



Drumbeat: October 17, 2011

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[Our Incredibly Dull Energy Future](#): *Even if we make big strides toward clean energy, the future won't look very different from today*

The future of energy is going to be awesome. Everyone will drive an electric car, powered by the sun. We'll completely eliminate our need to burn coal or natural gas, and nuclear power will be thing of the past.

No, wait. The future of energy is going to be terrible. Peak oil will catch us off guard. Combating climate change will mean abandoning modern conveniences. Within a generation, we'll all be living like it's 1899.

These two predictions couldn't be more different, but they do have one thing in common: They both make the future of energy sound awfully exciting. Whether you're pessimistic or optimistic, you get the feeling that everything is going to change, and fast.

But what if it doesn't?

[Alms for the Rich](#)

How policies meant to promote alternative energies are actually hurting the middle class.

[From Dung Power to Solar Power](#)

How billions without electrical access will benefit from clean energy.

[Herman Daly: Limits to Growth – Forty more years?](#)

Forty years ago when I read *The Limits to Growth* I already believed that growth in total resource use (population times per capita resource use) would stop within the next forty years. The modeling analysis of the Meadows' team was a strong confirmation of that common-sense belief based on first principles going back at least to Malthus and earlier classical economists.

Well it is now forty years later and economic growth is still the number one policy goal of practically all nations — that is undeniable. Growth economists say that the “neo-

Malthusians” were simply wrong, and that we will keep on growing. But I think economic growth has already ended in the sense that the growth that continues is now uneconomic — it costs more than it is worth at the margin and makes us poorer rather than richer. We still call it economic growth, or simply “growth” in the confused belief that growth must always be economic. I contend that we, especially in rich countries, have reached the economic limit to growth but we don’t know it, and desperately hide the fact by faulty national accounting, because growth is our idol and to stop worshiping it is anathema.

[Richard Heinberg: End-of-growth uprising goes global](#)

As long as economies grew, inequality was tolerable. And if the rabble demanded perks, governments could simply borrow money to fund social programs. Corruption could fester unnoticed. But now the economic tide is no longer lifting all boats. Bursting financial bubbles have led economies to contract. That has in turn led to falling tax revenues, which have made existing government debts in several key countries unrepayable. Therefore government bonds held by banks as assets suddenly have little value. Which causes the economy to teeter further. The system is broken.

[Review of Lieutenant Colonel Fleming’s U.S. Army War College thesis on Peak Oil](#)

The chief contribution of this thesis is its statistical analysis of oil production variance and oil price variance (with a particular focus on the five years between March 2005 and February 2010):

“Oil production variance and oil price variance have never been so far apart.... [There is] an inelasticity at least ten times greater than at any time during the previous 30 years, and 100 times greater than during the previous decade. One might conclude that what we have considered ‘normal’ oil production and oil price cycles have ceased to exist” (p. 15-16).

[Russia May See Fuel Shortages as Export Tax Falls, Analysts Say](#)

(Bloomberg) -- Russia may encounter short-term shortages of oil products such as gasoline and winter diesel as demand grows, refineries conduct seasonal maintenance and export duties fall, encouraging shipments abroad, analysts said.

[Pemex Reopens Dos Bocas Oil Export Port on Better Weather](#)

Petroleos Mexicanos, the state-owned oil company, reopened a second crude-export terminal in the Gulf of Mexico after weather conditions improved.

The terminal at the port of Dos Bocas reopened, Mexico’s Merchant Marine said in a weather bulletin on its website today. Mexico closed the oil ports of Dos Bocas and Cayo Arcas Oct. 15. Cayo Arcas reopened earlier today, while Coatzacoalcos remained open.

[What Is The Future Of Natural Gas Use In The U.S.?](#)

The Kinder Morgan deal will likely make the company the largest natural gas pipeline operator in North America. This comes at a time when more people in the U.S. are becoming reliant on the fuel. For more, Robert Siegel speaks with Daniel Yergin, chairman of IHS Cambridge Energy Associates and author of *The Quest: Energy, Security, and the Remaking of the Modern World*.

[Ex-Royal Marines Fighting Somali Pirates as World Shipping Lanes Attacked](#)

About 1,000 former Royal Marines will be deployed by a British company next year to protect oil tankers and other vessels transiting the world's most dangerous shipping lanes off East Africa.

[Saudi: Arabia: When surging oil demand meets limited supply](#)

As the population of Saudi Arabia (and other oil exporting countries) grows, the incremental supply of oil for export at any given price will be diminished. And that means higher prices for everyone. Where is the pain threshold? When does demand destruction kick in? In April and May, I predicted oil prices had peaked, suggesting further that demand destruction had already kicked in, meaning the rise in oil prices is one big reason the economy has rolled over. Indeed, prices have peaked but they are still more than double the prices at their nadir in 2009.

[We need all the oil we can get](#)

Why is oil — and in turn, gasoline — so expensive these days, versus a couple decades ago? There's just so much less of the easy stuff to produce at a time when the world's most populous region, Asia, is starting to consume like the western world did during the Industrial Revolution.

And the average barrel of oil is getting heavier, evidenced by the energy industry's pursuit of oil in politically unstable or hard operating environments like offshore or in the Arctic.

[Load shedding returns to haunt city after short respite](#)

LAHORE: After a short break in the massive load shedding, the city has been made victim to unscheduled load shedding once again.

[Welcome to 2012](#)

No one pictured us to be here, quite where we are, just a few short decades back. Our battered globe is worse for wear, and bearing the weight of the largest population demand it's ever fed, clothed and sheltered. We've nearly sucked our way to "peak oil" – some would argue we've recently hit it, and it's time to look for alternative sources of energy to fill the void oil will inevitably leave behind. Subsequently, fossil fuel consumption and emissions are on the radars of every major automotive manufacturer. Engines are shedding cylinders, dawning turbos, and shrinking in displacement while the 'horsepower war' of the '90s has morphed into the 'efficiency war' of late. Alternative drive concepts – new and old- are sprouting like dandelions on your neighbor's lawn. But there are other winds of change that are blowing automotive designs in new directions.

[Fukushima reactors may be shut down ahead of schedule](#)

(CNN) -- Engineers may be able to complete the shutdown of damaged reactors at Japan's Fukushima Daiichi nuclear power plant ahead of schedule, the plant's owner reported Monday.

The Tokyo Electric Power Company's plan for winding down the crisis caused by the historic March 11 earthquake and tsunami had called for completing the shutdown process by January. But in a six-month update to its April "road map," the utility said the reactors could reach their "cold shutdown" points by the end of the year.

[Tepco to Ask for \\$9.1 Billion for Fukushima Payouts, Nikkei Says](#)

Tokyo Electric Power Co. will ask the government for 700 billion yen (\$9.1 billion) to help compensate those affected by the Fukushima disaster and avoid insolvency, the Nikkei newspaper reported.

[My Critique of "Feeding the World While Protecting the Planet" by Jon Foley's Team - University of Minnesota](#)

If you somehow missed it, Scientific American magazine has a must-read five page article by environmental studies Professor Jon Foley (Univ. of Minnesota) for anyone interested in the subject of global food security, "Can We Feed the World & Sustain the Planet? A five-step global plan could double food production by 2050 while greatly reducing environmental damage." This is an excellent read and plan, and I appreciate all of the five points made.

[Kurt Cobb: Can Margaret Atwood's environmental message reach a broad public?](#)

Now, the problem, of course, in that a compelling narrative about our climate, resource and environmental challenges would be hard to make simple. The whole point would be to make it clear that these are complex problems with no easy solutions. And, the whole point would be make it clear that these problems arise from the totality of the way we

live, making it difficult to appeal to existing values. And, the whole point would be to startle people into a mode of awareness that goes beyond their current way of seeing.

[The End of the Future](#)

When tracked against the admittedly lofty hopes of the 1950s and 1960s, technological progress has fallen short in many domains. Consider the most literal instance of non-acceleration: We are no longer moving faster. The centuries-long acceleration of travel speeds — from ever-faster sailing ships in the 16th through 18th centuries, to the advent of ever-faster railroads in the 19th century, and ever-faster cars and airplanes in the 20th century — reversed with the decommissioning of the Concorde in 2003, to say nothing of the nightmarish delays caused by strikingly low-tech post-9/11 airport-security systems. Today's advocates of space jets, lunar vacations, and the manned exploration of the solar system appear to hail from another planet. A faded 1964 Popular Science cover story — “Who'll Fly You at 2,000 m.p.h.?” — barely recalls the dreams of a bygone age.

The official explanation for the slowdown in travel centers on the high cost of fuel, which points to the much larger failure in energy innovation. Real oil prices today exceed those of the Carter catastrophe of 1979–80. Nixon's 1974 call for full energy independence by 1980 has given way to Obama's 2011 call for one-third oil independence by 2020. Even before Fukushima, the nuclear industry and its 1954 promise of “electrical energy too cheap to meter” had long since been defeated by environmentalism and nuclear-proliferation concerns. One cannot in good conscience encourage an undergraduate in 2011 to study nuclear engineering as a career. “Clean tech” has become a euphemism for “energy too expensive to afford,” and in Silicon Valley it has also become an increasingly toxic term for near-certain ways to lose money. Without dramatic breakthroughs, the alternative to more-expensive oil may turn out to be not cleaner and much-more-expensive wind, algae, or solar, but rather less-expensive and dirtier coal.

[A New Long Term Assessment of Energy Return on Investment \(EROI\) for U.S. Oil and Gas Discovery and Production](#)

Oil and gas are the main sources of energy in the United States. Part of their appeal is the high Energy Return on Energy Investment (EROI) when procuring them. We assessed data from the United States Bureau of the Census of Mineral Industries, the Energy Information Administration (EIA), the Oil and Gas Journal for the years 1919–2007 and from oil analyst Jean Laherrere to derive EROI for both finding and producing oil and gas. We found two general patterns in the relation of energy gains compared to energy costs: a gradual secular decrease in EROI and an inverse relation to drilling effort. EROI for finding oil and gas decreased exponentially from 1200:1 in 1919 to 5:1 in 2007. The EROI for production of the oil and gas industry was about 20:1 from 1919 to 1972, declined to about 8:1 in 1982 when peak drilling occurred, recovered to about 17:1 from 1986–2002 and declined sharply to about 11:1 in the mid to late 2000s. The slowly declining secular trend has been partly masked by changing effort: the lower the intensity of drilling, the higher the EROI compared to the secular trend. Fuel consumption within the oil and gas industry grew continuously from 1919 through the early 1980s, declined in the mid-1990s, and has increased recently, not surprisingly linked to the increased cost of finding and extracting oil.

[Oil Slips From Highest in a Month in New York as Germany Damps Rescue Hope](#)

Oil slipped from its highest in a month in New York as Germany criticized as unrealistic hopes for a swift resolution to Europe's debt crisis.

West Texas Intermediate crude futures were little changed after climbing above \$88 a barrel as German Chancellor Angela Merkel, speaking at a briefing in Berlin today, dismissed expectations that rescue plans to be announced at an Oct. 23 summit will speedily address Europe's problems as "dreams." Crude advanced earlier on forecasts that China may say tomorrow its economy grew more than 9 percent last quarter.

[Enoc: selling petrol at a loss cannot continue](#)

Selling petrol at a loss because of the federal cap on prices is unsustainable, and is hampering its ability to open new outlets in Dubai, Emirates National Oil Company said yesterday.

Enoc has struggled to supply fuel to drivers in the Northern Emirates, and says the cap is now threatening its ability to do its job on its own home turf.

The company, which is owned by the Dubai Government, said it was on track to record a Dh2.7 billion loss from selling fuel at artificially low rates. "This also has a serious impact on our ability to expand our retail network to meet the growing demand," the company said.

[Shale gas helps Halliburton profit beat Street](#)

(Reuters) - Halliburton Co, the world's second-largest oilfield services company, posted a higher-than-expected quarterly profit on Monday as more drillers tapped its expertise in extracting gas from U.S. shale rock.

Demand for shale energy continues to climb across the United States, despite low natural gas prices, among the clamor for energy independence and a push for cheap supply from the chemical and transportation sectors.

[Kinder Raises Bet on Natural Gas Demand in \\$21 Billion El Paso Purchase](#)

Kinder Morgan Inc.'s agreement to buy El Paso Corp. (EP) for \$21.1 billion, the energy industry's biggest transaction in more than a year, would create the largest natural-gas pipeline network in the U.S.

[Report: Russo-China Central Asia gas talks collapse](#)

Moscow - Negotiations aimed at sending Russian gas to China through a Central Asian pipeline failed Friday because the two sides could not agree on financial terms, Russia's Interfax news agency reported citing a Chinese official.

But a spokesman for Russian's state-owned natural gas monopoly said negotiations between his company and the Chinese National Petroleum Corporation (CNPC) are progressing on other fronts.

[China ups pressure over India's Vietnam oil deal](#)

Stepping up pressure on India to scrap oil deals with Vietnam, China has indicated that these agreements in South China Sea could potentially strain bilateral ties.

Liu Weimin, a spokesman for China's foreign ministry, Friday reiterated in Beijing that China has 'indisputable sovereignty' over the South China Sea.

[Stricken New Zealand ship may break apart or sink](#)

WELLINGTON, New Zealand (AP) – Salvage crews raced Monday to pump oil from a stricken ship teetering on a reef off the New Zealand coast, while also preparing for the worst: Authorities believe the vessel will break apart or sink soon.

[The pipeline of 'poison'](#)

The aftermath of a tar sands oil spill in Michigan has left a community with sickness, anger, and loss of livelihood.

[Anadarko to Pay \\$4B to Settle Spill Claim: BP](#)

BP Plc (BP/), the operator of the Macondo well in the Gulf of Mexico that was the source of the worst U.S. oil spill last year, said Anadarko Petroleum Corp. (APC) will pay \$4 billion to settle all claims over the disaster.

Anadarko, which had a 25 percent stake in the well, will no longer pursue allegations of gross negligence against BP. The payment will be made in a single cash payment and will be put in the \$20 billion trust being used to repay claims and damages. Under the terms of the deal, Anadarko will transfer its stake in the Macondo well back to BP.

[Ambani Armed With \\$12.6B to Buy Energy Assets](#)

Billionaire Mukesh Ambani's Reliance Industries Ltd. (RIL) is poised to use its record cash for overseas acquisitions to take advantage of the cheapest valuations of oil and

natural gas companies in three years as profit growth slows.

[Statoil Buys Brigham Exploration for \\$4.4 Billion Cash to Gain Oil Shale](#)

Statoil ASA, Norway's biggest oil and gas producer, agreed to buy Brigham Exploration Co. for about \$4.4 billion in cash, adding so-called tight oil fields in North Dakota.

[Women march in Yemen's capital](#)

(CNN) -- Thousands of women demonstrated in front of Yemen's foreign ministry in the capital, Sanaa, Monday, demanding U.N. intervention in the ongoing unrest in the Persian Gulf nation, residents and eyewitnesses said.

The protest comes a day after a female protester became the first woman killed in a demonstration against the government, according to opposition activists.

[The Electric Leaf's True Believers Won't Leave Well Enough Alone](#)

WITHIN weeks of when Nissan first began delivering the Leaf to buyers last December, do-it-yourselfers were looking for ways to make the new electric car — an engineering marvel from one of the world's leading automakers — even better.

[For Alternative Energy, Storage Makes All the Difference](#)

Public discussion often makes it seem as if the only obstacles are efficiency and cost. Photovoltaic solar cells and offshore wind farms can provide power at about \$160 a megawatt hour. That's far costlier than coal-fired plants, which deliver power at about \$70 a megawatt hour. That price gap keeps narrowing; it may close completely in a decade or two.

Recent events in Germany, though, highlight a less discussed, but equally crucial, challenge. As Bloomberg News reported recently, German energy prices have begun careening in the strangest ways. Sunny, gusty days generate so much alternative energy that utilities pay industrial customers to take it away. Cloudy, calm weather creates shortages that can send wholesale prices as high as \$220 a megawatt hour.

[A next-generation biofuel strategy](#)

Biofuels and healthy food supplies need not be mutually exclusive. We think there is a need for a next-generation Canadian biofuels strategy that uses biomass — not food — as the primary feedstock. Wood from forests, straw and stover from agricultural operations, specialty-grown crops like switchgrass or poplar trees (not produced on prime agricultural land), and new opportunities including algae are all options that can

allow for the future expansion of biofuels across the country without a negative effect on agriculture.

[Senators protective of potato in face of USDA limits](#)

The U.S. Department of Agriculture wants to limit how many starchy potatoes American schoolchildren eat each week as part of the federal school lunch program, beginning next year.

A bipartisan group of senators from potato states such as Maine, Idaho and Colorado says the USDA proposal is half-baked, and lawmakers will try to block the rule Monday with an amendment to the 2012 agriculture spending bill.

[FOOD: Price volatility - causes and consequences](#)

JOHANNESBURG (IRIN) - In the past four years, global prices of staples such as maize and wheat have twice hit record levels, driving hundreds of thousands of the world's most vulnerable people further towards hunger and poverty.

It is the poorest people in the poorest countries who are most affected by the high price of staple foods.

Recent responses to high prices have increasingly tended to focus on reducing price volatility - sharp fluctuations in food prices.

[How Going Green Can Make You Rich](#)

Many would agree that we are entering a world of peak oil and rising energy prices. There are pending fresh water and food shortages and price increases in many parts of the world, coupled with theoretically unsustainable—yet inevitable—increases in population. Other effects of climate change threaten, from warming seas to shortages of arable land and biodiversity loss. Yet the majority of investors do not take such things into consideration.

Increasingly, evidence suggests they should. Companies that actively manage environmental risks—and take advantage of associated opportunities—increasingly seem to outperform those who don't in the stock market. That could be a very good thing, both for shareholders and the planet.

[My CNBC Energy Opportunities Interview \(VIDEO\)](#)

In the possibility and hope that this video would be watched by more than just people interested in and knowledgeable about energy (and clean energy, in particular), I wanted to focus on a few points that I thought were most important for most people to

understand:

[Bernard Hickey asks if John Key has a Plan B if peak oil, aging workforces and little technical progress create a growthless global economy. Your view?](#)

It hasn't dawned on John Key, but the idea that growth in the developed world may have stalled for more than a year or two is now dawning on central bankers, economic thinkers and protestors around the world.

The realisation that real and sustainable growth may not have happened in the developed world for the last 20 years is even more unsettling.

[Rwanda: Developed Countries Urged to Honour the Kyoto Protocol](#)

In a way of minimizing the effects of global warming in developing countries, developed countries signatory to the Kyoto protocol have been called upon to respect it.

The protocol is an international agreement signed by 37 industrialized countries, including the European Community, to reduce greenhouse gas emissions by an average of 5 percent against the 1990 levels in a period of five years, from 2008-2012.

[Growth patterns must shift or poor will be worse off - UN](#)

"While global GDP more than doubled between 1981 and 2005, 60 percent of the world's ecosystems have degraded," he said at the opening session of the meeting, organised by the United Nations Environment Programme (UNEP) and the Asian Development Bank (ADB).

"What is clear is that the current patterns of growth will eventually undermine the sources of livelihood and the poor and the vulnerable will be worse off," he said.

[Coming soon: 7 billion reasons to rethink how we use the planet](#)

One day this month, the world's population will reach 7 billion.

It took thousands of years - from prehistory to 1960 - for humankind to reach 3 billion. But then it took only 39 years - to 1999 - to add the next 3 billion. And now it has taken just 12 more years to move from 6 to 7 billion.

Growth has been so rapid that the US Population Reference Bureau estimates that about 5 per cent of all the people who have ever lived are living now.

[Tackling an unpopular climate solution](#)

Voluntary curbs on population through improved education could ease poverty and environmental pressures including carbon emissions but is ignored politically as the world passes 7 billion people because of long-standing taboos.

Discussion of fertility rates is unpalatable to religious institutions, for example opposed to contraception, and is often viewed as a private matter by conservative governments.

A link between choice of family size and environmental limits, meanwhile, has lost favour since the 1970s after peak oil and food concerns faded.

But as carbon emissions soar it may be time to review a connection with an increasingly urgent climate problem caused by burning fossil fuels and converting forests for food and energy.



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