



## The Oil Endgame

by Mark Sardella, October 15, 2002 (revised 6/16/03)

Fossil fuels have served as the engine of economic growth for many years, but there has been relatively little discussion to date about the peril of having an economy based on these finite resources. The passing of a pivotal point in oil's history dictates that the topic will soon get its due: World oil production is approaching its peak, and can only decline from this point forward. This is not a matter of speculation – it is mathematical certainty.

Although fully half of the world's total endowment of oil remains in the ground, the rate of global production is constrained for the first time by *physical* limitations as opposed to economic ones. By favoring a process called "creaming," oil producers have continually skimmed the best oil first, leaving the harder-to-get, dirtier oil for later. The gushers are gone – today's oil is pumped from deeper wells with lower yields. Wells of the 1950's returned about fifty barrels of oil for each barrel spent on drilling and pumping – today's wells yield only five for one, and that number continues to decline. Moreover, 90% of the world's remaining oil has already been discovered, and new oil discoveries have slowed to the point that four barrels are consumed in the time it takes to find a single one. In summary, existing oil wells no longer produce enough, and new ones can't be brought on-line fast enough to make up the difference.

How has a fact so staggering – the mathematical impossibility of collective growth by the oil-based economies of the world – managed to escape our attention? If world oil production has peaked and is now in permanent decline, why didn't the nightly news run a story? One reason is that the industry continues to brush such contentions aside, insisting that the world is still awash with oil. Shouting "energy crisis!" is an old alarmist trick that no one falls for anymore, they maintain. But oil depletion data and charts are available to anyone, and the inescapability of exponential decay is taught in high school. Insiders from every major banking and petroleum company have known for years that oil's peak would arrive as scheduled, and the oil executives who have seized the White House know it too.

The peaking of world oil production means that collectively the world's economic output – at least the oil-driven component of it – is constrained, but that doesn't mean that an individual country's economy is constrained. Countries that have passed their peak of production can avoid economic decline by importing oil from other countries, as the U.S. has done since becoming the first country to peak in 1970. The real problem is that the shrinking pool of pre-peak countries is being asked to support a growing pool of post-peak countries. As of now fewer than two dozen pre-peak countries remain, and of them only five – Iraq, Kuwait,

Saudi Arabia, United Arab Emirates, and Venezuela – have significant oil reserves. After Venezuela peaks in 2005, four countries of the Middle East will be exclusively capable of increasing oil production to stem the decline of any of the world's oil-based economies. The strategic importance of the Middle East is thus enormous: The controller of Middle-Eastern oil controls the oil endgame, albeit for just a few short years.

Widespread understanding that the global economy is now energy-limited would rock the foundations of Wall Street and damage the institutions that hope to finance the endgame in the Middle East. Lies and obfuscation have provided cover until now, but the stakes are so high that the game has become difficult to hide. Reality has a way of eventually getting our attention, and the increasingly desperate and brutal acts of desperate and brutal people have finally tipped us off. Planes flying into buildings, bottomless stock markets, and a presidential authorization to declare war against a weak, defenseless country have tipped the hand. Most of us already knew that America's interest in Iraq was oil – it was only a short leap to realize that this oil would decide the winner, and seal the fate of the losers in the geopolitical game. Replay in your mind a few moves in the chess match between George W. Bush and Saddam Hussein under this new backdrop of desperation, and see how neatly the puzzle begins to fit together. (for details see "[Oiling the Wheels of War](#)" by Michael T. Klare, posted at [www.thenation.com](http://www.thenation.com))

Oil will be only the first to go, with natural gas following just a few years later. Managing a transition to coal or nuclear energy after that point, with over 60% of the world's energy supply in steep decline, would be a challenge even without the horrendous pollution and waste issues. Renewable energies hold promise, but unless we immediately dedicate what remains of our fossil-economy to build them, it will be a long, slow road to put them in place.

Orchestrating a graceful exit from the fossil-fuel age could be the most pivotal challenge ever to face human civilization. In the most benign scenario we would come together to acknowledge our vulnerability, rejoice in the newfound wisdom that "sustainable" also means "survivable," and rebuild the world in accordance with this understanding. Other solutions, most notably those in which we fail to act immediately to change our course, would play out horribly. Trying to foster a just and peaceful world while fighting global decline would be impossible. If we are going to make a move against an all-out war to decide which single power will have total domination over a dying world, we need to make it now. The oil endgame is here.

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