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Chicago Climate Exchange® , Inc.
www.chicagoclimateexchange.com



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Achieving Emission Reduction

- Lower carbon fuel: natural gas, CO₂ neutral fuel
- More efficient fuel use: MPG, lighting, insulation
- Methane capture/combustion
- Abatement devices, alternative chemicals
- Carbon sequestration:
 - reforestation, carbon accumulation, preservation
 - agricultural soils

How to orchestrate these to maximize benefits per dollar?



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Why Carbon Emissions Trading?

- Proven, least-cost, and sustainable tool for managing emissions
 - Environmental protection with minimum economic harm
 - Flexibility, market efficiencies
 - Multiple successes: US SO₂, lead phase-out (gasoline), NO_x, ETS
- Enhances and rewards sound management practices
- Carbon price signal: reward innovators, encourage creative solutions
- Reveals true cost paid by society



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What is Chicago Climate Exchange?

*Chicago Climate Exchange (CCX[®]) is the world's first and North America's **only** voluntary, **legally binding** greenhouse gas reduction and trading program for emission sources and offset projects in North America & worldwide.*



CCX Members

Aerospace and Equipment

Rolls-Royce

Automotive

Ford Motor Company

Beverages

New Belgium Brewing Co.

Chemicals

Dow Corning
Dupont

Electric Power Generation

American Electric Power
Central Vermont Public Svc.
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.
MeadWestvaco Corp.
Stora Enso North America
Temple-Inland Inc.

Information Technology

IBM

Manufacturing

Bayer Corporation
Interface, Inc.
Ozinga Bros., Inc.

Municipalities

City of Berkeley
City of Boulder
City of Chicago
City of Oakland

Pharmaceuticals

Baxter International, Inc.

Private University

Tufts University

Public Universities

The University of Iowa
The University of Minnesota
The University of Oklahoma

Recreation

Aspen Skiing Company

Semiconductors

Freescale Semiconductor
ST Microelectronics

State Government

The State of New Mexico

Steel

Roanoke Electric Steel Corp.

Transportation

Amtrak
San Joaquin Regional Rail



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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 Association

Engineering

Vanasse Hangen Brustlin, Inc.

Financial Services

Access Industries, Inc.

MD Investments

Information Technology

Open Finance LLC

The Intercontinental Exchange

Law Firms

Foley & Lardner

Sullivan & Cromwell

NGOs

American Coal Ash Association

American Council on Renewable

Energy

Delta Institute

Houston Advanced Research

Center

Midwest Energy Efficiency Alliance

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

TerraPass

SRI Fund

Pax World

Technology

Millennium Cell

Polar Technology

Trade Association

Confederation of British Industry



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CCX Participant Members

Offset Aggregator

Delta Institute
Iowa Farm Bureau
Environmental Credit Corp.

Offset Providers

Precious Woods Holdings
Resource Technology Corp.
Sustainable Forestry Management
Ltd.

Liquidity Providers

AGS Specialists LLC
Michael R. Anderson
Stanley Bedows
Breakwater Trading LLC
Raymond S. Cahnman
Calyon Financial Inc.
Thomas H. Dittmer
Eagle Market Makers, Inc.
FCT Europe Ltd.
First New York Securities LLC
Goldenberg, Hehmeyer & Co.
Joe Gressel
Haley Capital Management

Liquidity Providers, cont'd

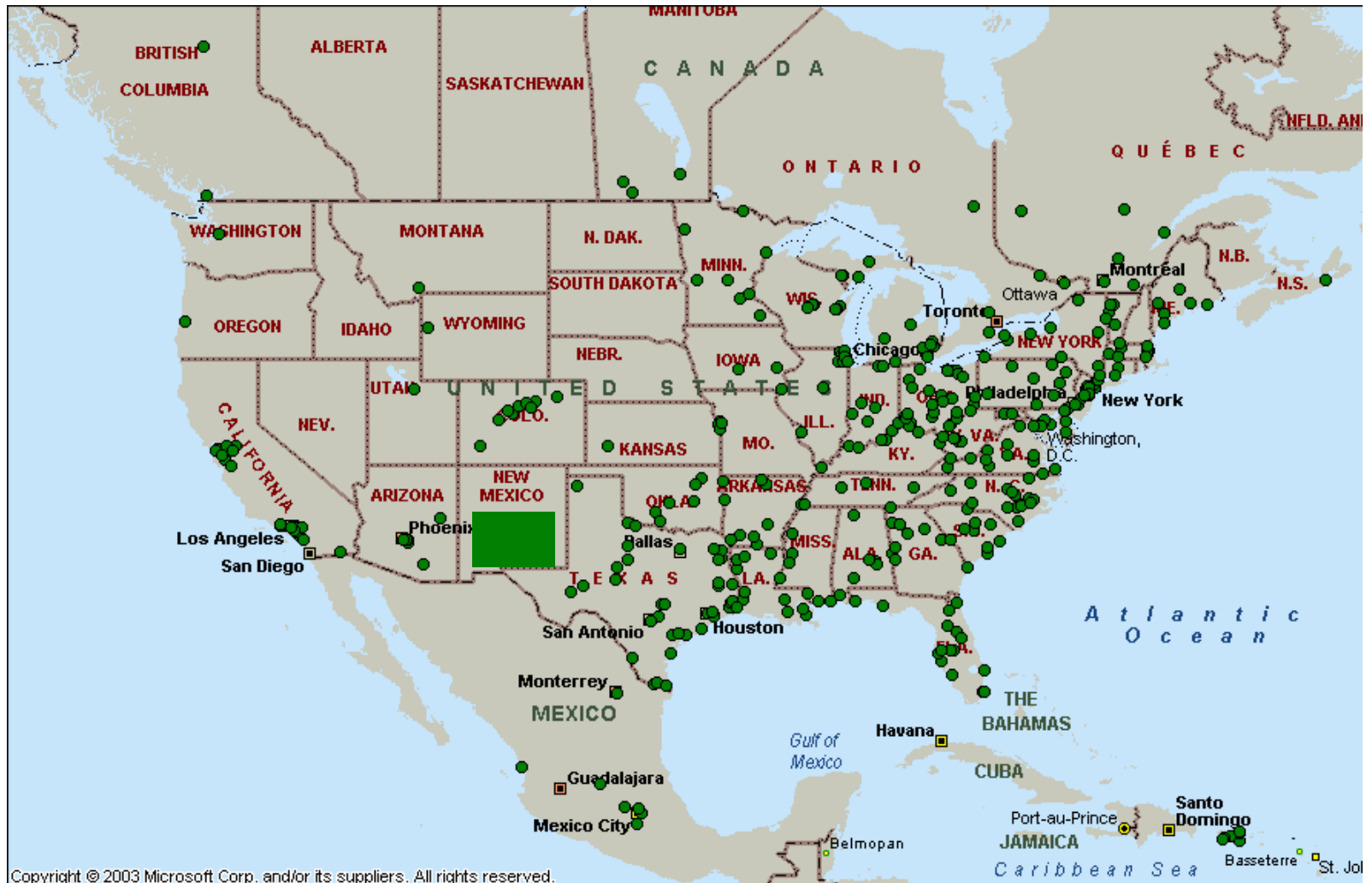
Robert L. Hamilton
ICAP Energy LLC
Christopher J. Johnson
Kottke Associates, LLC
The League Corporation
Marquette Partners, LP
Glenn M. Miller
Douglas M. Monieson
Natsource LLC
Peregrine Financial Group
Rand Financial Services, Inc.
REFCO LLC
Brian Rice
Joseph Schmit
Serrino Trading Company
Shatkin Arbor, Inc.
Josh Skolnik
C. Richard Stark, Jr.
Daniel B. Stern
Jeffrey B. Stern
Lee B. Stern
Swiss Re
John Robert Taylor Jr.
Tradelink LLC
Tradition Financial Services
TransMarket Group LLC



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CCX Member Locations



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CCX Objectives

- Achieve real reductions in greenhouse gas emissions;
- Establish proof of concept;
- Develop needed institutions and expertise;
- Reward environmental innovation;
- Achieve price discovery & dissemination, development of market information;
- Harmonize and integrate with other international or sovereign trading regimes.



CCX is a Complete System

- **QUANTIFY**
Establish annual entity-wide GHG emissions using standardized protocols
- **VERIFY & REGISTER**
CCX Registry account established, NASD verification
- **REDUCE**
Adopt CCX annual emission reduction schedule, develop internal emissions management policies
- **TRADE**
Buy and sell CCX Carbon Financial Instruments™ contracts on web-based platform, trades cleared by CCX and entered into Registry



Quantify

- Prescribed Reporting Format:
- Includes Six Main GHGs: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆
- Use WRI/WBCSD GHG Calculation Tools for:
 - Stationary fuel combustion
 - Mobile fuel combustion
 - Industry-specific processes
- Power Generation Sector – Continuous Emission Monitors
- Opt-ins:
 - Purchased Electricity
 - Small Emission Sources
 - Facilities Under Minor Ownership



Verify & Register

- Baseline and Annual emission reports submitted for verification to NASD
- NASD uses sampling tool to generate documentation requirements
 - ✓ Source documents must be presented-e.g. energy purchase receipts, meter readings, conversion formulae, coefficients
- Corporate officer must sign emissions attestation
- NASD reports reviewed by Environmental Compliance Committee



CCX Registry

CCX Registry Reports: Holdings Report - Microsoft Internet Explorer provided by Chicago Climate Exchange

You are logged in as mstern_ccx
Logout


Select Organization: CCX Test Company 1

CHICAGO CLIMATE EXCHANGE
Registry Holdings Report Page v1.1.2

CCX Test Company 1

- Organization Summary
- Holdings Summary
- Transaction History
- Emission Summary
- Daily Clearing Statement
- Monthly Clearing Statement

Admin



Chicago Climate Exchange Holdings Statement
Organization: CCX Test Company 1
as of Fri, Jun 24, 2005

Vintage:	2003	2004	2005	2006
Current holdings of Exchange Allowances	9779	9656	9604	9496
Current holdings of Exchange Offsets	0	0	0	0
Current holdings of Exchange Early Action Credits	0	0	0	0
Total current holdings of CFIs	9779	9656	9604	9496

Exchange Allowances:

Vintage:	2003	2004	2005	2006
Allocation of Exchange Allowances on the basis of emission reduction targets	9900	9800	9700	9600
Auction pool withholdings	-99	-98	-97	-96
Net Delivered Exchange Allowances from trades via CCX Trading Platform	-22	-46	1	-8
Current holdings of Exchange Allowances	9779	9656	9604	9496

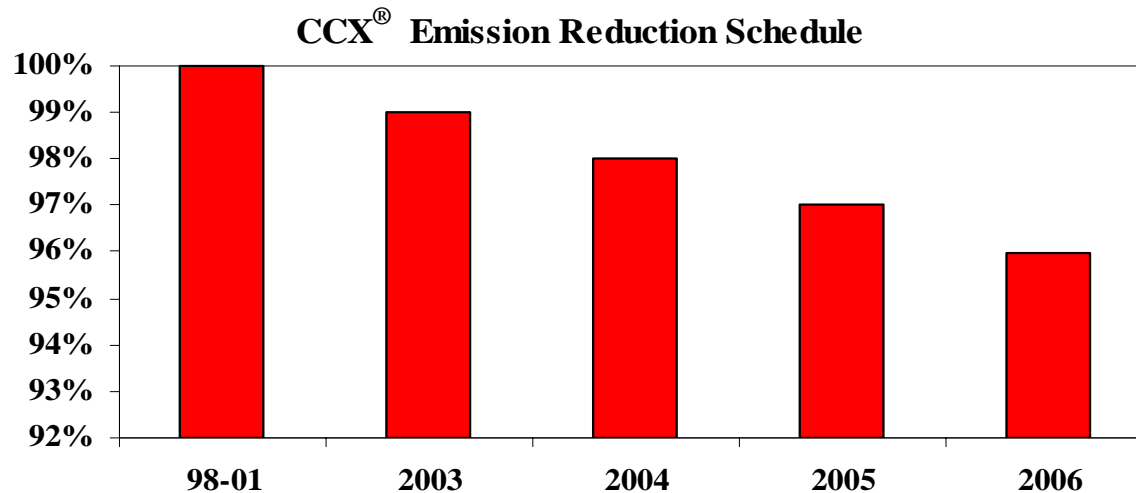
Exchange Offsets:

Vintage:	2003	2004	2005	2006
Net Exchange Offsets bought or sold via the CCX Trading Platform	0	0	0	0
Current holdings	0	0	0	0



Reduce Emissions

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



- Standardized Independent verification of baseline and data and annual True-up



Chicago Climate Exchange Market Architecture: Phase 2

1. All Members make legally binding commitment, through 2010, to cut emissions ***OR TRADE*** to achieve **2010 target of 6% below baseline**
2. Baseline choice: year 2000 emissions or average of 1998-2001
3. New Members can join as of 2005
4. New Members take linear reduction schedule to achieve –6% at end of 2010



CCX Offset Project Verification

- CCX Rules define eligible projects, verification requirements
- Each project must be approved by CCX Offsets Committee
- All verification reports examined by NASD

CCX-Approved project verifiers

Forestry Projects

BVQI

SGS (Societe General de Surveillance)

Landfill Methane Projects

Det Norske Veritas (NV)

First Environment, Inc.

Agricultural Soil and Agricultural Methane Projects

SES Inc.



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Trade

CCX's trading platform gives the market and the public a transparent price signal.

The screenshot displays the ChicagoClimateExchange trading platform interface. The window title is "ChicagoClimateExchange - mstern_ccx @ CCX View Only Company". The interface includes a navigation menu with "View", "Admin", "Help", and "Logout" options. Below the menu, there are buttons for "Kill All", "Activate All", "Live Only", "Hold Bids", "Hold All", and "Hold Offers". The main data area is a table with columns for Product, Hub, Strip, Bid, Offer, Buy, High, Low, Last, WAP, Volume, Settlement, Chan..., Pin, and +/-.

Product	Hub	Strip	+ -	Sell	Qty	Bid	Offer	Qty	Buy	High	Low	Last	WAP	Volume	Settlement	Chan...	Pin	+ -
CCX CFI	Carbon Financial Instrument	Vintage 2003	-		5	2.70	2.80	5		2.75	2.50	2.75	2.67	45	2.80	-0.05		-
					5	2.67	2.90	5				2.75						
					10	2.34						2.75						
					10	2.30						2.65						
					5	2.24						2.50						
CCX CFI	Carbon Financial Instrument	Vintage 2004	+ -		5	2.25	2.86	5		2.87	2.75	2.85	2.83	71	2.39	0.46		+ -
					5	2.20						2.87						
					5	2.10						2.87						
					5	2.00						2.85						
					5	2.00						2.75						
												2.80						
CCX CFI	Carbon Financial Instrument	Vintage 2005	-		5	2.10	2.40	5		2.20	2.10	2.20	2.16	40	2.21	-0.01		-
					15	2.00						2.20						
					200	2.00						2.20						
					15	1.90						2.12						
					5	1.90						2.10						
					40	1.80												
CCX CFI	Carbon Financial Instrument	Vintage 2006	-		3	2.02	2.20	9		2.20	2.03	2.20	2.12	31	1.91	0.29		-
					10	1.92	2.29	5				2.16						
					10	1.90						2.20						
					5	1.85						2.10						
												2.03						
												2.05						

Below the table, a list of recent trades is displayed, including details such as the product, quantity, price, and time of the trade. The trades list includes entries for various vintage years (2003, 2004, 2005, 2006) and quantities (e.g., 5, 10, 15, 200). The time of the trades is shown in CDT (Central Daylight Time).

11:40:07 CDT

What is Traded?

Carbon Financial Instruments (CFIs)

- CCX Carbon Financial Instruments are standardized tradable instruments
- Each instrument represents one hundred metric tons of CO₂
- Methane, other GHGs converted to CO₂ equivalence
- Each instrument assigned a serial number and annual vintage
- Each instrument is equivalent when tendered for compliance
- Instruments usable in designated vintage year or later years .

CCX Operations and Governance

CCX Operations include:

- Use of WRI/WBCSD emission calculation methods
- CCX Registry: official holder and transfer mechanism
- CCX 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 include: Environmental Compliance, Forestry, Membership, Offsets, Trading and Market Operations



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Why Does Industry Join CCX?

- **Advantages to participation:**

- ✓ achieve real, verifiable GHG emission reductions
- ✓ build cutting-edge skills and knowledge
- ✓ understand energy flows, identify energy efficiencies
- ✓ prepare for emerging global and local carbon markets
- ✓ potential near-term trading revenue
- ✓ monetize hidden assets
- ✓ contribute to policy development



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Why Does Industry Join CCX?

- **Fulfill** fiduciary commitment to manage risk
- **Leadership**: meet public demands, become part of the solution
- **Disclosure**: demonstrate corporate and environmental transparency
- **Create** shareholder value:
 - \$2.3 trillion (and growing) in the U.S. is dedicated to socially responsible investments



“Business Increases pressure on G8 to set up global emissions trading system”

“Steve Lennon, chair of the environment and energy commission of the International Chamber of Commerce, which represents hundreds of thousands of companies in 130 countries, said:

“We see a global system of emissions trading as inevitable”

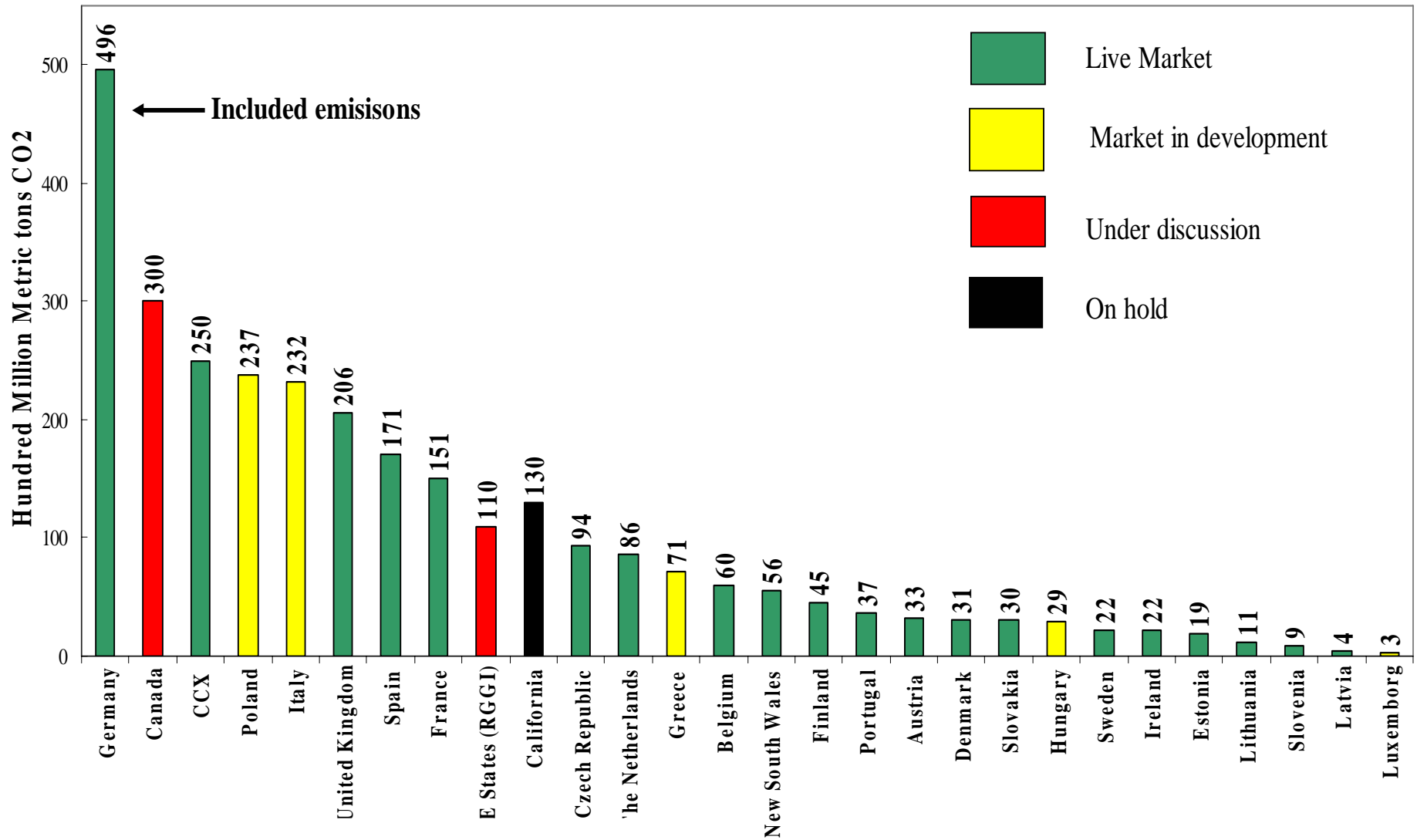
Financial Times, June 10, 2005, page 1



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Size of Live, Emerging and Planned GHG Markets



CCX- International Linkage and Future Activities Underway

- 1) European Climate Exchange (wholly owned CCX subsidiary)
 - Total Volume EU ETS = 765 metric tons
 - Total Volume ECX = 134 million metric tons
 - ECX is by far the largest exchange market in Europe
- 2) Clean Development Mechanism project credits acceptable in CCX
- 3) Establish linkage with Multi-Commodities Exchange of India to list environmental financial products in Indian subcontinent
- 4) Joint Venture with Montreal Exchange to create the Montreal Climate Exchange announced Dec. 2005 at MOP-1
- 5) Three Brazilian forest products companies take reduction commitments as CCX members

Early Results in CCX[®]

- Complete operation implemented: rulebook, trading, clearing, registry, market oversight, governance
- Member Baselines, 2003 and 2004 Emissions Independently audited
- Program-wide emission reductions achieved
- Trading and clearing mechanisms fully functional
 - >1,400 trades, over 4 million tons exchanged
 - prices mainly range from \$1 - \$3.20/t:
- Methane and ag soils offsets verified, issued and sold



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CCX Member Recognition

The New York Times

A Hamstrung market Fights Global Warming

THE WALL STREET JOURNAL.

*As Kyoto Protocol Comes Alive, So Do
Pollution-Permit Markets*

The Washington Post

Benefits of Cutting Emissions

TIME

*Heroes for the
Green Century*

FitchRatings

FINANCIAL TIMES

CCX Takes Chicago by Storm

Le Monde

*Le Protocole de Kyoto: Les Firmes
Américaines sous contraintes*

BusinessWeek

A View From the Peak

Economist

*Carbon Emissions Trading
A Green Future: the
Creation of a New Exchange*

Chicago Tribune

*Big Business to Buy, Sell
Greenhouse Gas Credits*

**Environmental
Finance
MAGAZINE**

CCX influencing Climate Policy in Major International events



Save the date

The Chicago Climate Exchange

Cordially Invites You
to an Update and Discussion
*on the Progress of CCX and ECX and the
Global Harmonization of Emissions Markets*

Thursday, December 1st, 2005
Remarks & Cocktails
5-7 PM
Hotel St. Paul
355 McGill, Montreal

Special Keynote by Elizabeth Dowdeswell,
Former Executive Director
of the
UN Environment Program

Please RSVP by November 18th
Contact Angela Leontis at
+01.312.229.5126
aleontis@chicagoclimateexchange.com

CCX is the world's first and North America's only,
legally binding multi-sectoral, integrated greenhouse
gas emission registry, reduction and trading system.



CARBON DISCLOSURE PROJECT

Thank you!

Kellee James

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