

Conventional energy sources: the obvious future

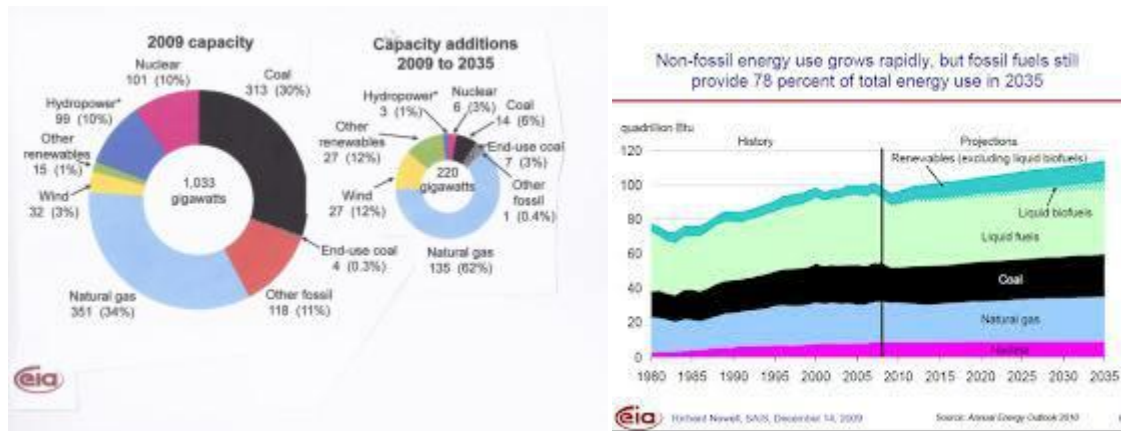


In my October 2011 post “Future Energy Supply: breakthroughs needed” I included an Energy Information Administration (EIA) energy supply forecast from now through 2035, which showed how difficult it would be for wind, solar, new hydro, geothermal etc to change the fact that the U.S. will, for decades to come, rely almost totally on natural gas, petroleum, coal and nuclear power for our energy sources. Over the past twelve months, it has become obvious that natural gas will probably be an even larger contributor than indicated. The Keystone pipeline will not increase our oil supply, but it will displace oil from less desirable sources (a good thing). Coal will still be a very important source of electric power, but the production of electricity will be cleaner, as older, smaller highly polluting plants will be shut and new plants will use “clean coal” technology.

As to when alternative energy sources will see substantial use in the U.S., it's not at all clear. If the nuclear waste disposal issue is resolved, there will be more nuclear capacity. We have a huge amount of coal which can be converted to hydrocarbons or chemicals with technology already being used in China and available from engineering firms here. Biofuels will also have to compete with gasified coal which has the advantage of logistics and scale. All of this says that wind and solar may not look much better in the future and should not be subsidized. When President Obama took office, global warming was a big issue and it still is, though neither party has talked about it much on the campaign trail. The Democrats introduced cap-and-trade legislation to deal with Greenhouse gas emissions, but that didn't go anywhere. Obama's push for alternative energy sources certainly was related to global warming as well as to create jobs. But, now, four years later, it is seen that the number of “green” jobs created were considerably less than hoped-for and that the early enthusiasm for solar and wind power has subsided in light of low natural gas prices and less support for environmentally benign initiatives. That is certainly related to the continuing economic malaise, which dominates the country's conversation. Significantly, electric car sales are much lower than hoped-for in spite of high gasoline prices. Drivers prefer hybrids and, increasingly, plug-in hybrids, which are less expensive than electric cars and have a

much greater driving range. It's amazing how the market efficiently decides what people want. As emphasized in previous posts on this blog, the government role should carry out early research, if possible in partnership with industry, and should then let the market decide what technologies and products will be the winners.

Europe, Japan and China have more incentive to develop alternative energy sources, since their conventional fuel supplies are much more limited. We will have to settle for the fact that these regions will have the technological leadership in this area (already the case for solar in China) and that we may have to pay for this technology if and when we need it. This also means that our government-sponsored research efforts in energy should be directed to more far-out areas representing the next generations of energy supply, not yet even visualized with any degree of specificity.



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