

Clean Over Green Oil and Gas in a Low-Carbon Future



Even with the world gathered in Copenhagen this month for the UN climate summit, it is becoming clear that the global obsession with anything green has subsided. This is a good thing. We can now move from breathless anticipation of a green dawn, to the more sober work of systematically and thoughtfully building toward a low-carbon future.

A big part of this effort will involve fossil fuels. Natural gas, oil and coal should be given their due as crucial fuels of the coming decades. There is a commonly held view that we cannot transition to a carbon-neutral world without them.

The reasons for this are clear.

Most notably, fossil fuels both are in abundance and have the potential to be sources of relatively clean energy. Take natural gas, which provides 22 percent of America's electricity. Not only is it the cleanest of the fossil fuels, the industry has reduced emissions by 36 percent since 1980. And America's reserves of natural gas have *doubled* over the past two years, thanks specifically to dramatic advances in technology used to produce shale gas. The U.S. now has a 100-year supply of natural gas at current consumption levels. Meanwhile, LNG capacity also is increasing.

Congress and the Administration should consider redoubling their commitment to creating a level playing field in which all fuels—traditional and new—are encouraged to become cleaner (while also factoring in their cost). Incentives should be provided to remove carbon from oil and gas, as well as from coal; the best way to do this is to put a price on carbon. If policymakers allow the current

market conditions to persist by disadvantaging natural gas and oil, thus upending the balance in supply and demand, they could be laying the groundwork for another possible energy crisis with serious ramifications for the broader economy. A similar dysfunction exists in Europe, where take-or-pay contracts are distorting the natural gas market.

But the oil and natural gas markets face challenges beyond the policy front. Both are suffering from a collapse in demand. Globally, oil demand has fallen over 2 million barrels a day within the past two years. Both oil and natural gas markets have witnessed and continue to witness oversupply.

So, until the economic crisis is behind us and demand recovers, the market will remain in distress, thereby subverting the positive role natural gas should be playing in the drive to a clean energy future.

This is an excerpt from a full-length article titled *Clean Over Green – Striking a New Energy Balance as We Build a Bridge to a Low-Carbon Future*.

The full article explains that policy makers and industry leaders should shift their emphasis from all-green energy to the concept of clean – low carbon or no carbon – energy. This means establishing a level playing field to make it easier to identify the cleanest fuels available at the lowest costs, while also reducing energy use through efficiency and other measures – including a price on carbon.

To read the full article, visit www.deloitte.com/us/newenergybalance.

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In addition, the energy nationalism of resource-rich countries is challenging the global oil markets. In the race for global resources, Western companies are at a clear disadvantage in these closed markets—despite the fact that the international oil majors are more efficient at producing oil. If a Chinese company wants an oil project in Nigeria, Beijing can deploy massive foreign aid as a carrot; the U.S. and Europe cannot do the same.

This dynamic is putting at risk the world's ability to increase supplies, at exactly the time when we will need the increased supplies—particularly to meet the energy appetites of China, India, and others. The time, therefore, has come for resource-rich countries to rethink how they can maintain control of their resources, while optimizing production by accessing the technology of the private sector, thus creating a win-win-win for themselves, the companies, and consumers.

The insatiable thirst for energy in emerging markets, and the already large demand in the developed world, are reasons that—even as new and renewable energy forms have been coming on line—demand for fossil fuels continues to grow. Daily global consumption of oil rose by 9.4 million barrels per day between 2000 and 2007 – and 85 percent of this growth was due to demand in emerging markets.

The Obama administration has made its mark by resetting the national energy priorities. But, in so doing, it has treated oil and gas almost like second-class citizens, invoking them only in the context of increasing their taxes and reducing their subsidies. Natural gas, the cleanest of the fossil fuels, could be given a greater role in the Obama Administration's game plan. More broadly, the definition of "clean energy" could include clean coal; natural gas as it is, as well as even *cleaner* natural gas; and clean oil. Clean means clean. Period. The technology race to drive carbon out of coal could be broadened to drive it out of oil and gas, too. Some companies are, in fact, working on demonstration projects to remove carbon from natural gas.

Simply put, it will likely be very difficult for the U.S. to cross the bridge to a low-carbon and a clean-development future without mobilizing the American oil and gas industries. To accelerate this process, all energy forms, including fossil fuels, could be allowed to compete within a framework set by the government. Whatever fuels meet the policy demands, and can adjust to the carbon costs, and the carbon reduction goals, should be able to play the game.

Of course, the oil and gas industries could do their part by committing to developing carbon-neutral technology. At the top of their goals could be to produce ever-cleaner oil, natural gas, and coal. Within a generation, we should only be talking about "clean oil," "clean natural gas," and "clean coal". This can happen within an enlightened and fair policy framework.

With the right policy framework and the ingenuity long demonstrated by the oil and gas industries, the problem can be a big part of the solution.

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