



Tech Talk - Some Thoughts on Energy in 2013

Posted by [Heading Out](#) on January 14, 2013 - 2:06pm

It is the beginning of a New Year, and belatedly, I hope that all readers find this new period to be one of prosperity, health and happiness. It would be encouraging if the portents for our energy future would point in that direction, but unfortunately I can't see nearly as much optimism in that regard as do others who are similarly reviewing where the global energy supply numbers are going. This week the EIA's "[The Week in Petroleum](#)" is illustrative of the optimistic vision.

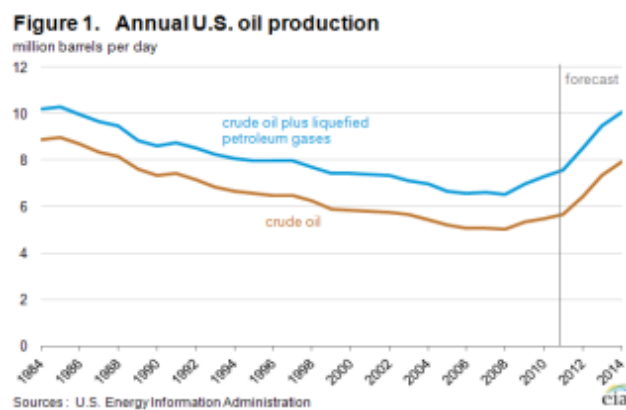


Figure 1. Recent projection from the EIA on American Oil Production ([EIA TWIP Jan 9, 2013](#))

This plot is from the new [Short-Term Energy Outlook](#) from the EIA, which projects the numbers through to 2014, at which time: the Agency anticipates that US domestic production will rise to 7.9 mbd, the highest since 1988. Growth is expected to extend beyond just the Bakken:

In particular, drilling in tight oil plays in the Williston (which includes the Bakken formation), Western Gulf (which includes the Eagle Ford formation), and Permian basins are expected to account for the bulk of growth through 2014. Williston Basin production is expected to rise from an estimated December 2012 level of 0.8 million bbl/d to 1.2 million bbl/d in December 2014. Western Gulf Basin production rises from an estimated December 2012 level of 1.1 million bbl/d to 1.8 million bbl/d in December 2014. Within the Western Gulf Basin, roughly 0.4 million bbl/d of the oil production is outside of the Eagle Ford formation. The Western Gulf Basin accounts for more than half of the onshore domestic liquids production growth due to a comparatively large amount of liquids coming from both oil and gas wells compared with the other key production basins. The Permian Basin in West Texas, which includes plays such as Spraberry, Bonespring, and Wolfcamp, is a third key growth area. EIA estimates that crude oil production from the Permian Basin reached 1.2 million bbl/d in December 2012. Permian Basin production is projected to increase to 1.4 million bbl/d in December 2014.

The overall global concerns for production include a relatively small potential for production

growth from the larger oil producers in the world (with the possible exception of Iraq), while there remains an increasing turmoil that began with the “Arab Spring” and continues to spread with ongoing and growing impacts that are likely on Middle Eastern oil production. But it is the story of American production that continues to gnaw at my worry bead string.

In context it should be remembered that when The Oil Drum was first produced in 2005, national attention was briefly caught by the TV movie “[Oil Storm](#)” in which a [plausible series of events](#) – a hurricane in the Gulf, a ship collision in the Houston Ship Canal, and a terrorist attack on the Saudi oil terminal at Ras Tanura combined to raise the price of oil to a peak of \$130 a barrel, and gas reached a final price of over \$7 a gallon, with all sorts of terrible consequences. The day was finally saved when Russia shipped the US a few tanker loads of oil, after the US outbid the Chinese for that oil.

Since then there have been pundits who tell us that these things would never happen. During the real price rise to \$147 a barrel (without the disastrous causes) we were reassured that prices would fall again to the \$20-\$30 a barrel range, though they have not – and those same pundits are now again parading before the media as they reassure us that the US can soon cast off the shackles of oil price control by foreign oil interests. Of the roughly [10 million bbl that the US imported](#) in October, some 4.2 mbd came from OPEC, Saudi Arabia sending 1.25 mbd, and Venezuela 0.95 mbd. Outside OPEC, Canada supplied 2.68 mbd, Mexico 1.06 mbd, and Russia 0.55 mbd. KSA has shown itself adept and willing to adjust flows to ensure that OPEC oil prices remain adequate, and there is no indication that they need or intend to change their approach. Any global increase in supply is likely to be more than offset by increases in demand from China and India, though the reality will be that as US demand declines (if it does) that displaced supply will transfer to meet Asian growth – and it will not then be available were the US projections to fall short, and the country have to increase imports again.

There are some troubling signs on the horizon that suggest the future US supply is not as robust as has been proposed. Chesapeake Energy, who have been a flagship for the development of natural gas, is in sufficient trouble that CEO Aubrey McClendon will not get a bonus this year, [amid a number of changes](#). Shares have [dropped nearly 30%](#) and as [Art](#) and others have noted, the economics are not as encouraging as the pundits would suggest.

The news from the Arctic is somewhat worse. Shell has been able to recover their drillship, which ran aground after losing its tow in a [70-knot storm with forty-foot waves](#), and it has now been [moved to a safe harbor](#). The vessel must now be assessed and the program will be delayed. (This is particularly true as the investigations begin to line up, first was the [Coast Guard](#), and now [Interior](#).) The Alaskan Pipeline flows were averaging just under [583 kbd in November](#) (December numbers are late), and that is up from the overall yearly average of 544 kbd, but is running at a [6% decline rate](#) bringing problems in as little as eight years. Although with monthly flow changing to improve conditions in the winter months, there may be more of a problem than is currently discernable, particularly if future supplies to keep the pipeline flowing are now threatened by the future losses of potential production from the Chukchi and Beaufort seas.

And speaking of pipelines, the cancelling of plans [for the Bakken Crude Express Pipeline](#) for lack of customers tells more about the anticipated future demand than all the predictions from [Dr. Yergin](#) at Cambridge. Energy Research Associates. This also foretells that the Adelman prediction that technology will always return us to cheap oil, as touted by [Phil Verleger](#) is likely to continue to be proven false – not that these real events stop those who survive by predicting the future. Fortune tellers have been a facet of society throughout history, only the shape of their crystal balls has changed with time, and the size of their credulous audience.

Whether real or overly optimistic, the US potential increases in fossil fuel production are likely to impact to the potential for US renewable and bio-generated fuels, where the future production levels seem also to be losing their lustre. There is some talk of [Dr. Chu leaving the Department of Energy](#) in part perhaps because of this change in focus. However, among the [names being floated](#) are those of John Podesta, the founder of the Center for American Progress, who have just ranked their [top ten Energy and Environmental Priorities](#) for the first four years of President Obama's time in office, as follows:

Top 10 energy and environment priorities in President Obama's first term		
President Obama's first-term goals	Result	Details
Cleaner cars	Done	In 2012 average fuel economy for passenger vehicles was the highest ever. Modern fuel-economy standards will double miles per gallon by 2025.
Take first step to limit carbon pollution under the Clean Air Act	Done	Made "endangerment finding." Issued carbon pollution standards for vehicles. Proposed limits for new power plants.
Invest in clean energy as part of economic recovery plan	Done	Invested \$90 billion of grants, loans, and tax incentives in renewables, efficiency, and research.
Slash mercury pollution from power plants	Done	Power plant mercury pollution cut by 90 percent. Cut mercury and toxics from boilers, incinerators, and cement production too.
Reduce carbon pollution with cap and trade program	Congress failed to act	Passed House; could not get 60 votes in Senate.
Establish a national renewable electricity program	Congress failed to act	Passed House; could not get 60 votes in Senate. Administration proposed clean energy standard.
Bridge loans to auto companies to prevent bankruptcy and produce more fuel-efficient cars	Done	In 2012 General Motors produced 1 million cars with fuel efficiency of 30 miles per gallon or better.
Establish federal energy-efficiency resources standard	Partial success	Congress didn't pass most efficiency legislation. American Recovery and Reinvestment Act included \$14.5 billion in efficiency investments. Executive orders require more federal energy efficiency.
Adopt reforms to ease rehabilitation and siting of electricity transmission lines	Done	Invested \$4 billion in modernizing grid.
Investment in clean-energy research, development, and deployment	Done	First funding for Advanced Research Project Agency-Energy for transformational energy projects. Nearly \$17 billion spent on energy efficiency and renewables.

Figure 2. Priorities as quoted by the [Center for American Progress](#).

And most recently, the Secretary has been encouraging women and minorities to [look at the wind energy industry](#) as an opportunity for employment.

One other candidate is apparently Bill Ritter, the past Governor of Colorado, although the list at this point, [seems to be growing](#) rather than shrinking.

Whether under either individual or some alternate choice, the next four years of President Obama's Administration will likely see many more changes than anticipated, as occurred during the first term. However, it is discouraging that there are so few possibilities for realistic optimism for that future.



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