when a stock is experiencing significant downward price pressure.

With respect to the emission allowances market, the primary regulator should give consideration to the unique aspects of this market and the impact that short sales may play in the market. Specifically, given the fact that the emissions market is not intended to act as an investment vehicle and that it is desirable that the pricing of allowance trading be relatively stable and non-volatile, the regulator should examine whether short sales of allowances should be permitted at all, and if so, under what circumstances and controls. If they are allowed, then any short sales of emission allowances should be subject to restrictions designed to ensure that such sales are in fact necessary to provide sufficient liquidity to the market for these instruments.

Another short sale restriction imposed by the SEC recently has been a prohibition of naked short sales.[14] The SEC now requires that a short seller must borrow the stock or

---

[12] Other SEC initiatives adopted after the flash crash include rules (i) to prevent traders from obtaining "unfiltered" access to the market and (ii) to prohibit market makers from entering "stub quotes," i.e., quotes at prices that are far from the current market price for that security.

[13] Securities Exchange Act Release No. 55970 (June 28, 2007).

[14] See Regulation SHO under the Exchange Act.

make arrangements to borrow it before engaging in a short sale and that the stock must actually be delivered on the settlement day of the trade. In addition, the Dodd-Frank Act makes it unlawful for any person to effect a manipulative short sale of any security, including a security-based swap, and directs the SEC to issue rules to enforce that prohibition.

The regulators of the emission allowance market also should consider whether to impose measures to prevent naked short sales, and whether to provide exemptive relief for a specified class of liquidity providers such as market makers.

Margin Requirements

Margin requirements were discussed above in the context of providing financial safeguards for the clearing organization that guarantees all transactions. The margin levels needed for that purpose are the lowest that would be needed to maintain the financial integrity of the clearing organization. By imposing margin requirements on market participants that are higher than what is needed to protect the clearing organization, it is possible to reduce the amount of leverage that market participants can use in acquiring positions. That is the case in the securities markets, where the amount of margin needed to buy a stock is 50% of the stock's price, and margin even for securities options is higher at the market participant level than at the clearing level.

The regulatory need for higher margin levels has been a source of dispute between the SEC and CFTC. The futures markets claim that futures margin is merely a "performance bond" to guarantee performance on the derivatives contract. They claim that relatively high margin levels, by increasing the amount of funds needed to acquire a position, would make it more expensive to trade and thus would harm liquidity in their markets. The CFTC permits the futures exchanges to set margin at relatively low levels.[15] The SEC believes that margin, whether for the cash instrument or the related derivative, also should be viewed in context of the leverage effect discussed above. As a

[15] For example, during Congressional consideration to permit the trading of futures on single stocks in 2000, the securities markets raised concerns that the differences in margin approaches between securities and futures regulators had led to disparities in margin requirements between competing securities and futures products that were functionally equivalent (e.g., an option of the S&P 500 index versus a future on the S&P 500 index). See, e.g., Testimony of William J. Brodsky, Chairman and Chief Executive Officer, Chicago Board Options Exchange, Regarding the Options, Futures and Equities Markets and Regulatory Environment, before the Senate Committee on Banking, Housing and Urban Affairs (May 8, 2000).

result, margin in the commodities markets is lower, sometimes much lower, than in the securities markets. Higher margin, by definition, reduces leverage and makes it more expensive to trade. This is another area where expert judgment is required in order to strike the proper balance. In light of the special characteristics of the emission allowances trading market, Congress should direct the the regulator to adopt the SEC's viewpoint on margin and the effect on leverage.

Rules to Foster Successful Trading Markets

In general, one important difference between a carbon market and other trading markets is that for regulated emitters of greenhouse gases, participation in the market is mandatory. Nevertheless, the rules of an exchange trading market should be designed so that there is an economic reason for market participants to trade in the market. This involves a number of factors, ranging from contract design to possible incentives to encourage certain trading behavior.

Rules can also be used to limit the types of market participants who are allowed to trade in the market. Some recent legislative proposals to address climate changes have sought to restrict participation in the carbon market to only those entities with a compliance obligation. EDF does not support such an approach for several reasons. First, experience in the U.S. commodity futures market has shown that liquidity can be enhanced when the number of market participants increases. Permitting other participants into the trading market can smooth out trading activities and thus provide a more liquid market. Second, rules that try to define who may or may not trade based on compliance obligation will almost certainly be able to be easily circumvented. For example, a financial institution that might wish to trade in the carbon market but was not subject to an emissions limit could simply purchase a company that did have to meet a compliance obligation. Third, a company that does not currently have a compliance obligation but might have one in the future (e.g. a company that currently has emissions below the threshold for regulation but that is considering an expansion) might have a legitimate need to participate in the emissions market in order to manage their anticipated risk exposure. Restricting their access to the carbon market would potentially disadvantage them relative to other firms. For these reasons, EDF supports having uniform rules for who may participate in the market.

Virtually all securities and futures exchanges in the U.S. offer some sort of incentive to encourage persons to provide liquidity in specified contracts by acting as market makers. The incentives range from cash payments and fee discounts to receiving a preferential opportunity to interact with customer orders. A careful balance needs to be struck

between offering a sufficient incentive to induce persons to risk their capital by making a market in specified products, yet not providing so much of an advantage to the market maker that other market participants are not able to compete on equitable terms. Congress will need to consider how much leeway should be given to exchanges and SROs in providing such incentives, and how much of this authority should reside solely with market regulators.

Necessary Regulatory Tools.

To be able to enforce the rules, the regulator must have the capability to monitor and analyze trading market activity as easily and comprehensively as possible. From the experience in other trading markets, there are several tools that would be indispensable to this goal. First, the trading market should produce an accurate and sequenced audit trail of transactions and quotes. Second, the regulator should develop surveillance procedures to detect unusual or illegal conduct in the trading market. Although tips and complaints sometimes form the basis for regulatory investigations, many investigations arise from parameter breaks of automated surveillance runs. Third, the regulator should receive certain reports from market participants to use in market monitoring. For example, some derivative markets require members to report either large transactions or large positions. Fourth, the regulator must be able to conduct inspections of the records of market participants upon demand. This in turn would require market participants to maintain detailed records of orders, quotes, and trades.

The regulator would need certain resources and powers to make use of the tools described above. Clearly it would need to have a professional staff experienced in trading markets to oversee its surveillance function and sufficient staff to pursue investigations and enforcement actions. In addition, the agency should have legal authority to inspect the records and premises of market participants, issue subpoenas to obtain information and compel testimony, and cooperate and share information with other regulators. Finally, the agency needs the ability to impose appropriate sanctions on violators. Such sanctions should include suspension or bar from the market as well as fines. In addition, the regulator would need the ability to seek an injunction or issue a cease and desist order to stop ongoing violative conduct and prevent a violator from restarting its misbehavior. These types of authority already reside with financial regulatory agencies such as the SEC and CFTC (and at FERC) but legislation for the new emissions trading market should be clear about investing them in the agency in charge of the new trading market.

Aside from civil and administrative remedies, violations of laws and regulations pertaining to financial trading markets can be subject to criminal sanctions. Such is the

case in the securities and futures markets, and should be equally applicable to the emissions allowance markets.

6. What types of data or information should be required of market participants in order to allow adequate oversight of a carbon market? Should reporting requirements differ for separate types of market participants?

As discussed above in our answer to Question 4, EDF believes that nearly all transactions in carbon instruments and derivatives thereon should be done on a regulated exchange or trading facility and should be cleared by a regulated clearing organization. The exchange(s), trading facility(ies) and clearing organization(s) should maintain and make available to the public daily information on settlement prices, volume, open interest, and opening and closing ranges for carbon instruments. Quotes and last sale information on these instruments should be disseminated by the exchanges and trading facilities in real-time to the public. In addition, the exchange or trading facility should maintain an accurate and sequenced audit trail of transactions and quotes – an automated report listing trades and quotes, along with the times of execution/entry, size, product symbol, executing parties, and other relevant information. An audit trail is essential for the exchange and regulator to oversee trading in these markets.

EDF also believes that all brokers, dealers and "major participants" in the carbon markets should be required to register with the applicable federal agency. Each registered person should be required to maintain daily trading records of its transactions in carbon instruments and derivatives thereon that shall include such information as the federal agency shall prescribe by rule. Such records shall contain sufficient information to enable the federal agency to conduct comprehensive and accurate trade reconstructions. In addition to written records, the information should include electronic mail, instant messages and recordings of telephone calls. The registered person should be required to maintain these records in the manner and for the periods of time required of Futures Commission Merchants (FCMs) under CFTC Rules 1.31 and 1.35 and of broker-dealers under SEC Rules 17a-3 and 17a-4, and should be able to produce these records promptly upon request to the regulators.

7. To what extent is it desirable or not desirable to have a unified regulatory oversight program that would oversee activity in both the secondary carbon market and in the derivatives markets?

Congress should designate a single agency with primary jurisdiction over the cash and derivative markets. Otherwise, the regulatory infighting that is prevalent in the securities/futures markets between the SEC and CFTC and in the energy/energy

derivatives markets between the CFTC and the Federal Energy Regulatory Commission ("FERC") would inevitably arise in the new emissions market.[16] In addition, having different regulators with oversight of related markets can lead to inconsistent regulation and the possibility of regulatory arbitrage.

EDF is agnostic when it comes to which agency should have the authority to regulate the carbon market. Rather, we have placed greater emphasis on making sure that the overall market design and trading rules are able to maximize the achievement of the environmental goals of the program and that can operate with maximum transparency and public protections, and that federal regulators have the legal tools and financial resources to be an aggressive regulator. To the extent that Congress designates the CFTC as the lead regulator of carbon markets, it should make clear that these markets must be regulated in a tighter fashion than other commodity markets. In addition, the CFTC is a relatively small agency with a limited budget. Congress-would need to increase the CFTC's budget dramatically with funds dedicated to overseeing this market.

8. To what extent, if any, and how should a U.S. regulatory program interact with the regulatory programs of carbon markets in foreign jurisdictions?

There are at least two contexts that a U.S. (either national or regional) emissions trading program might intersect with foreign trading activities. In the first context, U.S. emissions allowances (or derivatives) are traded in other jurisdictions, possibly with less rigorous controls and oversight. This is something that would tend to undermine the environmental objectives of the emissions trading program. In the second context, a firm might seek to purchase a foreign-issued allowances or offset credits that can be used for compliance in the U.S. market. These types of market linkages are directly in line with the overall environmental objectives of the program. In fact, one of our most potent lures for drawing developing nations into an emissions reduction regime is to grant them access to the US carbon market.

There ought to be a way to develop rules for linking with other markets that at the same time can prevent the regulatory "leakage" where firms shift their trading activities to other jurisdictions with lax oversight. Fortunately, all active and proposed emissions trading programs use emissions allowance with individual serial numbers which allows for easy

[16] The Blueprint For a Modernized Financial Regulatory Structure issued by the Treasury Department in March 2008 advocated a revamping of the balkanized U.S. regulatory structure including a merger of the SEC and CFTC. See, also, Group of Thirty, *Financial Reform: A Framework for Financial Stability*, 2009.

electronic tracking. Legislation or regulations could impose sanctions on firms that trade U.S. allowances in foreign jurisdictions, such as designating any U.S. allowance that is traded abroad as no longer being valid for compliance in a U.S. emissions program. These kinds of rules would still allow for linkages between markets, but prevent regulatory migration.

Accordingly, we recommend that – during the initial phase of the regulatory program – all transactions in carbon instruments that can be used by U.S. companies to comply with their carbon emissions requirements should be executed only on regulated U.S. exchanges or trading facilities and should be cleared by a regulated U.S. clearing organization. (As discussed above in our answer to Question 4, the only exception to these requirements should be for transactions that involve the creation, initiation, or first sale of a domestic offset credit, or the first importation of an international offset credit, provided that certain criteria are met.)

Eventually, when international standards for carbon compliance and requirements for maintaining market integrity have been agreed, the U.S. regulatory program can be linked to other international programs that satisfy all agreed standards and requirements.

9. What has been the experience of state regulators in overseeing trading in the regional carbon markets and how would that instruct the design of a federal oversight program?

EDF believes this question to be critically important given that there are invaluable lessons to be learned from regional carbon markets that could potentially be applied to future prospective carbon markets. However, EDF will refrain from providing a detailed answer since we hope that other stakeholders, such as state regulators or directors of regional initiatives, with hands-on experience in overseeing carbon market trading will provide more robust answers to this question.

The fact that states and regions are moving ahead with carbon markets creates a pressing need for providing them with sophisticated assistance on the financial dimensions of carbon markets. State and regional authorities typically have deep expertise in environmental regulation, and in the design and implementation of emission trading programs, but have much less background in financial markets. Nonetheless, they are responsible for aspects of program design that have significant implications for market performance. EDF recommends that CFTC explore opportunities to provide technical assistance and/or guidance to state and regional programs as appropriate.

10. Based on trading experiences in the SO_2 and NOx emission allowances what regulatory oversight would market participants and market operators, respectively, recommend?

The emission markets in SO_2 and NOx have been enormously successful from the perspective of environmental policy, and have provided many lessons for effective market design for a greenhouse gas emissions cap. Indeed, their success has served as one of the primary motivations for policymakers that have chosen a cap-and-trade framework to address global warming pollution. However, even as these markets have informed policy decisions for designing a greenhouse gas emissions cap, they are likely to be of less use as guides for market oversight of a carbon market. These existing markets are roughly two orders of magnitude smaller than a carbon market is likely to be: the SO_2 market has had annual market capitalizations on the order of a few billion dollars, while an economy-wide cap-and-trade program of the kind envisioned by recent proposed legislation would have an annual market capitalization on the order of a hundred billion dollars. Carbon is also nearly ubiquitous in the economy, whereas SO_2 and NOx trading have been limited to the electric power sector.

As a result, while the SO_2 and NOx markets have succeeded without any additional market oversight provisions (SO_2 and NOx emission allowances having been treated as exempt commodities under the Commodities Exchange Act) a more robust framework will be needed to ensure the smooth and fair operation of a carbon market.

Thank you for considering these comments. Please contact Kusai Merchant at (202) 572-3322 and kmerchant@edf.org if you have any questions or concerns.

Respectfully submitted,

Kusai Merchant
Susanne Brooks
Nathaniel Keohane

Environmental Defense Fund
1875 Connecticut Avenue, NW
Washington, DC 20009
(202) 387-3500