

# ***KURZMAN CLEANTECH LP***



## **Presentation to the LSU Alternative Energy Conference April 25, 2007, Baton Rouge, LA**

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This overview is not an offer to sell or a solicitation of an offer to purchase an interest in Kurzman CleanTech, LP. Any such offer or solicitation will be made only by means of a Confidential Private Offering Memorandum, a copy of which preceded this overview.



## Thoughts on Alternative Energy:

- The U.S. is expected to consume 100 Quads (29,287.5 TWh) of electricity generated from fossil fuels this year...
  - ...How many 215-watt PV modules, in full daylight (~6 hrs, on a good day), are required to replace fossil-fuel generated power?
  - >62.2 billion panels = >\$93 trillion = 76,511 sq. km. (excluding batteries, rectifiers, line-losses, etc), or 54% of New York State!
- “Clean Coal” is like being a “little bit pregnant”
- Transportation fuel cells are perpetually five years from commercialization
- Why don't manufacturers of renewable technologies power their plants with renewable energy?
- In 2006, our government spent ~\$2B on energy efficiency & renewable energy development; compared to roughly \$8B per month on the war in Iraq.

# **KURZMAN CLEANTECH LP**



## **SUMMARY OF KURZMAN CLEANTECH, LP**

**Investments in “Best-In-Class” public companies**

**Multi-sector approach:** Alt. energy, water, pollution abatement, filtration, agriculture, infrastructure...

**Target returns:** 15-20% CAGR (net)

**Strong commercial prospects (no science projects)**

**Strongly favor profitable, cash-generating companies**

**Must have capable management**

***Kurzman CleanTech, LP seeks to address international SRI values of economic sustainability***

# KURZMAN CLEANTECH LP

## SUMMARY OF KURZMAN CLEANTECH, LP

**Short positions:** deteriorating financials, excessive valuations, and a catalyst

**Over three years of strong returns to LPs**

**Target Fund Size:** \$200 million

**Minimum Investment:** \$250,000

**Liquidity:** Quarterly, following 12-month lock up

**Management Fee:** 1.75% of assets, annually

**Manager Incentive:** 20% carried return, annually, with high-water mark

# **KURZMAN CLEANTECH LP**



## **Agenda:**

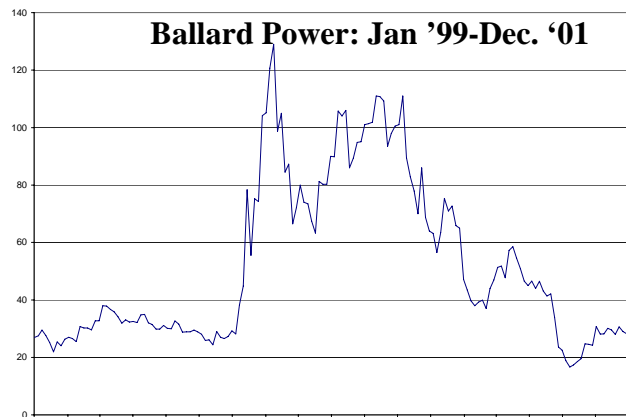
- I. Looking Back: Understanding the Past**
- II. Current State of Cleantech Public Stocks**
- III. Understanding Cleantech Investing**
- IV. Best Ideas**
- V. Key Trends to Watch**
- VI. Suggested Reading**



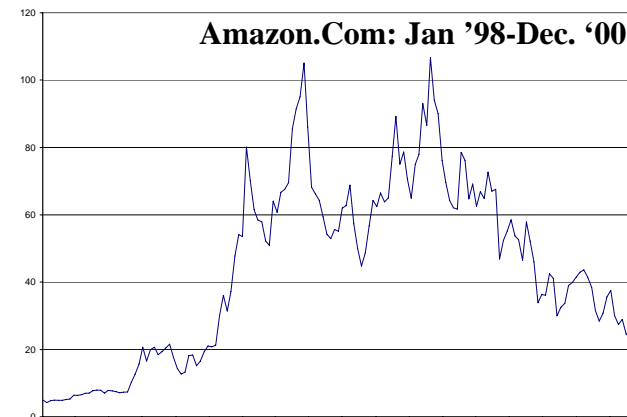


## Understanding the Past: Reminiscent of Dot-Com Bubble

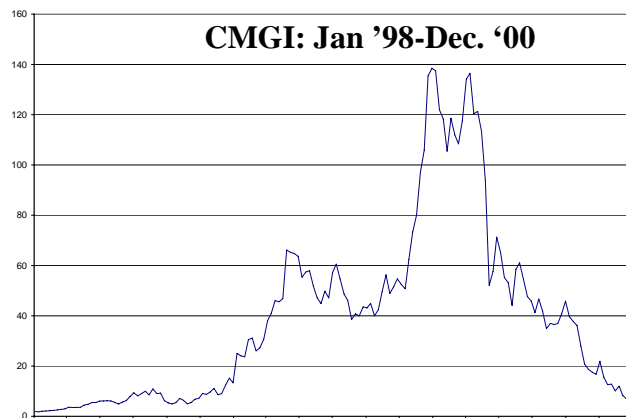
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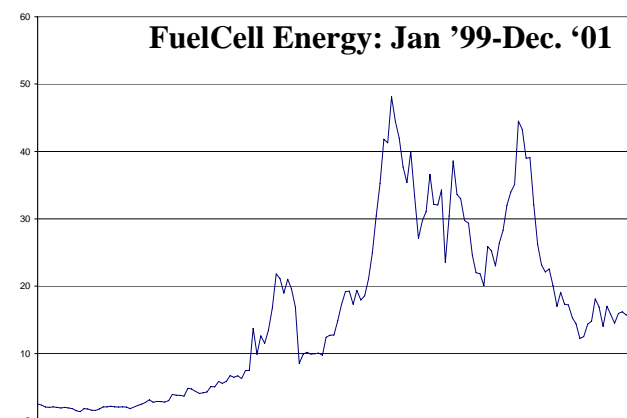
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## Current State of Alternative Energy Public Stocks

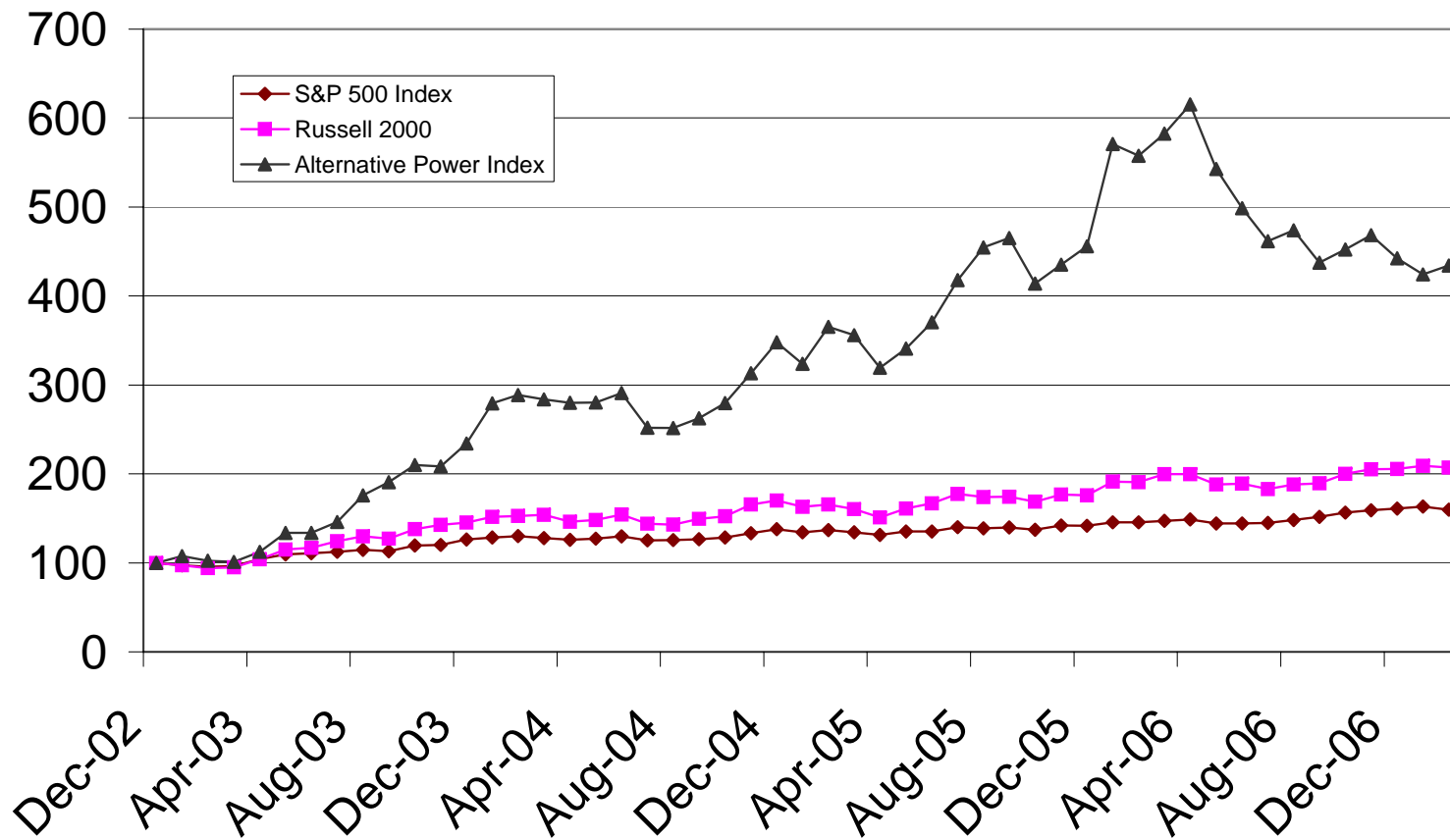
*(AKA: Why it's different this time)*

- Regulations are becoming increasingly stringent (RPS/RFS, Clean Air/Sky...)
- An incentives-led boom for alternative power
- Continued and growing demand for power
- Science is catching up with environmentalists
- Peak oil/Security issues
- Legislation/political wind at our backs
- Carbon market requires hegemony
- Increasing efficiency/productivity never go out of style

# KURZMAN CLEANTECH LP



## Alternative Energy Stocks vs. Russell 2000 and S&P 500: 2003-Feb. 2007

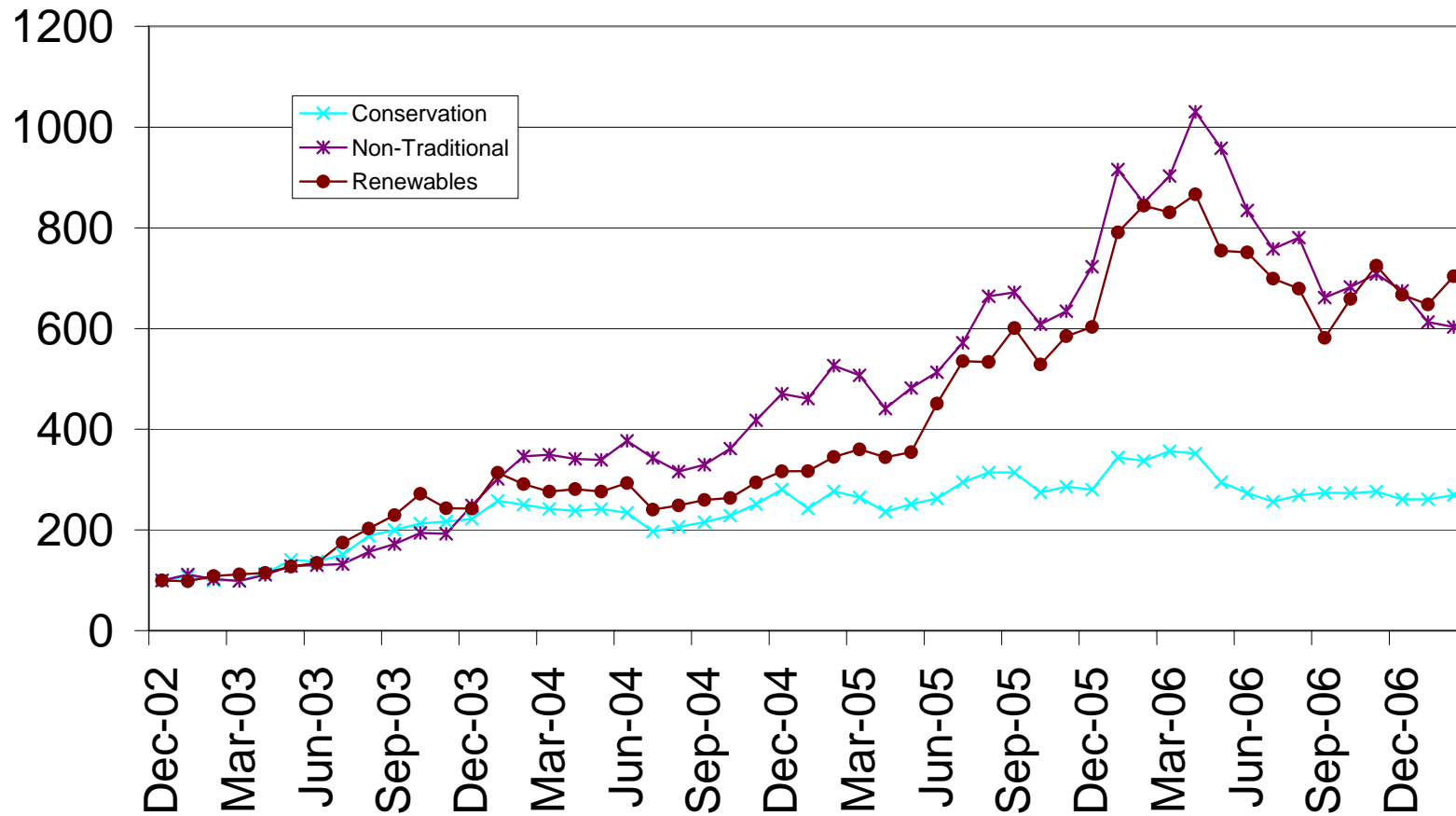




# KURZMAN CLEANTECH LP



## Alternative Energy Subsector Performance 2003-Feb. 2007





## Cleantech Today

- Legislation and sentiment are slowly aligning
  - Mercury rules, SOx, NOx, particulates
  - Carbon Dioxide is a pollutant to be regulated by the EPA
- New businesses are emerging: Demand Response
  - The cheapest kilowatt-hour is the one never generated
  - Capital costs under \$200/kW vs. \$600-1,200/kW
  - Wringing out the inefficiencies
  - Not without its risks: proxy payments, weather patterns, complicated business models, “lumpy” revenues
- Photovoltaic companies: priced for perfection
  - First Solar (FSLR) at >38x 2008E EV/EBITDA
  - Often safer to invest in the suppliers (go vertical)



## Too Much Capital Flowing Into P.E./V.C.

### Q1 2006 Statistics - North America

	Q1 2006	Q4 2005	Q3 2005
Cleantech Equity Investments	67	73	69
Investments with Undisclosed Amounts	5	7	4
Total Equity Capital Invested in Cleantech	\$513,547,773	\$502,029,486	\$425,384,245
Average Cleantech Equity Investment	\$8,283,029	\$6,877,116	\$6,164,989
Median Cleantech Equity Investment	\$5,000,000	\$3,000,000	\$2,600,000
Investor Groups Participating in a Cleantech Transaction	135	122	109
New Cleantech Investors	44	30	36
Overall VC Equity Investments	917	924	915
Total Equity Capital Invested in VC Deals	\$6,015,326,100	5,535,190,991	5,698,340,000
Average VC Equity Investment	\$6,559,789	\$5,990,466	\$6,227,694
Cleantech % of Overall Equity Capital Invested	8.5%	9.1%	7.5%
Cleantech Deals Under \$1M	12	16	17
Cleantech Deals Between \$1M and \$5M	19	24	25
Cleantech Deals Between \$5M and \$10M	18	10	10
Cleantech Deals Over \$10M	13	16	13

Graph Source: Cleantech Venture Network LLC, 2006

- €1.9 billion (\$2.3 billion) in cleantech venture investment in Europe between Q1 2003 and Q2 2006
- More than 400 deals in 21 countries throughout Europe

*“...it appears that ‘cleantech’ is emerging as a defined investment theme at twice the pace of ‘biotech’s’ rise in the 1980s and early 90s...it is possible cleantech will capture up to 10% of overall venture capital flows by 2009, as well as an increasingly large portion of both M&A and IPO activity.”*

**Nicholas Parker**

Co-founder & Chairman of the Cleantech Venture Network LLC

- **\$10 billion of investment estimated between 2005-2010**

(Source: Cleantech Venture Network; Cleantech Capital Group)



## Do Not Expect Biotech- or Internet-Style Returns

- Alternative Energy industry remains an industrial market!
  - Industry with substantial capital needs (“picks and shovels”)
  - Implications for investors (IRR, cap ex, etc.)
- Traditional high-tech VC’s may not be equipped to deal with industrial investing
  - Too much money chasing software, sensor, service, and PV companies—valuations are becoming excessive
- Gross misunderstanding by “experts” will lead to investment opportunities
  - This problem will not be solved in a few decades
- MUST have a significant understanding of traditional Energy markets to succeed in Alt. Energy investing



## Cleantech Characterized by Incremental Improvements

- Evolutionary advances in Alt Energy, not revolutionary
  - Be skeptical of “breakthrough” technologies
- This will take centuries to see a complete change in our energy mix, not years or decades
  - No Moore’s Law for energy development; atoms vs. electrons; steel vs. software
- Suggested reading: A Thousand Barrels a Second, by Tertzakian
  - 86.4 million barrels a day = 1,000 barrels per second!





## Key Issues/Drivers

### Key Issues:

- Demand for Power
- Climate Change
- Energy Security

### Key Drivers of Change:

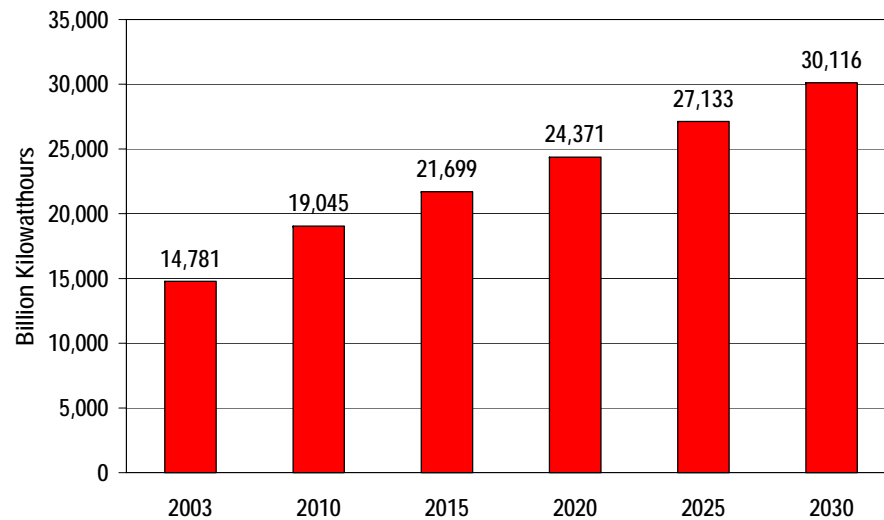
- Economic Growth
- Science: United Nations IPCC Report
- Peak Oil: Prices/Security
- Legislation and Regulation
- Carbon: The Missing Link

**“...the thickness of the Earth's atmosphere, compared with the size of the Earth, is in about the same ratio as the thickness of a coat of shellac on a schoolroom globe is to the diameter of the globe.” -Carl Sagan**

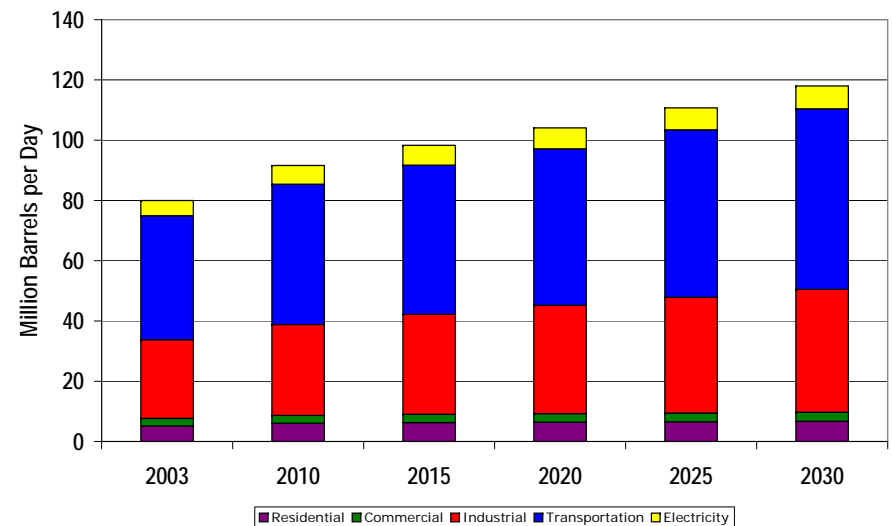


## Global Demand for Energy

World Net Electricity Consumption, 2003-2030



World Oil Consumption by Sector, 2003-2030



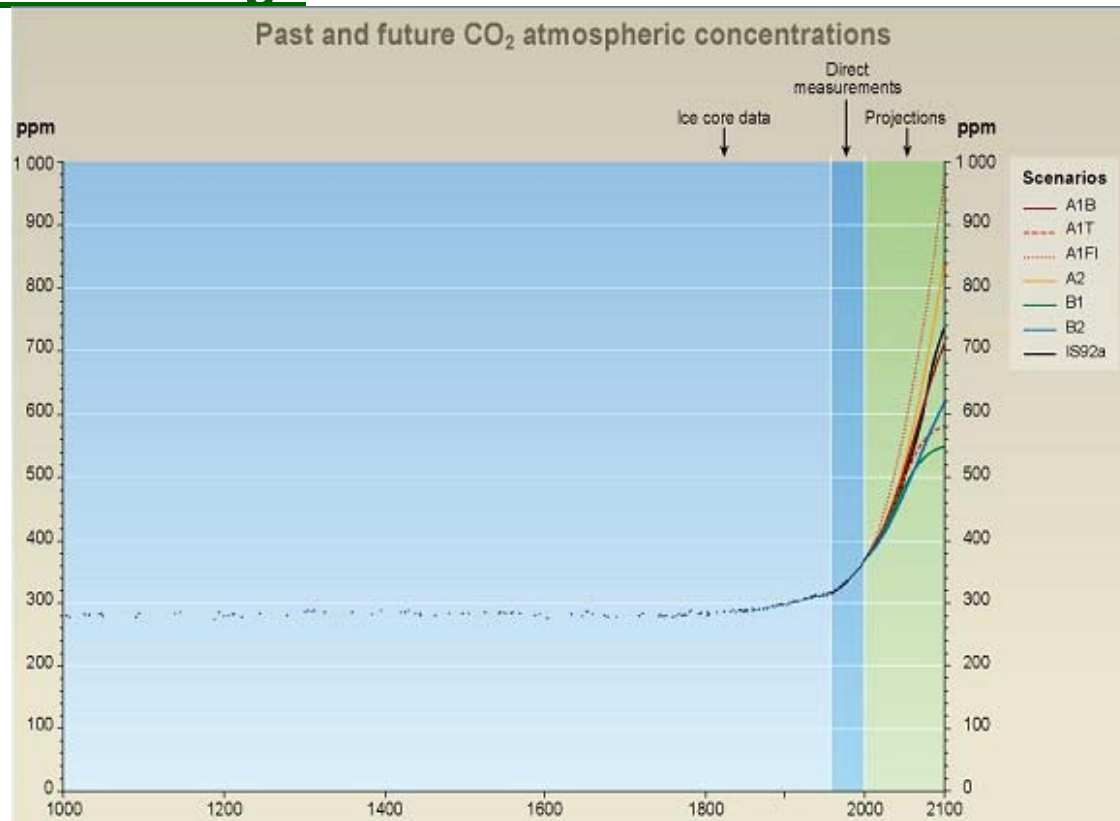
Sources: U.S. Energy Information Agency; IEA; Tertzakian, *A Thousand Barrels a Second*

**“The next 40% of the population will move up to our standard of living in one-third the time it took the first 20%.”**

**-Erik Straser, Mohr Davidow Ventures**



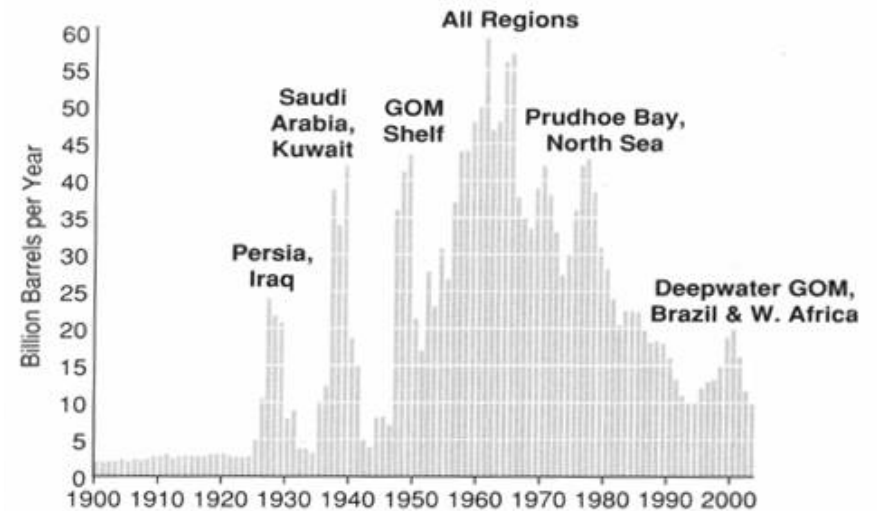
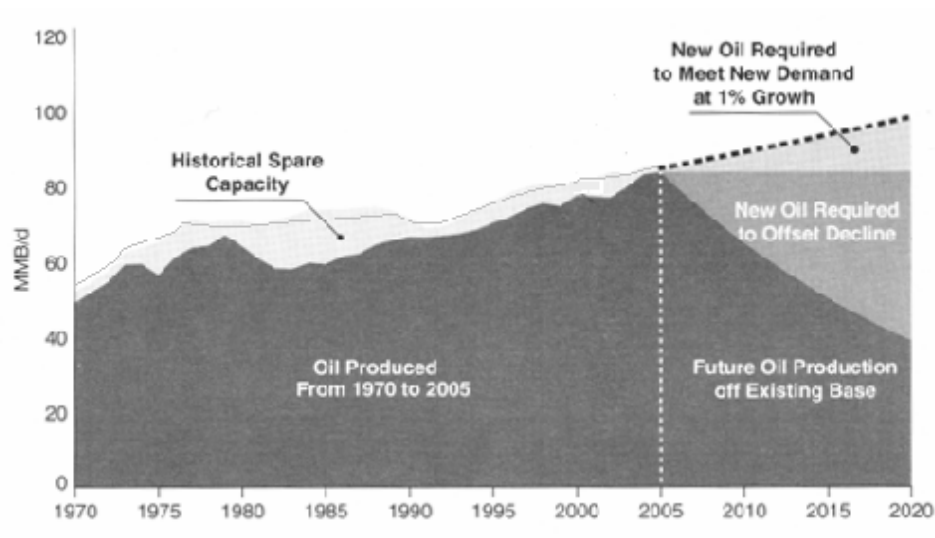
## Climate Change



**“Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperature, widespread melting of snow and ice, and rising global average sea level.” -IPCCC WGI Fourth Assessment Report**



## Peak Oil: History & the Challenge



Source: Tertzakian, *A Thousand Barrels a Second*, pp. 121, 130.



## Carbon Trading: The Missing Link

### The Global Carbon Trading Market

- 2005: 716M tons of CO<sub>2</sub> (~US\$11B); IETA forecasts 1,382M tons transacted in 2006
  - 332M tons of allowances traded; 384 million tons of project-based transactions

### An Imperfect Attempt: European Union 2005

- Poor measurement resulted in too many issued credits; effectively donated monetizable assets to polluters, whose price eventually collapsed
- System lacks certainty beyond 2012, which discourages long-term investment

### The Successful Model: U.S. SO<sub>x</sub> Cap-And-Trade System

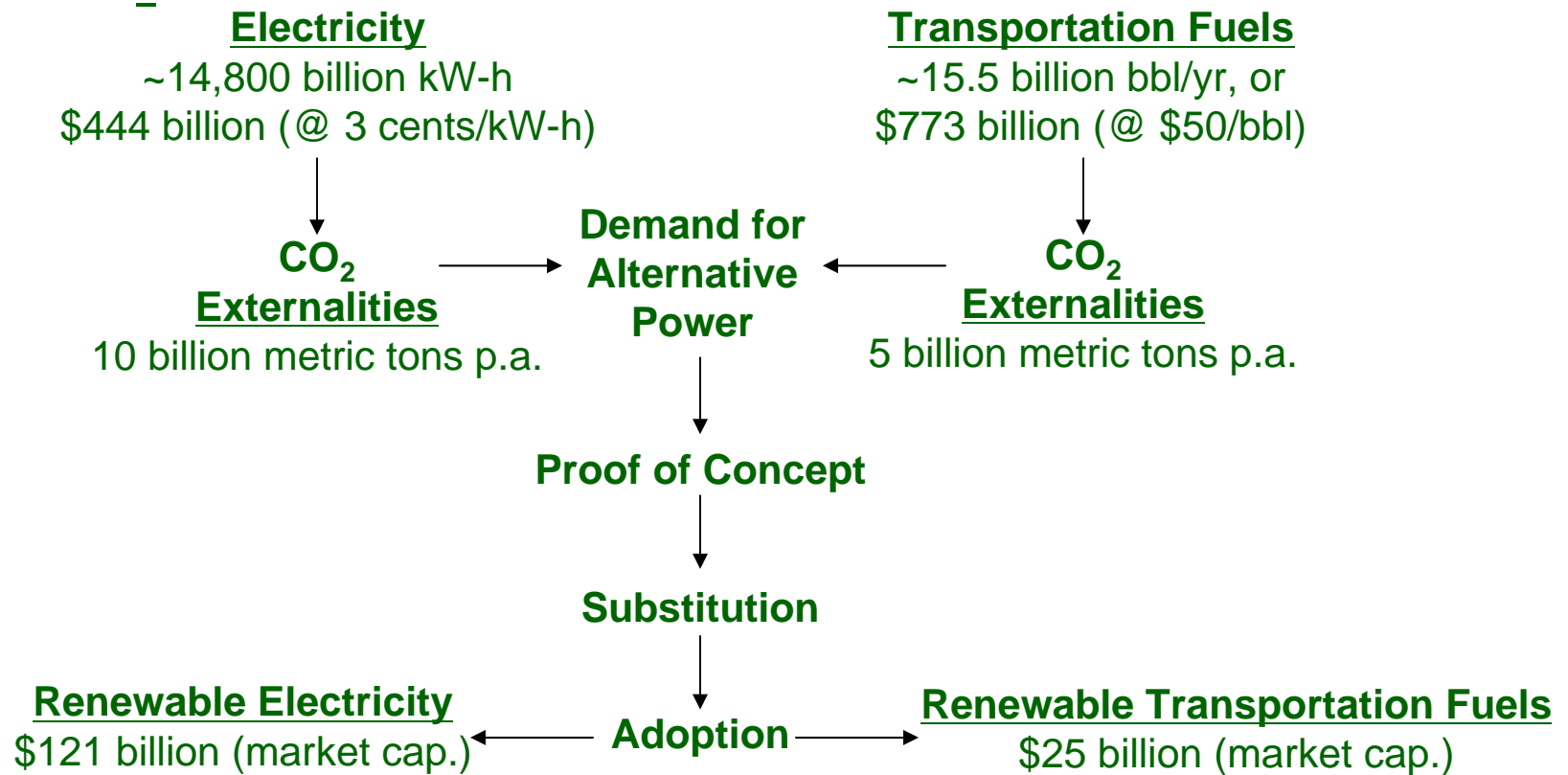
- Acid Rain Program (Title IV of 1990 Clean Air Act Amendments)
  - Legislated cap levels: provided certainty for emitters, which permitted the required technology investment
  - Accurate measurement of emissions supports ability to trade allowances
- Emissions have decreased more than 30% from 1990 levels, with another 70% mandated for reduction by 2015

**The United States will likely set the global standard for trading and abating carbon dioxide equivalent emissions.**





## CO<sub>2</sub> Driving Large Markets



Source: U.S. Energy Information Agency; LEAP Management; American Wind Energy Association; International Energy Agency

Current planned alternative power investments only remediate 1.6 billion tons of CO<sub>2</sub> of the 26 billion tons produced annually. **-UN Framework Convention on Climate Change (UNFCCC)**



## Kurzman CleanTech, LP's Best Ideas

### We are invested in:

- 1) Biofuels that utilize waste as a feedstock
- 2) Companies with hidden carbon-credit value
- 3) Companies with earnings potential is not properly reflected by Wall Street research coverage
- 4) Pollution-abatement opportunities
- 5) Waste handling/treatment companies
- 6) Metering/measurement technologies
- 7) Infrastructure companies (water)



## Review/Key Trends to Watch

- Alt. Energy remains an Industrial market
- Sufficient tailwinds to suggest there is staying power for Alt. Energy investments well into the future
- Efficiency and productivity enhancements drive returns
- Carbon market is quite interesting, but immature
- Watch for new businesses (demand response) and invest in suppliers when commodity businesses are expensive
- Look for more “legitimate” opportunities in the public sphere
- Invest with the leaders of Cleantech with a proven track record
- Contact us: [dkurzman@kurzmancleantech.com](mailto:dkurzman@kurzmancleantech.com), or 917-468-0906