GlobalResearch
Center for Research on Globalization

Goodbye to Cheap Oil

By Michael T. Klare
Global Research, June 15, 2009
tomdispatch.com 15 June 2009
Theme: Oil and Energy

Buckle your seatbelt, you may be going nowhere — and it could be a very bumpy ride. Oil futures have just passed $71 for a barrel of "light, sweet crude oil" (sweet for energy stocks, anyway) on its way to... well, we don't know exactly where, but it won't feel good, not at the pump and not in the economy either. In the Midwest and scattered other locations, gas prices are already at the edge of $3.00 a gallon and the height of summer isn't even upon us.

Much of this sudden rise has been fueled by OPEC production cuts, investor dreams of a global economic recovery (and so a heightened desire for energy), and the enthusiasm of market speculators. Explain it as you will, the price of crude, which hit a low of about $32 a barrel in December, as the planet seemed to meltdown economically, has doubled in recent months.

Oil is like the undead. Just when you think it's gone down for the count, it rises from the grave ravenous. As Clifford Krauss of the New York Times reported recently, gas prices have risen 41 days in a row, and yet the price at the pump is still "lagging behind the increase in the price of oil." According to Tom Kloza, chief oil analyst at the Oil Price Information Service, consumers are now shelling out one billion dollars a day to keep their tanks full. (It was $1.5 billion last summer when the price of a barrel of oil hit an astronomical $147.)

Whether this is the energy version of irrational exuberance and a mini-bubble to be burst as further economic bad times hit or the reality of our near future, sooner or later, far worse is in store on the energy front, as Michael Klare, author of Rising Powers, Shrinking World: The New Geopolitics of Energy, makes clear. But don't listen to him. Instead, check out his latest energy scoop — the real news he found buried in the most recent report from the U.S. Department of Energy, whose seers have put irrational exuberance in mothballs and brought out the sackcloth and ashes. Tom

It's Official — The Era of Cheap Oil Is Over

Energy Department Changes Tune on Peak Oil
By Michael T. Klare

Every summer, the Energy Information Administration (EIA) of the U.S. Department of Energy issues its *International Energy Outlook* (IEO) — a jam-packed compendium of data and analysis on the evolving world energy equation. For those with the background to interpret its key statistical findings, the release of the IEO can provide a unique opportunity to gauge important shifts in global energy trends, much as reports of routine Communist Party functions in the party journal *Pravda* once provided America's Kremlin watchers with insights into changes in the Soviet Union's top leadership circle.

As it happens, the recent release of the 2009 IEO has provided energy watchers with a feast of significant revelations. By far the most significant disclosure: the IEO predicts a sharp drop in projected future world oil output (compared to previous expectations) and a corresponding increase in reliance on what are called “unconventional fuels” — oil sands, ultra-deep oil, shale oil, and biofuels.

So here’s the headline for you: For the first time, the well-respected Energy Information Administration appears to be joining with those experts who have long argued that the era of cheap and plentiful oil is drawing to a close. Almost as notable, when it comes to news, the 2009 report highlights Asia’s insatiable demand for energy and suggests that China is moving ever closer to the point at which it will overtake the United States as the world’s number one energy consumer. Clearly, a new era of cutthroat energy competition is upon us.

Peak Oil Becomes the New Norm

As recently as 2007, the IEO projected that the global production of conventional oil (the stuff that comes gushing out of the ground in liquid form) would reach 107.2 million barrels per day in 2030, a substantial increase from the 81.5 million barrels produced in 2006. Now, in 2009, the latest edition of the report has grimly dropped that projected 2030 figure to just 93.1 million barrels per day — in future-output terms, an eye-popping decline of 14.1 million expected barrels per day.

Even when you add in the 2009 report’s projection of a larger increase than once expected in the output of unconventional fuels, you still end up with a net projected decline of 11.1 million barrels per day in the global supply of liquid fuels (when compared to the IEO’s soaring 2007 projected figures). What does this decline signify — other than growing pessimism by energy experts when it comes to the international supply of petroleum liquids?

Very simply, it indicates that the usually optimistic analysts at the Department of Energy now believe global fuel supplies will simply not be able to keep pace with rising world energy demands. For years now, assorted petroleum geologists and other energy types have been warning that world oil output is approaching a maximum sustainable daily level — a peak — and will subsequently go into decline, possibly producing global economic chaos. Whatever the timing of the arrival of peak oil’s actual peak, there is growing agreement that we have, at last, made it into peak-oil territory, if not yet to the moment of irreversible decline.

Until recently, Energy Information Administration officials scoffed at the notion that a peak in global oil output was imminent or that we should anticipate a contraction in the future availability of petroleum any time soon. “[We] expect conventional oil to peak closer to the middle than to the beginning of the 21st century,” the 2004 IEO report stated emphatically.

Consistent with this view, the EIA reported one year later that global production would reach a staggering 122.2 million barrels per day in 2025, more than 50% above the 2002 level of 80.0 million barrels per day. This was about as close to an explicit rejection of peak oil that you could get from the EIA’s experts.

Where Did All the Oil Go?

Now, let's turn back to the 2009 edition. In 2025, according to this new report, world liquids output, conventional and unconventional, will reach only a relatively dismal 101.1 million barrels per day. Worse yet, conventional oil output will be just 89.6 million barrels per day. In EIA terms, this is pure gloom and doom, about as deeply pessimistic when it comes to the world's future oil output capacity as you're likely to get.

The agency's experts claim, however, that this will not prove quite the challenge it might seem, because they have also revised downward their projections of future energy *demand*. Back in 2005, they were projecting world oil consumption in 2025 at 119.2 million barrels per day, just below anticipated output at that time. This year — and we should all theoretically breathe a deep sigh of relief — the report projects that 2025 figure at only 101.1 million barrels per day, conveniently just what the world is expected to produce at that time. If this actually proves the case, then oil prices will presumably remain within a manageable range.

In fact, however, the consumption part of this equation seems like the less reliable calculation, especially if economic growth continues at anything like its recent pace in China and India. Indeed, all evidence suggests that growth in these countries will resume its pre-crisis pace by the end of 2009 or early 2010. Under those circumstances, global oil demand will eventually outpace supply, driving up prices again and threatening recurring and potentially disastrous economic disorders — possibly on the scale of the present global economic meltdown.

To have the slightest chance of averting such disasters means seeing a sharp rise in unconventional fuel output. Such fuels include Canadian oil sands, Venezuelan extra-heavy oil, deep-offshore oil, Arctic oil, shale oil, liquids derived from coal (coal-to-liquids or CTL), and biofuels. At present, these cumulatively constitute only about 4% of the world's liquid fuel supply but are expected to reach nearly 13% by 2030. All told, according to estimates in the new IEO report, unconventional liquid production will reach an estimated 13.4 million barrels per day in 2030, up from a projected 9.7 million barrels in the 2008 edition.

But for an expansion on this scale to occur, whole new industries will have to be created to manufacture such fuels at a cost of several trillion dollars. This undertaking, in turn, is provoking a wide-ranging debate over the environmental consequences of producing such fuels.

For example, any significant increase in biofuels use — assuming such fuels were produced by chemical means rather than, as now, by cooking — could substantially reduce emissions of carbon dioxide and other greenhouse gases, actually slowing the tempo of future climate change. On the other hand, any increase in the production of Canadian oil sands, Venezuelan extra-heavy oil, and Rocky Mountain shale oil will entail energy-intensive activities at staggering levels, sure to emit vast amounts of CO2, which might more than cancel out any gains from the biofuels.

In addition, increased biofuels production risks the diversion of vast tracts of arable land from the crucial cultivation of basic food staples to the manufacture of transportation fuel. If, as is likely, oil prices continue to rise, expect it to be ever more attractive for farmers to grow more corn and other crops for eventual conversion to transportation fuels, which means rises in food costs that could price basics out of the range of the very poor, while stretching working families to the limit. As in May and June of 2008, when food riots spread across the planet in response to high food prices — caused, in part, by the diversion of vast

amounts of corn acreage to biofuel production — this could well lead to mass unrest and mass starvation.

A Heavy Energy Footprint on the Planet

The geopolitical implications of this transformation could well be striking. Among other developments, the global clout of Canada, Venezuela, and Brazil — all key producers of unconventional fuels — is bound to be strengthened.

Canada is becoming increasingly important as the world's leading producer of oil sands, or bitumen — a thick, gooey, viscous material that must be dug out of the ground and treated in various energy-intensive ways before it can be converted into synthetic petroleum fuel (synfuel). According to the IEO report, oil sands production, now at 1.3 million barrels a day and barely profitable, could hit the 4.4 million barrel mark (or even, according to the most optimistic scenarios, 6.5 million barrels) by 2030.

Given the IEA's new projections, this would represent an extraordinary addition to global energy supplies just when key sources of conventional oil in places like Mexico and the North Sea are expected to suffer severe declines. The extraction of oil sands, however, could prove a pollution disaster of the first order. For one thing, remarkable infusions of old-style energy are needed to extract this new energy, huge forest tracts would have to be cleared, and vast quantities of water used for the steam necessary to dislodge the buried goo (just as the equivalent of "peak water" may be arriving).

What this means is that the accelerated production of oil sands is sure to be linked to environmental despoliation, pollution, and global warming. There is considerable doubt that Canadian officials and the general public will, in the end, be willing to pay the economic and environmental price involved. In other words, whatever the IEA may project now, no one can know whether synfuels will really be available in the necessary quantities 15 or 20 years down the road.

Venezuela has long been an important source of crude oil for the United States, generating much of the revenue used by President Hugo Chávez to sustain his social experiments at home and an ambitious anti-American political agenda abroad. In the coming years, however, its production of conventional petroleum is expected to fall, leaving the country increasingly reliant on the exploitation of large deposits of bitumen in the eastern Orinoco River basin. Just to develop these "extra-heavy oil" deposits will require significant financial and energy investments and, as with Canadian oil sands, the environmental impact could be devastating. Nevertheless, successful development of these deposits could prove an economic bonanza for Venezuela.

The big winner in these grim energy sweepstakes, however, is likely to be Brazil. Already a major producer of ethanol, it is expected to see a huge increase in unconventional oil output once its new ultra-deep fields in the "subsalt" Campos and Santos basins come on-line. These are massive offshore oil deposits buried beneath thick layers of salt some 100 miles off the coast of Rio de Janeiro and several miles beneath the ocean's surface.

When the substantial technical challenges to exploiting these undersea fields are overcome, Brazil's output could soar by as much as three million barrels per day. By 2030, Brazil should be a major player in the world energy equation, having succeeded Venezuela as South America's leading petroleum producer.

New Powers, New Problems

The IEO report hints at other geopolitical changes occurring in the global energy landscape, especially an expected stunning increase in the share of the global energy supply consumed in Asia and a corresponding decline by the United States, Japan, and other "First World" powers. In 1990, the developing nations of Asia and the Middle East accounted for only 17% of world energy consumption; by 2030, that number, the report suggests, should reach 41%, matching that of the major First World powers.

All recent editions of the report have predicted that China would eventually overtake the United States as number one energy consumer. What's notable is how quickly the 2009 edition expects that to happen. The 2006 report had China assuming the leadership position in a 2026-2030 timeframe; in 2007, it was 2021-2024; in 2008, it was 2016-2020. This year, the EIA is projecting that China will overtake the United States between 2010 and 2014.

It's easy enough to overlook these shifting estimates, since the reports don't emphasize how they have changed from year to year. What they suggest, however, is that the United States will face ever fiercer competition from China in the global struggle to secure adequate supplies of energy to meet national needs.

Given what we have learned about the dwindling prospects for adequate future oil supplies, we are sure to face increased geopolitical competition and strife between the two countries in those few areas that are capable of producing additional quantities of oil (and undoubtedly genuine desperation among many other countries with far less resources and power).

And much else follows: As the world's leading energy consumer, Beijing will undoubtedly play a far more critical role in setting international energy policies and prices, undercutting the pivotal role long played by Washington. It is not hard to imagine, then, that major oil producers in the Middle East and Africa will see it as in their interest to deepen political and economic ties with China at the expense of the United States. China can also be expected to maintain close ties with oil providers like Iran and Sudan, no matter how this clashes with American foreign policy objectives.

At first glance, the *International Energy Outlook* for 2009 hardly looks different from previous editions: a tedious compendium of tables and text on global energy trends. Looked at another way, however, it trumpets the headlines of the future — and their news is not comforting.

The global energy equation is changing rapidly, and with it is likely to come great power competition, economic peril, rising starvation, growing unrest, environmental disaster, and shrinking energy supplies, no matter what steps are taken. No doubt the 2010 edition of the report and those that follow will reveal far more, but the new trends in energy on the planet are already increasingly evident — and unsettling.

Michael T. Klare is a professor of peace and world security studies at Hampshire College in Amherst, Massachusetts, and the author, most recently, of Rising Powers, Shrinking Planet: The New Geopolitics of Energy (Henry Holt). A DVD of the documentary film based on his previous book, ***Blood and Oil****, is available by clicking here.*

Articles by: Michael T. Klare