



Montecito Private Asset Management, LLC

MPAM

Let's be practical: We will all be dead long before we stop using oil

Last year's massive spike in energy prices sparked a significant debate regarding the expansion of offshore drilling, as well as the tapping of other energy resources such as oil shale, oil sands, and various alternatives, such as biofuels, wind, solar, wave, hydro, and the like. As with so many things, as soon as the price of energy fell, the debate faded into the subconscious. The sad truth is that we are a nation of instant gratification, and a very short-term memory, which unfortunately sets us up to repeat our mistakes, repeatedly.

I live in Santa Barbara, one of the most beautiful places on earth, which just happens to have a billion and a half barrels of oil sitting right off of its coastline. Locally, we have had a 40-year, ongoing debate about offshore oil drilling, ever since the 1969 Union Oil spill dumped 80,000 barrels of oil in the ocean and on our beaches. This spill has been credited with creating the modern environmental movement. Regrettably, although the individuals within the environmental movement who have dedicated their lives to protecting the environment mean well, they are completely impractical, and I must say hypocritical, when it comes to the offshore drilling issue. Some of these same individuals who rail-against offshore drilling and "big oil" are the same people who complained the loudest when gasoline prices spiked last summer.

(By the way, 70,000 barrels of oil each year (almost as much as was spilled in 1969) seep into the Santa Barbara channel from natural oil seeps. Drilling the offshore formations in the area reduces the pressure in the formation, which in turn reduces the natural seeps. So, from an environmental standpoint, drilling actually helps the environment by reducing these natural seeps. Try getting an environmentalist to acknowledge that fact!)

The simple fact is that we use oil... we use a lot of oil, and we will continue to use oil for many decades to come. In fact, we may never fully replace oil with alternatives, even if we are able to find acceptable fuel alternatives. In the United States, we use approximately 25 barrels of oil per person, per year. One-third of the twenty million barrels of oil per day that we consume, we use for purposes other than transportation. Coincidentally, the entire U.S. production of oil is about one-third of the total we use. This means that even if we were able to completely eliminate our need for oil as a transportation fuel, we would still require the entire production of the U.S. to fulfill our needs.

So what do we use oil for, besides transportation fuels? Think of anything made from plastics and polymers for starters. As you go-through your normal daily life, think about everything you touch, see, and use that is made from oil... things like: coffeemakers, appliances, televisions, computers, printers, fax machines, phones, cell phones, remote controls, carpets, asphalt and concrete, vinyl flooring and counters, clothing made from artificial fibers, soaps, detergents, and cleaners, all kinds of chemicals, lipstick, nail polish, paint, insulation, and everything else made from plastics and polymers.

This list barely scratches the surface of the thousands of products that are made directly from oil, and includes none of the products that are made indirectly from oil, with oil being used as the energy source for the manufacturing process. Just take a look around your desk right now as you are reading this, and look at all the things made from plastics you see, and you will realize the significance of oil in our daily lives.

Some, including members of the new administration in Washington, would say that alternative energy is the answer, and President Obama has recently announced that he plans to double the amount of energy we get from alternatives. Let's take a look at this statement to see what a doubling of alternative energy output would mean in real terms. (By the way, Bush doubled the total output from alternative energy sources during his tenure as well.)

If we added-up the total output at maximum, for all existing alternative energy sources—wind, solar, and hydro—it is a total of 76,000 barrels of oil equivalent per day. Keep in mind that we use about 44 million barrels of oil equivalent today, if you add-up the oil we use, plus electricity generated from coal (about 50 percent), natural gas, and nuclear (about 20 percent of total U.S. electricity generation; nuclear is really the only viable alternative to fossil fuels for electricity generation, but I think, if given a choice, environmentalists would choose fossil fuels over nuclear; nuclear must be a significant component of any future energy strategy), and other industrial uses of energy. So in relative terms, the total current output, at maximum, of all alternative energy sources, including hydro, is less than two-tenths of one percent of what we use. So, even if we double that amount, we are still talking about far less than one-half on one percent of our needs. Clearly the idea that we are somehow going to stop using oil anytime soon is ridiculous. Even to get to five percent of our total usage of energy is decades and decades away.

We need to be practical and realistic, and to understand that everyone reading this will be dead long before we stop needing and using oil. In fact, even if we stopped using oil for transportation—if we were able to convert completely to electric cars, and could generate enough electricity to power them, which is not feasible given the current technologies we have for alternatives—we would still need oil for all of those other things we depend on every single day.

Once we understand the numbers, and see that alternative energy as a viable replacement for oil anytime in the coming several decades is a pipe-dream, we can then return to the real issue, which is how do we supply our need for oil? We can either continue to buy oil from the Middle East and other countries, pumping billions of dollars per week, (about \$240 billion per year at \$50 per barrel), much of which goes into the hands of people who want to kill us, or we can tap the abundant resource we have right here in North America. Here is a short list of some of the more sizable sources of oil we have access to, if we would just go and get it:

- Oil Shale - In Colorado and surrounding states, we have by some estimates as much as two-trillion barrels of oil in oil shale—a type of rock that holds oil. This is the equivalent of over 200 years of current U.S. demand, and is five times the stated reserves of Saudi Arabia.
- Canadian oil sands – Canada has three major oil sands areas with a total of 1.7 trillion barrels of oil, about 300 billion of which is recoverable with today’s technology. This 300 billion barrels is 41 years of U.S. demand at the current rate of consumption. It is highly likely that technologies will improve the extraction process over time so that a much larger percentage of the total will be recoverable.
- Gulf of Mexico
 - The Jack Field (off of New Orleans) – Discovered in 2006, this field holds as much as 15 billion barrels of oil; about two years of U.S. consumption.
 - The Noxal Field (off of Mexico) – also discovered in 2006, contains as much as 10 billion barrels and rivals Mexico’s largest existing field, Cantarell, in size.
 - Both of the previous, recent finds were in deep water, and require the use of new drilling technologies. You may be aware of the theory that a giant meteor struck the Gulf of Mexico and was responsible for the extinction of the dinosaurs. This same meteor fractured the bed of the Gulf of Mexico, which allowed biological material to accumulate over millions of years in a giant pocket. The impact crater is believed to be 100 to 150 miles wide, and some experts believe there could be as much as 200 billion barrels of oil still undiscovered in the Gulf as a result. This amount would represent another 27 years of U.S. consumption at current rates.
- Atlantic - Off of Newfoundland, there are an estimated 40 billion barrels of still undiscovered oil, larger than the 34 billion of proven reserves in western Canada.

- Pacific Coast - Off of the California coast, the federal government estimates that we have 10 billion barrels of oil. Of this amount, 1.5 billion barrels lie right here off of the Santa Barbara area.
- ANWR – The Department of the Interior estimates that there are as many as 29 billion barrels of oil in place in the Coastal Plain within ANWR (The Alaskan National Wildlife Refuge). Experts disagree on how much could be recovered, but ANWR is located between two very large oil discoveries: About 65 miles to the west of the Coastal Plain, the Prudhoe Bay, Lisburne, Endicott, Milne Point, and Kuparuk oil fields are currently in production. Approximately 1.5 million barrels of oil a day are produced from these fields, representing 25% of our domestic production, and to date, about 10 billion barrels have been produced. To the east of the Coastal Plain, major discoveries have been made in Canada, near the Mackenzie River Delta and in the Beaufort Sea.

In addition to all of the previous discussion of North American oil potential, we have witnessed several major oil discoveries over the past decade, including Kazakhstan's Kashagan field, which holds an estimated 12 billion barrels, and Brazil's Petrobras' late 2007 discovery in deep water offshore of an estimated 5 billion to 8 billion barrels. The takeaway from these recent discoveries is that the peak oil theory—the idea that we are running out—is bogus. Yes, oil is finite, but we are several hundred years away from running-out, and as new technologies for alternatives improve, worldwide consumption, eventually, will come down. In the mean time, for our lifetimes and those of our kids and grandkids, we don't need to worry about running-out of oil.

I have not discussed the massive amounts of natural gas we have right here in the North America, that could and should be used to generate electricity... trillions and trillions of cubic feet are available.

I do not believe that the current political climate will support an increase in offshore drilling, onshore drilling, oil shale production, or any meaningful increase in natural gas production. Instead, my belief is that it will take referendums, (a ballot measure that all citizens can vote on), either at the state or federal level, to overturn the moratoriums on offshore drilling, or to open-up ANWR and other domestic sources of oil. Contrary to the wishes of environmentalists, I believe that referendums will be sponsored and passed, and that offshore and other production of oil and natural gas will increase.

One need only look back to last summer, when gasoline prices spiked to around \$5 per gallon in California, and to well above \$3 just about everywhere else in the U.S. to see that consumers will demand more drilling, when prices rise again... and they will rise again; it is only a question of time. Even hardcore environmentalists were screaming, "drill baby drill", when prices spiked last summer. We had commuters running out of

gas on our freeways because they couldn't afford enough gas to get them from paycheck to paycheck, and families worried about whether or not they were going to be able to buy food because their gas bills were so high. Practicality will outweigh environmental concerns when gas prices become a major issue again, and gas prices will become a major issue again; sooner rather than later.

I have not mentioned the other major benefit of additional drilling, which is the billions of dollars that would be generated in royalty income and other taxes to the states with offshore reserves as well as to the federal government. For Santa Barbara alone, allowing oil companies to drill offshore would generate an estimated \$350 million per year in new revenues to Santa Barbara County, from a combination of royalties and property taxes on new facilities, as a direct result of new drilling. For California, allowing additional drilling offshore would generate billions of dollars each year; money which the state desperately needs with our current budget deficit, and money which the state has no other means of getting, other than raising taxes dramatically, or slashing jobs, a combination of which is already in the works. Wait and see how people react when their taxes are raised while we are in the worst recession since the Great Depression.

What we need to do is to be proactive—to find acceptable ways to develop our domestic energy resources in the least impactful way possible. New technologies offer methods to drill for oil and gas that substantially reduce the risk of spills. Offshore fields can be drilled through slant drilling from onshore, virtually eliminating any risk of an offshore oil spill. At the end of the day, we need to look at this issue, not in terms of whether or not we should drill, but from the point of view that we *will* drill because we need the oil and gas, so how can we do it in the most efficient, least risky way?

I am confident that if we all take the time to understand just how much oil permeates our daily lives, how many of the things we use every day come from oil, and how we could not live in the modern world without it, we will all come to the same conclusion, which is that we do not have any viable alternative to oil, so we might as well accept this fact, and act accordingly, focusing on producing as much here at home as possible, rather than buying it from people who want us dead; people that we have armed, financed, and empowered through our dependence on foreign oil.

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