



Drumbeat: September 29, 2010

Posted by [Gail the Actuary](#) on September 29, 2010 - 9:25am

Topic: [Miscellaneous](#)

[DOE: Big Utilities Can Get Reliable Power from Small Solar PV Arrays](#)

Massive utility-scale solar projects under development in the deserts of California and the Southwest have been in the spotlight in recent months as they win slow approval from state and federal regulators. But a study released in September by the U.S. Department of Energy's Lawrence Berkeley National Laboratory found that smaller solar photovoltaic (PV) installations may collectively offer similar promise for increasing the amount of renewable power on the grid.

Traditionally, the reliability of small PV systems' power output has been a concern for utilities, project developers and grid operators, since all it takes is a few clouds to disrupt the power flow of a small array. But the Berkeley Lab study suggests that when PV plant arrays are spread out over a geographic area, the variability in power output is largely eliminated.

This means that for utilities, the distributed generation of small PV arrays could mean increased efficiency, reduced costs and a quicker path to a cleaner energy portfolio.

[Energy Security: an annotated military/security bibliography \(2010 update\)](#)

2010

- Campbell, L. Cdr. Douglas, Running on Empty: How Peak Oil Will Influence the Future Viability of the Canadian Armed Forces, Master of Defence research project, Canadian Forces College, 2010, 85 pgs. POC
- Center for German Army Transformation, Group for Future Analysis, Peak Oil: Implications of Resource Scarcity on Security, July 2010, 99 pgs. POC
- Leckie, Maj. Cameron, Lasers or Longbows? A Paradox of Military Technology, Australian Defence Force Journal, No. 182, July 2010, p. 44- 56. POC
- Lovins, Amory, DOD's Energy Challenge as Strategic Opportunity, Joint Force Quarterly, Issue 57, 2nd quarter 2010, p. 33- 42.
Parthemore, Christine and John Nagl, Fueling the Future Force: Preparing the Department for a Post-Petroleum Era, Center for a New American Security, Sept. 2010, 29 pgs.
- Tettamanti, L.Cdr. Ryan, The Impact of Peak Oil on International Stability and Security, Master of Defence research project, Canadian Forces College, 26 April,

2010, 72 pgs. POC

- United States Joint Forces Command, The Joint Operating Environment 2010, Feb. 2010, 76 pgs.

This document reiterates the energy security concerns which were expressed in the 2008 JOE (ie. those concerns have not diminished) and includes a new text box on Peak Oil (pgs. 24-28). POC

[US military must stop using oil in 30 years, defense think tank says](#)

"Fueling the Future Force", by the Center for a New American Security (CNAS), a think tank based in Washington, D.C., makes a set of recommendations for the Department of Defense about how it can move toward running without any petroleum in 30 years' time.

However, it seems to have a poor grasp of where biofuels come from, the energy required to make them, and how to estimate the future availability of oil.

[Sharon Astyk: Back to school month: Peak oil 101](#)

Looky, a peak! It goes up, it reaches a peak, it goes down. And if you really needed me to do so, I could put up graphs for 15 or so other countries that look strangely like a peak. It turns out that oil production pretty much always follows a bell curve. And it also turns out that once you pass that peak, no matter how much better your technologies get, you can't actually reverse the peak. Nothing the US has ever done in extraction technology has made that happen.

So yes, you believe that oil production occurs in a curve, which means it will have either a peak or a plateau. See, we agree!

[Richard Heinberg: Economics for the Hurried - Part 1](#)

One such error is of course the belief that economies can and should perpetually grow.

But that error rests on another that is deeper and subtler. The subsuming of *land* within the category of *capital* by nearly all post-classical economists had amounted to a declaration that Nature is merely a subset of the human economy—an endless pile of resources to be transformed into wealth. It also meant that natural resources could always be substituted with some other form of capital—money or technology. The reality, of course, is that the human economy exists within, and entirely depends upon Nature, and many natural resources have no realistic substitutes. This fundamental logical and philosophical mistake, embedded at the very heart of modern mainstream economic philosophies, set society directly upon a course toward the current era of climate change and resource depletion, and its persistence makes conventional economic theories—of both Keynesian and neoliberal varieties—utterly incapable of dealing with

the economic and environmental survival threats to civilization in the 21st century.

[Crude Prices Rise, Spurring Oil ETFs](#)

Crude oil prices were rising to a two-week high after inventories unexpectedly dropped last week.

The Energy Department said on Wednesday that crude oil stockpiles fell by 0.5 million barrels in the week ended Sept. 22. That was more bullish than the 2.2 million barrel build projected by the Platts survey of analysts. But the decline was less than the industry's own estimate. The American Petroleum Institute estimated that crude stockpiles decreased by 2.42 million barrels.

Crude oil for November delivery was rising \$1.03 or 1.4% to \$77.22.

Gasoline and distillate stocks decreased by 3.5 million barrels and 1.3 million barrels respectively. The Platts survey was projecting an 800,000-barrel increase in gasoline stocks and a 400,000 barrel build in distillates.

[Peak Oil Mirage](#)

The closer we get to peak oil the further it goes away. As high prices collapsed when the global economic system fell apart the world is now awash in oil. Back around the beginning of this decade Fed Chairman Allan Greenspan warned that peak natural gas production in this country could put us in a competitive disadvantage. Now it appears that some of the same ideas that took us from peak natural gas to an abundant supply could also change the supply outlook for oil. The Financial Times is reporting that, "A band of entrepreneurial oilmen have found an economic way to extract oil from shale rock, fuelling a frenzy for prospects that has pushed up lease prices and lifted hopes of the first rise in onshore US oil production in decades". The Times says, "These small independent oilmen had used hydraulic fracturing and horizontal drilling to triple estimates of US natural gas supplies and are now applying that same technology to get oil from shale rock". The FT says that the method could add one million barrels of oil a day to US supplies in five to eight years replacing 10 percent of US crude imports. And that might just be for starters. Experts expect that those technologies are only going to get better.

[Shell to add platform to Gulf oil field](#)

Shell Oil Co. said Wednesday it plans to install a second production platform for its Mars field, about 130 miles south of New Orleans in the Gulf of Mexico.

The new platform is not an exploratory rig and won't be affected by the U.S. moratorium on deepwater exploration. It's expected to begin production in 2015 and will be able to produce 100,000 barrels of oil per day.

[US Senate bill would expand parties liable in oil-spill lawsuits](#)

US Senator and Rhode Island Democrat Sheldon Whitehouse introduced legislation Tuesday that would make all companies involved in an oil spill vulnerable to lawsuits filed by victims.

The Whitehouse proposal faces high hurdles this year, as Congress still has to approve a series of bills and measures pertaining to the fiscal year 2011 budget, which take top priority before lawmakers close the 111th session of Congress this year.

[Nigeria's oil field insurgents rearming](#)

Insurgents in Nigeria's southern oil fields are reported to be rearming amid a faltering peace agreement with the government as Africa's most populous country prepares for a January presidential election that could split the nation.

[Natural Gas Futures Decline on Easing Gulf Storm Concerns](#)

“There’s a lot of talk about the weather pattern showing that hurricane season is over,” said Mike Rose, the director of energy trading for Angus Jackson Inc. in Fort Lauderdale, Florida. Prices may stay within a range of \$3.75 to \$4 per million British thermal units this week, Rose said.

Natural gas for November delivery fell 1.4 cents, or 0.4 percent, to \$3.937 per million Btu at 10:04 a.m. on the New York Mercantile Exchange. Prices have fallen 29 percent this year.

[Wind will power fossil fuel-free Denmark in 2050, report predicts](#)

The falling cost of renewable energy and rising cost of oil and gas will allow Denmark to develop an energy network entirely free of fossil fuels by 2050, according to a report published by the government's climate commission.

The committee predicted that wind and biomass energy could meet the bulk of the country's energy requirements.

It also argued that switching to renewables would be cheaper than continuing to use fossil fuels, particularly if predictions of soaring oil and gas prices are borne out.

[Musings: Marcellus Shale: Good News Critique](#)

Are Marcellus gas producers all lemmings looking for a cliff? A number of people are beginning to seriously question the gas shale phenomenon given the continuing, and projected to continue, low gas price outlook. These critics recognize that many producers, especially the publicly-traded companies, are being pressured to engage in group-think by institutional investors. In fact, several friends have compiled a list of reasons why this group-think exists and we list them below. The authors of the list suggest it does not include all rationales and welcome any additions.

1. Bravely defend the leases
2. Add reserves
3. Grow production and be a good employee
4. Grow production to prolong the illusion that this is profitable
5. Grow your bonus and the value of your stock options
6. They made me do it (the investment bankers)
7. An investment in the future when gas prices are higher
8. Technology will save the day
9. Optionality
10. The land is the play
11. Greater fool theory: live another day to flip the company
12. Cash flow to pay debt service
13. Playing God: I think I'm flying
14. I can't admit that I was wrong
15. No better ideas
16. Charles Prince at the Dance
17. Market share
18. Relatively low rate of dry holes (makes field operators look good)
19. Fear of litigation when the whole game ends
20. Continued access to capital
21. Peer pressure
22. Vast number of enablers (bankers, analysts, accountants, service companies, etc.). This is similar to "they made me do it", but different in my mind
23. They have not yet run out of scenes for the moving circus (still more shales to declare "great")
24. Government encouragement (allowance); seem as source of tax revenue, jobs
25. "I am an E&P company"; what else would you expect?"

[Cleantech Stimulus Still Not Stimulating](#)

While stimulus supporters and the press love to focus on the selection of award winners for grants and loans, funds appropriated but sitting in the U.S. Treasury have zero potential to stimulate the economy irrespective of whether a winner has been selected. As of September 10, 2010 and about 19 months after the stimulus became law, according to the Obama Administration's Recovery Act web site, recovery.gov, the Department of Energy had paid out just over 23% of the \$31B of funds appropriated to the department for various cleantech activities under the stimulus bill. At that rate it will take roughly six years for all funds to be dispersed. According to DOE's more detailed numbers, in the past 12 months, the department has awarded (i.e. selected

winners) for about \$14B in grants. Less than 10% of that amount has actually been disbursed to date. In addition, there are over 730 awards representing \$1.2B that were made in 2009 for which no funds have been paid out at all. Many of these likely still are trying to get their contracts in place, an often-arduous process that can take many months.

In the Smart Grid segment of stimulus, where stimulus actually slowed spending because utilities stopped work to wait and see whether they would win a grant, less than 8% of the over \$4B appropriated has been paid out. People in the utility industry who have received grants have told me about calls from DOE staff “virtually begging them” (in the words of one source) to spend money against the grants that have been awarded more quickly. In other words, the government seems more concerned about optics of getting the money spent than having it spent wisely.

[Norway concerned by power supply ahead of winter](#)

Norway's oil and energy minister said he was concerned about electricity supply this winter due to lingering troubles at Swedish nuclear reactors and low reservoir levels at hydro power plants.

Riis-Johansen said that one of key reasons Swedish nuclear reactors have had problems with maintenance is a lack of new recruits in the sector due to earlier plans to phase it out.

Early this year Sweden's center-right government, which won re-election this month, agreed to replace aging nuclear units with new reactors, but there has been little clarity about the details.

[US Military Needs to Get Off Oil by 2040: Report](#)

The United States military must entirely get off oil by 2040 if it wants to reduce operational vulnerabilities, reduce costs, stop new security risks caused by climate change and avoid the coming peak oil supply crunch. That's the word from the Center For a New American Security, whose [Fueling the Future Force](#) report details the hows and whys of the situation.

[China drives a hard bargain for Russian gas](#)

Dmitry Medvedev, the president of Russia, is in China this week for talks aimed at cementing a new partnership between the world's biggest energy producer and consumer.

But China, despite its hunger for new oil and gas supplies, is playing hard to get.

“Russia is ready to meet China's full demand for gas,” Igor Sechin, the powerful Russian

deputy prime minister, told reporters in Beijing on Monday.

But within hours, state-owned Chinese National Petroleum Corporation announced a major gas discovery in Turkmenistan that will help boost deliveries of central Asian gas to China, reducing its need for alternative supplies.

[Sandia Researchers Study PV Output Forecasting](#)

The effects of clouds on small PV arrays are well-documented, but there is little research on how large-scale arrays interact and function under cloud cover. A small system can be completely covered by a cloud, which drastically reduces its power output, but what's less well understood is what happens when only part of a large system is covered by a moving cloud shadow, while the rest stays in sunlight.

“Our goal is to get to the point where we can predict what's going to happen at larger scale plants as they go toward hundreds of megawatts. To do that, you need the data, and the opportunity was available at La Ola,” said Sandia researcher Scott Kuszmaul.

[Oil Rises as China Manufacturing, Stockpiles Boost Demand Bets](#)

Oil rose to trade close to a two-week high in New York as an increase in Chinese manufacturing and a decline in U.S. supply bolstered speculation fuel demand is rising in the world's two biggest energy users.

[Diesel Europe-Asia Spread Reaches 18-Month High: Energy Markets](#)

The biggest gap between Asian and European diesel prices in 18 months means an increase in shipments of the fuel to the U.K. from South Korea, shipping brokers say.

[BP Plans \\$3.5 Billion Bond Sale, First Since Spill](#)

The energy company may sell as much as \$3.5 billion of debt as soon as today, according to a person familiar with the offering. London-based BP plans to issue 5- and 10-year notes through BP Capital Markets Plc, it said today in a regulatory filing that didn't specify the sale's size or timing.

BP has regained its investment-grade status in the eyes of credit investors more than two months after containing the leak, which was caused by an April 20 explosion on a rig in the Gulf. Credit-default swap prices, which soared to levels implying the debt was junk-rated after the explosion, last week declined to imply a rating of Baa3 by Moody's Investors Service, the lowest step of investment-grade.

[Dudley's Safety Risks Hobbling BP Exploration Success](#)

Robert Dudley, who becomes chief executive officer at BP Plc this week, will try to convince investors he can improve safety without hampering the industry's most efficient oil exploration business.

BP has the lowest costs for finding and developing oil and gas among its peers during the last five years, averaging \$7.70 a barrel, data compiled by Bloomberg show. It replaced more reserves through exploration --rather than acquisitions -- than Exxon Mobil Corp., Royal Dutch Shell Plc and Chevron Corp., according to research by JPMorgan Cazenove.

[Sinopec Group Stops Exploration at Sakhalin-3, 21st Reports](#)

China Petrochemical Corp. has stopped exploration at the Sakhalin-3 project in Russia, the 21st Century Business Herald said, without citing anyone.

[BP Shakes Up Management](#)

BP PLC's incoming Chief Executive Bob Dudley launched a major shake-up of the troubled oil giant, firing a senior executive at the center of the company's Gulf of Mexico oil spill and creating a new division to improve safety across its operations.

In a statement, BP said Andy Inglis would step down as head of BP's exploration and production arm. He will leave the BP board Oct. 31 and quit the company at the end of the year.

[BP to Create New Safety Division in Wake of Spill](#)

BP will set up a new global safety division and make other changes to the way it operates as it seeks to absorb some lessons from the explosion of a oil rig in the Gulf of Mexico earlier this year, the soon-to-be chief executive Robert Dudley said Wednesday.

BP said the new division would aim to improve risk management and safety, and also review how the company manages agreements with contractors.

[Germany Approves New Energy Proposals](#)

Germany's cabinet approved Tuesday a broad slate of new energy proposals, including extending the lifespan of the country's nuclear plants and billions in levies the operating

utilities will be obliged to pay in return.

The government's energy strategy also includes targets for drawing more power from renewable energy, renovating power grids and improving efficiency by 2050. "I admit, our targets are ambitious," Chancellor Angela Merkel said.

[Tehran Touts Its Exports of Gasoline](#)

Iran said Tuesday it has started exporting domestically produced gasoline, drawing skepticism from oil-industry experts but representing Tehran's latest show of defiance amid international sanctions aimed at curbing its nuclear ambitions.

[French Fos-Lavera Port Strike Ongoing, 34 Ships Delayed](#)

The Fos-Lavera oil terminal near Marseilles in southern France was still blocked Wednesday due to a rolling wildcat strike that began Monday, preventing 34 tankers from offloading their cargo, as port workers protest French harbor reform, a port spokeswoman said.

[Shell's Brazil Unit Finds Oil In Santos Basin Well](#)

Shell Brasil's first well in the BM-S-54 block showed indications of hydrocarbons, the company said in a statement emailed to Dow Jones Newswires.

[Drilling Agency, Facing Decision on Ban, Gets Lobbied](#)

On Tuesday, Louisiana Lt. Gov. Scott Angelle plans to meet with the head of the Bureau of Ocean Energy Management Regulation and Enforcement to make a case for regulations that vary depending on the type of well being drilled. U.S. Sen. Mary Landrieu (D., La.) said that she had met with the chief earlier Tuesday to push for a quick resumption of drilling.

[Oil rises to near \\$77 on unexpected US supply fall](#)

Oil prices rose to near \$77 a barrel Wednesday in Asia after a report showed U.S. crude supplies dropped last week, suggesting demand may be improving.

Crude inventories fell 2.4 million barrels last week, the American Petroleum Institute said late Tuesday while analysts surveyed by Platts, the energy information arm of

McGraw-Hill Cos., had forecast an increase of 2.2 million barrels. Inventories of gasoline rose while distillates fell, the API said.

[ConocoPhillips rep: No wavering on Alaska gas line](#)

ConocoPhillips isn't wavering from its support for a proposed natural gas pipeline in Alaska, a company spokesman said Tuesday.

Spokesman John McLemore's statement of support came after CEO Jim Mulva told The Financial Times of London the company would reassess the economics of the project it's pursuing with BP PLC amid a rise in shale gas opportunities because of advancements in drilling technology.

[Lukoil, CNPC Sign Accord on Supplies, Projects, Swaps](#)

OAO Lukoil and China National Petroleum Corp. plan to expand cooperation on exploration and production in Central Asia and may swap assets in Russia and China as they each seek to expand internationally.

The two companies will also discuss fuel supplies to China, under a partnership accord signed yesterday during Russian President Dmitry Medvedev's visit to Beijing, Lukoil said in a statement.

[Brazilian government boosting Petrobras stake to 64 percent](#)

The Brazilian government will boost its stake in oil giant Petrobras to 64 percent of the common stock following a massive share offering, the firm disclosed Tuesday.

[OPEC oil supply falls for 2nd month in September](#)

OPEC crude oil supply has fallen so far this month to the lowest level since November 2009 due to reduced output from Angola and smaller declines in the United Arab Emirates and Iran, a Reuters survey showed on Tuesday.

The decline is the second consecutive monthly fall in supply from OPEC, many of whose members have been relaxing adherence to supply limits since last year as oil prices have stayed within its comfort zone of \$70 to \$80 a barrel.

[In Russia, BP Sees a Second Act](#)

Russian companies are talking to BP about buying billions of dollars in oil fields and other assets to help it pay its gulf cleanup and compensation costs. Along with a partner, BP is planning to explore the rich oil fields in Russia's Arctic waters, a region that is off limits in the United States and Canada.

And BP's chief executive, Tony Hayward, who is turning over the reins this Friday to Robert Dudley, is being welcomed onto the board of TNK-BP, the company's 50-50 joint venture in Russia.

BP's warm relationship with the Russians is a startling turnaround given how grim the situation was two years ago.

[New taxes would harm fragile US economy, economists agree](#)

New oil and gas taxes that the White House proposed in its fiscal 2011 budget request, and reduced domestic production because of the deepwater drilling moratorium would effectively be act as a "one-two punch" to the US oil and gas industry, API's John C. Felmy suggested during a Sept. 28 briefing at API's headquarters.

Felmy said gasoline demand during 2010's June-August summer driving season averaged 9.22 million b/d, 0.25% less than the comparable 2009 period but 1% more than the same 3 months in 2008. Ultralow-sulfur diesel deliveries, which are a general US economic indicator because they reflect the movement of goods on the nation's highways, averaged nearly 2.9 million b/d during August, down 0.1% year-to-year, API's latest monthly statistics showed.

[Senior CPC official meets Iranian leaders on bilateral ties](#)

Visiting senior Communist Party of China (CPC) official Li Changchun met here Tuesday with the Iranian president and vice president to discuss bilateral relations.

[The Age of Energy](#)

This exciting new project from The Telegraph and Shell will attempt to chart the way forward into a challenging but immensely promising new age of energy

On Thursday 30th September we will be holding an Age of Energy event here at the Telegraph offices. Get involved with the debate and pose your question to a panel of energy experts including Secretary of State; Chris Huhne, TV Presenter; Philippa Forrester, Shell Chairman; James Smith, Leading academic; Professor Gordon Mackerron and WWF Chief Executive; David Nussbaum.

[Energy crisis to stymie growth](#)

“For enhancing the growth prospects, power and gas shortages need to be addressed. Transport sector issues, including better road network, railway capacity and efficiency improvements, and raising port efficiency are critical for the economy to perform well,” said Kandiah.

He said: “It is also important to pay urgent attention to improving urban infrastructure including water supply and sanitation for raising the economy's productivity and dealing with urban population.”

[Hunger Set to Become a Key Issue in Global Politics](#)

Over one billion humans are already malnourished. Every day, 16,000 children die as a result of malnutrition. Even a moderate increase in the price of food would significantly worsen the nutritional status of the poor, who typically have just \$1.25 per day or less in purchasing power, with approximately 75 percent of that dedicated to food. This serious situation is set to worsen dramatically as our food needs look set to double in the first half of the 21st century.

[Japan reacts over rare earths ban](#)

China's imposition earlier this year of new general quotas on rare-earth exports had already sparked efforts in the US to revive production of the minerals.

Beijing has denied that it imposed any ban on rare-earth exports to Japan. Traders say, however, that shipments from Chinese ports have been repeatedly delayed without explanation, this amid tensions following a clash between a Chinese fishing boat and Japan coast guard in the East China Sea. “In reality there is an export ban on rare earths,” Mr Kaieda said. “It's important that China stop this extremely abnormal action at the earliest possible time.”

[40 states bank on rising tax revenue in 2011](#)

Overall, states raised taxes and cut spending to eliminate budget gaps that totaled \$84 billion for fiscal year 2011, which in most states began July 1. The NCSL forecasts a total gap of \$72 billion in fiscal year 2012 and \$64 billion in 2013. That means more job cuts and tax increases could still be needed.

[How is Dubai fixing its finances? Speeding tickets](#)

Dubai's government revenues fell 13 per cent in 2009 compared to 2008, but they are

now being bolstered by an almost 50-per-cent increase in police fines, according to a prospectus issued by the government, as it drums up interest in a \$1bn sovereign bond that is expected to be priced by Wednesday.

[In an Otherwise Slash and Burn Budget, Mayor Proposes \\$13 Million for Alt-Transportation](#)

Mayor Mike McGinn announced his grim budget plan (be sure to read Erica's summary). Amid the news of reduced services, hiring and salary freezes, and scaled-back library and recreation funding, Mayor McGinn sneaked in one promising proposal for alternative transportation: a \$13 million funding increase for walking, biking, and transit over two years.

[Shell plans rapid North American growth](#)

BP's Deepwater Horizon disaster and weak natural gas prices have raised concerns about the outlook for the industry in North America, but Shell intends to make the region the focus of its global expansion in the coming decade.

[Water crisis mounting](#)

By 2015, 80 percent of South Africa's fresh water resources will be so badly polluted that no process of purification available in the country will be able to make it fit for consumption.

[Russia as a raw materials appendage to China?](#)

Here is this month's information about coal. According to Russia's Ministry of Energy, China is planning to give Russia a billion worth target-oriented loan for developing coal deposits in the Amur area and other eastern regions. The loan is guaranteed by Russian coal supplies to China. What is more, the loan is repayable within not 15-20 years, as is usually the case in this kind of intergovernmental agreements, but within a far longer period. Under the agreement, Russia is to annually supply at least 15 million tons of coal to China in the first 25 years, followed by at least 20 million onwards.



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