

## **As the World Turns** **Coal's Role in Global Energy Markets**

Electric Power Conference  
Global Impact & Market Growth of  
Fuel Demand/Supply Panel  
May 12, 2009 ~ Chicago



## **ACC Vision & Mission**

### **Vision**

To serve as the pre-eminent business voice of  
the American coal industry

### **Mission**

Dedicated to advancing the development and  
utilization of American coal as an *economic,*  
*abundant/secure and environmentally sound fuel*  
*source*



## ACC Objectives

### **Business-to-Business**

Enhance the marketing & management capability of member companies

### **Advocacy**

Support & defend the coal industry by serving as an educational & information resource on American coal for industry associates, public policy makers, educators & community leaders

### **Liaison**

Support the activities & objectives of associations involved in advancing coal industry interests



## ACC Membership

The ACC represents the collective interests of 165 companies spanning the entire coal chain.



**From the hole in the ground to the plug in the wall.**

- Coal Suppliers
- Coal Consumers (utility & industrial)
- Transportation (rail/barge/truck/ports)
- Energy Traders
- Coal Support Services
- Contributing Supporters



## Key Assertions

- Global Economic Growth Will Rebound
- Global Energy Demand Will Increase
- Coal Will Meet Much of This Demand
- Climate Change Solutions Must Include Coal
- Green Fatigue is a Factor

## Global Economic Growth

**Developing Nations Account for 75% of Population Growth by 2030**

Area	Increase in Millions	Percent of Global Increase
Africa	576	32
Non-OECD Asia Excluding China and India	373	21
India	362	20
<b>Total</b>	<b>1,311</b>	<b>73</b>

*Source: U.S. Energy Information Administration, International Energy Outlook, 2007*

**World Gross Domestic Product Increases 235% in a Generation**

Year	Global Gross Domestic Product in Trillions \$
2000	46
2010	72
2020	107
2030	154

*Source: U.S. Energy Information Administration, Annual Energy Outlook, 2008*

Source: National Coal Council, May 2008



## Emerging Economies Still Emerging

- China's economy will expand faster than previously forecast this year and next as the government's 4 trillion-yuan (\$586 billion) stimulus package spurs domestic demand and boosts investment.
- The world's third-largest economy will expand 8.3 percent in 2009, from an earlier estimate of 6 percent.
- China's fiscal stimulus has already driven investment back to pre-crisis levels and lending surged more than six times in March.
- Growth will quicken to 10.9 percent next year, compared with a previous prediction for a 9 percent expansion, they said.

Goldman Sachs ~ April 22, 2009 (Bloomberg)

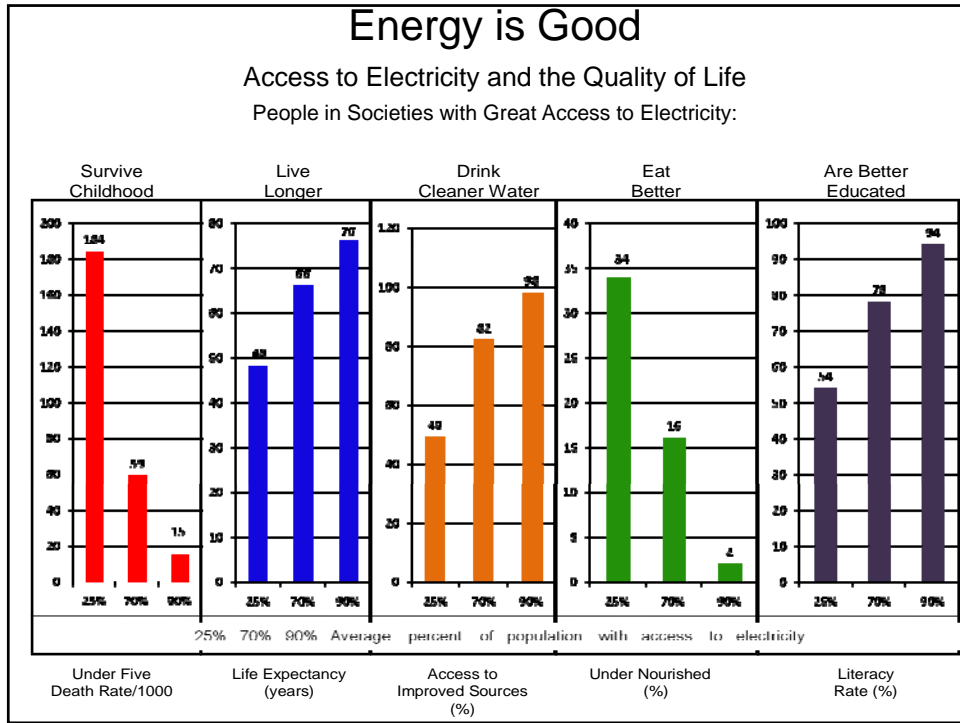


## Emerging Economies Still Emerging

- While most of the world grapples with a crippling financial crisis and a recession, optimism reigns in much of India as its economy continues to grow.
- "India is not as vulnerable" as other countries, said Rajeev Malik, head of Indian and Southeast Asian economics at Macquarie Capital.
- On Friday, India reported that its economy grew 5.3 percent in the quarter ended in December when compared with the previous year. While that was down from the 7.6 percent growth in the earlier quarter, it was in sharp contrast to the retrenchment in other countries.

New York Times ~ March 1, 2009





# Electricity... LIFE BLOOD OF AMERICA

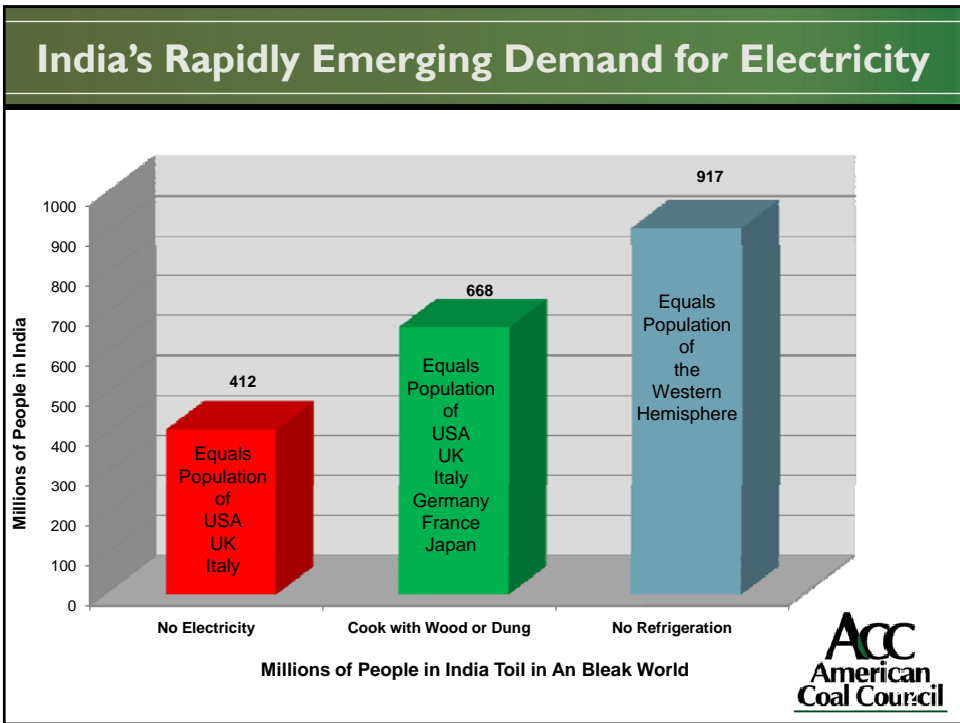
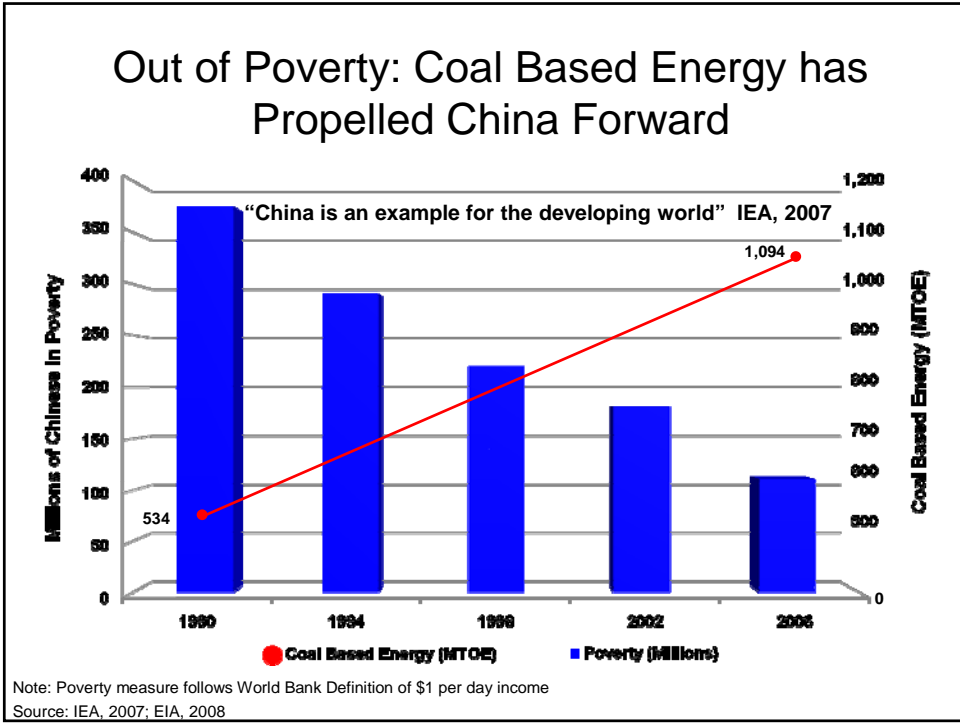
**Electricity...**  
...is worth far more money  
...for us today

Keep records of every atom every beam... around the globe... that is and that can... all America. From power and water to the dynamic pulse of electric power to the brilliant blue glow of atomic production through the U.S. industry... that gives our nation the **ENERGY EDGE** BEHIND THE SCENE that cannot be hidden. For far behind are the present day activities of business, home, home and office... of your own daily routine... that are not dependent on electric power... and in a far greater sense than is generally realized. For industry, in large-scale use in industry today gives each worker the advantage of over 200 horsepower. Add to the fact that most of today's vital machinery and instruments, high-speed work and automation in work shops, electro-chemical and metallurgical processes, available only through the magic of electricity.

And Mr. American family needs electricity to the kitchen, the garage, the household drapery and to the game they wish but which electrical means... essential for lighting a porch. How much more do you realize how here, you can do it in a generally better but guaranteed as the

great multiplier of production, the greatest work-  
ing and most important... **ELECTRICITY**.  
Essential as it is to our national economy, strength, security, and modern standard of living, electric power (and America's best... )... cannot be taken for granted. For every day we are using more and more of it... with more and more uses of it than ever before.

To have the great electrical base of America healthy and vital, the nation's power companies have already planned for its future in their forward-looking programs. This is a task of enormous magnitude, but our industry and equipment will produce their full share.



## Global Energy Demand

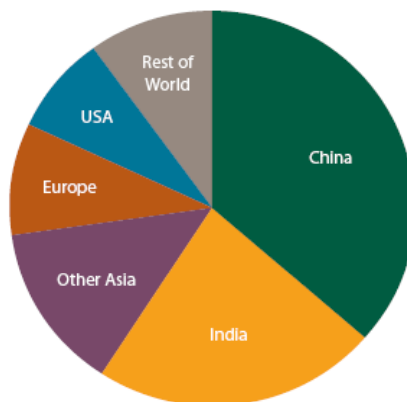
“My fundamental assumption ... demand for energy will rebound and supply constraints will rear an even uglier head than before ~ due to cancellation of energy projects all over the world.”

Frank Clemente, Ph.D.  
Senior Professor Social Science & Energy Policy  
Penn State University



## Global Coal Build

660+ Gigawatts of New Coal-Based Generation  
Planned or Under Construction



Source: Platts, 2008



## Coal ~ The World's Fuel Source

When asked how China would ever meet the growing demand for electricity, liquid fuel and natural gas, Du Minghua, Director of the Beijing Research Institute replied: **“Coal is the solution to all three.”**

**“China Outpaces U.S. in Cleaner Coal-Fired Plants” ~ NYTimes, 5/11/09**



## Coal ~ Climate Change Solution

“If the question is whether India will take on binding emission reduction commitments, the answer is no. It is morally wrong for us to agree to reduce when 40% of Indians do not have access to electricity ... Of course, everybody wants to go solar, but costs are very, very high.”

Member of Indian Delegation  
United Nations Bonn (Germany) Climate Change Conference ~ April 2009

“Removal of poverty is the greater immediate imperative than global warming.”


P.Ghosh, Secretary of the Environment, India

China should not be responsible for GHG emissions resulting from the production of goods for export to developed nations. Chinese officials said that importing nations should be responsible for those emissions.





## Why CCS?

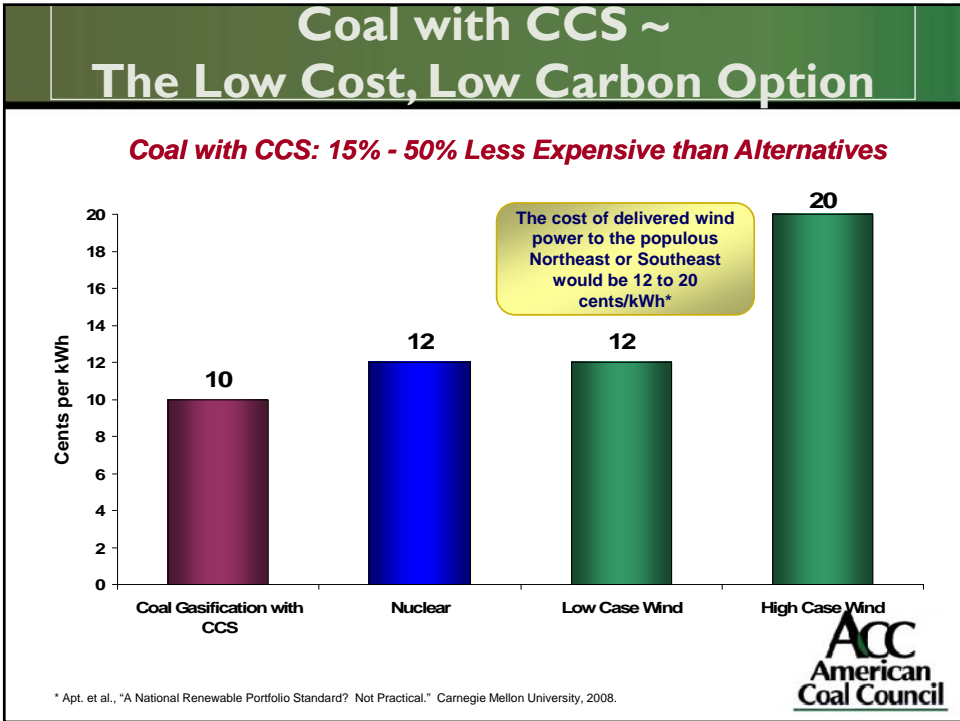
- “CCS is the single most important new technology for CO2 savings.” IEA
- “CCS provides 1/5 of needed CO2 reductions in 2050.” IEA
- “Without CCS the cost of stabilisation rises by 70%.” IEA
- “CSS is the only low-carbon solution for gas/coal, cement and iron and steel sectors.” IEA
- “Coal with CCS is the low-cost, low-carbon solution, capable of powering a green economy at 15 to 50 percent less cost than wind, nuclear or natural gas with CCS.” CarnegieMellon



**International Energy Agency**

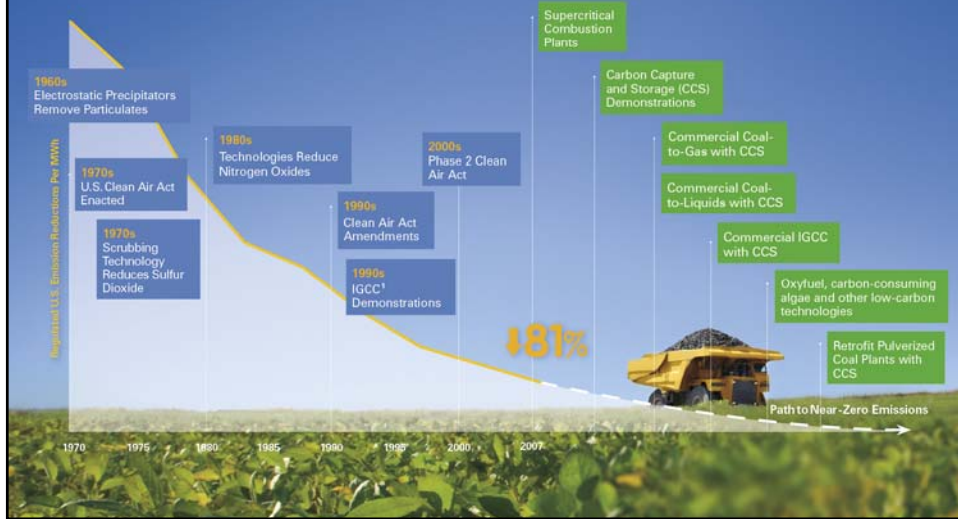






# Clean Coal...Green Coal...

Coal use triples as regulated emissions decline 80%+;  
Green coal now provides a path to near-zero emissions.

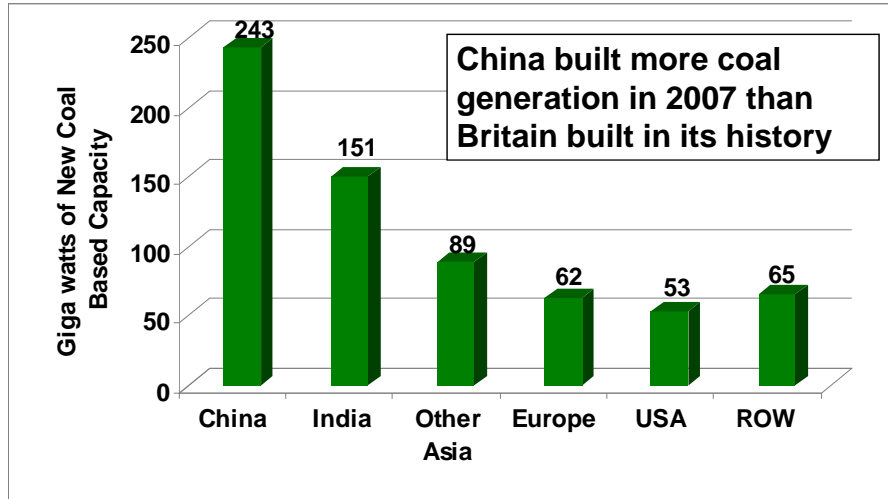


## Green Fatigue



ACC  
American  
Coal Council

## The World Is (Re)Turning to Coal



Source: Data Derived from Platt's Proprietary Database, 2008

American Coal Council

## Key Assertions ~ Review

- Global Economic Growth Will Rebound
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- Green Fatigue is a Factor



ACC  
American Coal Council

## **American Coal Council**

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