WRITTEN STATEMENT OF

NATIONAL PETROCHEMICAL & REFINERS ASSOCIATION (NPRA)

AS SUBMITTED TO THE

SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT

Committee on Energy and Commerce
United States House of Representatives

on

"Clean Energy Policies That Reduce Our Dependence On Oil."

April 28, 2010

Good morning, Chairman Markey, Ranking Member Upton, and Members of the Subcommittee. I am Charlie Drevna, and I serve as President of NPRA, the National Petrochemical & Refiners Association. I appreciate the opportunity to testify at today's Subcommittee hearing on "Clean Energy Policies That Reduce Our Dependence on Oil." NPRA represents more than 450 businesses, including virtually all U.S. refiners and petrochemical manufacturers, their suppliers, and vendors.

Our member businesses provide the transportation fuels that keep Americans moving on the ground and in the air – safely, reliably and cost-effectively. Our members also supply families with a wide variety of products used daily in their homes and at work, including fuels, lubricants, and chemicals that serve as building blocks for everything from plastics to clothing, medicine, and computers. We appreciate this opportunity to share our first-hand and practical knowledge of our nation's energy needs with you, because meeting these needs is vital.

I. Introduction

The title of this hearing is "Clean Energy Policies that Reduce Our Dependence on Oil." I respectfully submit to you that your focus should be on *affordable* and *economically sensible* clean energy policies. And, more broadly, our nation must focus on securing affordable and economically sensible energy supplies of all types. Getting more oil, and more energy in general, from the United States and from reliable sources abroad makes political, economic and energy policy sense.

Some people think we can reorient our energy supply system and end our reliance on oil simply by saying that's what we want to do – "where there's a will, there's a way." They embrace other energy sources like starry-eyed lovers, seeing perfection and ignoring flaws. The

fact is, however, that there is no miracle source of energy that is clean, efficient, affordable and abundant with no downside. If such a source existed, our nation would have embraced it long ago and we'd all be using it today.

Members of NPRA are not anti-clean energy. They're not anti-green jobs. They are simply believers in an energy policy based on sound economics and sound science rather than science fiction. They want to provide jobs that are well-paying, long-lasting, and that strengthen our nation's economy. And the operators of refineries and petrochemical plants want to keep their own domestic manufacturing operations – and manufacturing by others in the United States – strong and thriving. America rose to prosperity because we became a world leader in making things. Continued outsourcing of this vital activity to other nations is a trend our nation must reverse.

Attached to my testimony is an article from The Washington Post this past Sunday (April 25), by Robert Bryce – a senior fellow at the Manhattan Institute – headlined "Five myths about green energy." Mr. Bryce makes it abundantly clear that there are serious problems facing widespread adoption of solar and wind power, as well as electric cars. He also points out that a good number of green jobs will actually be created in other nations with far lower labor costs.

Let's separate some energy facts from fiction. It's indisputable that petroleum-based fuels are abundant, easily accessible and very efficient. Until alternative energy sources can make that claim, we not only should, but *must* and *will* continue to use these resources wisely and efficiently for decades to come.

There's an overwhelming consensus among economists that we will continue to rely on petroleum-based transportation fuels for much of this century and on petrochemicals that are vital ingredients in thousands of products far beyond that. The question Congress must answer is

whether it wants to legislate and regulate the domestic refining and petrochemical industries out of business so America is dependent on foreign refiners to provide our people with these essential products in the decades ahead.

I know some people advocate using taxes to subsidize our way into new forms of energy. I suppose if money were no object and you Congress was willing to raise taxes to incredibly high levels and run enormous deficits – or both – that might be possible. But that would cripple our economy, send unemployment soaring and raise costs for manufacturers and families, making businesses in our nation less competitive with foreign industries. That would lead to the loss of more jobs and industries abroad. This nightmare chain reaction is hardly a recipe for a new era of prosperity.

America has long been the world's leader in innovation because our government has served as a catalyst to stimulate new inventions and new processes that have revolutionized the world. But government leaders have been wise enough to step aside and give private-sector entrepreneurs and the mighty engine of our free enterprise system the ability to transform good ideas into reality. When governments have tried to pick economic winners and losers the cost in taxpayer dollars has far outweighed the benefit to their citizens, who come out the ultimate losers.

There are countless examples of the American free enterprise success story. Thomas Edison invented the first long-lasting light bulb and formed the company that became General Electric, leading the way to a power revolution that literally electrified the world. Government didn't levy a tax on oil lamps, candles and fireplaces to cut their emissions and enable Edison's new power source to gain consumer acceptance.

Alexander Graham Bell invented the telephone and launched a communications revolution that continues today. He didn't depend on a tax on letters and telegrams to subsidize his new technology. And in our own lifetimes, we've seen computers and the Internet revolutionize the way we communicate. They didn't rely on government subsidies paid for by taxes on telephones, typewriters, pens and paper, libraries and printed publications.

My point is that, with a level playing field, the best, most efficient and most cost-effective form of energy will triumph in the marketplace. The form of energy that delivers a BTU at the lowest economic cost wins. And when our members produce energy for the American people they also pay billions of dollars in taxes – instead of consuming billions of dollars in subsidies paid for by taxes.

I am not arguing for an all-petroleum future, or saying we should consume as much petroleum as possible as quickly as possible. NPRA supports clean energy and policies that enhance energy efficiency. We also believe that the United States requires an energy portfolio that is as broad as possible, encompassing both traditional sources such as petroleum, coal, and nuclear energy, and supplemental sources ranging from wind to geothermal to biofuels.

What we do not support are government policies that are counterproductive, unrealistic, and economically harmful to American families and businesses. Decisions regarding our nation's energy policy need to be based on sound economic theory rather than theories that simply sound good. And these decisions need to be protective of environmental goals. Such decisions should also not be made in a vacuum. We live in an era of ever-increasing global competition; our energy policy will largely determine the role of the United States in relation to other nations in terms of manufacturing, job growth, innovation, and way of life.

II. Endangerment Finding and Greenhouse Gas Regulation

There are several policy initiatives underway designed to regulate emissions of carbon dioxide and other greenhouse gases (GHGs) in the United States. In addition to legislation already enacted and proposals currently being considered by Congress – along with regional- and state-level programs either already in place or under consideration – the Environmental Protection Agency (EPA) is moving towards regulating GHGs under the Clean Air Act (CAA).

While the CAA has proven to be a highly effective statute for the regulation of traditional, or "criteria" pollutants, the law was never intended to regulate GHG emissions and is, in fact, remarkably ill-suited to do so. Regulation under the CAA will have far-reaching and damaging impacts on the American economy and consumers. While it is hard to predict the extent of this, the "Law of Unintended Consequences" will certainly apply.

The CAA has a threshold of 100 to 250 tons per year for defining a "major source" for purposes of its prevention of significant deterioration program (PSD). New or modified major sources that emit a "significant" amount of any pollutant must obtain permits from state permitting agencies. There are no sound legal arguments to suggest it would be acceptable under the CAA to allow emissions nearly an order of magnitude higher than the major source threshold under CAA without triggering permit requirements. Any permits issued with thresholds higher than those in the Clean Air Act (and current state law) would be vulnerable to appeal and litigation, and would impose heavy burdens on state and federal regulatory agencies.

Regulation of stationary sources under the CAA would overwhelm state and local permitting offices, halting business growth and expansion. As the State of South Carolina pointed out in its comments on the PSD proposal, "the permitting process will become so backlogged as to create a permitting moratorium." Economic recovery would be threatened

because construction projects in general would be delayed by an onerous, burdensome and bureaucratically overwhelming permitting process.

EPA itself estimates a dramatic increase in permit applications, with each permit costing an average of $125,000 and taking 866 person-hours to review[1]. If the government regulates all GHG sources requiring regulation under the Clean Air Act – either now or in the future – as many as 6 million sources could eventually be required to get permits. Neither businesses nor states have adequate resources to meet the workload that this extraordinary level of regulation would create.

New business and industry would not be built, and existing business would not expand. Further, refining and petrochemical facility upgrades and related equipment modifications, including those to comply with future fuel regulations and those to modernize facilities, would likely be hamstrung by Clean Air Act GHG control regulations and permitting requirements.

The endangerment finding also allows activist groups and plaintiffs' lawyers to advance litigation challenging standard industry practices, such as changes in operations, as endangering the public health or welfare because those operations emit GHGs. This poses a significant potential liability to industry and American businesses, and will deter expansion or development projects and impede the economic recovery and job creation.

III. Challenges for the United States Energy Sector

As Chart A indicates below, the Energy Information Administration (EIA) projects flat and then declining U.S. demand for gasoline over the next 25 years. However, demand in

[1] Information Collection Request for Prevention of Significant Deterioration and Nonattainment New Source Review (40 CFR Part 51 and 52), Carrie Wheeler, Operating Permits Group, Air Quality Policy Division. *Available at* Docket No. EPA-HQ-OAR-2004-0081.

countries like China and India will continue to grow, no matter what happens to the U.S. economy. Any move the U.S. makes to dramatically alter its energy mix in unrealistic time frames won't reduce the world's reliance on oil.

In the EIA's International Energy Outlook 2009, total world consumption of marketed energy is projected to increase by 44 percent from 2006 to 2030. The largest projected increase in energy demand is for the economies in countries not part of the Organization for Economic Cooperation and Development (OECD) (Chart B below). China and India are the fastest-growing non-OECD economies, and they will be key world energy consumers in the future. Since 1990, energy consumption as a share of total world energy use has increased significantly in both countries.

As Chart C below demonstrates, China and India together accounted for about 10 percent of the world's total energy consumption in 1990, but in 2006 their combined share was 19 percent. Strong economic growth in both countries continues over the period projected to 2030, with their combined energy use increasing nearly twofold and making up 28 percent of world energy consumption in 2030 in the reference case. In contrast, the U.S. share of total world energy consumption falls from 21 percent in 2006 to about 17 percent in 2030. [2]

As the data below indicates, energy efficiencies in our economy are going a long way to create a new energy future. Many businesses in our industry are investing in supplemental forms of energy that will be part of this future. For example, the oil and gas industry invested $58 billion in technology to reduce carbon dioxide emissions in the United States between 2000 and 2008 – more than the federal government and other industries combined.[3] Regulations and voluntary programs designed to improve vehicle and engine technology are greatly reducing

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[2] http://www.eia.doe.gov/oiaf/ieo/world.html

[3] American Petroleum Institute. "Companies Address Climate Change." January 20, 2010. Http://www.api.org/ehs/climate/new/companiesaddress.cfm

vehicle emissions. EPA studies show that today's cars emit 75 to 90 percent less pollution for each mile driven than their 1970 counterparts, thanks largely to advances in vehicle and fuel technology.

Chart A: Gasoline Demand (million/barrels per day)[4]

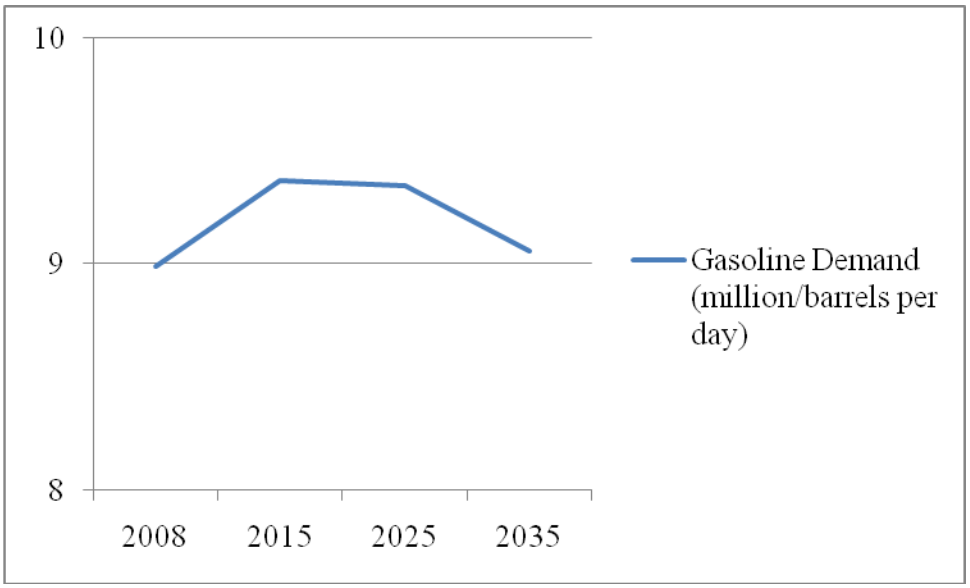
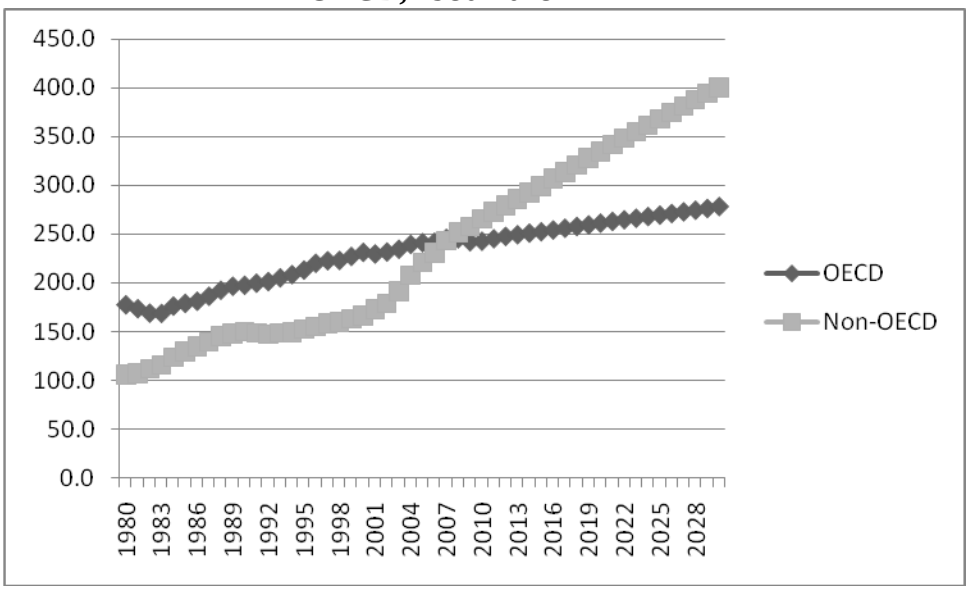
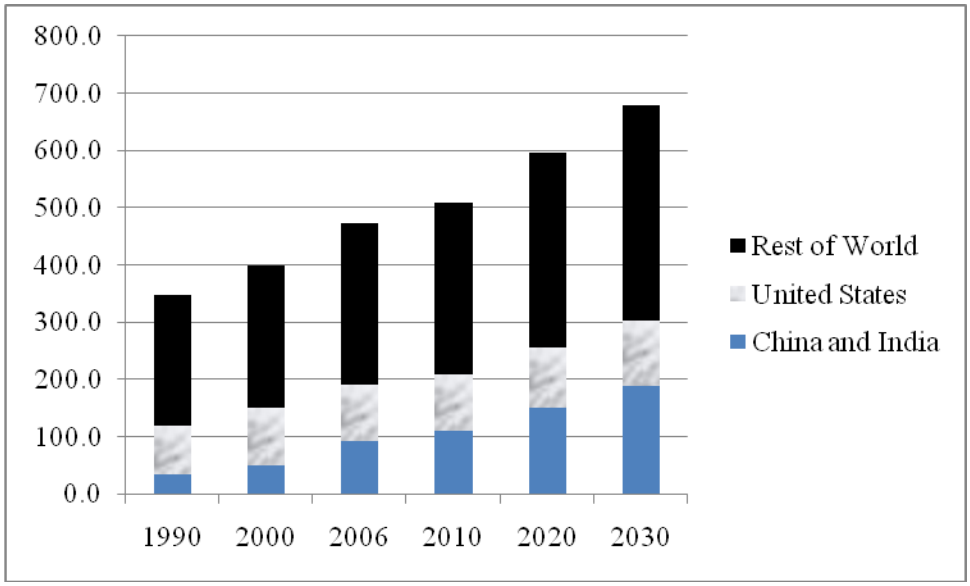


Chart B: World Marketed Energy Consumption Quadrillion BTU, OECD and Non-OECD, 1980-2028[5]



[4] http://www.eia.doe.gov/oiaf/ieo/world.html
[5] http://www.eia.doe.gov/oiaf/ieo/world.html

Chart C: Marketed Energy Use by Region, Quadrillion BTU [6]



Recently enacted laws aimed at reducing both petroleum use and GHG emissions in the transportation sector are also shaping our energy future. The United States currently has in place what I call the 36-36 Plan.

Federal fuel mileage standards approved for new cars and light-duty trucks require them to be able to go an average of 36 miles on a gallon of fuel by 2016. That alone will save billions of gallons of gasoline and diesel fuel each year, sharply reducing carbon emissions.

Additionally, the Energy Independence and Security Act (EISA), which was enacted in 2007, will require American refiners to mix 36 billion gallons of biofuels (such as ethanol) with gasoline and diesel fuel each year by 2022. American refineries are expected to produce 180 billion gallons of gasoline and diesel fuel this year, so the law already in place would substantially cut the amount of petroleum used to fuel vehicles.

[6] http://www.eia.doe.gov/oiaf/ieo/world.html

When the 36-36 Plan is fully implemented, according to government statistics the current Renewable Fuels Standard (RFS) and Corporate Average Fuel Economy (CAFE) programs are on track to reduce GHG emissions from the transportation sector by more than 26 percent by 2030 and also cut the use of petroleum transportation fuels significantly. Aspects of these policies pose their own challenges and we should let such programs take full effect before Congress attempts to overlay any complex, costly regulations above and beyond these mandates.

The current RFS, for example, will soon lead to challenges regarding the "blendwall," or the point at which the use of mandated amounts of biofuels, in particular ethanol, will require motor fuels blends containing greater than the 10 percent of ethanol currently allowed by law to be blended into gasoline. Federal, state and local rules and industry standards governing fuel composition would thus have to be changed to accommodate higher-level ethanol blends. This process could take years.

The United States is only a small net importer of gasoline now, bringing in about 10 percent of our finished petroleum products from overseas. However, regulation of GHGs under the Clean Air Act threatens to supplant domestic supply with additional foreign products because many American refiners, faced with additional costs, will be forced to curtail their production or shut down.

Domestic refinery expansion projects totaling at least 231,000 barrels per day (b/d) – an amount close to 3 percent of U.S. gasoline demand – have already been delayed due to financing or liquidity challenges brought on by the recession. Some refining companies have even filed for bankruptcy or debt protection. In 2009 and 2010, the North American market saw the closure of 678,000 b/d, of which 443,000 b/d was based in the U.S. These closures have caused the loss of nearly 1,400 direct jobs and thousands more indirect jobs.

IV. Petroleum Yields Numerous Products Aside from Fuel

It is important to note that oil does not just mean fuel. Petroleum products, both fuels and petrochemicals, play a key role in our lives and economy. A barrel of oil yields many different products – not just gasoline and diesel, but products such as jet fuel, lubricants, asphalt, and petrochemicals. All are critical to our economy. Without the capacity to affordably refine petroleum and produce natural gas, the capacity to make petrochemical products in the United States will be threatened.

Petrochemicals are used to make products ranging in applications from healthcare to military supplies, seat belts and other safety products, pharmaceuticals, food packaging, and clothing. Petrochemicals also play a major role in transportation and alternative energy innovation. They are essential for helping vehicles meet Corporate Average Fuel Economy (CAFE) standards without compromising vehicle safety. All solar energy panels are derived from petrochemicals, as are 15 percent of wind turbine blades.

Imposing additional costs on petrochemical manufacturers will do nothing to help our economic recovery. Instead, it will help our international competitors by making the U.S. industry less competitive, prompting international firms to build new facilities in countries without these policies and equivalent environmental controls. The petrochemical industry has already lost hundreds of thousands of jobs over the last decade. In 2001, the industry employed more than 1.5 million people directly and indirectly. This was reduced to 1.3 million workers in 2005 and 1.1 million workers in 2009. North America has also lost approximately 10 million metric tons of chemical production capacity over the past decade. This represents the equivalent of approximately 50 facilities closing in the United States, while overall global production capacity has drastically increased.

V. Domestic Policy Should Focus on Increasing Energy Security

Policies to increase our nation's energy security must be based on a realistic combination of the development of our own resources and the utilization of resources from abroad that are stable and beneficial to the United States. Right now, no nation on the planet limits its access to its own oil and natural gas deposits as much as the United States. Continuing these severe restrictions – and then complaining about our reliance on unstable foreign sources of petroleum – is illogical. Our policies need to be pragmatic and flexible.

Policies that would restrict the use of Canadian oil would undermine our energy security by increasing our reliance on petroleum – and ultimately, refined petroleum products – from less stable parts of the world. Furthermore, if we exclude ourselves from importing those resources, Canada will develop them regardless. China is already an investor in these Canadian oil development projects, and those resources will go overseas if they are not used in the United States. This is referred to as "crude shuffle," and the nation that stands to lose is the United States.

VI. Conclusion

As a nation, we need energy that's affordable, abundant and reliable. Ensuring such an energy supply is critical for an economy recovery that will drive the wealth necessary for investments in all forms of energy – including both traditional fossil fuels and alternatives.

NPRA supports policies that promote all forms of energy as long as those policies don't choose winners and losers in the marketplace. We are solidly in favor of policies that promote a move toward even cleaner, more efficient energy production.

As I have stated, for the refining and petrochemical industries, the question that Congress must now ask itself is whether we want gasoline, diesel fuel, plastics and other products to be

manufactured in the United States or whether we want to increase our reliance on foreign sources of supply. In my lifetime I've seen an exodus of manufacturing industries and millions of jobs to other parts of the world. Hard-working men and women and their loved ones have been devastated, losing homes and seeing their piece of the American Dream fade into nothingness. Communities have been hit hard by plant closings and small businesses have been shuttered when their customers are thrown into unemployment.

I don't believe Congress wants to over-tax and over-regulate the domestic refining and petrochemical industry into extinction, only to see them replaced by their foreign competitors exporting their products to our shores. But make no mistake: overzealous policies could have disastrous effects and become a self-inflicted wound as our country struggles to climb out of the Great Recession. That would be an American tragedy that I ask you to help avert.

ATTACHMENT 1

The Washington Post

Five myths about green energy

By Robert Bryce
Sunday, April 25, 2010; B04

Americans are being inundated with claims about renewable and alternative energy. Advocates for these technologies say that if we jettison fossil fuels, we'll breathe easier, stop global warming and revolutionize our economy. Yes, "green" energy has great emotional and political appeal. But before we wrap all our hopes -- and subsidies -- in it, let's take a hard look at some common misconceptions about what "green" means.

1. Solar and wind power are the greenest of them all.

Unfortunately, solar and wind technologies require huge amounts of land to deliver relatively small amounts of energy, disrupting natural habitats. Even an aging natural gas well producing 60,000 cubic feet per day generates more than 20 times the watts per square meter of a wind turbine. A nuclear power plant cranks out about 56 watts per square meter, eight times as much as is derived from solar photovoltaic installations. The real estate that wind and solar energy demand led the Nature Conservancy to issue a report last year critical of "energy sprawl," including tens of thousands of miles of high-voltage transmission lines needed to carry electricity from wind and solar installations to distant cities.

Nor does wind energy substantially reduce CO2 emissions. Since the wind doesn't always blow, utilities must use gas- or coal-fired generators to offset wind's unreliability. The result is minimal -- or no -- carbon dioxide reduction.

Denmark, the poster child for wind energy boosters, more than doubled its production of wind energy between 1999 and 2007. Yet data from Energinet.dk, the operator of Denmark's natural gas and electricity grids, show that carbon dioxide emissions from electricity generation in 2007 were at about the same level as they were back in 1990, before the country began its frenzied construction of turbines. Denmark has done a good job of keeping its overall carbon dioxide emissions flat, but that is in large part because of near-zero population growth and exorbitant energy taxes, not wind energy. And through 2017, the Danes foresee no decrease in carbon dioxide emissions from electricity generation.

2. Going green will reduce our dependence on imports from unsavory regimes.

In the new green economy, batteries are not included. Neither are many of the "rare earth" elements that are essential ingredients in most alternative energy technologies. Instead of relying on the diversity of the global oil market -- about 20 countries each produce at least 1 million

barrels of crude per day -- the United States will be increasingly reliant on just one supplier, China, for elements known as lanthanides. Lanthanum, neodymium, dysprosium and other rare earth elements are used in products from high-capacity batteries and hybrid-electric vehicles to wind turbines and oil refinery catalysts.

China controls between 95 and 100 percent of the global market in these elements. And the Chinese government is reducing its exports of lanthanides to ensure an adequate supply for its domestic manufacturers. Politicians love to demonize oil-exporting countries such as Saudi Arabia and Iran, but adopting the technologies needed to drastically cut U.S. oil consumption will dramatically increase America's dependence on China.

3. A green American economy will create green American jobs.

In a global market, American wind turbine manufacturers face the same problem as American shoe manufacturers: high domestic labor costs. If U.S. companies want to make turbines, they will have to compete with China, which not only controls the market for neodymium, a critical ingredient in turbine magnets, but has access to very cheap employees.

The Chinese have also signaled their willingness to lose money on solar panels in order to gain market share. China's share of the world's solar module business has grown from about 7 percent in 2005 to about 25 percent in 2009.

Meanwhile, the very concept of a green job is not well defined. Is a job still green if it's created not by the market, but by subsidy or mandate? Consider the claims being made by the subsidy-dependent corn ethanol industry. Growth Energy, an industry lobby group, says increasing the percentage of ethanol blended into the U.S. gasoline supply would create 136,000 jobs. But an analysis by the Environmental Working Group found that no more than 27,000 jobs would be created, and each one could cost taxpayers as much as $446,000 per year. Sure, the government can create more green jobs. But at what cost?

4. Electric cars will substantially reduce demand for oil.

Nissan and Tesla are just two of the manufacturers that are increasing production of all-electric cars. But in the electric car's century-long history, failure tailgates failure. In 1911, the New York Times declared that the electric car "has long been recognized as the ideal" because it "is cleaner and quieter" and "much more economical" than its gasoline-fueled cousins. But the same unreliability of electric car batteries that flummoxed Thomas Edison persists today.

Those who believe that Detroit unplugged the electric car are mistaken. Electric cars haven't been sidelined by a cabal to sell internal combustion engines or a lack of political will, but by physics and math. Gasoline contains about 80 times as much energy, by weight, as the best lithium-ion battery. Sure, the electric motor is more efficient than the internal combustion engine, but can we depend on batteries that are notoriously finicky, short-lived and take hours to recharge? Speaking of recharging, last June, the Government Accountability Office reported that about 40 percent of consumers do not have access to an outlet near their vehicle at home. The electric car is the next big thing -- and it always will be.

5. The United States lags behind other rich countries in going green.

Over the past three decades, the United States has improved its energy efficiency as much as or more than other developed countries. According to data from the Energy Information Administration, average per capita energy consumption in the United States fell by 2.5 percent from 1980 through 2006. That reduction was greater than in any other developed country except Switzerland and Denmark, and the United States achieved it without participating in the Kyoto Protocol or creating an emissions trading system like the one employed in Europe. EIA data also show that the United States has been among the best at reducing the amount of carbon dioxide emitted per $1 of GDP and the amount of energy consumed per $1 of GDP.

America's move toward a more service-based economy that is less dependent on heavy industry and manufacturing is driving this improvement. In addition, the proliferation of computer chips in everything from automobiles to programmable thermostats is wringing more useful work out of each unit of energy consumed. The United States will continue going green by simply allowing engineers and entrepreneurs to do what they do best: make products that are faster, cheaper and more efficient than the ones they made the year before.

Robert Bryce is a senior fellow at the Manhattan Institute. His fourth book, "Power Hungry: The Myths of 'Green' Energy and the Real Fuels of the Future," will be out Tuesday, April 27.