



Bringing Climate Solutions Down To Earth

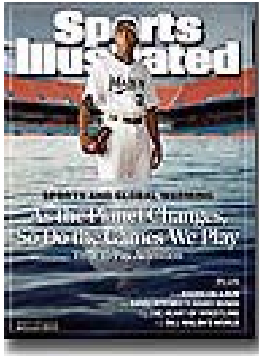
## 3Degrees: Financing U.S. CMM Projects with Carbon Credits

**Presented by:**  
Dan Kalafatas

September 26, 2007



# Climate Change in the News



# Who is 3Degrees?

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3Degrees delivers customized global climate change solutions to U.S. businesses, utilities and institutions. The company engages customers to develop, execute, and communicate sustainability strategies that add value to their brand. Our expertise in sourcing verified carbon offsets and certified renewable energy certificates enables customers to reduce their carbon footprint.

2005 U.S. DOE/EPA

***Renewable Energy  
Marketer of the Year***

2005 Business Environmental  
Network

***Environmental  
Entrepreneurship Award***

2005 EPA/CRS

***Beacon Award for Origination  
of Business Demand***

# International Carbon Product Overview

Launched January 1, 2007–September, 2007

<b>Broad</b>	China, India, New Zealand, Mexico, Brazil, and the United States.
<b>Deep</b>	Wind Energy, Agricultural Methane, Coal Mine Methane, Conservation-Based Forestry
<b>Genuine</b>	<p><b>All Projects Verified by Independent Third Parties Against Broadly-Accepted Protocols and Standards</b></p> <ul style="list-style-type: none"> <li>• WWF Gold Standard</li> <li>• UN CDM</li> <li>• California Climate Action Registry</li> <li>• Chicago Climate Exchange (CCX)</li> <li>• VCS</li> </ul>
<b>Credible</b>	Quickly established as highly credible U.S. retailer with solid projects



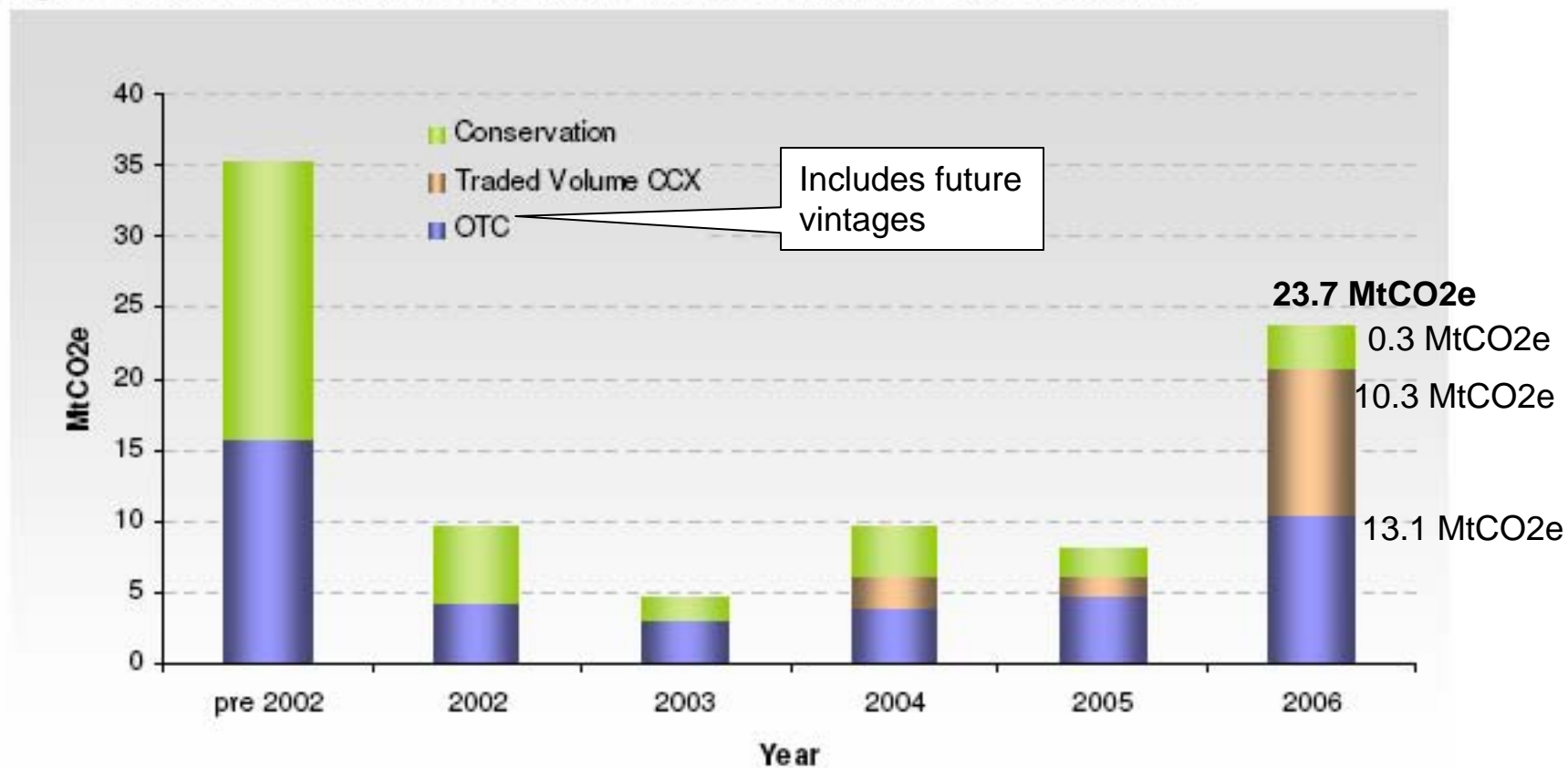
# U.S. Compliance Markets

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- International: Kyoto Phase 2 (2008-2012)
- Federal: Kyoto Phase 3.... US, China, India
- Regional:
  - Northeast States RGGI
  - California AB 32
- **Voluntary**

# Market Sizing

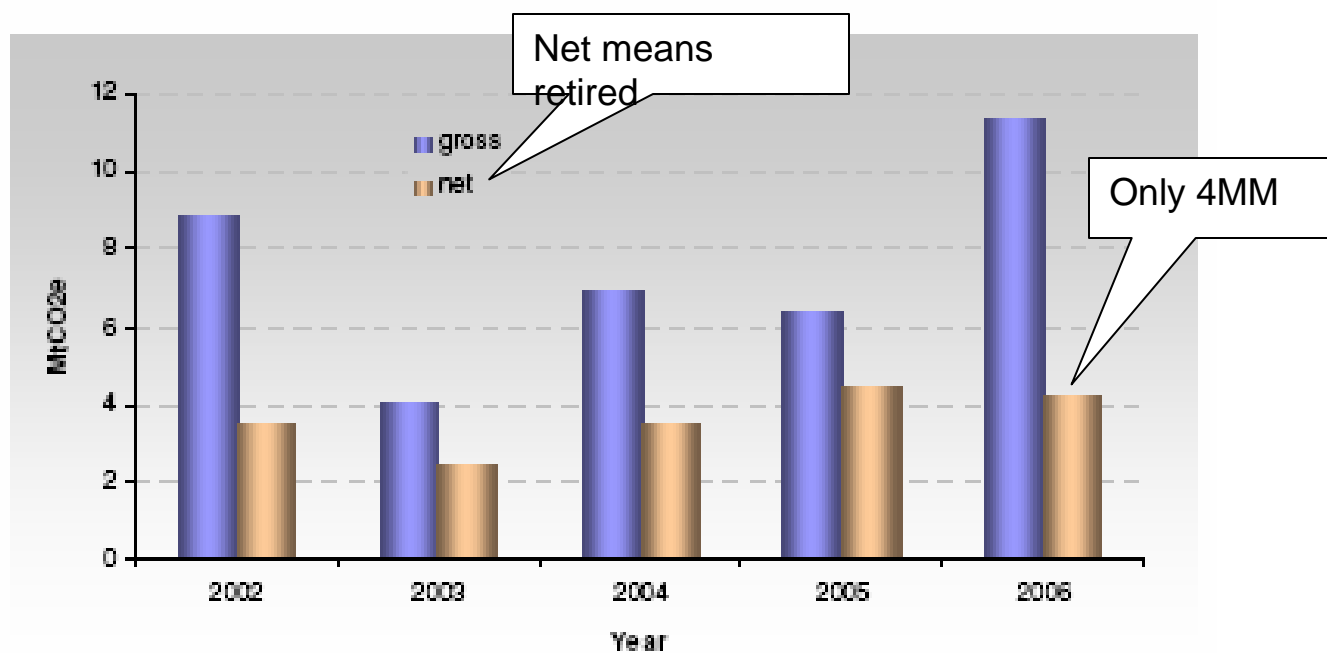
Figure 1: Historically traded volumes in the voluntary carbon market



Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.

# Retired Tons

**Figure 7: Historical OTC transaction volumes, total (gross, net)**



Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.

# Market Sizing

Table 1: Keeping Up with Kyoto? The Voluntary Markets in Context

	2006 Volume (Million tCO <sub>2</sub> )	2006 Value (\$ Million)
Voluntary OTC Offset Market	13.4	54.9
CCX	10.3	36.1
<b>Total Voluntary Market</b>	<b>23.7</b>	<b>91</b>
<b>Other GHG Trading Schemes</b>		
EU ETS Trading Scheme <sup>2</sup>	1,101	24,357
Primary Clean Development Mechanism	450	4,813
Secondary Clean Development Mechanism	25	444
Joint Implementation	16	141
New South Wales	20	225

Includes 4,000  
EUA tons

2007E: 40.0 MM  
CCX 20.0  
OTC 20.0  
  
CCX traded 3MM tons in  
July alone.

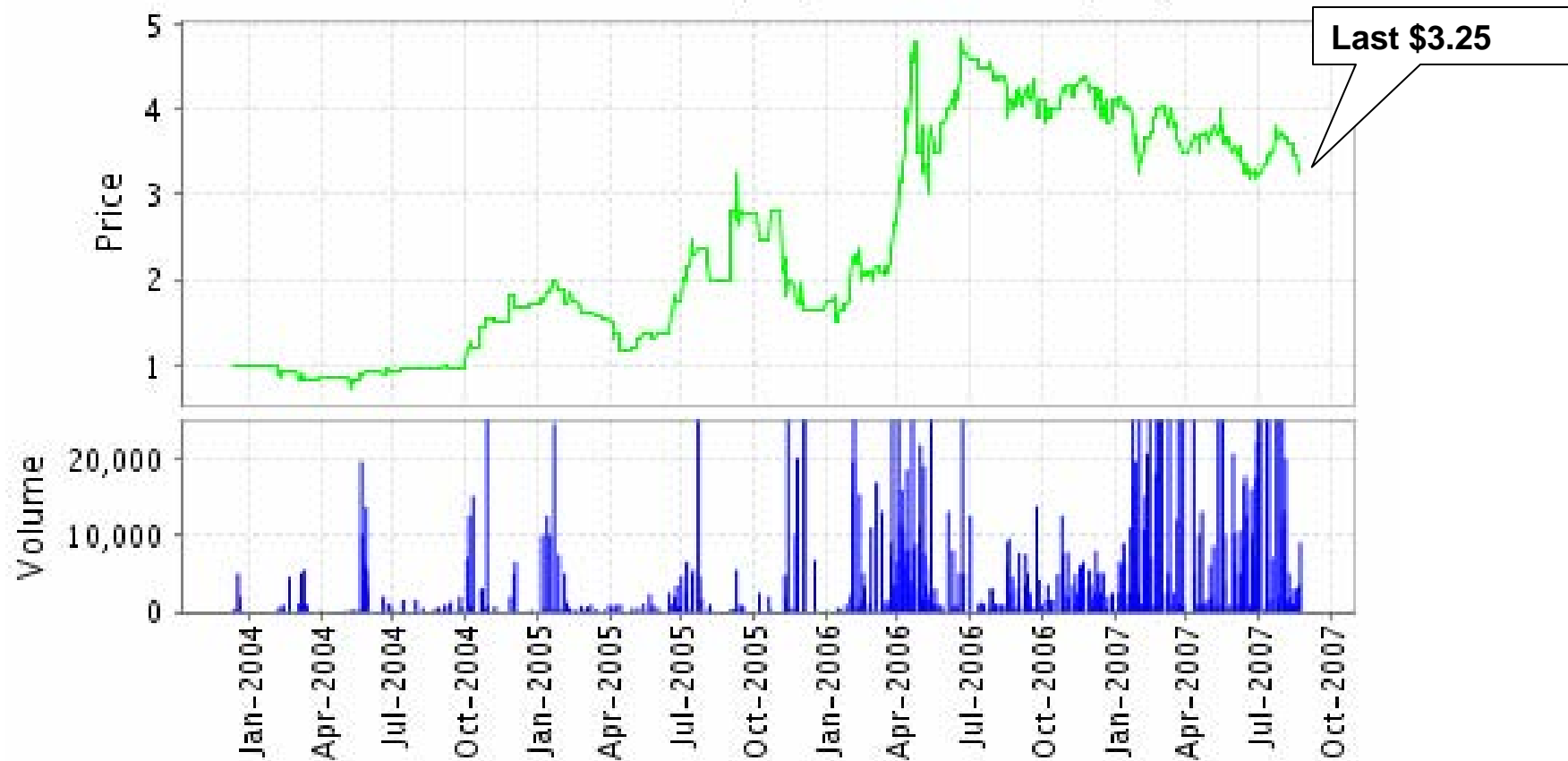
2006:  
OTC \$54.9 MM  
CCX \$37.9 MM  
Conservative  
Estimates (20%  
respondents did  
not disclose  
volume

Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.



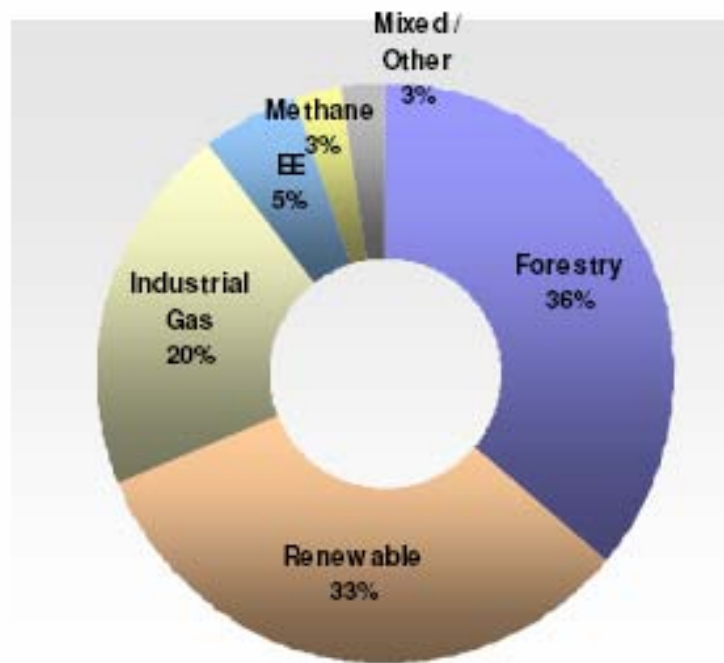
# Pricing – CCX

## CCX Carbon Financial Instrument (CFI) Contracts Daily Report



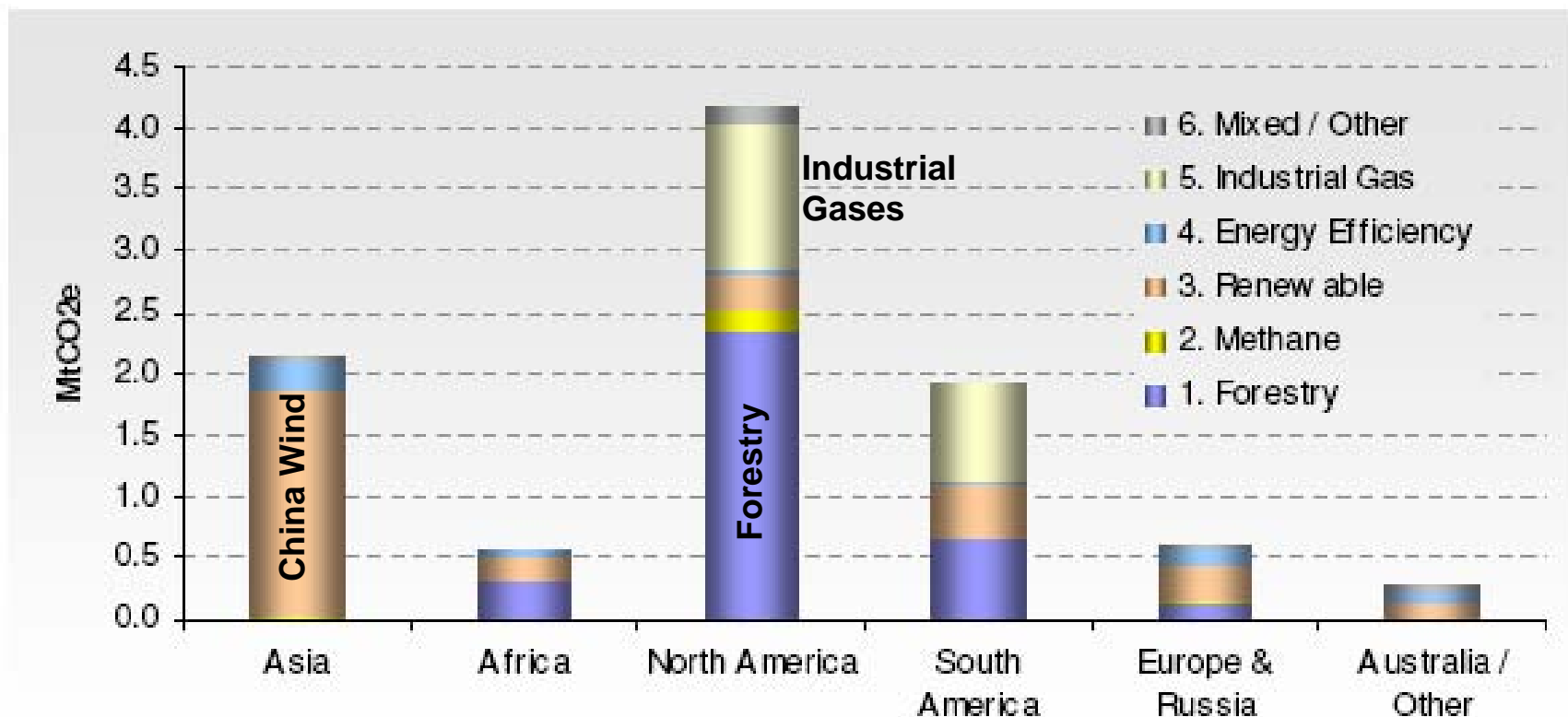
# Voluntary Project Types In Summary

Figure 3. Transactions by project type



Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.

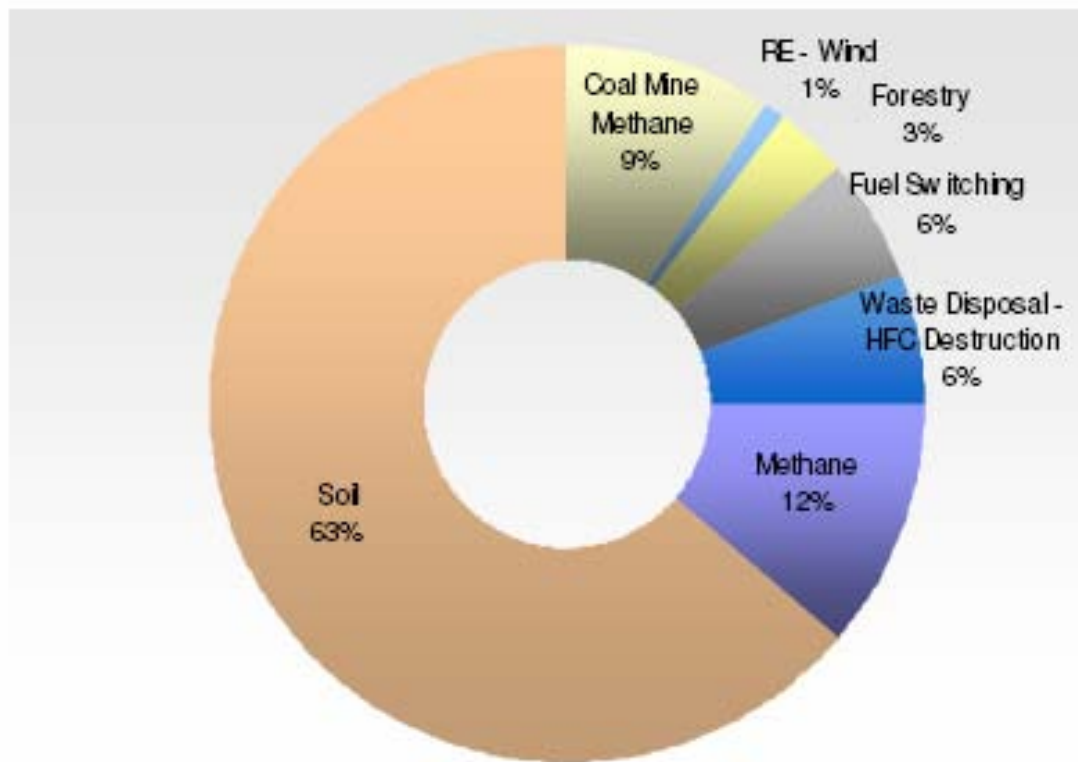
# Voluntary Project Types and Locations



Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.

# Voluntary Project Types CCX

Figure 11: Distribution of Project Types on the CCX



Source: State of the Voluntary Carbon Markets 2007, Ecosystems Marketplace/New Carbon Finance, July 2007.

# Business and Climate Change

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"We are looking at innovative ways to reduce our greenhouse gas emissions. This used to be controversial, but **the science is in and it is overwhelming**. Climate change doesn't cause hurricanes, but hot ocean water makes them more powerful. Climate change doesn't cause rainfall, but it can increase the frequency and severity of heavy flooding. Climate change doesn't cause droughts, but it makes droughts longer. We believe **every company has a responsibility to reduce greenhouse gases as quickly as it can.**"

Lee Scott, CEO, Wal-Mart

# Business and Climate Change

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## A Clean Energy Future @ Google™

### Reducing Our Footprint to Zero

Energy Efficiency (aggressive)

1.6 MW Solar Panels at Mountain View Headquarters

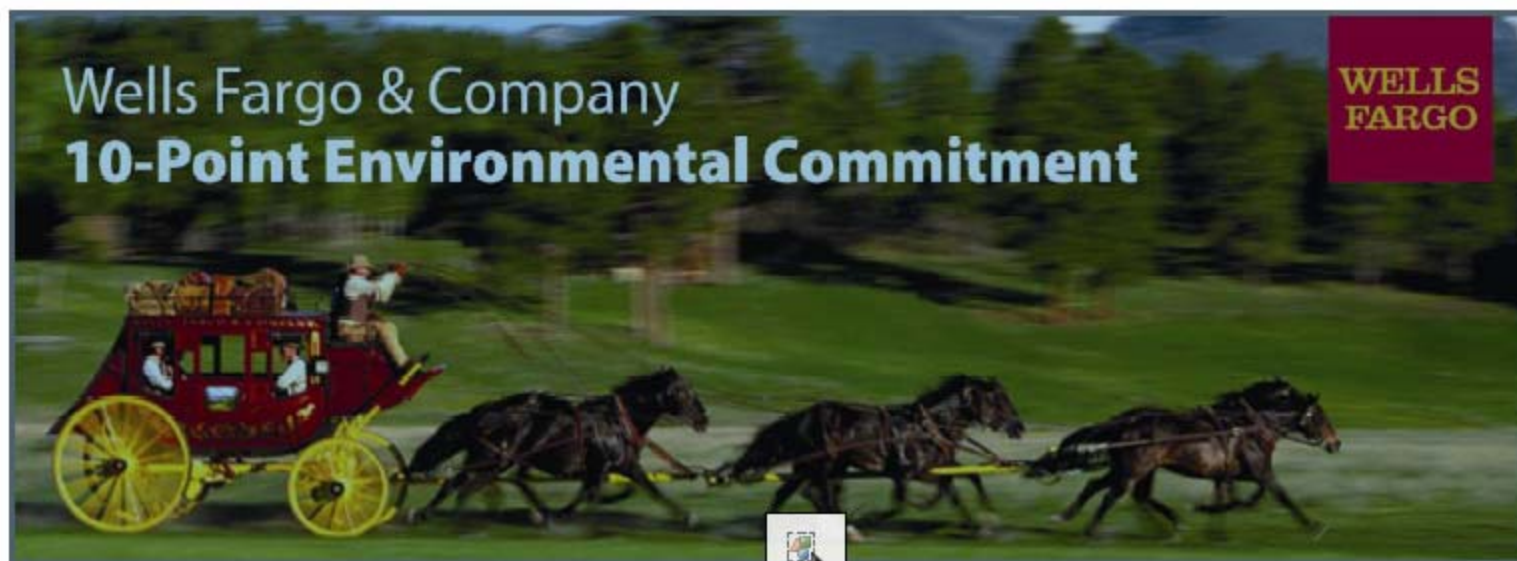
Climate Savers Computing Initiative annually (54 million tons by 2010)

\$10MM Plug-in Hybrid Electric Vehicle Initiative

50 MW of purchased new renewables by 2012

Real, credible Verified Emissions Reductions (carbon offsets)

# Business and Climate Change



- \$1B commitment to merchant and investment banking services to sustainability sector.
- Purchasing renewable energy certificates (550,000 MWh annually) for 42% of their annual electricity load in the U.S.



# What Are Businesses Doing?

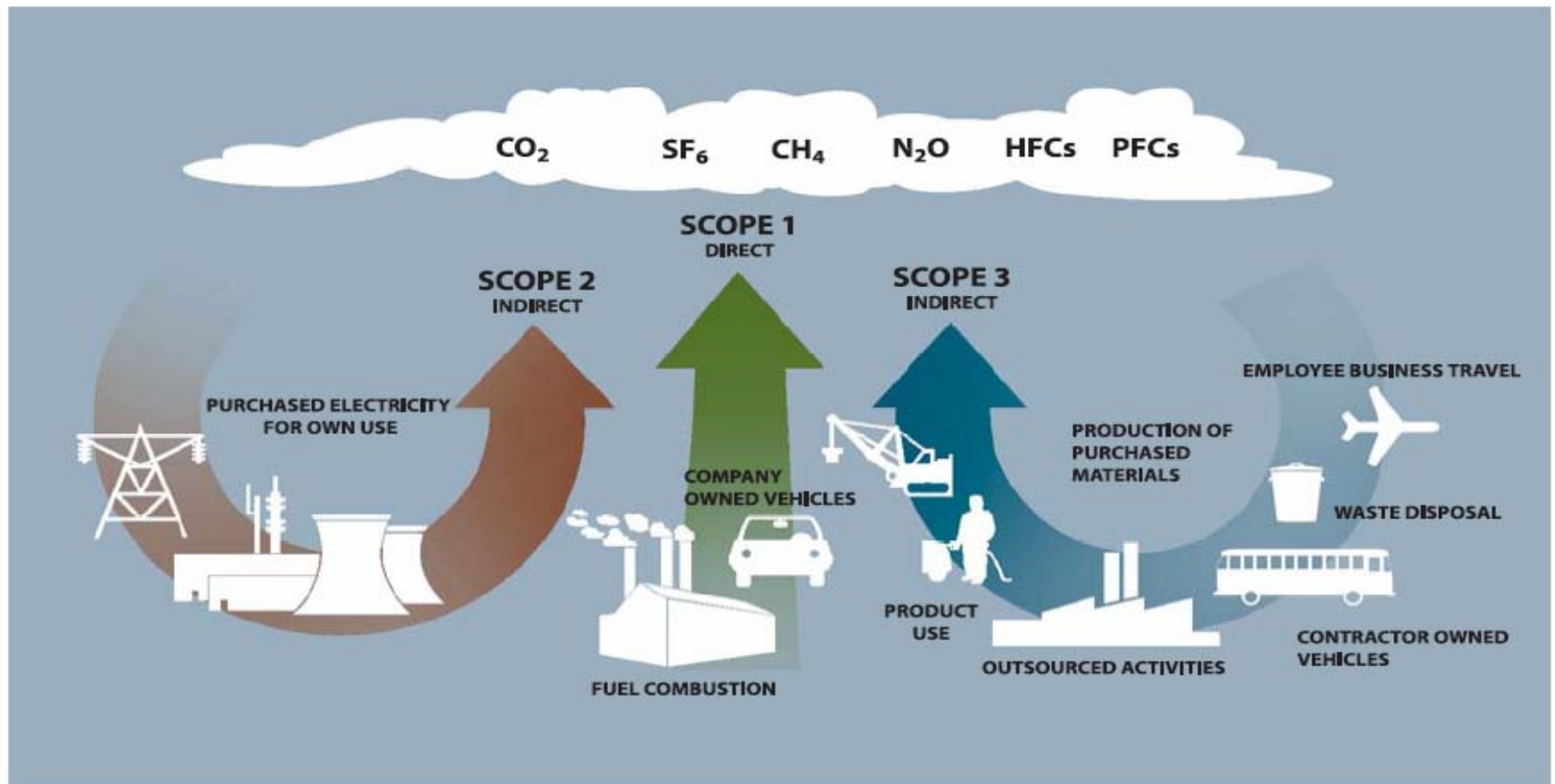
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## Comprehensive Report, Reduce, Renew, Balance approach

1. Report -- What gets measured, gets managed.
2. Reduce – The best MWh of energy is the MWh not used.
3. Renew –
  - Install renewable energy onsite, e.g. solar
  - Purchase green energy from your electricity provider
  - Purchase renewable energy certificates (RECs) from a national provider
4. Balance – After reducing everything you can, become carbon balanced.



# Establishing Operational Boundaries



Source: New Zealand Business Council for Sustainable Development.

# Voluntary CO2 Offset Markets and Initiatives

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## Chicago Climate Exchange

- Largest organized voluntary CO2 cap and trade

## Other Corporate GHG Emission Registries

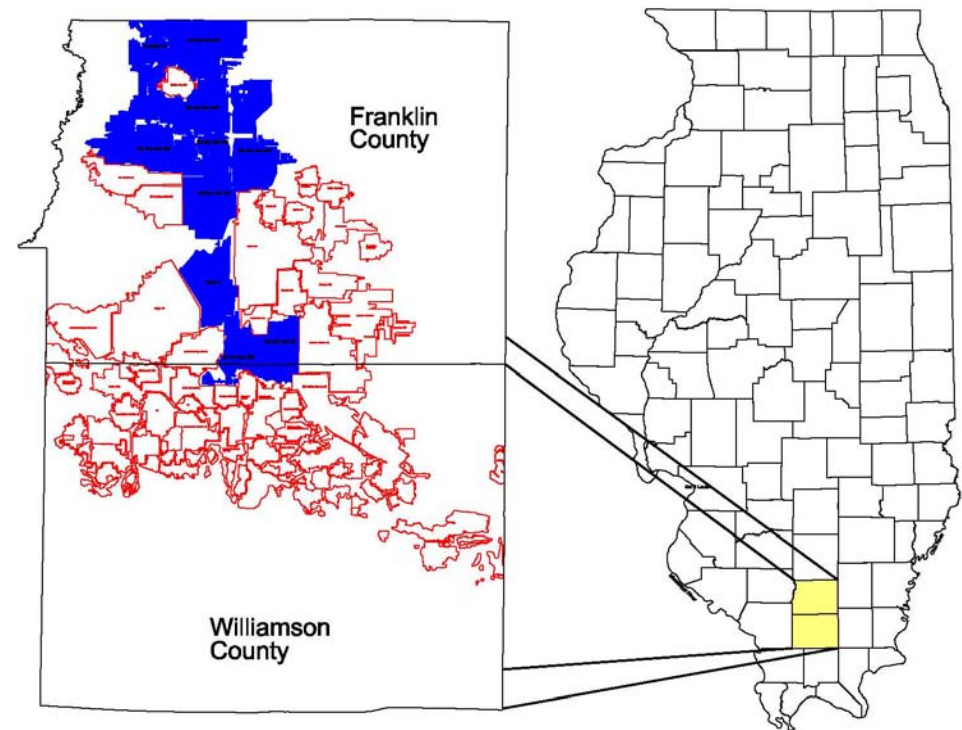
- WRI Greenhouse Gas Protocol
- California Climate Action Registry
- US EPA Climate Leaders
- WWF Climate Savers
- US DOE 1605B Registry

## Retail Offset /OTC Markets

- Some retailers do not use third party verification and lack transparency in project protocols.
- “Trust us, we know quality when we see it.”
- These problems are in the process of being addressed.
- Project level diligence is required.

# Case Study: 3Degrees-DTE Methane Resources Partnership

- **Project:** Corinth abandoned coal mine methane project, southern Illinois.
- **Facility:** 23 local 400+ foot gas wells, 29 miles of pipeline, 6 compressor stations, and mineral rights to ~60,000 acres of closed coal mines.
- **Carbon Financing:** 3Degrees-DTEMR long-term VER forward contract relationship.
- **Protocol:** CCX CMM Protocol.  
Baseline calculation by Ruby Canyon utilizing emissions estimation methodologies conducted for the EPA and IPCC, and the WRI and UNFCCC GHG project accounting methods.



# How Do VERs Get Certified and Verified?

- Protocols:
  - WWF Gold Standard
  - UN CDM
  - California Climate Action Registry
  - Chicago Climate Exchange
  - Voluntary Carbon Standard
- Products can be verified against the above standards by an accredited third party auditor.
- Registries continuing to take hold in the United States.
- The U.S.-based Green-e program has issued a draft standard for certification of GHG reduction credits that is receiving public comments.



# Green-e



- National symbol to help consumers identify superior, certified renewable energy products
- Independent certifier of renewable energy ensuring products meet strict environmental quality and consumer protection standards
- Informed by National Association of Attorneys General (NAAG) and Federal Trade Commission (FTC) guidelines
- Conducts audit annually of Green-e Certified® renewable energy suppliers

# Protocols



- **CDM**
  - Active
  - Abandoned
- **CCX**
  - Active
  - Abandoned
- **AES-GE**
  - Active
  - Abandoned
- **CCAR**
  
- **Others**

# Carbon Offset Trends

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- Finalization of Green-e GHG protocol, adoption of high-quality project protocols, and creation of national registries will provide foundation that REC markets have benefited from for years.
- Voluntary carbon market demand will continue to grow in 2007 and 2008.
- “Buyer beware” press will fade late in 2007.
- Compliance market rule-making, done right, shall create the basis for large-scale investment in climate mitigation.