



Drumbeat: March 16, 2009

Posted by [Gail the Actuary](#) on March 16, 2009 - 8:59am

Topic: [Miscellaneous](#)

[US to caution OPEC on price volatility](#)

Daniel Yergin, the chairman of Cambridge Energy Research Associates, said a meeting of the G20 finance ministers this weekend was equally important for the oil price outcome.

"GDP is going to determine the [oil] price," he told Bloomberg. "We're now in the Great Recession, and that's what the price reflects. Oil is not only the world's most important commodity, it's a barometer of the global economy. It's telling us the global economy is sick."

[Hot Docs: Clean Coal Program Shift 'Not Well Considered](#)

[Clean Coal Program Shift Flawed](#): A Department of Energy decision to alter course on a program to develop a clean coal power plant potentially involving some \$1.3 billion in federal funding was "not well considered." That is the conclusion of a Government Accountability Office study entitled "Clean Coal: DOE's Decision to Restructure FutureGen Should Be Based on a Comprehensive Analysis of Costs, Benefits, and Risks." The Energy Department's FutureGen program was originally unveiled in 2003. In partnership with the electric power industry and later with the coal industry, it set as its goal the designing and building of the "world's first coal-fired, zero-emissions power plant." The report finds that the decision to shift from what was originally a research and development project to a commercial demonstration project was not based on a "comprehensive analysis of factors, such as the associated costs, benefits, and risks." The GAO called on DOE to re-examine its decision based on those factors.

[Machine makes wood chips a coal substitute](#)

North Carolina State University scientists say they've created a machine that turns wood chips into a coal substitute by using a process called torrefaction.

Environmentalists have long been concerned about the environmental impact of burning of fossil fuels -- especially coal. The combustion of coal contributes to acid rain and air pollution and has been connected with global warming.

During torrefaction, wood chips go through a machine that removes moisture and toasts the biomass. The machine, called a torrefier, uses heat in a low-oxygen environment to make the wood chips both drier and easier to crush.

[Australian uranium output could jump 20% by 2012](#)

Australia's uranium industry could lift output by about 20 percent in three years, government and industry officials said on Monday, as the nation gears up for its first major expansion of uranium mining in a decade.

Australia's uranium industry has been hamstrung since the early 1980s by political hostility to the nuclear fuel, but long-standing bans on new mines by various state governments are gradually being lifted in the face of economic crisis.

A state-government minister and an industry executive told a conference that Australia could boost annual output of uranium oxide to 12,460 tonnes by 2012 from new mines in South Australia and Western Australia and from expansion of existing mines.

[Natural gas needs to build local markets](#)

The price of natural gas is critically low for producers in the Barnett, Haynesville, Marcellus, and Fayetteville Shales. Recent reports indicate drilling activity in these newly discovered domestic gas plays has seen huge declines in recent months. Wells in the Barnett Shale, Haynesville Shale, Marcellus Shale, and Fayetteville Shale will may not be able to sustain production at prices below breakeven for long. Community tax bases will suffer. Resources and personnel could be forced to move on to other locations, domestic and international. Royalty owners will lose income. Exploration, drilling and production will quickly dry up. Production costs in most of these plays exceed the current \$4/MMBtu market price. Most operators require at least \$5-\$6/MMBtu as a minimum to maintain profitable production. Unconventional gas plays in shale require special expertise, equipment and additional completion techniques that simply cost more cash to economically recover the resource. A \$7-\$10/MMBtu price should be a policy objective that keeps the domestic industry healthy and contributes to further exploration and US energy independence. The US economy and security may depend on bringing these clean burning gas discoveries in the Barnett Shale, Haynesville Shale, Marcellus Shale, and Fayetteville Shale to market profitably. With price a function of supply and demand, we are seeing a greater supply than demand. That has to change.

The real problem may be marketing. Natural gas producers will need to team up with utilities and product manufacturers to aggressively market their products in metro markets close to these plays. Communities and utilities that benefit should contribute to the effort with incentives and education programs. The quickest solution may be to build stronger local markets for natural gas. Products have to be developed, converted and heavily marketed. In homes, gas heating, cooking, water heating, refrigerators, grills, fireplaces and even backup generators need to regain market share.

[Shocking Demographics of The Oil Drum Revealed](#) (Sharon Astyk)

Now don't get me wrong, I actually think that TOD is one of the best sites on the net. I don't write for a lot of other sites - I don't have time and energy for it. I have written for TOD, because I think what they do is truly important. I am enormously grateful to those guys with graphs and penises for the work they do in sorting through an enormous amount of difficult data.

That said, however, I think that while there are an enormous number of talented women now writing and working on Peak Oil and Depletion issues in one form or another, with a few exceptions (thanks to Leanan, Gail the Actuary and TOD alum Stoneleigh) they simply aren't doing their work over at TOD.

[Laying Down Tools](#)(ASPO-USA)

Regardless of how we as individuals in the oil and gas industry cope with this downturn, all of us, as well as our society, will in time face the consequences of having lost this rig and the hundreds more now lying in the grass. I believe that within 2 to 4 years we will be facing a serious shortage of natural gas and the roughnecks will be asked to "come back, please!" Some will walk away and never look back. As for me, I hope that finally the United States is serious about alternative energy, because our very survival is at stake.

[Forecasts](#) (Tom Whipple)

The three major oil forecasting organizations, the US's EIA, the OECD's IEA and OPEC, also issued increasing pessimistic numbers during the week. The EIA now foresees a 0.8 percent reduction in the world GDP during 2009 with a 2.6 percent rebound in 2010. Average annual world oil consumption is seen as shrinking by 1.4 million barrels in 2009. This is 3 million b/d lower than the forecast six months ago.

The IEA now foresees global demand for oil in 2009 shrinking by 1.2 million b/d to 84.4 million b/d, a drop of 270,000 b/d since last month. The agency sees non-OPEC supply as stagnant at 50.6 million b/d during 2009. Problems in Azerbaijan and the major drop in Mexican production are seen as offsetting increases elsewhere. Despite the economic problems, the IEA still foresees Chinese demand increasing by 0.6 percent during 2009.

The IEA continues to warn that the OPEC production cut of 4.2 million b/d, which they seem likely to accomplish, will continue for several months and that there is no growth in non-OPEC production, so world stockpiles will drop swiftly unless, of course, demand falls more than the 1.2 -1.4 million b/d currently forecast. The heart of the issue remains the course of the global economy and the success of the many stimulus initiatives currently underway.

[We must make a lot of mistakes quickly](#) (Kurt Cobb)

We often think of progress these days as coming from carefully planned research conducted by government- or corporate-funded laboratories with large staffs of scientists and technicians. As it turns out, many of the key innovations in history have arrived serendipitously or resulted from trial and error. . .

It should come as no surprise then that efforts to create a sustainable society will require a lot of trial and error. This is true in part because we are still only starting to understand what practices in areas such as building, farming, transportation and energy production might be sustainable in the long run. (It is also true because people differ on what they mean by "sustainable" though that deserves a discussion all its own.)

[Oil futures fall after OPEC keeps output unchanged](#)

"Prices are sharply lower, as some participants are understandably disappointed that OPEC did not close the meeting with another cut under its belt," said Edward Meir, an analyst at MF Global in a research note.

"We suspect that this downward move will linger for most of the week, as the markets will surely conclude that there is now less 'insurance' in the system should demand take a turn for the [worse], or alternatively, if cartel members step up their cheating, which thus far has been kept to a respectable minimum," Meir said.

[Everyone Hates Ethanol](#)

But the subsidies keep growing and growing . . .

Americans are unlikely to use enough gas next year to absorb the 13 billion gallons of ethanol that Congress mandated, because current regulations limit the ethanol content in each gallon of gas at 10%. The industry is asking that this cap be lifted to 15% or even 20%. That way, more ethanol can be mixed with less gas, and producers won't end up with a glut that the government does not require anyone to buy.

The ethanol boosters aren't troubled that only a fraction of the 240 million cars and trucks on the road today can run with ethanol blends higher than 10%. It can damage engines and corrode automotive pipes, as well as impair some safety features, especially in older vehicles. It can also overwhelm pollution control systems like catalytic converters. The malfunctions multiply in other products that use gas, such as boats, snowmobiles, lawnmowers, chainsaws, etc.

That possible policy train wreck is uniting almost every other Washington lobby -- and talk about strange bedfellows. The Alliance of Automobile Manufacturers, the Motorcycle Industry Council and the Outdoor Power Equipment Institute, among others, are opposed, since raising the blend limit will ruin their products. The left-leaning American Lung Association and the Union of Concerned Scientists are opposed

too, since it will increase auto emissions. The Natural Resources Defense Council and the Sierra Club agree, on top of growing scientific evidence that corn ethanol provides little or no net reduction in CO₂ over the gasoline it displaces.

[The U.K.'s Double Whammy: Banks and Oil](#)

Already reeling from the banking crisis, the U.K. faces another hit from declining oil revenues.

Tax from North Sea oil and the dividends from U.K.-listed energy giants BP and Royal Dutch Shell are among the few solid revenue streams for both the U.K. Treasury and private pension funds. Yet they are under pressure.

North Sea oil and gas producers are expected to pay 27% of combined U.K. corporation and petroleum tax this fiscal year and 20% in 2010, according to the Treasury. Total corporate-tax receipts in January fell 20% from a year earlier, while the government's liabilities have soared.

[U! S! A! We're Number 15?](#)

A new report shows that in terms of aggregate health, education, purchasing power, security and general well-being, the U.S. has been in decline.

The first bit of bad news is that America was slipping well before our most recent downturn. Whereas during the 1980s we were consistently No. 2 in the world (Switzerland occupied the top slot in 1980, while Canada did from 1985 to 1990), by the mid-1990s we had slipped to six. And by 2006 (the most recent year available), we had even fallen out of the Top 10 (to slot 15). Income clearly doesn't capture every dimension, since the United States still holds the No. 2 position in terms of income per capita. Rather, other aspects of American society make it less "developed" than it should be, given the resources available here.

This decline proceeded apace through the Reagan and first Bush administrations, during the go-go Clinton '90s, and through the regime of George W. Bush. We have slipped in periods of budget deficits and during the largest surplus in US history. So something deeper about the structure of American society is probably responsible.

[Oil drops 4 percent after OPEC keeps output steady](#)

Oil slumped 4 percent to \$44 a barrel on Monday as traders questioned whether OPEC's decision to enforce better compliance with previous curbs rather than make new production cuts was enough to offset eroding global demand.

While top producer Saudi Arabia had signaled a week ago that it wanted stricter

adherence to the cartel's previous 4.2 million barrel per day (bpd) cuts rather than additional formal restraints, other members had campaigned for explicit action now to avert a further rise in already swollen oil inventories.

[Swire Shipping Denies It Lied Over Queensland Oil Spill Volume](#)

Swire Shipping, operator of a ship that last week leaked fuel oil, coating beaches in Australia's Queensland, denied media reports it lied about the amount of fuel lost, which is about 10 times more than initially believed.

The container ship's officers and the authorities were initially unaware that a second fuel tank had been punctured in the accident, Swire said in an e-mailed statement. The captain of the MV Pacific Adventurer yesterday surrendered his passport to the authorities, Queensland Deputy Premier Paul Lucas said.

The Queensland government yesterday said about 250 metric tons of heavy fuel oil may have been spilled by the ship in a storm, up from initial estimates of between 20 and 30 tons. More than half of the oil-affected areas on two islands and parts of the Sunshine Coast tourist area have been cleaned, Lucas said yesterday.

[Iraq tenders for Halfaya oil production facility](#)

Iraq has issued a tender for international oil companies to build a 50,000 barrel-per-day production facility on an untapped southern oilfield whose reserves are estimated at about 5 billion barrels.

A statement posted on state Maysan Oil Company's website invited bidders to build the facility and install dehydration and desalination units for processing the crude. The tender closes on March 25.

[Natural gas pipeline battles may resume](#)

Legislative opponents of Gov. Sarah Palin's natural gas pipeline plan are asking the Legislature to reconsider the endorsement it gave Trans-Canada Corp.'s plan just months ago.

"All Alaskans want a gas pipeline. But we need to temper that with the reality of the U.S. and world markets today," said Rep. Craig Johnson, R-Anchorage, co-chair of the House Resources Committee.

[Gas bullet line depends on answers to questions](#)

"Bullet line" is the euphemism for a 20-inch or 24-inch pipeline that would carry natural gas from the North Slope to Southcentral Alaska. Our gas fields in the region are being depleted and there are worries we may run short. That's not good, because we depend on gas for space-heating and power generation. Without gas, we'd be back to fuel oil, coal, or even wood.

There is a plan to get North Slope gas from a spur line off the big gas pipeline planned to be built through Interior Alaska to the Lower 48. That, however, is dependent on the success of the larger project, and now there are worries that the big pipe may get delayed if the world economy stays sour.

Even in the best of worlds, if this goes forward, it won't be in operation until 2018 or 2020. Enstar Natural Gas, our regional utility, says we could run out of gas long before that, by 2015 or so.

[IRAN: Despite sanctions, business as usual](#)

South Korea's GS Engineering & Construction Co., the country's No. 2 builder, said Sunday it had finished the plant in Assaluyeh, in southern Iran, according to South Korea's official Yonhap news agency.

The company began construction of the plant in 2003. It will be able to produce 19 million tons of natural gas a year.

The announcement comes a day after Iran announced it had signed a \$3.2-billion deal with China for exploitation of the gigantic South Pars natural-gas field in the Persian Gulf.

[Obama administration may revive carbon-capture project](#)

As a candidate, President Barack Obama promised that his Department of Energy would work on a way for the United States to continue to get power from coal without dumping greenhouse gases into the atmosphere.

The work is already under way, and has been boosted with \$3.4 billion in the stimulus plan. The DOE is expected to announce soon whether it will use \$1 billion of that money to revive FutureGen, a planned coal-fired power plant in rural Illinois that would be the first in the world to capture its carbon dioxide emissions and bury them deep underground.

[The Quarrel Over Coal Ash Waste](#)

The Natural Resources Defense Council on Thursday released a list of what it called the top 15 "filthy" states where plans to build new coal-fired power plants will lead to the production of 14 million additional tons of coal ash waste each year.

The analysis comes in response to the Environmental Protection Agency's promise last week to begin regulating the solid waste produced by coal-fired power plants in the wake of December's massive coal ash spill in Harriman, Tennessee.

[Maldives vows to be first carbon-neutral nation](#)

The Maldives will shift entirely to renewable energy over the next decade to become the first carbon-neutral nation and fight climate change that threatens the low-lying archipelago's existence, the president said on Sunday.

President Mohamed Nasheed said the Indian Ocean islands would swap fossil fuels for wind and solar power, and buy and destroy EU carbon credits to offset emissions from tourists flying to visit its luxury vacation resorts.

[Uni's solar panel captures more light](#)

NEW technology that was developed in Sydney and allows solar panels to capture more sunshine is expected to influence panel production around the world. . .

The pilot program at the university will demonstrate new production techniques that allow traditional panels to catch more light from the blue end of the spectrum, the short wavelengths.

The problem with many existing solar cells is that the shorter wavelengths of light are reflected back by a layer of phosphate ducting within the panel. The new technique allows the phosphate ducts to be better aligned, so more light can be absorbed without adding to production costs.

[Thin-Film Solar Cells Get a Boost From Nanotechnology](#)

While current photovoltaic cells have an energy conversion efficiency rate around 18% (Mitsubishi holds the world record at 18.9%), this efficiency is set back by the extremely costly nature of producing such cells. Thin-film solar cells are expected to dominate the future market due to their low production cost and versatile nature. The goal of the EU-funded research is to boost the efficiency of thin-film cells (currently around 10%) by implementing silicon nano-rods.

The ROD-SOL project hopes to develop and optimize the synthesis of silicon nano-rods onto either metal foils or glass. Researchers propose that the tiny structures are perfect for trapping light energy in a way that it can be transformed into electricity.

[Ag Secretary Tom Vilsack says farmers face several challenges](#)

Let's take it to 2009: Almost all the commodities across the board have seen a decline in pricing, some more severe and more dramatic than others.

We're dealing with issues in dairy, pork, walnuts; there are invasive species issues in citrus that are impacting, potentially, yields, and there is drought in California and Texas. ... There is also concern in the renewable fuel industry, because ethanol production facilities, biofuel facilities are operating on relatively slim margins, if they have any margins at all.

The one saving grace, to the extent that there is a saving grace in these difficult economic times, is that the farm community, generally speaking, is far less leveraged than the general population or other businesses and industries. ... For every dollar in debt, farmers and ranchers have \$9 of equity or assets. That's (substantially better) than in the last farm crisis in the '80s, when we lost a lot of farms.

[Nuclear Instability Watch](#)

So it seems matters are coming to a head in Pakistan. Today, anti-government protests in Lahore were confronted by riot police. After violent confrontations, something truly surprising happened: the police broke. They started to defy orders at every level, from the city magistrate on down. The demonstrators are now filling Lahore, and the head of the opposition, Nawaz Sharif, is leading a convoy on to Islamabad to confront President Zardari. Sharif described it as "a prelude to a revolution".

There is a real chance the Pakistani government might not survive the next few days. Probably not a large chance, but a definitely non-zero chance their government will fall. I have to think that this is the "crisis" that will "test" Obama that Biden was talking about.

[California utility prepares for surge in plug-in electric cars](#)

While the electric car revolution could provide a way to make better use of renewable energy sources, it also presents some big challenges. If lots of electric cars are being charged at the same time in a small community, they could overwhelm the system. For instance, more powerful transformers might be needed, Kjaer says.

Plugging in an electric car can be the equivalent of running up to six plasma television sets at once — a big energy drain.

The key appears to be the strategy of adjusting rates to encourage charging at off-peak times.

[Electricity grid gets boost from Congress](#)

The stimulus bill signed by President Obama in mid-February includes \$11 billion for improvements to the grid — an investment many policymakers label as an essential component of increasing green energy and efficiency. This includes everything from installing transmission lines to employing new technologies to streamline the flow of energy...

Altogether, transmission costs are responsible for one-third of the wind energy price, which recently reached 8 cents per kilowatt-hour in the Austin program, as opposed to 3.65 cents for fossil-fuel-based electricity.

The amount of money Congress plans to spend on the grid may be insufficient, Mr. Clark said. Texas projects that it will spend about \$5 billion to update its transmission capabilities.

"So \$11 billion from the feds — well, you know," Mr. Clark said.



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