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# Carbon Offsets: The Who-What-Where-Why-When- How Much and How



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# Who Are These Guys?

- **Brokerage, Advisory, Regulatory Assistance, Consultancy**
- **60 staff ...estab. 1992 (staff in the business since 1981)**
- **>50 Geographic Areas...9 Offices**
  - New York      San Francisco      London
  - Vermont      Los Angeles      Sao Paulo
  - Houston      Mumbai      Toronto
- **> \$10 Billion Air Credit Transactions**
  - SO2 EAs      NOx SIP Call      ERC Offsets
  - RECLAIM      HGA      DERs
  - RECs      CERs      VERs
  - ROCs      EU EAs      Wastewater
- **NY NJ Port Authority**
- **Erasing Genesis' footprint**
- **Yahoogling your way to neutrality**
- **Best Emissions House of the Year– *Energy Risk Magazine***
- **SEC/NASD requirements “unregulated” emissions market**



# Take Aways...

- It's not about the science
- All that glitters is not gold
- You've got company
- Knowing your CRTs
- Pricing
- Transacting
- Build a portfolio

**VERY LOUD**

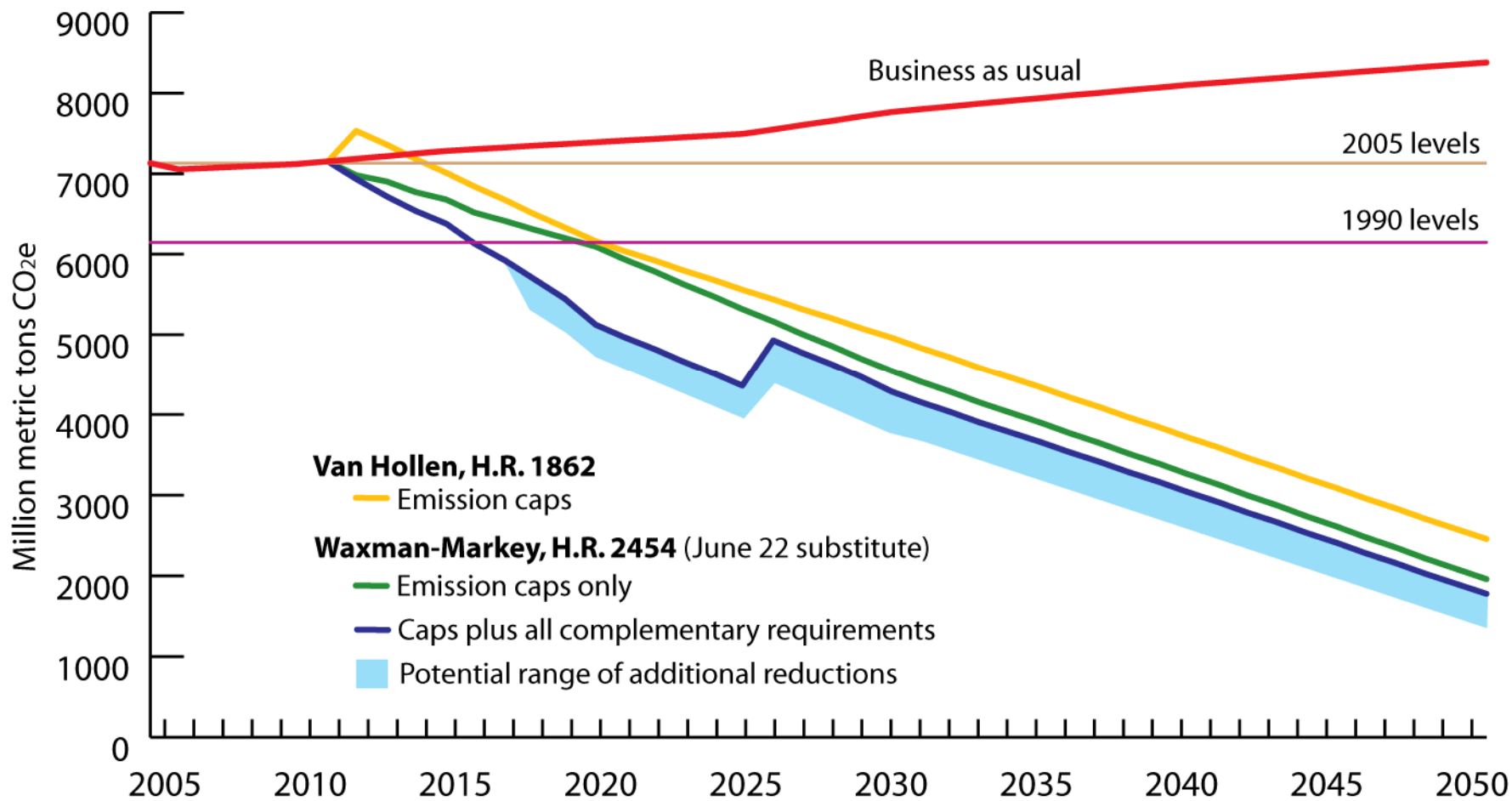


**OOOH-GAH!**



# Emission Reductions Under Cap-and-Trade Proposals in the 111th Congress, 2005-2050

June 25, 2009



# Voluntary – Not Waiting

## ■ Voluntary carbon market:

- 2006 24.6 MtCO<sub>2</sub>e, \$4.10/tCO<sub>2</sub>e (OTC), \$97 million\*
- 2007 65 MtCO<sub>2</sub>e, \$331 million (OTC \$6.10, CCX \$3.15/tCO<sub>2</sub>e)\*
- 2008 \$705 million\* (~30% US)
- 2010 400 MT

## ■ Awareness and acceptance need for climate action

## ■ Voluntary and pre-compliance markets different but merging

- Price expectations converging
- Methodologies converging
- Key differences



HSBC 

Google™

YAHOO!

# 3 Players : 1 Game

## BUYERS

- Voluntary market
- Compliance sources
- Financials

## REASONS

- Hedging
- Speculating
- Price volatility
- Financing
- Diversification for compliance
- Shareholder resolutions
- Profits
- Market penetration
- Customer/buyer demands
- Voluntary initiatives

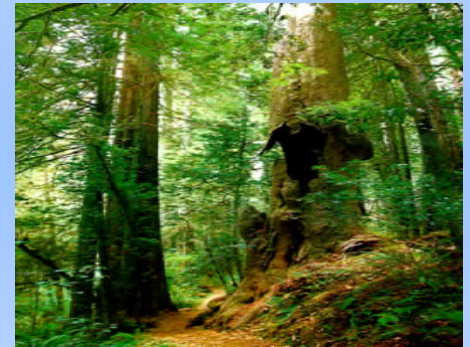


# Why CRTs vs ...

- Quality relative to other standards
- Pricing
  - Its not just about price
  - Relative to expected compliance costs
- Traceable to projects
- Increased chance useable in:
  - Fed Cap n Trade
  - California AB 32
- Tangible to customers

# CRTs from Projects

- Landfill gas capture
- Livestock (manure management)
- Avoided conversion, reforestation, urban forestry
- More in the works
  - Organic Waste Digestion
  - Coal Mine Methane
  - Ozone Depleting Substances
  - N<sub>2</sub>O from Nitric Acid Plants





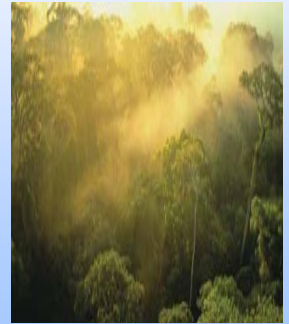
# Build a Carbon Portfolio

- Inaction is reckless
- You can't manage what you don't measure
- Define liabilities
- Recognize your *potential* assets
- Take advantage of early action
- Build carbon portfolio
  - Project derived carbon
  - Co-benefits



# Where There's Chaos, There's Opportunity

- Establish goals
- Construct control cost curve
- Reduce what you can, offset the rest
- Determine credit type (CRT, CCX, VCS, GS, RGGI, CER)
- Establish price and quantity
- Define payment terms and delivery mechanism
- Create competitive market
- Secure due diligence for projects
- Close the deal
- Transfer CRTs
- Retire-----Re-Sell---
- Lets talk about it...or not



# What's the Right Price?

- >\$1,500,000/tpy - SCAQMD PM10
- **\$150 - \$200/ton tax by 2050\*\***
- \$44/tonne EUAs (4/06)
- \$25/tonne Oz fine/cap
- **\$20/tonne CERs (7/09)**
- **\$15/tonne – CBO 2012**
- **\$14- 25/ton - ConocoPhillips**
- \$13-\$39/tonne – Pres. Obama
- \$10/tonne – W-M Floor Price
- \$8.50/tonne CCAR trade (3/09)
- **\$8.00 /tonne - CRT offer 09 – 12 strip (7/09)**
- **\$7.25/tonne CRT bid 09 – 12 strip (7/09)**
- \$3.23/ton - RGGI Auction (6/09)
- \$3.15/ton – RGGI bid (6/09)
- \$1 - \$3/tonne – Exchange
- \$0.14/tonne EUAs (9/07)



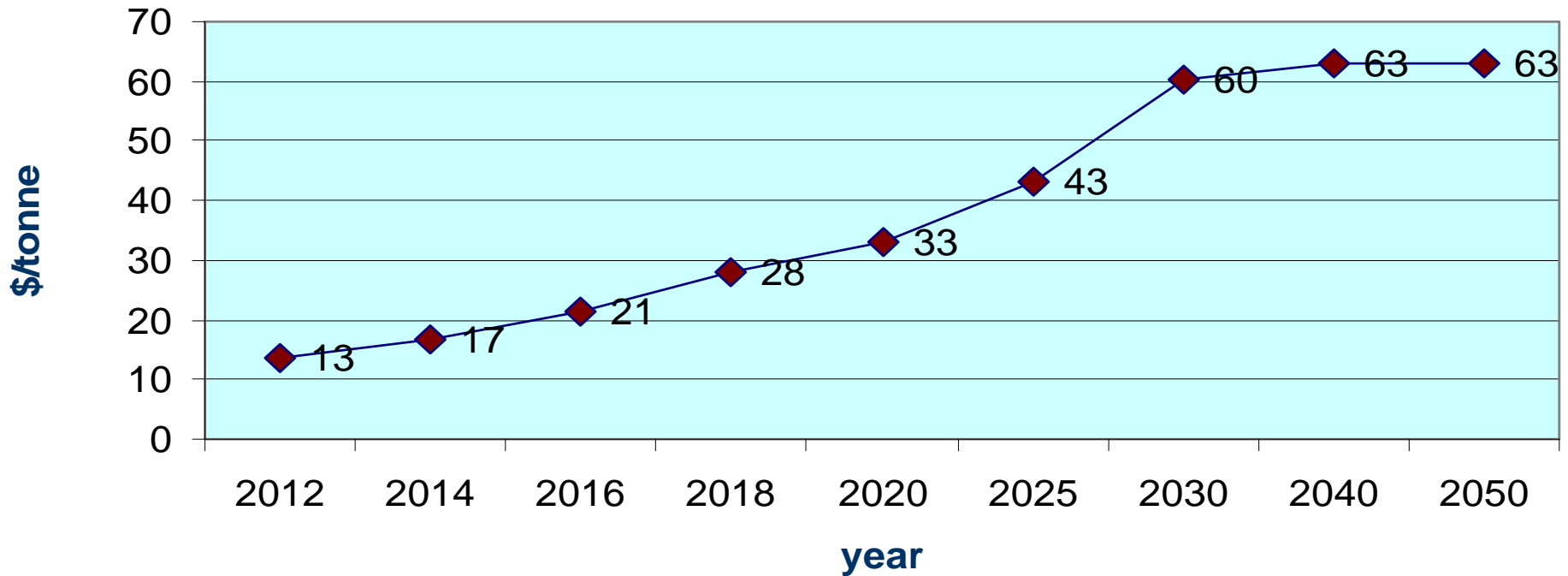
Your control cost curve?

Opportunity costs

[http://stephenschneider.stanford.edu/Publications/PDF\\_Papers/Schneider-lane.pdf](http://stephenschneider.stanford.edu/Publications/PDF_Papers/Schneider-lane.pdf) (Mastrandrea and Schneider - 70% reduction from 1990)

# And the Survey Says.....

## And the Survey Says Expected Future CO<sub>2</sub>e Prices (\$/tonne) [www.emissionstrading.com](http://www.emissionstrading.com)



# CantorCO<sub>2</sub>e Greenhouse Services

- Transactions
- Project financing
- Market analysis
- Methodology development
- Project screening, feasibility assessments
- Project documentation development
- Coordination and management of approvals processes
- Technology advice
- Equity investment fund advice
- Investor project introductions
- Business strategy consulting
- Green product marketing
- Corporate greening
- Policy consulting



# Some of the Companies We Keep...



# What Our Clients Say

"Cantor Fitzgerald delivers on their promises. In a difficult market, Cantor exceeded our expectations by structuring an innovative deal that generated more than \$4.6 million for KCS. We will be back."

Bill Hahne, President, KCS Energy

"Cantor Fitzgerald's knowledge of rules and the various programs make them a valuable resource when we are planning our compliance strategies; something we do not usually have available to us from other emissions brokers. Their efforts to promote market neutrality and promote confidential, objective trades are unmatched."

Craig S. Campbell, VP Environment, Lafarge North America, Inc.

"Throughout my dealings with Cantor Fitzgerald, I have found their services to be exemplary. Whether they are acting as intermediary in a transaction or assisting with the execution of agreements and clearing of emission trades, their work is always of the highest order."

Brian Bales, VP Corporate Development, Republic Industries

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