

# Chicago Climate Exchange<sup>®</sup>

## A Voluntary Pilot Carbon Trading Market for North America

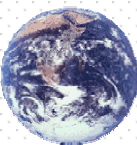


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# CCX<sup>®</sup> Overview

*The Chicago Climate Exchange<sup>®</sup> is a voluntary pilot greenhouse gas trading program for emission sources and offset projects in North America and offset projects in Brazil.*



# Goals of CCX<sup>®</sup>

- Proof of concept: demonstrate viability of a multi-sector cap-and-trade program, supplemented by offsets: cut GHG emissions cost-effectively
- Price discovery and dissemination of market information
- Standardize the commodity, build of market infrastructure and institutions— e.g. registry, clearing, settlement
- Facilitate trading with low transactions costs
- Harmonize and integrate with other trading regimes



# CCX<sup>®</sup> Members

## **Aggregators**

Iowa Farm Bureau

## **Automotive**

Ford Motor Company

## **Chemicals**

Bayer, DuPont

## **Electric Power Generation**

American Electric Power

Manitoba Hydro

## **Electronics**

Motorola, Inc.

## **Environmental Services**

Waste Management, Inc.

## **Forest Products Companies**

International Paper,

Mead-Westvaco Corp

Temple-Inland Inc.

Stora Enso North America

## **Food Processing**

Premium Standard Farms

## **Liquidity Providers**

Amerex, Carr Futures, Evolution

Markets, ICAP, Kottke Assocs.,

Kingstree Trading, Marquette

Partners, Natsource, REFCO,

Swift Trade, Tradelink,

Tradition Financial

## **Manufacturing**

Dow Corning

Rolls Royce

## **Municipalities**

City of Chicago

## **Non-Governmental**

## **Organization**

World Resources Institute

## **Offset Providers**

Ducks Unlimited

## **Pharmaceuticals**

Baxter Healthcare Corp.

## **Professional Services**

Domani LLC

Foley & Lardner

## **Semiconductors**

STMicroelectronics

## **Steel**

Roanoke Electric Steel

## **Technology**

Ecoenergetics srl.

IBM

Millenium Cell

Open Finance

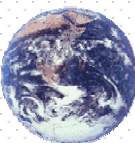
## **Transportation**

Amtrak

## **Universities**

Oklahoma, Tufts

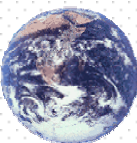
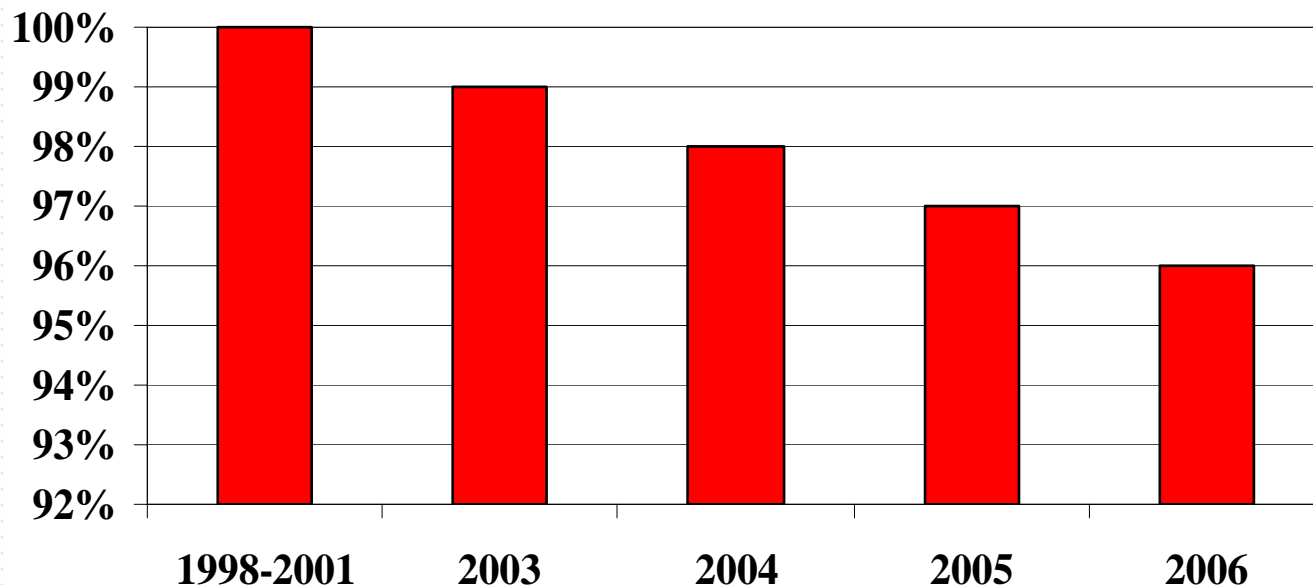
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# CCX<sup>®</sup> Reduction Timetable

- 2003-2006: Reduce emissions to 1%, 2%, 3%, 4% below 1998-2001 baseline
- Entity-wide: includes major direct emissions; small sources (e.g. fleets), electricity purchases can be opted-in

**CCX Emission Reduction Schedule**



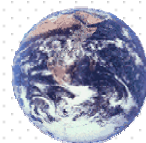
# Initial list of CCX<sup>®</sup> eligible offset projects

- Landfill and agricultural methane destruction
- Sequestration: reforestation and agricultural soil projects
- Brazil: energy, methane, forestry projects
- CCX<sup>®</sup> protocols: eligibility, quantification, verification
- Early Action Credits



# Emissions and Offset Quantification in CCX<sup>®</sup>

- Continuous emissions monitors, WRI Protocol, fuel tests
- All baselines audited by NASD (+ market surveillance)
- Offsets: direct measurement, and contracted practices
- Project verification
  - independent entities
  - attest to eligibility/validity
  - annual performance verification
  - verifications subject to NASD audit



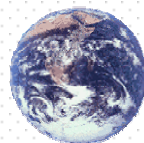
# CCX<sup>®</sup> Auctions and Live Trading

- First sealed-bid auction September 30, 2003
- Successful Bidders: American Electric Power, Baxter, City of Chicago, DuPont, Ford, Manitoba Hydro, Stora Enso
- 2003 auction is oversubscribed by 22%
- 2005 auction is fully subscribed

2003 Vintage average successful bid price: \$0.98

2005 Vintage average successful bid price: \$0.84

- CCX electronic trading platform + registry activated Dec. 12, 2003
- Steady bids and offers, frequent trading around \$1/mt CO<sub>2</sub>





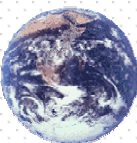
# CCX<sup>®</sup> in Context

- Immediate opportunity to learn in a rules-based structure
- Complements all other proposed policy concepts
- Pilot ends EOY 2006, before most other policies start
- Market/trading concept accepted worldwide, but practical experience is needed in all sectors
- Bi-partisan support



# Benefits Now Being Realized by CCX<sup>®</sup> Participants

- First-mover advantages: design, test and refine protocols
- Building complete range of management, trading skills
- Better understanding of energy usage and material flows
- Building basis for realizing low-cost GHG management
- Enhanced reputation among stakeholders:  
customers, shareholders, employees, regulators,  
families, communities



# Views on CCX®

*"This voluntary market-based program is precisely the kind of private sector initiative that the Bush Administration has been calling for in response to the climate change challenge."*

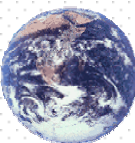
**U.S. Energy Secretary Spencer Abraham (Chicago, September 30, 2003)**

*"CCX represents an innovative market-based approach to solving our energy issues and improving air quality."* **Chicago Mayor Richard M. Daley (Chicago, September 30, 2003)**

*"That's why programs like Chicago's -- and others in development across the country -- are so important. Some environmental groups criticize CCX, saying it's no substitute for a mandatory federal program. But in reality the exchange will help ease the transition to a nationwide cap-and-trade system by establishing a viable regional market for carbon transactions. The CCX program looks to be a winner for Chicago, businesses, farmers, and the environment. Other locales and financial centers would be wise to follow its example."* **Senator Tom Carper (D-Del.) (Nov. 20, 2003)**

*"... you could help to create the conditions for efficient emission trading systems, standardized accounting methods and the like. The successful launch of the Chicago Climate Exchange here in the United States is one example of an initiative to create a carbon market. We need more such innovative thinking on financing mechanisms and new insurance products."*

**United Nations Secretary-General Kofi Annan (New York, November 21, 2003)**



# CCX<sup>®</sup> Advisory Board

## Honorary Chairman

**The Honorable Richard M. Daley, Mayor, City of Chicago**

**Warren Batts**, former CEO, Tupperware Corporation, Mead.

**David Boren**, President, The University of Oklahoma; former governor of Oklahoma and U.S. Senator

**Ernst Brugger**, President, Brugger, Hanser & Partner

**Paula DiPerna**, former President of the Joyce Foundation

**Elizabeth Dowdeswell**, former Executive Director, UN Environment Program

**Jeffrey Garten**, Dean, Yale School of Management

**Lucien Bronicki**, Chairman, ORMAT International

**Donald Jacobs**, Dean Emeritus, Kellogg Graduate School of Management, Northwestern University

**Jonathan Lash**, President, World Resources Institute

**Joseph Kennedy II**, Chairman, Citizens Energy Group; former U.S. Representative (MA)

**Israel Klabin**, President, Brazilian Foundation for Sustainable Development

**Bill Kurtis**, Journalist and television producer

**Thomas Lovejoy**, President, Heinz Center; former Chief Biodiversity Advisor, the World Bank

**David Moran**, President, Dow Jones Indexes

**R.K. Pachauri**, Chairman, Intergovernmental Panel on Climate Change

**Les Rosenthal**, former Chairman, Chicago Board of Trade

**Donna Redel**, former Executive Director, World Economic Forum

**Maurice Strong**, former United Nations Under-Secretary General

**James Thompson**, Chairman, Winston & Strawn; former four-term Governor of Illinois

**Sir Brian Williamson**, Chairman, London International Financial Futures Exchange

**Robert Wilmouth**, President and CEO, National Futures Association

**Klaus Woltron**, Austrian entrepreneur and Vice President of the Vienna Club

**Michael Zammit Cutajar**, former Executive Secretary, UN Framework Convention on Climate Change

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