

President Obama's Blueprint for Energy, the world situation and the current TWIP

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On Wednesday March 30, President Obama used a visit to Georgetown University to draw attention to a new <u>Blueprint for a Secure Energy Future</u>. The document provides that path through three mechanisms:

a) To develop and Secure America's Energy Supplies by:

Expanding Safe and Responsible Domestic Oil and Gas Development and Production Leading the World Toward Safer, Cleaner, and More Secure Energy Supplies

b) To Provide Consumers with Choices to Reduce Costs and Save Energy by:

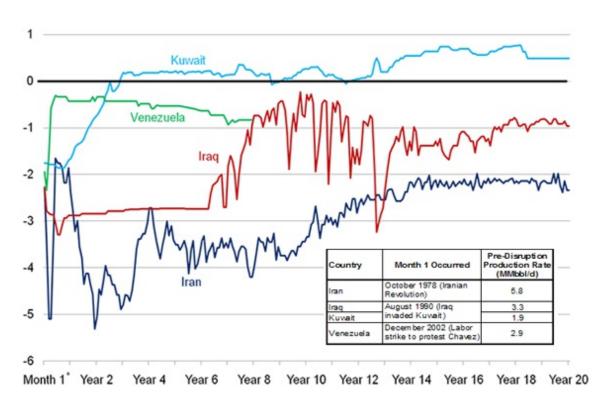
Reducing Consumer Costs at the Pump with More Efficient Cars and Trucks Cutting Energy Bills with More Efficient Homes and Buildings

c) Innovating Our Way to a Clean Energy Future by:

Harnessing America's Clean Energy Potential Winning the future through Clean Energy Research and Development Leading by Example The Federal Government and Clean Energy

The problem that I have had with the Administration's Energy Policy since it first came to power is that it lacks an understanding of the time element in proposing answers. And let me put up a graph from the latest <u>This Week in Petroleum</u> to explain why I feel that this concern is now strengthened.

As I mentioned in <u>my comment on Dr Saleri's remarks</u> that oil production bounced back after the revolution in Iraq, yet the TWIP has put up a plot showing how neither Iran, Iraq, nor Venezuela have recovered the levels of oil production that existed in country before they had problems. Only Kuwait, after two years, was able to bounce back.



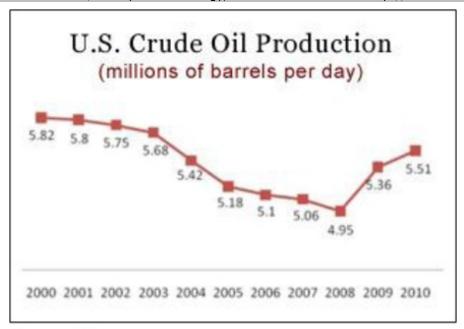
The drop in production from countries following conflict (EIA TWIP)

In all cases the flow of oil was disrupted for more than a year. Consider the current situation where, with supply and demand more closely now in balance, we have the risk of more than 2 mbd of oil disappearing from the world market for a couple of years. With a concomitant rise in demand of 1.4 mbd this year, that means we need to find ways of addressing the coming shortfall NOW – not in 2020, but in 2011.

In that regard, how does the President's new Blueprint stack up? Let's go through the three different parts that I outlined above, in turn.

a) Developing and Securing America's Energy Supplies

The first part of this deals with increasing domestic oil and gas production, and the blueprint notes that the United States was importing 11 mbd when the Administration took office. In introducing the plan, President Obama pledged that this volume will be cut be a third by 2020. One of the ways of doing this is to increase domestic production, and the blueprint contains this plot:



Source: EIA

It looks a little more impressive than it is because of the vertical scale, which in total is less than 1 mbd, and this makes the recovery of about 0.56 mbd look more significant than it is. Remember that the promise is that imports will fall by around 3.7 mbd and the gain in domestic production is tapering off in the plot above.

The most likely production gains will be achieved from the deep waters of the Gulf of Mexico (GOM). This is recognized in the document, which notes that while on-shore production from public lands increased from 109 million barrels in 2009 to 114 million barrels in 2010, that from the Outer Continental Shelf went from 446 million barrels to 600 million barrels. Yet with the problems that the industry has seen with the Deepwater Horizon disaster last year, the reduced production over that anticipated from the Thunder Horse platform and the slowed permitting and likely new drilling schedules it will be difficult to see how industry can maintain current production, let alone much increase it. However the Administration is currently developing a longer-term plan:

the Administration is developing a 5-year (2012-2017) comprehensive plan for offshore oil and gas exploration and production, which will ensure that areas with active leases, including the Gulf of Mexico and Alaska, are considered for further leasing and development. The strategy also calls for conducting studies to assess the potential oil and gas resources available in the Mid - and South Atlantic.

Sadly, plans in and of themselves will not produce any additional oil. The President spoke of the importance of imports from Mexico and Canada. Unfortunately Mexican production continues to decline, and imports from there were down to 1.2 mbd in February. It would be helpful if resolutions in the American House of Representatives led to increased Canadian production but with Canada now heading for new elections that isn't likely to happen in the short-term either. And Exxon Mobil, inter alia, has already responded to explain why there may a considerable gap between the President's implication of vast untapped leases waiting to be made productive if industry would only get busy, and reality.

The Blueprint rightly draws attention to the "vast reserves of natural gas" and the potential that

they hold, but much of the rhetoric in the blueprint is directed at the investigation of hydrofracking and ensuring that it is carried out "in a safe and responsible manner," as though the thousands of wells that have used this technique already were not. The meetings and studies proposed will not, in reality, contribute much in the way of new gas to the nation's need. Production is likely to be more tied to the price that can be obtained for the gas delivered to a pipeline, in contrast with the price for LNG delivered to the same pipeline from foreign sources. And at the moment, with the world having a surplus of NG, and more countries seeking to get onto this bandwagon, it is unlikely that the shale gas operators will be able to recover the full price of production in the next year or so from sufficient new production to have that much impact.

And so we turn toward the plan for the USA to lead the world towards safer and more secure energy supplies. Part of that answer seems to be based on persuading the BRICS nations not to grow their demand for oil so fast. It is also encouraging them, where possible, to switch from burning oil for power generation to using natural gas. (As though the price differential in itself won't be a more powerful argument). The Administration is, however, encouraging the collection and use of methane from agriculture, landfills and wastewater, as well as the more usual sources.

The Blueprint notes that the United States would work as an energy partner to safely develop the oil and gas reserves in the pre-salt prospects off Brazil, though I suspect that US participation is not going to change the current progress and production in those parts. Further, in working to make bio-energy sustainable:

The Global Bioenergy Partnership will soon be launching a capacity-building initiative in West Africa to encourage the transition away from the traditional use of biomass through effective forest management to improve agricultural production, and to help countries capture the benefits that sustainable modern bioenergy can provide for energy access and food security.

While more energy for Africa is certainly needed, I am not, myself, convinced that those nations will not, instead, get the majority of their new energy from the indigenous coal supplies that seem to be plentiful. (In light of current developments in Japan, the encouragement of nuclear power was more euphemistic than usual). But while the blueprint also talks of transitioning fleets to natural gas and hybrid-diesel – though the EU is less than enthused about diesel emissions – none of this is going to have much impact other than to hope that by persuading other folk to buy less, the price won't be as high as it otherwise might be.

b) To Provide Consumers with Choices to Reduce Costs and Save Energy

So how is the consumer to be helped? Well, both by making more efficient vehicles available, and by producing more biofuel production. The goal remains one of getting a million "advanced technology" vehicles by 2015 and of increasing biofuel production. There is a slight snag, hidden in the report, however.

In 2009, the U.S. had only two factories manufacturing advanced vehicle batteries that power advanced technology vehicles and produced less than two percent of the world's advanced batteries. But over the next few years, the United States will be able to produce enough batteries and components to support 500,000 plug-in and hybrid vehicles and will have the capacity to produce 40 percent of the world's advanced batteries (2015). In part because of these strategic Recovery Act investments, battery costs are expected to drop by half (2009-2013).

The rest of the world had better not want too many of those advanced vehicles, since there will only be a few more than a million batteries produced by 2015. The Federal Government will begin buying plug-in hybrids this year, although only a hundred at first, and this will be one place where growth may reduce oil demand, although it is questionable whether the number on the road will be sufficient to perceptibly change the gasoline demand from the nation in the next nine years. But while the volume of fluid might increase, by increasing the percentage of ethanol in the mix to 15% (now allowed) some reduction in oil volumes might be achieved. However the source of the additional volumes is left as:

DOE and USDA have provided grants, loans and loan guarantees to spur American ingenuity for the next generation of biofuels.

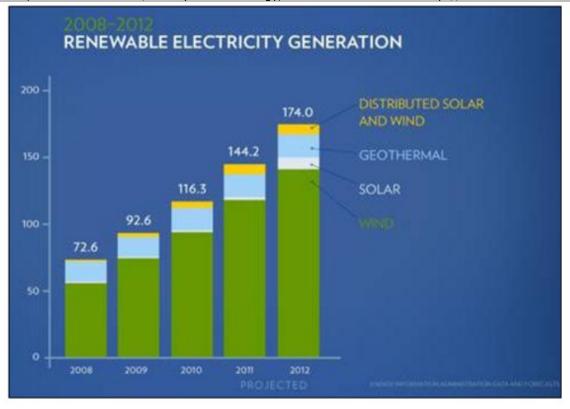
Unfortunately as the <u>experience with Range Fuels</u> has shown, such hopes are no promise of success, and without an almost immediate success it is difficult to get to sufficient production by 2020 to have any significant impact on American supply. There is little evidence that the cellulosic ethanol process can be brought up to the needed level by then, and there are few alternative processes that can promise a significant contribution. Yet the government remains optimistic that

the Administration has set a goal of breaking ground on at least four commercial-scale cellulosic or advanced bio-refineries over the next two years. In addition, the President has challenged his Secretaries of Agriculture, Energy and the Navy to investigate how they can work together to speed the development of "drop-in" biofuel substitutes for diesel and jet fuel.

One of the more promising sources is <u>camelina</u> but it has a limited growing range in the United States, and is not proving popular on the US farm, though it is now to be test grown by <u>Airbus in Romania</u>. (I am precluded from talking about algae).

In addition there are optimistic discussions about changing the way in which people travel, and the introduction of high-speed rail. Unfortunately the willingness of Republican governors to shoot these plans down, no matter how well intentioned, makes much progress in this area unlikely.

The Blueprint goes on to talk about improving energy efficiency in buildings and through use of renewable energy. However, the major fuel sources for electric power are coal and natural gas, so that changes here will likely have little impact on the amount of oil imported. Thus, even though the projections for the near term look promising for renewables, their overall effects on American consumption is likely to have little significance for some considerable time.



c) Innovating Our Way to a Clean Energy Future

The President proposes to eliminate fossil fuel subsidies, taking that money to help fund more research into developing clean energy innovation. Beyond that, the clean energy future is concerned more with finding ways of saving energy, and particularly electrical energy than it is on reducing the need by the United States to import oil.

Given that we are likely to need as much fossil fuel as we can get over the next three or four years, as conventional supply tightens under the problems of MENA popular protest and government change, I continue to believe that the Administration, at the top, does not understand the problem.

We do not have the decades that Secretary Chu's favored bugs will need to produce enough jet fuel at scale to meet a significant part of demand. I agree that we have to press forward to find long-term solutions to the coming shortages of oil, and then natural gas – but ignoring the reality of the precariousness of the current balance between supply and demand is becoming increasingly worrisome.

In short the Blueprint has really shown nothing new or much learned from the experiences of the past year, which is sad, given that time is starting to run out rather fast.

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