

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



**Paula DiPerna**  
**Executive Vice President for Corporate Recruitment  
and Public Policy**  
**212-599-0852 – New York, New York USA**  
**[www.chicagoclimateexchange.com](http://www.chicagoclimateexchange.com)**

**World Cities Climate Change Summit**  
**October 3-5, 2005, London U.K.**

**CHICAGO CLIMATE EXCHANGE, INC.**



# What is Chicago Climate Exchange?

*Chicago Climate Exchange (CCX<sup>®</sup>) is the world's first and North America's only voluntary, legally binding pilot greenhouse gas reduction and trading program for emission sources and offset projects in North America and offset projects in Brazil.*



# Emissions Trading and Climate Change—Evolution

- 1992 Rio Earth Summit's historic international commitment to act on climate change introduced concept of GHG market solution
- The Precautionary Principle established need for action
- Successful experience with the U.S. EPA SO<sub>2</sub> emissions cap-and-trade program provided a precedent
  - Individual trades provided models and lessons
  - Scientific evidence grew that GHGs have influenced climate change and associated extreme weather events
  - Societal demand for action prompted corporate and public entities to take the lead, as well as
    - Respond to shareholder interests and enhance value
    - Demonstrate public sector leadership and good governance



# CCX Objectives

- Begin reducing absolute emissions with standardized verifiability, rigor and reasonable flexibility
- Build needed institutions- for multiple sectors and all six greenhouse gases – by building and refining a comprehensive environmental market including cap and trade, offsets, verification, trading and true-up
- Develop market infrastructure and management skills
- Focus attention on economics and price
- Build internationally compatible standards



# CCX Members

## **Aerospace and Equipment**

Rolls-Royce

## **Automotive**

Ford Motor Company

## **Chemicals**

Dow Corning

DuPont

## **Diversified Manufacturing**

Bayer Corporation

Interface, Inc.

Ozinga Bros

## **Electric Power Generation**

American Electric Power

Central Vermont Public

Service

Green Mountain Power

Manitoba Hydro

TECO Energy, Inc.

## **Electronics**

Motorola, Inc.

## **Environmental Services**

Waste Management, Inc.

## **Food Processing**

Premium Standard Farms

## **Forest Products Companies**

Abitibi-Consolidated

Aracruz Celulose S.A.

International Paper

Klabin S.A.

Mead Westvaco Corp.

Stora Enso North America

Temple-Inland Inc.

## **Information Technology**

IBM

## **Municipalities**

City of Boulder

City of Chicago

City of Oakland

## **Pharmaceuticals**

Baxter Healthcare

## **Private University**

Tufts University

## **Public Universities**

The University of Iowa

University of Minnesota

The University of Oklahoma

## **Recreation**

Aspen Skiing Company

## **Semiconductors**

ST Microelectronics

## **Steel**

Roanoke Electric Steel Corp.

## **Transportation**

Amtrak



# CCX Associate Members

## **Architecture/Planning**

Mithun, Inc.

## **Brokerage Services**

Amerex Power

## **Consulting**

Domani LLC

Global Change Associates

Natural Capitalism, Inc.

Rocky Mountain Institute

## **Energy Management Services**

Orion Energy Systems Ltd

Sieben Energy Associates

Thermal Energy International

## **Engineering**

Vanasse Hangen Brustlin, Inc.

## **Financial Services**

Access Industries, Inc.

## **Information Technology**

Open Finance LLC

The Intercontinental

Exchange

## **Legal Services**

Foley & Lardner

## **Non-Governmental Organization**

American Coal Ash  
Association

American Council on  
Renewable Energy

Delta Institute

Houston Advanced Research  
Center

World Resources Institute

## **Private College**

Presidio World College

## **Risk Management**

The Professional Risk

Managers' International

Association

## **Religious Organization**

Jesuit Community of Santa

Clara University

## **Retiring/Offsets**

Carbonfund.org

## **SRI Fund**

Pax World

## **Technology**

Millennium Cell

Polar Technology

TerraPass



# Participant Members

## **Offset Aggregator**

Iowa Farm Bureau

## **Offset Provider**

Resource Technology Corp.

Restoration Soil & Research, Ltd.

Sustainable Forestry Management, Ltd.

## **Liquidity Providers**

AGS Specialists LLC

Michael R. Anderson

Breakwater Trading LLC

Raymond S. Cahnman

Calyon Financial, Inc.

Thomas H. Dittmer

Eagle Market Maker, Inc.

FCT Europe Ltd.

First New York Securities LLC.

Goldenberg, Hehmeyer & Co.

ICAP Energy LLC

## **Liquidity Providers Cont.**

Christopher J. Johnson

Kottke Associates, LLC

The League Corporation

Marquette Partners, LP

Glenn M. Miller

Douglas M. Monieson

Natsource LLC

Peregrine Financial Group

Rand Financial Services, Inc.

REFCO LLC

Brian Rice

Serrino Trading Company

Shatkin Arbor, Inc.

C. Richard Stark, Jr.

Jeffery B. Stern

Lee B. Stern

TradeLink LLC

Tradition Financial Services

TransMarket Group LLC



# Newly Announced CCX Members As of August 2005

## Members

- **City of Portland, Municipality**

## Participant Members

- **Haley Capital Management, LLC, Liquidity Provider**
- **Joseph Gressel, Liquidity Provider**

## Associate Members

- **Airtricity, Wind Developer**
- **Midwest Energy Efficiency Alliance, NGO**
- **MB Investments, LLC, Private Investment Firm**



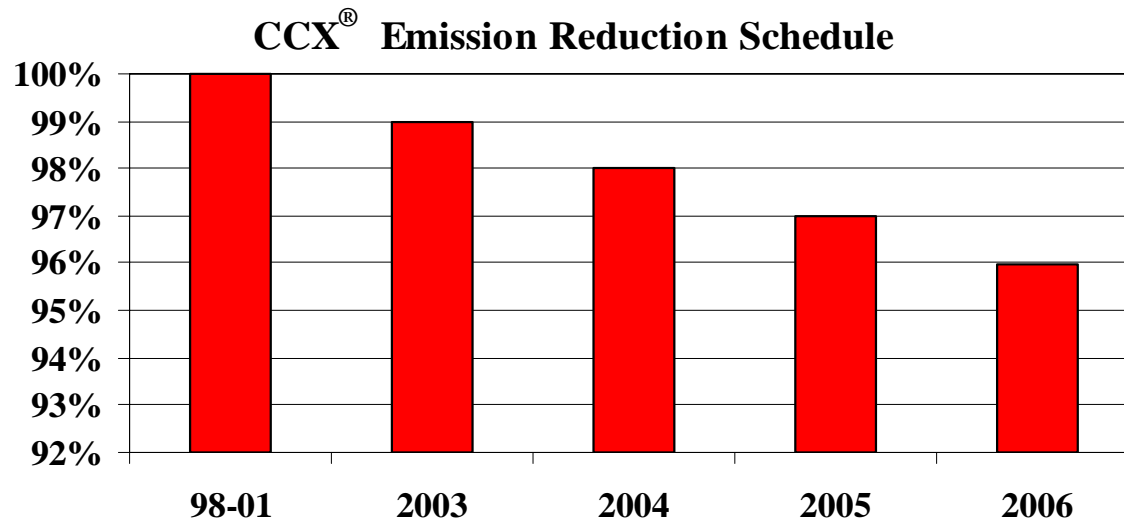
# CCX Municipal Members

- **City of Chicago, Illinois--Founding Member**
- **City of Oakland, California**
- **City of Boulder, Colorado**
- **City of Portland, Oregon**



# CCX Core Elements

1. Members make a legally binding commitment to
  - Reduce 1% per year from 2003 -2006 below an average baseline of 1998-2001



2. Independent verification
3. Annual true-up
4. Pre-defined offset projects
  - Landfill and agricultural methane destruction
  - Sequestration: reforestation, agricultural soils



# What is Traded?

- CCX Members buy and sell Carbon Financial Instruments (CFIs).
- Each CFI is standardized to equal 100 metric tons of CO<sub>2e</sub>.
- All trading takes place on the CCX electronic trading platform with login access from the CCX website.

# General Benefits for CCX Members

## Members gain unique experience and ability to:

- Go from “programs” to “system” for sustainability and GHG reduction
- Trade emissions allowances and understand GHG emissions allowance trading—valuable for all climate change policy
- Capture gains and understand risks in carbon market
- Drive policy developments based on experience
- Demonstrate strategic vision on climate change issues to shareholders, rating agencies, citizens, customers, clients
- Measure and verify emissions profile
- Weigh options for reduction and mitigation holistically
- Gain leadership recognition for taking early credible binding action
- Be ready for global trading activities as international policies evolve



# Specific Benefits of CCX Membership for Cities

- Moral satisfaction of action now—for citizens and future generations - essence of sustainable development
- “Leadership by example”—city government leads, others must follow
- One-stop implementation for “green government” –focus efficiencies across all departments, good governance and best practices for public budget
- Acquire “turn key” emissions management system—state-of-art, no extra cost
- Master municipal emissions inventory data—essential for any GHG goal
- Better link procurement practice to GHG policy—weigh options, spend wisely
- Be sure of the numbers--Independent verification--NASD; “gold standard”
- Go from “programs” to “system” for sustainability and GHG reduction



# Specific Benefits of CCX Membership for Cities (cont.)

- Learn by doing—unique experience for energy management
- Develop new capacities—staff training at no extra cost
- Earn revenue—Be a seller through emissions reduction
- Reduce cost-effectively, even if buyer—While city develops new technology and catches up, buying may be most cost effective option for achieving promised reductions--“buying is not a sin”
- Potential to buy agricultural offsets from farmers – urban/rural dynamic
- Cities set standards--“First mover” role--CCX synergistic with all policy, precludes none—whether state, regional, national, voluntary or mandatory
- Join the global CCX family—Multi-sectoral members, a mutual goal, exposure in new venues—CCX promotes members



# Becoming a CCX Municipal Member

1. Inventory and baseline – Gather energy data for CCX baseline period (1998-2001) for all city municipal operation (city-owned fleets, buildings, landfills)
2. Baseline to CCX – CCX provides preliminary analysis and GHG conversions
3. Weigh reduction trends planned; establish reduction schedule
4. Make legally binding CCX reduction commitment – Join CCX
5. Demonstrate progress through annual True-up – Buy, Sell, Trade
6. Participate in CCX governance committees (optional)



# CCX Operations and Governance

## CCX Operations include:

- Use of WRI/WBCSD emission calculation methods
- CCX<sup>®</sup> Registry: official holder and transfer mechanism
- CCX<sup>®</sup> trading platform: integrated with Registry
- Clearing facility: trades guaranteed
- NASD provides market surveillance and emission verification

## • CCX Governance:

- Self-regulatory organization overseen by Committees comprised of exchange Members, directors and staff
- Committees: Environmental Compliance, Forestry, Membership, Offsets, Trading and Market Operations



# CCX Registry

You are logged in as nclarkccx  
Logout

Select Organization: CCX View Only Company

CHICAGO CLIMATE EXCHANGE  
Registry Position Summary Page v1.0.6

CCX View Only Company  
 Organization Summary  
 Positions Summary  
 Transaction History  
 Emissions Summary  
 Admin



Chicago Climate Exchange

## Chicago Climate Exchange Position Statement

Organization: CCX View Only Company

as of Sun, Feb 15, 2004

**Direct Emission Baseline:** 0  
metric tons CO2 equivalent (unaudited)

### 1. Total holdings of CCX Carbon Financial Instruments

(Exchange Allowances plus Offsets plus Early Action Credits, in hundred metric tons CO2)

Vintage:	2003	2004	2005	2006
Total CFI Holdings:	0	0	0	0

### 2. Exchange Allowance holdings

		Vintage:	2003	2004	2005	2006
Original Allocation of Exchange Allowances:			0	0	0	0
Item	Action					
1% auction pool withholding	debit		0	0	0	0
bought in sept 2003 auction	credit		0	0	0	0
current holdings			0	0	0	0

### 3. Exchange Offset holdings

Vintage:	2003	2004	2005	2006
Holdings of exchange offsets	0	0	0	0

### 4. Exchange Early Action Credit holdings

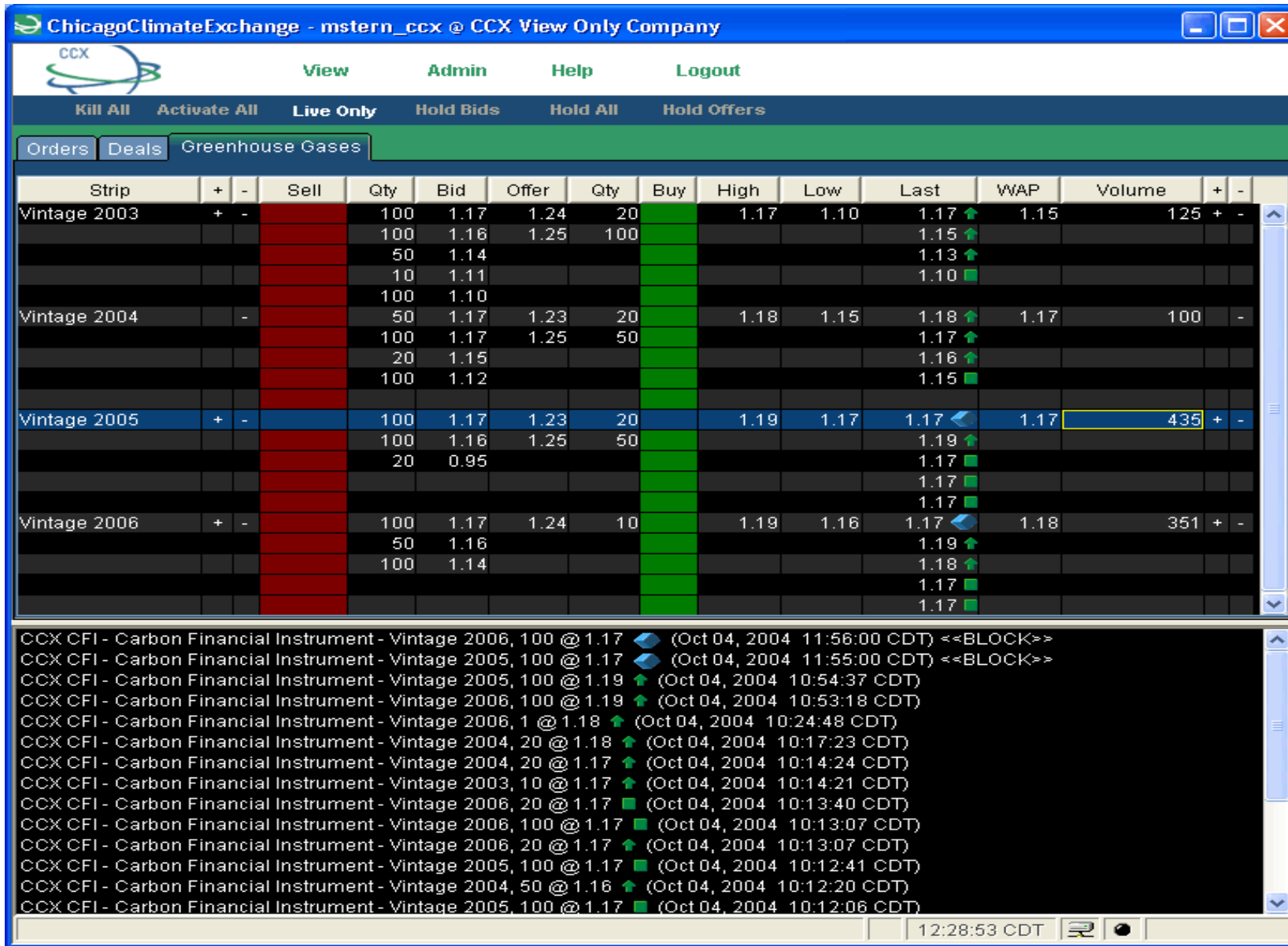
Vintage:	2003	2004	2005	2006
Holdings of Exchange Early Action Credits:	0	0	0	0

All Carbon Financial Instrument quantities are rounded to the nearest hundred metric tons CO2

CHICAGO CLIMATE EXCHANGE, INC.



# CCX Market Screen



# Scale of CCX Thus Far

- CCX total emissions baseline of 226 million metric tons CO<sub>2e</sub> is equivalent to the United Kingdom's annual allocation under the EU trading system and would make CCX one of the largest “countries” in the EU CO<sub>2</sub> market.
- CCX total emissions baseline thus far is equivalent to 4% of the United States annual GHG emissions.
- Total reductions thus far in the CCX program are roughly equal to 1/3 the annual emissions of Norway



# Early Results and Achievements

- Complete operation implemented: rulebook, trading, clearing, registry, market oversight, governance
- Trading working well:
  - >700 trades (>3 million tons)
  - Prices range from under \$1/ton to over \$2/ton
- Methane and agriculture soil offsets verified, issued and sold



# Early Results and Achievements (cont.)

- Major pool of private and public sector talent engaged
  - Members
  - Other Experts
- Thousands of individuals in a variety of sectors more informed on carbon management and trading
- CCX framework is synergistic and complementary to all policy options and precludes no other reduction or registry initiatives--local, regional, state or Federal



# Conclusions: Big Picture Results From CCX

- Carbon now has an initial price in a rules-based program in the world's largest economy
- North American entities with verifiable GHG emission reductions can now receive revenue for that environmental service
- Entities that do not incorporate carbon prices in their decisions risk major mistakes



# Phase II Basic Parameters

Reduction Period: 2007-2010

Reduction Commitment:

- Phase I Members continuing in Phase II must reduce by an additional 2% by 2010.
- New Phase II Members must reduce by 6% by 2010.

End Result: All Members will have achieved 6% reductions by 2010.

# Views on CCX

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.

**U.S. Senator Tom Carper, (D- Delaware) (November 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 (November 21, 2003)**



# Views on CCX

It's cold in Chicago today, but I'm thrilled to see that the new Chicago Climate Exchange is warming up for the next wave in environmental protection—and economic innovation. I want to congratulate the Exchange, which is the first comprehensive voluntary pilot program for domestic trading of greenhouse gases, on the announcement of its founding members. Their progress is great news for Chicago's economy and for America's environment.

**US Senator Joseph Lieberman (D-CT)**

As CCX approaches its first anniversary of continuous trading, it is apparent that members are raising their understanding of market-based carbon emissions management through hands-on experience. Through participation in CCX members are able to develop best practices that allow the activities of emissions data gathering, auditing, and trading to become simplified and standardized.

**Gov. Christie Todd Whitman, former Governor of New Jersey**

We are joining the Chicago Climate Exchange for two reasons. We want to strengthen a pioneering effort to create market-based solutions to the problem of climate change, and CCX helps us maintain our own organizational commitment to keep our net carbon dioxide emissions at zero

**Jonathan Lash, President, World Resources Institute (September 25, 2003)**



# Contact Information

**Paula DiPerna**

**Executive Vice President for Corporate  
Recruitment and Public Policy**

**Direct: 212-599-0852 – New York Office**

**Main: 312-554-3350 – Chicago Office**

**[www.chicagoclimateexchange.com](http://www.chicagoclimateexchange.com)**

