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## The Bottom Line On Global Climate Change

Virginia Simpson

Presented to USDA Economists Group
Washington DC
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# Multiple Choice: Global Climate Change is:

- A) A legitimate near-term threat to the world economy as well as the lives and lifestyles of millions of people.
- B) A political football being used by liberals and conservatives alike to further their agendas.
- C) A \$3 Trillion global market with strategic implications and huge profit potential for a wide spectrum of businesses.
- D) All of the above.





# Global Climate Change: It's our problem, not our great grandchildren's

"Great natural disasters have increased since the 1950's from an average of only two a year to a current level of seven a year."

-- Munich Reinsurance

 "Climate disruptions (due to global warming) can be linked to an additional 150,000 deaths and 5 million illnesses each year."
 --World Health Organization

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 "...it would appear that we may be understating the breadth of biological responses to changes in climate"

-- Dr. Paul Epstein in New England Journal of Medicine









#### The debate is over.

- Skeptics and deniers wail, but when Big Oil companies recognize the science, the focus of discussion will change from debate to the search for solutions:
- John Hofmeister, President of the Shell Oil Company recently stated that as far as his company was concerned, the debate over the science of global climate change is over.

"It's a waste of time to debate it. Policymakers have a responsibility to address it. The nation needs a public policy. We'll adjust."





#### More to consider

 February 2007: Intergovernmental Panel on Climate Change (IPCC) issued the clearest and most adamant statements regarding the connection between mankind's role in global warming.





# The World Wakes Up To Climate Change

- Kyoto Protocol put the issue of Carbon emissions on the world stage
- Drastic legislative measures would sabotage the economy
- Kyoto Protocol created a \$3 Trillion market for carbon credits





#### What is a Carbon Credit?

 Represents and monetizes the removal of one tonne of CO2 from the environment.

It's what structures the opportunities

- Waste to energy

- Alternative fuels
- Renewable energy
  - Solar power
  - Wind farms
- Carbon sequestration









### Corporate America Responding

- Many companies are taking eco-friendly postures with significant business improvements as the expected outcome.
- The SEC is now requiring environmental risk assessment as a factor for consideration in IPO's.
- Ford, BP,GE, Wal-Mart
- DuPont projects an additional \$2B revenue stream in new eco-friendly businesses and an added 15% added to the bottom-line from ecofriendly process/operations improvements by 2015.





## Exponential Growth In Market-based solutions

- Chicago Climate Exchange established 2003
  - Traded 1.5 M tons in 2005
  - Traded 11 M tons in 2006
- CarbonFund.org established 2004
  - 2006 through Q3 growth 10 times FY 2005
- TerraPass established 2004
  - Total membership through 2005: 3,000
  - 16,000+ New memberships 2006
  - 2007 YTD memberships: 50,000





#### For businesses, two options exist

- Make being part of the solution a competitive advantage and profit opportunity.
- Wait for these changes in government regulation, the marketplace and the competitive environment to force them into a game of "catch up."





### Benefit Spectrum

- Micro
  - Savings on operations
  - New revenue streams
  - Diversification
- Macro
  - Reduced American dependence on domestic and foreign fossil fuels
  - Increased productivity of traditional sectors





#### **Past**

#### **Present Opportunity:**

Aggregator estimates value of carbon credits, takes 80% to finance waste-to-energy project.

#### Farm Example:

- •Chooses waste-toenergy transition
- •"Pays" in carbon credits
- •Gains good PR
- •Freedom from weather ups/downs

#### **Future Potential:**

- •Cleans up existing pollutions problem (smell)
- •Diminishes dependence on foreign/fossil fuels
- Technologies create new opportunities

#### New Products/Opportunities:

- Energy
  - Own use
  - Excess for sale
- Carbon credits (20% hold)
- •By-products, expanded markets:
  - Bio-solids (mulch)
  - Fertilizer
  - Bedding
- Technologies pending
  - Building materials
  - Playing fields
  - Other
- •Plus all traditional products and bottom line savings

Traditional"Products"

•Weather Dependent

LimitedMarkets

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### Regulations Perspectives

"How well businesses can do in this new environment depends to a large degree on the nature and extent of regulations."

- Today = voluntary compliance and market volatility
- Tomorrow = ? Depending on regulation from these perspectives
  - Politicians (100 pieces of legislation)
  - EPA
  - DOE
  - USDA
  - Business





### Business Welcomes Regulations If...

- Levels the playing field
- Provides supports for innovation
- Reflects current reality and shapes future opportunity





# So...A Rational Approach To Regulation

- First, "Do no harm"
- Balance enthusiasm with intelligence
- Consider ripple effects
- Look to the future while learning from past
  - Existing markets







#### Thank You

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