

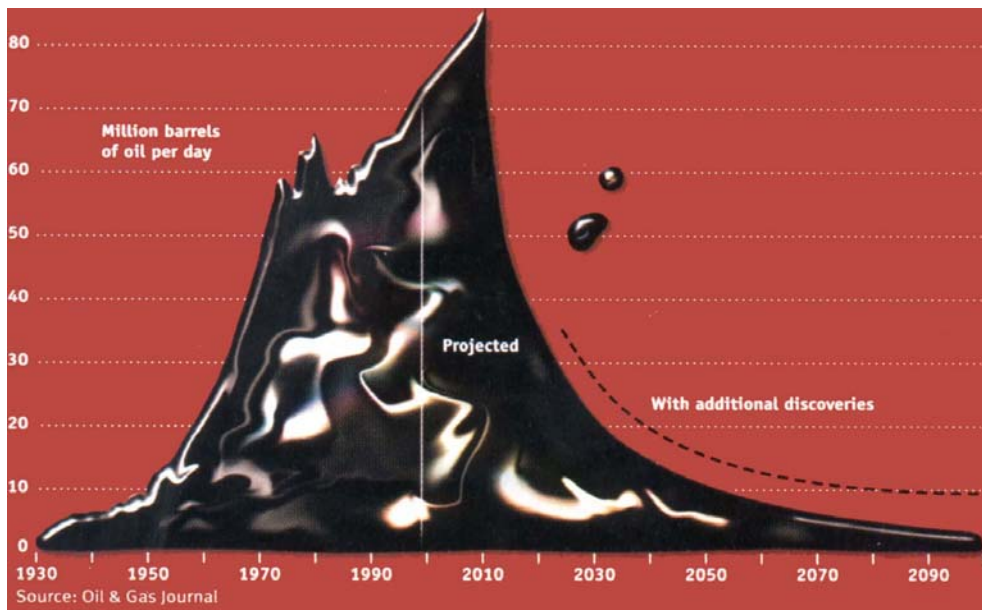


## Phoenix Project Foundation

Rising from the ashes of the fossil & nuclear fuels  
to a Solar Hydrogen Economy by 2020

**Unlike the energy plans proposed by McCain, Obama, Gore and Pickens, the Phoenix Project plan, which was first proposed by Harry Braun in his 1984 Congressional campaign against John McCain, is still the only plan that can make America energy independent of not just imported oil, but all fossil & nuclear fuels by 2020.**

The energy plans of Al Gore, T. Boone Pickens, Barack Obama and John McCain, which all focus on fossil, biomass and nuclear fuels, will never be able to make the U.S. energy independent -- much less phase-out not just imported oil, but all fossil and nuclear fuels by 2020 -- which is the primary objective of Harry Braun's Phoenix Project plan. As such, Braun's plan is the only one that meets the technical specifications of Dr. James Hanson and his colleagues at the National Academy of Sciences, who have testified that fossil fuels need to be phased-out by 2020 in order to avoid irreversible and catastrophic damage to the earth's climate and major food production systems. In addition to these climate concerns, the Oil Age graph below, which was published in the *Oil and Gas Journal*, graphically underscores the urgency of what is now approaching, and why it is simply not possible to drill our way out of the problem.



*Most analysts estimate that the "Peak" of global oil production occurred in 2005.*

Details of Braun's plan to shift to a wind-powered "hydrogen economy," which from a technology perspective could have been implemented in the 1920's, were provided in his subsequent books that were published in 1990 and 2000. His most recent paper that was published in the July issue of the *Chemical Industry & Chemical Engineering Quarterly* is attached as a PDF document. The paper can also be found on the journal web site: [www.ache.org/rs/CICEQ](http://www.ache.org/rs/CICEQ) (click on H. Braun, The Phoenix Project). For over 25 years, Braun has been an Advisory Board Member of the International Association for Hydrogen Energy, a peer-review technical society that has over 2,500 Ph.D.-level chemists and engineers as members from over 45 countries. Braun's resume can be found on the [IAHE.org](http://IAHE.org) website, and his Phoenix Project Video Documentary can be viewed on the [PhoenixProjectFoundation.US](http://PhoenixProjectFoundation.US) website.

### The Silver Bullet

The Phoenix Project Plan is the only "Silver Bullet" proposal that can allow the U.S., China and the rest of the world to shift to a wind-powered solar hydrogen economy by 2020. Given this timetable, there is little or no time for R&D, thus the Phoenix Project plan assumes that automotive and aerospace manufacturers will simply mass-produce state-of-the-art wind powered hydrogen production systems, as well as the necessary engine and vehicular conversion systems, which will allow all the existing vehicles and power plants to simply be modified to use the hydrogen that will be made from the sun, wind and water. Less than 5 million 2 MW wind systems would displace all fossil and nuclear fuels in the U.S. and an additional 15 million systems would essentially displace fossil fuels worldwide. To put these numbers into perspective, wind systems are very similar to an automobile from a manufacturing perspective, and over 17 million new vehicles are sold in the U.S. annually. This underscores that the obstacles to this "transition of substance" are not technical or economic, but political.

### Economic Considerations

As with most products, mass-production is a key to reducing system costs, and given the exponential consumption of the remaining fossil fuel and uranium resources, energy costs will likely continue to sharply increase in the future. This is already impacting every product produced, *including wind systems*, which is why the longer this capital intensive transition to a renewable hydrogen economy is delayed, the more expensive it will be. The only question is whether the trillions of dollars in profits from this macroengineering project will be going to private companies like ExxonMobil, or the American taxpayers. Assuming the capital costs of the mass-produced wind powered hydrogen production systems are \$500 to \$1,000/kW, a 2 MW wind system would cost from \$1 million to \$2 million. Thus the 5 million units would cost between \$5 trillion to \$10 trillion. Given the USA now spends approximately \$1 trillion annually for energy, even the higher value would be paid off in less than 10 years, providing a renewable rate of return on the investment with equipment that will last indefinitely.

To put these numbers into perspective, according to a May 5<sup>th</sup> 2008 article published in the *Oil & Gas Journal*, Matthew Simmons, a highly regarded analyst who is Chairman of Simmons & Co. International, stated that the oil and gas industry will need to invest \$50-100 trillion to rebuild its ageing infrastructure within the next 7 years and stave off a serious drop in oil and gas production. This number does not include any of the staggering environmental costs that will be incurred as the shift to mountain-top mining and the extraction of hydrocarbons from shale and tar sands is intensified. Over 90 percent of the remaining crude oil is not owned by oil companies, but by the governments of countries such as Iran, Iraq, and Venezuela.

### The Hydrogen Variable

Hydrogen is the simplest, lightest and most abundant element in the universe, and it is viewed as the holy grail of energy because it is both pollution-free and inexhaustible -- and it is the only "universal fuel" that can integrate all energy sources with all energy uses, and be used to store wind and other intermittent solar resources. Photosynthetic green plants on the earth have been extracting hydrogen from water with sunlight for over 3 billion years, but the vast majority of hydrogen that is now used to make everything from gasoline to peanut butter comes from natural gas and other fossil fuels, which are rapidly diminishing and highly destructive to the environment. This is why the Phoenix Project is focused on making hydrogen from the sun, wind and water, with technologies that could have been mass-produced in the 1020s. Wind systems have been in use for over 1,000 years, and if they are mass-produced for hydrogen production, they alone could displace all fossil and nuclear fuels worldwide by 2020. For more information on this "transition of substance to sustainable prosperity without pollution, please contact Harry Braun at [hb@PhoenixProjectFoundation.US](mailto:hb@PhoenixProjectFoundation.US) or call 928-532-0008.