

“Green” developments in US: policies and trends of the US government, 2008-2012

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Since 2008, Congress and the current U.S. administration have worked together to introduce initiatives for the development of a “greener” future for America. The current U.S. administration supported, among other things, renewable energy companies, the production of electric cars, the passing of the cap-and-trade bill, and the extension of renewable energy tax credits. Many of these initiatives were hailed as successes, while others were criticized as failures. However, by putting an emphasis on clean energy, these initiatives assured that even if they fail in the immediate future, if pursued further, they will make America more sustainable.

One of the cornerstones of the current administration’s desire to increase the nation’s sustainability was the transportation industry. It received particular attention from President Barack Obama due to soaring oil prices and emerging “green” technologies such as the electric car. One of the first large projects to reduce the nation’s dependence on oil was started on July 1st 2009. This program, called “Cash for Clunkers”, offered a \$3500-\$4500 dollar rebate to any consumer who traded in their old “clunker” for a more fuel efficient new car. The program was wildly successful, and used up its entire \$1 billion allowance three months ahead of schedule. It was appropriated \$2 billion more by congress to keep it alive until the November 1st deadline, but nevertheless, the program was terminated on August 24th for lack of funds. The next move by the US government (in 2011) was to set mileage standards for all vehicles built in the years 2017-2025. It proposed a 54.5 mile per gallon (mpg) standard that would more than double today’s 27 mpg average, and further raise the 35.4 mpg standard (finalized on April 1 2010) the US administration expects by 2016. The afore mentioned standards arose from deals with automakers and environmental groups and are expected to prevent six billion metric tons of carbon dioxide pollution and save 12 billion barrels of oil. Furthermore, in March of 2012 the current US administration announced a \$4.7 billion new stimulus to promote the development of alternative fuel technologies in cars, specifically electric power. The money is to be divided amongst towns investing in clean fuel technology and a tax credit for consumers. This is on top of an earlier \$2.4 billion stimulus to electric auto manufacturers. Although President Obama projected that by 2015 there will be one million electric vehicles on the road, the nation is currently running behind schedule with the projection. The Chevy Volts, Nissan Leafs, Fiskers and Teslas are just not flying off the lots at the pace they were expected to.

Another important renewable energy initiative was so called cap-and-trade legislature, which in 2009 was a hot topic in all American newspapers. Part of the American Clean Energy and Security Act of 2009, the cap-and-trade bill was a proposal to establish a system of trading carbon emissions, similar to the EU Trading Scheme, in which the government would set a limit, or cap, on the amount of greenhouse gases that could be released into the atmosphere. Each regulated entity would obtain rights to emit a predetermined amount of these gases from the government, and if a company emitted an amount of pollutants that fell short of the cap, it could sell their rights to those companies that exceeded the cap. Thus, through this market-based system, companies that over-polluted would be penalized and forced to adopt cleaner production methods. The bill was drafted by the House Energy and Commerce Committee on March 31 of 2009. It was expected that its adoption would create “green” jobs, and spur the development of low-carbon sources of energy. Most importantly, it would require the U.S. to reduce the level of its greenhouse gas emissions from capped sources by 17 percent below 2005 levels by 2020, and by 83 percent below 2005 levels by 2050. While the supporters of this legislature

such as the current US administration, the authors of the bill Henry A. Waxman and Edward J. Markey, General Electric and the Sierra Club, saw the energy bill as a practical way of regulating and reducing emissions, Republicans and big industrial companies labeled it as an energy tax. Supporters and critics alike agreed that if the climate change bill was approved, energy companies would be weighed down with excessive costs, leading to job loss and higher prices for goods and services. House GOP leader John Boehner of Ohio said, "By imposing a tax on every American who drives a car or flips on a light switch, this plan will drive up the prices for food, gasoline and electricity." Higher prices, especially during the recession, did not seem like a good idea for the bill's critics. Another concern was that the bill would drastically cripple the American economy and set it behind such countries as China and India who did not have a cap on emissions. When it came time for the House to vote on June 26, 2009, it narrowly passed the bill with 219 votes for it and 212 votes against it. However, the bill failed in the Senate, ending the hope (for now) for a national cap and trade system.

Despite its defeat, the current US administration carried on with its plan to increase the sustainability of the country. Through the EPA (Environmental Protection Agency), it was able to, for the first time, set national limits on the amount of pollutants future power plants could emit. This new EPA regulation, proposed on March 27, 2012, set a carbon standard for new power plants to 1,000 pounds per megawatt-hour. Environmental groups applauded the new standard on coal-fired plants, and President Obama hailed it as an initiative that brought him one step closer to his goal of producing 80 percent of America's electricity from "clean" energy by 2035.

Yet another new bill that is key to the progress of America's green energy is the Clean Energy Standard Act of 2012. When enacted, it will instruct each utility to obtain at least 24 percent of their electricity from "clean sources" by 2015 and 84 percent by 2035. This is a big step for America as it will increase the importance of energy obtained through solar, wind, and biomass, and as a result, these sectors will likely experience unprecedented growth.

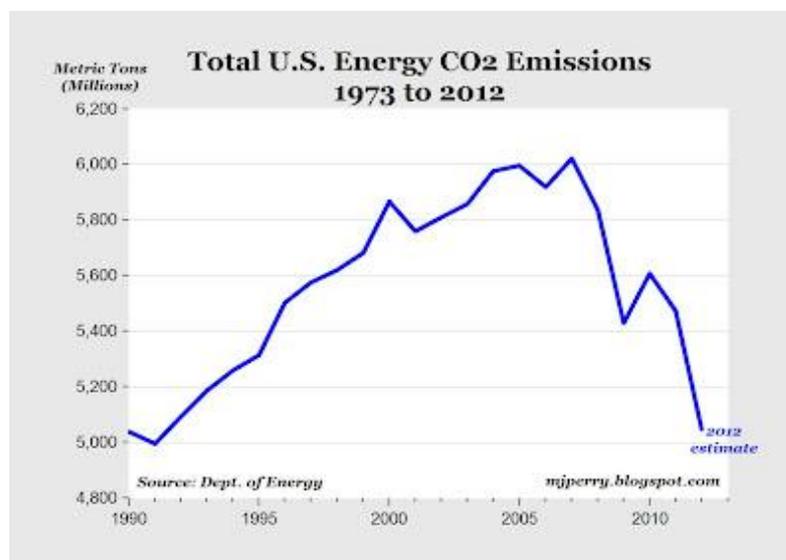
Although there have been many successful ventures on the road to creating "green" industries in US, over the last four years, there were also several well-known failures. In an effort to support the sustainable energy industry during the financial collapse of 2008, the US government allocated billions of dollars to certain companies in the industry. Many of the companies that received aid promptly filed for bankruptcy. These companies include Evergreen Solar which received 527 million and Abound Solar which received 400 million. Critics are especially exasperated by the government's 535 million dollar investment in Solyndra. In 2004, Solyndra started producing solar panels without polysilicon which were supposedly more expensive to produce but cheaper to install. The company hedged all of its bets on the skyrocketing price of polysilicon, which gave it a chance to compete in the market. However, by the time the department of energy approved Solyndra's loan application, the price of polysilicon was already falling sharply. Thus by the time it received aid, the company was working with a failed business model and had no chance to compete while the price of polysilicon remained low. On September 2nd 2011, Solyndra declared bankruptcy. Many of the other companies which received aid, including First Solar which received a 3.1 billion dollar loan and Sun Power which received another 1.2 billion in funding, are still in a distressed state.

Another important facet of the U.S. government's energy platform was the extension of the renewable energy tax credit. As part of the American Recovery and Reinvestment Act of 2009, it provided a three year extension to the production tax credit (PTC), which gives companies a tax credit of 2.2 cents per kilowatt hour of energy produced using utility-scale wind turbines. The extension of the PTC was a colossal victory for the clean energy development as it rewards those that care about the

environment and use renewable energy sources. Since its extension, the PTC has had an enormous impact on the wind industry that has allowed it to develop as a clean energy alternative and gain popularity amongst other energy producers; in 2011, the wind industry generated 29% of America's electricity and produced 60% of America's wind turbines, compared to 25% of turbines in 2005. Because of the extension of PTC tax incentives, energy generation from wind turbines increased by 27% in the year 2011, with the wind industry itself adding 35% of new generating capacity over the past 5 years. However, the PTC is set to expire on December 31, 2012, and it will be up to the US Congress to decide on its extension. With the energy sector and politicians embroiled in debate, the PTC has definitely risen as a pressing issue. According to the BlueGreen Alliance, if the tax credit is left to expire, wind energy production will drop from more than 8 gigawatts (GW) in 2012 to 2 GW in 2013, jobs in the wind industry will drop by 37,000, and total wind investment will drop from \$15.6 billion in 2012 to \$5.5 billion in 2013.

By making sustainability a priority in the years 2008-2012, the US government was able to put "green" topics at the forefront of American politics. Thanks to its investments in clean energy, the largest in history, the United States has doubled renewable energy generation since 2008 (it grew by 54.6 percent). Furthermore, according to EIA's February issue of "Electric Power Monthly" through data for December of 2012, during 2011, renewable energy sources made up 11.74 percent of energy production, an increase from 9.85 percent in 2008.

Many US government initiatives, such as the cap-and-trade bill, Clean Energy Standard act, and cash for clunkers program, were dedicated to reducing carbon emissions. The numbers show their success; According to the June issue of EIA Monthly Energy Review, carbon dioxide emissions went down by about 400 million metric tons from 2008 to 2011. Furthermore, carbon emissions are projected to go down about 500 million metric tons more by the end of 2012 alone.



<http://sayanythingblog.com/files/2012/07/co2.jpg>

The current US administration's four years in office have been the "greenest" in history, decreasing carbon emissions and doubling renewable energy generation. What is more important is that the US government brought issues of sustainability to the forefront of American politics. "Green" issues have gained bipartisan interest that will likely never fade, but will instead grow with every passing year. When the next administration takes office in January of 2013, all eyes will look to them to build upon the established precedent of promoting American sustainability.

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