

Putting America First in the Clean Energy Jobs Race



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Posted February 4, 2010 in [Green Enterprise](#) , [Moving Beyond Oil](#) , [Solving Global Warming](#) , [U.S. Law and Policy](#)

The United States Senate is considering policy that has the power to reinvigorate the economy, create millions of American jobs, increase our energy security and open up vast new exports markets for American-made products. That policy is comprehensive energy and climate legislation. We need the Senate to unite behind this legislation to put America first in the clean energy jobs race.

The Next Great Global Industry

The clean energy industry offers significant growth opportunities for American businesses. Under a global policy aimed at keeping carbon concentrations below [450ppm](#), clean energy investments are forecast to exceed \$13 trillion over the next two decades. This represents an eighty-five fold increase in clean energy investment relative to today and five-fold increase over business as usual forecasts though 2030 - investments that pay for themselves in lower energy costs and are expected to directly benefit US manufacturers of cleaner cars, cleaner fuels, and cleaner power (see table below) and companies involved in improving industrial, power plant, and building efficiency.

Global Clean Energy Growth Forecasts (source IEA)	2007	Reference Case 2030	450ppm Scenario 2030
Hybrids	7.7mln	98mln	406mln
Plug-in Hybrids	0	0	294mln
Electric Vehicles	0	0	98mln
Carbon Capture and Storage	0	100Twh	1621Twh
Bio-fuels	0.7mbpd	2.7mbpd	5.6mbpd
Wind Power	173Twh	1550Twh	2779Twh
Solar	5Twh	290Twh	850Twh
Geothermal, Wave, Tidal	63Twh	200Twh	850Twh
Biomass	259Twh	840Twh	1448Twh
Cumulative Clean Energy Capital Spending		\$2.5trln	\$13trln

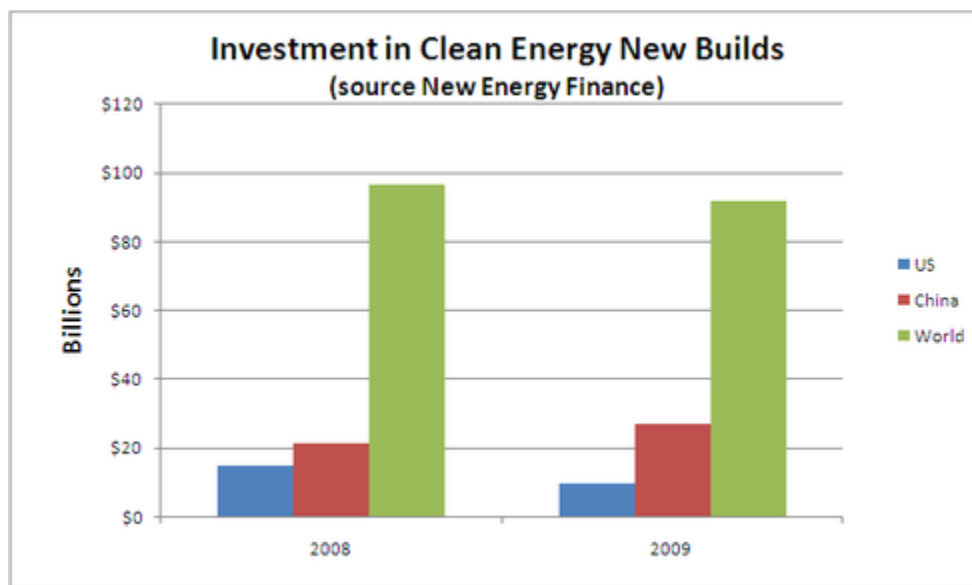
The industries listed above represent enormous opportunities for energy investors in the twenty-first century. The U.S. has the technology edge in these markets if we act now.

For example, the increase in demand for cleaner cars offers a multi-trillion dollar opportunity for American auto manufacturers. Under policies aimed at cutting emissions for the global car fleet in half, US manufacturers of hybrids, plug-in hybrids, and electric cars are expected to see their

markets grow substantially over the next two decades as global demand for these vehicles reaches nearly 800 million units. This is a far better outcome for domestic manufacturers than under business as usual where internal combustion engines remain dominant and production continues to flow to the lowest cost producer countries.

Jobs for Americans - But Time is of the Essence

We have an opportunity to create [1.9 million](#) new clean energy jobs in America by 2020 under a comprehensive clean energy and climate bill, but only if we act now. According to Bloomberg New Energy Finance, China is currently ranked number one in clean energy asset investment and last year outspent the US nearly three to one on new build renewable energy projects (see graph below):



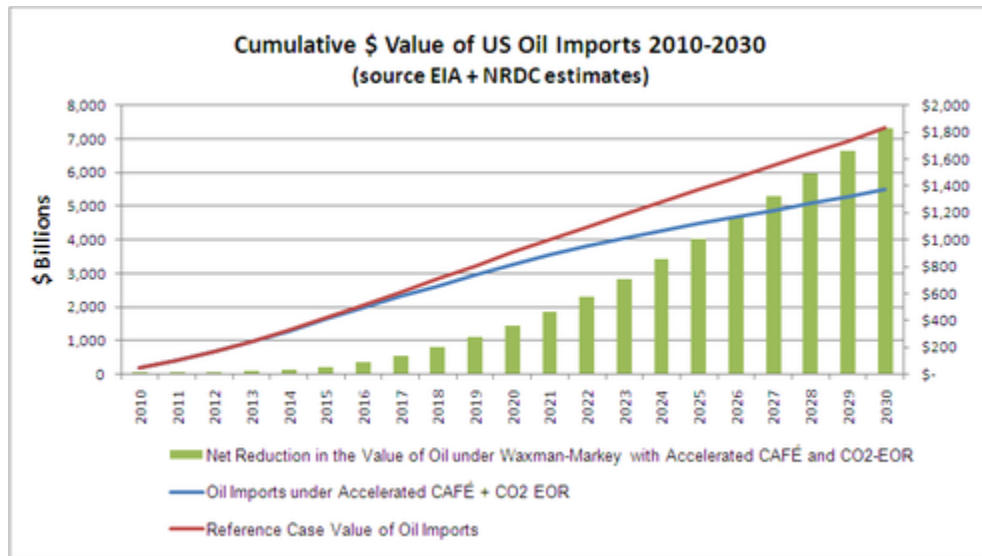
If we continue to delay our own commitment to the clean energy economy, U.S. will lose our competitive position in global markets for products that were originally developed here with U.S. research dollars. Instead of leading the clean energy market, we will be reduced to dependence on foreign alternative energy products.

Jobs that Enhance our Energy Security

Passing clean energy and climate legislation is not just smart business policy but smart energy security policy as well. For instance, under the House-passed climate bill, the US could cut its consumption of foreign oil by 30% over the next two decades causing trillions of dollars to be reinvested in the American economy that would otherwise be sent overseas to buy oil.

This would be accomplished by using incentives under the bill to 1) re-tool US facilities to build cleaner cars and 2) capture CO₂ at power plants that can then be used to increase domestic production of stranded oil (using a well established recovery technique known as enhanced oil recovery with CO₂). A combination of policies to both reduce domestic oil demand and increase

domestic oil supply that is expected to lower our oil import bills by \$1.8 trillion through 2030 (see graph below):



Furthermore, the increase in oil production is expected to generate over \$300 billion in additional oil royalty revenues for states and the federal government over this time frame, more than enough to pay for these incentives.

An Energy Bill is Not Enough

Investing in energy efficiency and clean energy deployment, as well as requiring utilities to obtain a percentage of their electricity from renewable sources, are important policies for the Senate to adopt; however passing energy-only legislation is short-term thinking that will only deliver short-term results. The U.S. will not reap the full benefits of these policies unless they are complemented by a cap on carbon emissions. Only comprehensive clean energy and climate legislation can create both the sustained incentives and long-term price signal necessary to maximize energy efficiency and commercialize innovations in renewable technologies.

A Road to Recovery and Profitability

In sum, passing energy and climate legislation pays back with jobs, enhanced energy independence, and competitiveness gains that cannot be found in a business as usual scenario. We must commit to a new energy economy. We look to the Senate for leadership in crafting and passing a comprehensive climate and clean energy bill in the coming weeks. For the sake of our country's economic future, we cannot wait.

The blog post was co-written by Nicole Lederer, Co-Founder, Environmental Entrepreneurs