Coal, America’s Treasure of Energy
Our Key to Economic Prosperity and A Strong America –
By Building Things Again!

Presented by Richard F. (Dick) Storm, PE
CEO/Senior Consultant
Storm Technologies, Inc.
Albemarle, NC 28001
America Needs More Clean Coal

Why America Needs More Clean Coal Plants to Produce Low Cost Reliable Electricity:

- To Keep America Strong!
- National Security
- Economic Prosperity/Economic Responsibility
- Preserve Our Life Styles and Standard of Living
- “Jobs”
Against any Coal Plants – One young university student referred to coal as the “New Tobacco.”

Electric Power demand is growing at 1-2% per year. America still depends on 35+ year-old, average age, power plants for 50% of its power. (Duke’s coal fleet is average age 47 years old.)
334 Million BTU’s /Year /Person

*14 tons @ 12,000 Btu/lb
16 tons @ 10,450 Btu/lb

- There are over 300 million residents in the United States
- In 2007, the U.S. consumed 101.605 quadrillion Btus
- This is an average use of 334.4 MMBtu/yr per person
- The equivalent of this amount of energy from each resource is shown

Each US resident uses an equivalent of 58 barrels of diesel fuel

Each US resident uses an equivalent of 14 tons of coal*

Each US resident uses an equivalent of 105 barrels of ethanol

Each US resident uses an equivalent of 52 barrels of #6 oil

Each US resident uses an equivalent of 778 pounds of propane

Each US resident uses an equivalent of 28,000 pounds

14 tons total

2,709 gallons total

Each US resident uses an equivalent of 2,184 gallons

4,410 gallons total

Each US resident uses an equivalent of a 75’x75’ solar panel

= 42 gallons

2,436 gallons total

= 1000 ft³

325,000 ft³ total

= 20 pounds (standard grill tank)

778 pounds total
Coal remains an important fuel for America at about 21% of our total energy. Coal is needed for national security and continued economic prosperity.

Source: Energy Information Administration, 2009
Coal Use Linked to Economic Growth

Coal-fired generation and GDP have grown at nearly the exact same pace over the last 30 years.

Also Important in the 21st!

US Coal Consumption and US Real GDP (1973-2008)

Coal – Important in the 20th Century
Energy = Quality of Life
Poverty Reduces Global Security

GDP per Capita
($) / person / yr

Annual Energy Consumption per Capita
(kgoe / person / yr)

World Resources Institute Database, accessed June 1, 2005
http://earthtrends.wri.org/searchable_db/

Carl O. Bauer, EPA/Cor, June 16, 2006
What is the answer to improve the quality of life for 7 billion souls on the planet?

Answer:

• Coal
• Oil (from America!)
• Natural Gas
• Nuclear
• Renewables (where practical)
How Do We Do It?

Answer: Apply the Five Es!

- **Education**
- **Energy Production** and **Respect**
- **Environmental Protection** (reasonable – it is unreasonable to do nothing)
- **Economic prosperity** will result from a proactive plan
- **Entertainment industries** helped to create a mindset of political correctness. It must be used to reverse the damage.

Example:  Al Gore movie “An Inconvenient Truth”

Don’t expect the TRUE facts from these agencies
How Much Coal is Burned in the World?

100 ton rail cars 55 feet long = 10,000,000 rail cars.

If hooked end to end in one train, these would 104,166 miles long or roughly circle the earth more than 4 times at the equator.

Note: This is the equivalent coal utilized in the USA only – China will use 4 times more than the USA in the next two decades.

China – 4.65 billion tons in 2030 (Projected by EIA)
USA – 1.114 billion tons in 2006 (EIA Report)
USA – 1.784 billion tons in 2030 (Projected by EIA)
Coal fuels the industrialized world to power manufacturing to “build things” and create wealth.

That is how the USA obtained our wealth and strength in the 20th century – and how Asia is gaining theirs in the 21st century.
Over 4.7 million manufacturing jobs have been lost since manufacturing peaked in 1998.

According to WSJ, 11.5 million in 2010 all manufacturing and about 22.5 million in government – which manufactures nothing!
Coal Generating Capacity by Country, 2011
(1000 MW)

China: 700 MW
US: 400 MW
Russia: 300 MW
Germany: 200 MW
Japan: 100 MW
South Korea: 100 MW
Other Countries: 500 MW

Post Tsunami and Earthquake Disaster

Japan, will likely increase both LNG imports and also build new clean coal plants.

Source: Mcilvaine Company
Coal Generating

Coal Generating Capacity by Country, 2011 (% of World)

Want Prosperity in America?

Consider building 600 new clean coal plants and create approx 4.5 million USA Jobs!

Source: Mcilvaine Company
Capital Investment 2011 through 2015 (Billion $)

- New Coal Fired Power Plants, $915
- New Nuclear Power Plants, $360
- Wind Power Generation, $287
- Gas Turbines, $207
- Solar Power, $134
- Nuclear Upgrades, $110

Source: Mcilvaine Company

Now Imagine if all of this was USA Designed and Manufactured!
States Rely on Coal

States that Rely on Coal Have Low-Cost Electricity

18 States and District of Columbia: 24% from Coal & 13.50 Cents/kWh Average

29 States: 59% from Coal & 7.85 Cents/kWh Average

Source: Energy Information Administration, 2010
Who Has Better Wisdom to Form America Energy Policy for the Future?

535 Elected Officials and 40,000+ Bureaucrats or A Coal Miner with Common Sense?
Sources of Electricity in Japan

- **Coal, 27%**
- **Gas, 26%**
- **Nuclear, 24%**
- **Oil, 13%**
- **Hydro, 7%**
- **Other, 3%**

Expect natural gas (LNG imports) and coal (imported) to increase after the earthquake and tsunami disaster.

Source: Energy-Facts.org
Projected Generation From Nuclear Power in Japan (IEA, 2010)

(Note: These were before the earthquake and tsunami disaster)

Terawatt Hours (TWh) from Nuclear

Source: Energy-Facts.org
Japan has the World’s Most Efficient Fleet of Coal Plants

America could learn some lessons from Japan
Multiple fuels are helpful for security!

Average Efficiency

Source: Energy-Facts.org
Fuel Prices in Japan

Low and Stable Prices

Whether in Japan – or Any Other Developed Country
Reasonable Cost Energy is a Pre-Requisite for Manufacturing!

Source: Energy-Facts.org
Energy Dominated by Coal

Coal: The World’s Fastest – Growing Fuel for the Past Decade

Coal Keeps Manufacturing Competitive, Keeps the Lights On and Should be Properly Respected for What It Does!

Source: BP Statistical Review of World Energy, June 2010
Clean Green Coal

COAL WITH CARBON CAPTURE AND STORAGE: ONE LOW-COST, LOW-CARBON OPTION

15%-50% Below Wind

25%-45% Below Natural Gas

15% Below Nuclear

Coal with CCS is projected to be less expensive than alternative, including natural gas with CCS, wind and nuclear.

Source: CoaCanDoThat.com
What Coal Did Today

In Just 24 Hours

- Produced 23 TWh of electricity – more than gas, wind, hydro and solar combined
- Generated power equivalent to 1,340 nuclear power plants
- Provided more than half the electricity for 3 billion people – 10 times the population of the US
- Enhanced energy security for dozens of nations across the globe
- Enabled the production of 2.4 million metric tons of steel
- Fueled about 60% of China’s industrial sector
- Provided over 40% of the power for 300 billion emails, 110 million “tweets” and the activation of 300,000 Androids

Source: Energy-Facts.org
Coal and Electricity in the US

States that Rely on Coal Have Low-Cost Electricity

35 States obtain at least 25% of their electricity from coal
24 States obtain at least 45% of their electricity from coal

% = percent of total generation from coal for 2010

Source: Energy Information Administration, 2010
In One Day, American Coal Produces...

- More electricity than natural gas, nuclear, oil, wind and solar combined.
- Enough power to supply Alabama for three weeks, Kansas for 50 days and Connecticut for two months.
- 45% of the electricity to operate over 200 million computers and 100 million microwave ovens.
- More kilowatt hours than the United Kingdom uses in almost six days.
- Almost half the power to support 15,000 airports processing over 800 million passengers per year.
One Day of Coal in the Heartland

Ohio as an Example

Coal Provides 78% of the Electricity for:
- 11.5 Million People
- 878,000 Manufacturing Jobs
- 75,000 Farms
- 4,231 Public Schools
- 145 Hospitals

Coal Produces 78% of Electricity in Ohio

"Electricity ushered in a transformation of American society at the end of the 19th century. Suddenly, the backbreaking work that consumed dawn to dusk for most Americans was alleviated by electric motors, dynamos and generators. Electric household appliances made it possible to heat homes, cook food, store meat and perishable items and wash clothes without the drudgery and fear of disease that had haunted previous generations."

Columbus, Ohio Department of Public Utilities, (2010)
Coal’s Potential to Restore Economic Strength to the USA

- America’s most abundant energy resources is coal.
- Reduce oil imports by using our nation’s coal reserves.
- Technology exist today that can transform coal into clean, affordable transportation fuels, provide industrial fuels, and supplement energy for armed forces.
- Using today’s technologies create jobs across America.
- More energy resides in American coal than oil of the Persian Gulf.
- Our coal reserves can supply more than 3 times the amount of fuel contained in Saudi Arabia’s proven oil reserves.

Source: National Mining Association (NMA) President and CEO Hal Quinn statement in response to President Obama’s address on strengthening US independence from foreign oil.
The American Energy Solution: Multiple Fuels + Respect for All!

Coal + Natural Gas + Nuclear = Approx. 55% of America’s Total Energy

- States like W. Va. can benefit from coal and natural gas.
- Coal increasingly sharing more market space with natural gas.
- Both can be use for long-term economic development.
- Typically, where’s natural gas, you’ve got coal also.
• **Washington Watch**
  - Senate Proposals Gathering Strength to Block EPA’s Greenhouse Gas Regulations - But Due to Misguided Public and Political Correctness Have Failed So Far.
  - EPA To Slam Oklahoma With 15% Higher Electricity Costs

• **Newsworthy**
  - President Overlooks Coal’s Potential to Strengthen U.S. Energy Independence
  - Declining Rare Earth Exports from China Require New Mining Developments in the U.S. and Mongolia
  - NMA Concerned EPA’s Utility Rule Will Cost Consumers, Threaten Jobs and Strain Electricity Reliability
  - NMA and Other Industry Groups Want Congress, NOT EPA, To Be In Charge of Regulating Green House Gas

• **Smart Science**
  - Rare Earth Metals
  - Possible Key to Renewable Energy Future
EPA’s Regulatory Train Wreck

- EPA is in the process of enacting a series of back-door regulatory mandates – without any Congressional approval – that threaten millions of American jobs and increases the cost of every household's electricity-rates.
  - EPA’s New Maximum Achievable Control Technology (MACT) Rule
    Negative Economic Impact: Loss of 30-70 Giga Watts* of Electric power and higher electricity prices.
  - EPA’s New Greenhouse Gas Rule (GHG)
    Negative Economic Impact: Increase U.S. Energy Costs/Reduce Household income - average income dropping by more than $1,200 annually by 2030.
  - EPA’s New Transport Rule
    Negative Economic Impact: Estimated Cost: $130 Billion by 2015*.
  - EPA’s New Ozone Rule
    Negative Economic Impact: Estimated number of U.S. jobs lost: 7.3 million*.
  - EPA’s New Coal Combustion Rule
    Negative Economic Impact: As many of 350 coal-based facilities shuttered*.

We All Want Clean Air! Let’s Not Kill American Manufacturing Just Because of Political Correctness!
What Has Been the Progress of America in Reducing Major Pollutants since 1980?

Comparison of Growth Areas and Emissions, 1980-2009

Source: EPA.gov
• Three steps we can take that will move the economy forward without increasing the federal budget deficit.

  – **Replace foreign sources of energy with domestically produced energy.**
    • Encourage drilling for oil where practical and natural gas, foster the construction of dozens of new nuclear power plants, and help develop multiple forms of renewable energy like wind, solar and biomass.
    • Powering the economy with domestic oil and natural gas will create million jobs.
    • Be mindful – that over 90% of America’s energy comes from traditional sources: coal, oil, gas and nuclear.

  – **Balance our trade deficit.**
    • Correct the mercantilist and predatory trading practices of our principal trading.
    • End trade distortions and foster long term, balanced, and healthy trade relationships.
    • Correct outflow of USD’s $$ for imported oil.

  – **Rebuild outdated and unsafe infrastructure.**
    • Improve our country's roads and bridges.
    • Create jobs to rebuild our economy, our country, and our middle class.
Coal Built America to be the most powerful Nation in the world in the 20\textsuperscript{th} Century. Needed in 20\textsuperscript{th} Century and needed in the Present!

Painted for the War Manpower Commission, this image was published as a recreational poster for coal miners. The caption read, “\textit{Mine America’s Coal. We’ll make it hot for the enemy! See your United States Employment Services.}”

The badge on the man’s overalls indicates that he is a father of two sons in the military. America’s industrial and economic strength was fueled during the 20th Century by coal and it is still needed in the 21st!

Remember the proud, productive and patriotic coal miners whose hard work enabled the good lives we enjoy today!
Blue Planet in Green Shackles

The President of the Czech Republic compares “Green’s” to “Communist’s”

Watch out for GREEN Political Correctness. It Can Create Harm to America!
"Green" - the same color used by communists, Hezbollah and anti-American Middle Easterners. Be wary of green!
Help the Poor In America!

Provide Reasonable Cost Electricity and Good Paying Manufacturing Jobs!

High energy cost will not only damage America economically, but also hurts the poor even worse.

...besides unemployment due to the De-Industrialization of America.
Check the FACTS: It is A MYTH that Renewables Can Replace Fossil Fuels

- Biomass
- Geothermal
- Hydro
- Solar
- Wind
- Ethanol
COAL, AMERICA’S TREASURE OF ENERGY

How to End the Recession: Build Things In America!

IF THE POWERS THAT BE UNDERSTOOD THE POWER WE HAVE...

1. Stop the war on carbon - is a war on our way of life! Stop the EPA!
2. Abolish “new source review” for coal fueled power plants. (EPA again)
3. Lift Federal restrictions and aggressively promote production of domestic American energy from all traditional fuels: coal, oil, natural gas and nuclear.
4. Lift Restrictions to build new power plants in America that use America’s National Treasure of Coal.
5. Stop the Red Tape and Drilling Moratorium(s): Drill for oil and gas within our borders and off the continental shelf, including off the coast of North Carolina and Virginia.
6. Abolish political correctness on Energy.
7. Promote true education of the Real Facts of where our economic prosperity comes from – It comes from Building Things in America!
Here is An Example of How Reasonable Cost Energy Can Create Economic Prosperity:

Take the Nucor Mill located near Hertford, NC

FACTS:

• Total Employees: 435
• Production: 1.3 million tons/year of steel
• Average Team Member Total Compensation:
  – About $75,000/year
• Community Benefits?
  – Approx: $32.6 million payroll to be spent locally for homes, building, materials, groceries, automobiles, entertainment and recreation

Source: Nucor Steel
References

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- Nucor Corporation - www.nucor.com - Mr. Dan DiMicco
- Stanly News and Press - www.thesnaponline.com
- 1010 WSPC - www.1010wspc.com
- American Coal Council - www.clean-coal.info
- Nuclear Energy Institute - www.nei.org
- Storm Technologies, Inc. - www.stormeng.com
It is a Fact!

The number of people who understand the true energy situation are grossly outnumbered by those that do not and are “politically correct green lovers.”

Also – the news media, entertainment, and most educators are wrongly informed and politically correct against Carbon!

**Estimate:** Practical energy professionals are out numbered 10,000 to 1.
Thank You

Now – It is your turn: Please!

Please go forth and spread the truth on energy and why we need coal to be part of America’s solution to restore our economic strength.

Richard F. (Dick) Storm, PE
Storm Technologies, Inc.
Albemarle, NC
www.stormeng.com
704-983-2040