Testimony by
Dr. Richard L. Sandor
Chairman and CEO
Chicago Climate Exchange

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Subcommittee on Energy and Air Quality
Hearing on "Climate Change: Lessons Learned from Existing Cap and Trade Programs"

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Chairman Boucher, Congressman Barton, Congressman Hastert, and members of the Subcommittee. I want to thank you for your invitation to be with you today. I congratulate your leadership on the vexing problem of climate change. In view of your interest in emissions trading as a possible mitigation pathway, I would like to share with the Subcommittee the experience of developing, launching and implementing the Chicago Climate Exchange (CCX), which is a cap-and-trade system that has been trading emissions allowances derived from real emissions reductions and offset projects in the United States since 2003, and the context in which it was created.

The debate over appropriate actions to address the risks arising from changes in the Earth's climate—the "greenhouse effect"—suffers from two major information gaps. The first is a lack of consensus regarding the damages that could occur to the environment without action to reduce greenhouse gas (GHG) emissions. The scientific process may not precisely predict the nature and implications of climate changes that would occur if society does not make significant changes in energy and land use patterns associated with higher levels of GHG emissions. That is, the costs of inaction and the benefits of taking mitigation actions are uncertain.

The second information gap is lack of understanding of the monetary costs associated with undertaking mitigation to reduce greenhouse gasses. The absence of hard, proven data on greenhouse gas mitigation costs reduces the quality of the climate policy debate.

The nature of the implied cost-benefit analysis underlying the climate debate suggests that for any particular level of benefits accruing from action to mitigate climate change, a high cost of mitigation will lead policy makers to take less action. If mitigation costs are proven to be low, it appears policy makers would support stronger action to address climate change. At this time, however, we lack the data for realizing the costs involved in pursuing climate mitigation actions.

However, a variation of "Gambler's Ruin" says that one should never make a bet that would ruin oneself, no matter how favorable the odds are. Well-designed markets can help put the costs and benefits in perspective and assist us in addressing this risk in a more informed way. It is time for a well-designed national cap-and-trade program.

One of the main objectives of the Chicago Climate Exchange was to generate price information that provides a valid indication of the cost of mitigating greenhouse gases. By closing the information gap on mitigation costs, society and policymakers will be far better prepared to identify and implement optimal policies for managing the risks associated with climate change. CCX experience demonstrates that a GHG cap-and-trade system that allows emitters to manage annual reduction commitments – a design used in other proven trading systems (US SO_2 and NO_x, EU CO_2) – gives clear signals that lead to direct internal action and trading responsibility and attendant opportunities. This design:

- Maximizes the benefits of emissions trading, as proven in the SO_2 program, and allows carbon pricing and trading to stimulate financing of capital improvements.
- Maximizes entrepreneurial response and rewards environmental innovation.
- Can cover a major portion of emissions from all six types of greenhouse gases, can be integrated with upstream systems for other emissions, and allows opt-in by small sources. Can bring significant benefits to the agriculture and forestry sectors, assuming carefully screened and specified rules with attendant scientific validity and verification.

CCX is a financial institution that exists to advance economic, environmental and social goals. We are the world's first, and North America's only voluntary but legally binding rules-based greenhouse gas emission reduction and trading program, as well as the only global emissions trading system handling all six greenhouse gases with a multi-sectoral emissions reduction requirement. Designed in 1999 and 2000 as a pilot project based in the Midwest, CCX began trading in 2003, and has grown to almost three hundred diverse entities including some of the most significant names in the American economy. Emissions of CCX Members represent 10% of stationary emission sources in the United States. CCX members execute legally binding commitments to meet annual emission reduction goals of 4% below baseline for 2006 and 6% below by 2010, at minimum. Members who exceed their reduction commitments may sell allowances; those who do not make the required cuts must buy allowances to come into compliance. CCX Rules require that all emission baselines, annual reduction commitments and Offset projects undergo a standardized third party audit by the NASD (the leading financial regulator in America) and authorized experts, and this is the only 3rd party standardized audit system operating in the United States at this time for greenhouse gas emissions reductions.

CCX Membership includes representatives from a diverse array of economic sectors, both domestically and abroad. Among these sectors, CCX has agricultural products (Cargill and Smithfield Foods), automotive (Ford Motor Co.), utilities (American Electric Power and Tampa Electric), chemicals (DuPont, Bayer and Dow Corning), forestry (International Paper and MeadWestvaco), academic institutions (Michigan State, Iowa, Minnesota and Oklahoma) and coal companies (PinnOak Resources, CNX Gas and Jim Walter Resources), and public sector entities such as the States of New Mexico and Illinois, seven municipalities and three counties (King, Sacramento and Miami-Dade). Around 25 million people live and work in the cities, counties and states which are members of CCX and another 2 million are employed by its corporate members. CCX international membership includes a city and utility in Australia (Melbourne and AGL), and eight companies in South America which have taken on a legally-binding commitment to reduce their emissions even though they are not yet required to do so. We have also engaged the interest of both Chinese and Indian policy leaders on the issue of market-based initiatives to address environmental concerns. We have approved and registered offset projects from both China and India, as well as Costa Rica and Brazil.

Members report that the baselines, audits and annual commitments represent concrete goals that help them focus on internal efficiencies and attendant financial opportunities. They reduced their emissions through increased energy efficiency, expanded use of renewable fuels, and realization of low-cost reductions in non-CO_2 greenhouse gases through use of direct abatement equipment, and many members have exceeded their reduction targets. As an important aside, another benefit of the price discovery mechanism provided by an organized market is the ability to spur inventive activity. Entrepreneurs in areas related to clean energy were able to raise capital from both fixed income and equity investors after factoring in CCX prices in their business plans. Capital was raised to finance a renewable energy source that can be used as a substitute for coal and biodiesel and an anaerobic manure digester.

Members join for disparate reasons, but all for at least one reason: to better master their emissions data and gain early mover benefits with price discovery for carbon, and all aspects of risk mitigation, including financial, operational, and reputational. To date, CCX Members have reduced their emissions by almost 11% beyond their annual commitments, representing 23.5 million tons of reduction of CO_2.

In addition, the CCX Offsets program is proving successful at rewarding emissions mitigation through sustainable farming and forestry, while also providing a new income source for U.S. agriculture. Entities such as the Iowa Farm Bureau and the National Farmers Union are leading the way in building the infrastructure for the agricultural offsets program. To date, more than 2 million acres of conservation tillage and grassland in multiple U.S. States have been registered, verified and sold through the exchange. From 2005 to 2006, over 1.2 million acres have been enrolled in the U.S., with producers earning over $3 million from the sale of CCX Carbon Financial Instruments. The same growth was experienced in the tonnage enrolled under the agricultural methane program, which went from 24,100 tons to 207,200 tons during the same period. These offsets provide a least cost avenue for society to reduce greenhouse gas emissions in addition to enhancing farm profitability and income diversification. American agricultural producers are taking a leadership role in promoting long term sustainability of U.S. agricultural soils through the CCX. The CCX Offsets Committee has also recently approved protocols for rangeland management soil carbon offsets, which will soon be registered in the Exchange. A Member of this Congress, Senator Richard Lugar, has registered reforestation credits from trees planted in his Indiana family farm, which is helping set the example to many other farmers. CCX is also pleased to inform the Committee that it is working on a grant supported by the US Department of Agriculture to further the goals and objectives of the CCX agricultural offset program. Expansion of this program can help minimize the need for additional subsidies, lower the tax burden required to finance them while encouraging behavioral change and innovative practices. It is also important to note that the potential for offsets coming from coal mine/coal bed methane is substantial, and protocols have been approved and projects will soon be registered.

CCX has also created exchanges for US SO_2 and NO_x emission allowances (Chicago Climate Futures Exchange) and the European Climate Exchange, the leading marketplace for carbon emissions in Europe. In a note of irony, we have American ingenuity and financial know-how being exported to Europe. Jobs are being created and an entire generation of practioners of the field is being developed in both the U.S. and around the world. These financial institutions advance social objectives and economically efficient environmental protection by providing rules-based markets with low transaction costs and transparent prices.

CCX experience suggests a workable national system should:

- Include the maximum diversity of sectors using simple, percentage reduction schedules.
- Employ very small allowance auctions to provide price information. Like the SO_2 auctions, returning auction proceeds *pro rata* to emitters reduces compliance burdens.
- Fully recognize standardized and verified early reductions, as this will maximize ongoing capital investment, avoid undermining prior investment, and boost market liquidity.
- Include project-based mitigation activities, such as methane capture, and carbon sequestration by farms, forests and ranchlands, which produce multiple global and local benefits, help finance sustainable agricultural practices, and have proven workable.
- Maximize innovation by allowing the market to work unencumbered by price constraints. Flexibility from trading, offsets, banking and borrowing can contain compliance costs.

Effectiveness of cap-and-trade with the above design features is being demonstrated every day by CCX members, now across the globe. The environmental and economic benefits being generated are of national and global significance. Thank you again for your interest.