

Why Should I be Interested and Involved in What Congress and Obama are Doing to Mangle America's Environmental and Energy Policies?

What Does Energy Do For Me?

By Richard F. (Dick) Storm, P.E.

America's economy runs on energy. About all of the comforts and conveniences that make our life styles and the high quality of life we have come to accept as God-given rights are made possible by energy. Look around you right now. Did you enjoy air conditioning during this hot summer? How about traveling to a meeting thousands of miles away, flying a commercial airliner that uses tens of thousands of pounds of jet fuel to make that possible? A Boeing 747-400 consumes about 11 tons of jet fuel per hour. How about using your microwave oven to warm dinner or driving the family to see friends?

On a national scale, reasonable cost energy is required to power America's economy and to provide the motive force needed to energize manufacturing factories that employ hundreds and sometimes thousands of workers. Consider some facts of how America's quality of life compares to the rest of the world:

- About 7 billion people are on the planet.
- About 3.6 billion (about half) lack adequate access to electricity.
- About 1.6 billion, more than five times the population in the US, have no electricity.
- Basic human needs for healthy lives require electricity, such as clean drinking water, light, warmth, food preservation by refrigeration, and sanitary waste disposal to keep water clean.
- About 2.5 million women and children die prematurely from breathing fumes from burning biomass stoves each year. Biomass is a polite term for cow dung. I have visited Pakistan and India where your eyes burn from excessive air pollution.
- Asia's pollution from open fires has created what NASA refers to as the "Asian Brown Cloud" of pollution over the Pacific Ocean. Some experts attribute 20% of Los Angeles, California's particulate pollution to the Asian Brown Cloud, transported across the Pacific by westerly winds.
- Compare energy and economics to Haiti, which has been in the news recently. When the January earthquake destroyed the country, Haitians had virtually no access to electricity. They depended on felling 50 million trees per year to produce charcoal for fuel. Destruction of the Haitian forests has left the countryside barren, leading to a continuing loss of agricultural productivity and vulnerability to flooding (like the Asian cities of Lahore, Delhi and Manila). The burning of charcoal briquettes also releases fumes that hang in a heavy haze over towns like Port-au-Prince and contribute to a host of respiratory illnesses.
- Consider the history of England and the industrial revolution of the 19th century. As the demands for "better things for better living" became invented and possible, they needed steel. Britain used enormous amounts of timber to produce the needed charcoal to produce steel. Most of the forests were denuded until the use of coal was perfected!

This is a quick trip around the world today, and a brief review of a few historical facts to remind us that in America we still depend on coal for about 50% of our electric power generation. Our economy is powered by energy and we use a lot of energy to power our life styles. How much? Remember the BP oil spill this summer? This was horrible, and eleven lives were lost on the Deepwater Horizon Drilling Rig when it exploded. The millions of gallons of oil discharged into the gulf were just enough to power

America's transportation fleet for a few hours. America uses about 20 million barrels of oil per day. At 42 gallons per barrel that is 840 million gallons per day. In America we have about 250 million registered cars, SUV's and light trucks that families use to commute to work, take children to school or travel to grandparents for visits. Each time you pump 10 gallons of gasoline into your car think about the other 250 million people who do the same thing. This total oil consumption in America, mostly for transportation fuels, comes to about 10,000 gallons per second. Have you ever visited Alaska? Have you seen the Alaskan Pipeline? It is 48" in diameter and passes about 1 million barrels of oil per day. I illustrate this example to make the point – imagine 21 pipelines lined up, each 4 feet in inside diameter. That is the equivalent amount of oil needed to fuel our trucks, planes, trains, boats, lawnmowers and cars.

In engineering terms, America's energy consumption which is absolutely and positively needed to power our lifestyles and our economy, uses about 100 Quadrillion BTU's in energy equivalence per year. Here is what 100 Quadrillion BTU's mean in everyday terms for the average American:

- Over 6,000 pounds of coal per person per year average is burned to produce America's electricity.
- We need over 1.1 billion tons per year of coal.
- American uses about 20 million barrels of oil per day or about 3 gallons average per person per day.
- Twenty percent of our electricity is produced by nuclear power.
- Twenty-three percent of America's total energy is provided by natural gas.
- About 2% of our electric power is provided by renewable power (excluding old hydropower dams built over 75 years ago. Together these amount to about 7% of our total so called, "GREEN" electricity generation).

My point is America needs "all of the above" solutions to meet our future energy needs. America's insatiable appetite for energy, which includes air conditioning, warm food, easy travel, my computer, TV, and electric power to energize modern medical advances, etc.

America has hundreds of year's supply of a precious national treasure of energy within our borders. The products of combustion of this national treasure are naturally occurring, colorless. The carbon dioxide resulting from combustion is the same as that in your lungs now. Farmers and agricultural products thrive on this harmless gas. The national treasure of energy I am referring to is coal. America has more coal energy within its borders than the Middle East has in oil energy. Some call the US the Saudi Arabia of coal.

Clean Coal will be required for decades to come. It is a myth that windmills and solar will be able to power America. We should build windmills and solar collectors where they are practical, but we should not allow the proponents of alternative power to misguide us into thinking that Renewable Power can replace Fossil Fuels anytime soon. What is a fossil fuel? Fossil fuels are coal, oil, and natural gas. These provide 86% of your energy. They are organic and all of them including natural gas contain carbon. The war on carbon by some people and politicians is a war on the American lifestyle and our economic competitiveness in the world.

What about national security? Restricting oil and gas exploration and drilling in the Gulf, Alaska and in America, from within our borders only increase oil imports from unfriendly countries. Imported oil is

now about 70% of what we need. China burns more coal than America and is building a new coal plant every week or two. China has built more coal fueled electricity production in a year, than many large electric utilities needed over a 100 years to build. This is not an exaggeration. In 2007, China built more coal fueled power generation in one year, than Britain built in its history. China in 1990 had over 360 million citizens living in poverty. In 16 years the poverty level of China dropped from 350 million to about 100 million. Coal generated electricity from 1990 to 2006 doubled. Been to Wal-Mart recently? Check where your purchases were made. Do you see the correlation? Use energy, build factories, see an economy grow, Asia get's it. America's energy policy is mangled and has been since before the Department of Energy was formed in the 1970's.

Everyone wants clean air and clean water! I would like my seven grandchildren to have as good of an outlook in life as I have had. Energy built America's economy in my lifetime, to be the strongest economy in the world. As this is written, China has surpassed America as the largest consumer of coal and soon will use more energy than any other country in the world. Remember in the 1960's how America exported Chevrolet and Ford vehicles, steel making equipment and power plants? Now you see where the products you purchase, large and small are manufactured. Even large coal and Nuclear Power plants are "Globally Sourced". This is politically correct for "not made in America". This means the jobs that used to be in America are being exported by the hundreds of thousands. In my view, the EPA, Congress and the Obama Administration are on an Anti-Business, Anti-Industry tear. Take the EPA "Endangerment Funding", which within weeks of taking office, the new EPA Administrator, Lisa Jackson determined that carbon dioxide was an endangerment to humanity. Carbon dioxide causes plant life to thrive and is used to make bananas yellow.

The EPA attacks on industry and the ever increasing costs of energy (because of rampant, out of control regulations) are driving manufacturers overseas. Just this summer, hundreds of thousands of high paying oil production worker's jobs were lost due to the moratorium on drilling in America. Restrictions on mining coal are increasing. Restrictions on coal ash storage and ever increasing restriction on any waste or the contents of flue gas in any smoke stack. Life has risks. We do not stop driving cars because 40,000 people are killed in auto accidents each year. The benefits of manufacturing in America and having abundant and reasonable cost electricity outweigh the Anti-Industry, out of control EPA regulations.

The Heritage Foundation estimates the increasing cost of the carbon tax which passed the house on the Waxman-Markey bill to be over \$3,000.00 per year for a family of four and will destroy over a million jobs. If the senate and Obama proceed on the carbon tax, then electricity rates will go up 90%, gasoline prices 58% and natural gas 55%. I think this is an understated analysis because it assumes that the same job base remains in America. Much more American industry will be off shored as a result of onerous and ridiculous air pollution, mining, water and energy production restrictions. The problem is that once these laws and rules are passed by Congress, the impact will not be felt until a few years later, after the jobs are lost. In many cases, such as heavy manufacturing, once the jobs are lost offshore, it is not reversible, and will contribute to the weakening of America.

Storm Technologies, Inc. has had a difficult time buying steel pipe "made in America". Because of competitive pressures, we are forced to buy foreign steel for the raw material of some of our products, even when we want to buy American. The EPA and Congress are out of control and the consequences of citizen inaction for America's future are serious. This is not an exaggeration.

In closing, let me ask you to do something. Please check the facts on energy and environmental policy before you vote. Before elections, become informed and tell your friends and neighbors about the true facts on energy. The general public, politicians, public school teachers, the print media, mainstream TV news and overall public opinion is severely misguided. Due to poor energy understanding, the policies of Congress will likely result in energy shortages. Continued economic stagnation and a less bright future for America's youth, if we do not get involved. Those that understand Energy, Economic Prosperity, and Reasonable Environmental Protection and the need to educate the public are in the minority. These are the four E's: Energy, Environmental, Economics and Education. We have got to improve the balance of these. Will you help keep America strong? Do some research and be one of the energy wise citizens of America than spread the word. Do your part to keep America strong!

For more information on Energy, Coal and Facts, visit the following websites:

Storm Technologies, Inc. (www.stormeng.com)

American Coal Council (www.americalcoalcouncil.org)

Clean Coal Coalition (www.cleancoalusa.org)

CARE- Citizens' Alliance for Responsible Energy (www.responsibleenergy.org)

The Heartland Institute (www.heartland.org)

The Heritage Foundation (www.heritage.org)

The Competitive Enterprise Institute (www.CEI.org)