



How the New Oil Industry Will Change People, Politics, and Portfolios

Future Energy

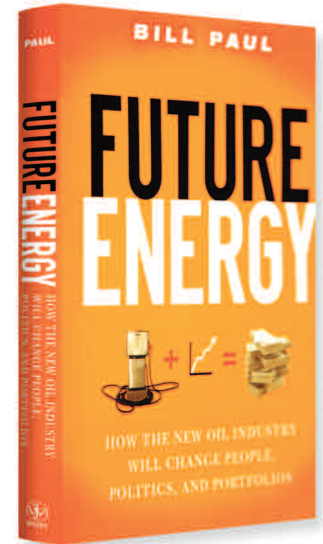
THE SUMMARY IN BRIEF

In America, driving a car or truck is quite possibly our most ubiquitous expression of freedom — freedom of travel, freedom of motion, the freedom of the open road. That freedom, like all other freedoms, comes at a price. Americans are increasingly recognizing the cost of this freedom when they fill their tanks, but the “pain at the pump” is only a fraction of the toll our oil dependence exacts on our economy, our nation’s energy security and our environment. Most of us simply see no alternative.

Help is on the horizon, and might be closer than we think. Bill Paul examines the energy technology revolution that is brewing in America and throughout the world — a revolution that will create a “new” oil industry that holds the promise of energy independence for the United States and other nations. The potential ramifications of this revolution are enormous — moderate prices, a cleaner environment, even a new method of wealth creation. While it will take government programs and legislation to bring these changes, you can keep an eye out for the inventive and disruptive technologies that will bring about the revolution, and the global, corporate, and federal entities that will develop and nurture those technologies. The revolution will take time, but the future is definitely starting right now.

IN THIS SUMMARY, YOU WILL LEARN:

- How factors in America’s relationship with oil are forming a “perfect storm” that can bring about change.
- The key investment sectors in the “new” oil industry.
- Why crude oil will continue to be a vital part of the world’s energy mix for years to come.
- How electricity will become a new transportation fuel.
- Why it’s conceivable that energy efficiency could become a new method of wealth creation.
- What companies made the “100 Companies to Watch” list.



by Bill Paul

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THE COMPLETE SUMMARY: FUTURE ENERGY

by Bill Paul

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The New Oil Industry

In a 2006 newspaper article, a group of economists stated their belief that if gasoline were to reach \$5 a gallon in the United States, “an entire industry would develop aimed at cutting costs and finding new sources of energy that could alter the economy in unforeseen ways.” In truth, this industry is already taking shape, fueled in part by crude oil and gasoline prices that have risen rapidly over the past few years.

This new industry is gaining momentum because of two of the most widespread fears in the world today: the fear of governments everywhere over their lack of energy security, and the fear of people everywhere over the health of the planet, best expressed in the wave of media interest in global warming. Chronically high prices plus pervasive geopolitical risk plus environmental fear equals a recipe for change, for a radical restructuring of the oil industry.

The Perfect Storm for Oil Price Spikes

In addition to rising worldwide demand for oil, the upward pressure on oil prices should be maintained over an extended period by the financial and psychological fallout from a number of confluent conditions such as:

- The rising cost of discovering, extracting, and refining crude oil;
- Increasing reliance on other hydrocarbon sources, such as coal and tar sands, that are more expensive to exploit;
- The growing concentration of America’s critical energy infrastructure in the hurricane-prone Gulf of Mexico;
- The political assessment that the “war on terror” is only in the first round;

- Rising demand in oil-producing countries that effectively reduces the amount of oil available for export; and
- Growing concern that conventional oil production may have peaked, or could soon.

Yet even under these circumstances, it is accepted that, with proper guidance, the new oil industry has the potential to solve many, if not most, of the world’s energy-related problems. Unfortunately, it will take time for these problems to be solved, if we are indeed capable of solving them — perhaps a decade or longer, though a lot depends on political and policy variables. Until that day, even with the world pumping as much crude as it can, it is unlikely we will be cured of our “pain at the pump.”

SLFs and Negaoil

In energy, every winning investment idea is first a winning political idea. While the present-day oil industry has one sector — conventional oil — in the new oil industry, conventional oil will be one of three sectors. The other two will be:

- Substitute liquid fuels (SLFs). This refers to fuels made both from biomass sources and from hydrocarbon sources other than crude oil.
- Efficiency. This refers not only to ways of getting more mileage out of a gallon of gasoline, but also to the use of electricity as a *nonliquid* alternative fuel, a “kilo-watt gasoline” made for vehicles now under development that will be capable of being plugged into an ordinary electrical outlet. Efficiency also refers to something called “negaoil,” an adaptation of a concept found in the electric utility industry called *negawatts*, which is a measurement of electricity not used as a result of efficiency improvements. Negaoil is used to describe the ways in which oil is not used, thanks to improved efficiency.



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While the three sectors in the new oil industry will complement one another, they will also need to compete with one another. The trick for government officials everywhere will be to encourage competition without losing the synergism that will come from having all three sectors working together toward the same goal.

Rising Price Potential of Natural Gas

Oil is not the only important fossil fuel whose price could skyrocket; the price of natural gas could do likewise. Looking out to 2010, it is believed natural gas prices will be vulnerable to “super spikes.” Thanks to a very mild winter in 2005–2006, the United States had a plentiful supply of available natural gas in 2006. However, with all of the increased demand from natural gas-fired power plants and with domestic production that has recently tread water, the shock of an extremely cold winter could send U.S. natural gas prices as high as \$15 to \$20 per thousand cubic feet, an amount equal to a \$90 to \$120 barrel of crude oil.

This forecast is important because the prices of oil and gas tend to influence each other. Also, thanks to what is called gas-to-liquids (GTL) technology, natural gas could become an important alternative to crude oil in the production of diesel and gasoline, though not until there is enough natural gas available and the threat of a super spike has been lifted.

What’s the Alternative?

Natural gas is not the only alternative fossil fuel that can be used to make what is often called “synthetic” oil; coal, tar sands and oil shale can be used, too, assuming price and supply conditions are right. Unlike natural gas, there does not appear to be a supply problem with these three. However, due to high extraction and refining costs, the three share the natural gas problem of being an expensive alternative to crude-derived gasoline.

The answers to the world’s oil problems remain at its feet — fuels that can substitute for gasoline made from crude oil, and new technologies that enable less gasoline to be consumed. Substitutes and efficiency are keys to long-term energy solutions.

Oil Consumption Abroad

While everyone tends to focus on the United States, China, and India when it comes to oil demand, they are only part of the world’s rising demand problem. Another important part of it is what is happening in the oil-producing countries. We’re used to thinking of OPEC as a source of oil. But in addition to exporting their oil around the world, OPEC’s members also must satisfy the

oil demands of their own people, which are surging due to expanding populations and subsidized gasoline prices.

It doesn’t take an economist to understand the implication of this rising trend in demand — the more an oil-producing country consumes at home, the less it has available for export, unless it ramps up production. In almost every case, this increased production is simply not possible. ●

Terrorists, Nationalists, and Shock Absorbers

It is said that the odds of a foreign oil disruption happening over the next 10 years are 80 percent. To absorb the oil price shock that would accompany such a disruption, investors should consider having “shock absorbers” in their portfolios. These shock absorbers will not enable investors to beat the odds — for the next five to 10 years, no amount of cushioning will prevent investors from taking a hit should the global flow of oil be interrupted for any length of time. But as the prices of one’s other investments are going down, shock absorbers should be able to hold their own.

How much one invests in shock absorbers depends on the exact nature and timing of the disruptive event, as well as the response to it. The condition of the economy at the time of a disruption is important, as well — if it is weak, the disruption is likely to lead to a recession that damages one’s other investments.

Countries to Keep an Eye On

The three countries that should cause investors to lose the most sleep are the three at the heart of much of our international policy conversation at present:

- **Iraq.** Whatever one’s opinion about whether American soldiers should have been sent to Iraq in the first place, if they leave Iraq in a chaotic state, the oil market will react badly. The U.S. military is the only thing preventing Iraq’s unpredictable neighbor, Iran, from establishing at least partial political dominance over the oil-rich nation.

- **Iran.** Tehran is doubly dangerous because it doesn’t just *want* Iraq’s oil; it *needs* Iraq’s oil. Due to steadily rising domestic demand and a plateau in production, the amount of oil the country has available for export is expected to drop sharply. Also, there may be no bigger geopolitical oil problem in the world today than Iran’s nuclear program. Tehran wants nuclear technology in the form of a bomb in order to cement its role as a global power broker, and it needs nuclear technology in the form of electricity to help offset the plateau in oil production.

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• **Saudi Arabia.** Saudi Arabia's oil facilities are among the best-defended pieces of real estate on the planet, thanks in no small part to the United States military. If there is one thing the oil market is sure of, however, it is that it cannot be sure there will not be an attack on Saudi oil installations. It is an all-too-believable scenario that 10 percent of the world's oil supply would be taken off the world market for several months, resulting in an oil spike to \$125 a barrel, a gasoline spike to \$6 or \$7 a gallon, and a stock market crash. It could all happen before the U.S. military and Saudi security forces had time to respond.

As much as America's energy interests are at risk from the tactical threats posed by Iran and terrorism, they are at almost as much strategic risk from anti-U.S. nationalism emanating from countries like Venezuela, Russia and China. The danger here is the potential of a new cold war over energy supplies.

Defense is the Best Offense

While China, Russia and Venezuela can't be forgotten, investors need to stay focused on the danger to their portfolios posed by Iran and terrorism. So what are the best shock-absorbing investments to own?

One seemingly bulletproof investment would be defense stocks. Defense expert Milton Copulos mentions Lockheed Martin and Raytheon and adds that almost any defense company would be a good hedge against an oil price shock.

In 2006, the United States spent roughly \$2.70 per gallon—nearly as much as the summertime price of gasoline—to make sure its imported oil safely reached Americans' gas tanks. This is the hidden cost of America's gasoline, the price we all pay to protect shipping lanes and countries on whom we are increasingly dependent for our black gold.

Until America has licked its addiction to imported oil, defense companies warrant a spot on the list of companies to watch. Additionally, tank operators benefit in a world of pervasive geopolitical risk, in part because their ships can be used as floating storage terminals.

Transportation companies that move not just the oil but also the coal, corn and other energy feedstock will not be strategically important to the development of the new oil industry, but like infrastructure firms, nothing will be possible without them. ●

Substitute Liquid Fuels: Biofuel

Biofuel is really solar power in disguise — if the sun doesn't shine, there's no "bio" in biofuel. Think of it as

stored solar power, and think of solar power as the common denominator between mobile energy (cars and trucks) and stationary energy (homes and businesses). With the latter, the sun's rays are converted into electricity through solar panels and solar roofing shingles.

The Power of Ethanol

The main biofuel in the United States today is ethanol, and most ethanol is made from corn kernels. Corn ethanol is just a part of the first technological step in the development of what should be a global biofuel industry that greatly relieves the strain on crude oil supplies without doing as much environmental damage as driving on straight gasoline.

Ethanol, also known as ethyl alcohol or grain alcohol, is a tasteless, colorless chemical compound that has gone into alcoholic beverages for thousands of years. When blended with unleaded gasoline, ethanol increases the fuel's performance while decreasing harmful emissions. In 2006, all vehicles in the United States could run on a blend of 90 percent gasoline and 10 percent ethanol. About 5 percent of vehicles, called *flex-fuel* vehicles, could run on a blend of 15 percent gasoline to 85 percent ethanol (E85 fuel). U.S. automakers have committed to putting more E85-ready vehicles on the road.

Cellulosic Ethanol

By 2012, corn ethanol sales in the United States could be as much as 10 times higher than they were in 2006 — \$45-\$60 billion, as compared to \$6 billion. Its longer-term outlook, however, is more guarded. By 2012, or sooner, two other biofuels currently in development could challenge corn ethanol's market dominance in the United States. One is cellulosic ethanol and the other is biobutanol.

Cellulosic ethanol is ethanol made from the hard fibrous parts of plant matter. It can be made from wild grasses and from agricultural, wood or even municipal waste products. Unlike corn ethanol, which is made from a food crop, cellulosic ethanol can be made from stuff that has little or no economic value — switchgrass and other wild grasses, corn stalks, wood chips, even garbage.

Cellulosic ethanol comes with one significant problem, however — it cannot be transported through the United States' existing petroleum pipeline.

Biobutanol

Biobutanol is alcohol with a different chemical composition than ethanol that can be made from both grains and cellulose. Biobutanol can be transported through the existing petroleum pipeline.

DuPont and British Petroleum (BP) are currently conducting a project in Great Britain, aimed at raising the yield for the part of the biobutanol production process in which sugars are fermented into alcohol. If they succeed, the cost of producing biobutanol might be lowered to the point that a global production program could take off.

Aside from its aforementioned transportability, biobutanol possesses many attractive attributes:

- It has a higher energy density than ethanol, resulting in better engine performance that translates into better mileage.
- Ordinary vehicles should, without modifications, be able to run on a higher concentration of biobutanol to gasoline than ethanol to gasoline.
- It will be possible to make biobutanol either from grain or cellulose; thus, it will be possible to use food crops like corn up to their optimal point in terms of land use, while simultaneously using wild grasses grown on suboptimal farmland, plus all of the world's organic waste.
- Existing corn ethanol refineries can be retrofitted to make them biobutanol refineries.
- Biobutanol is an oxygenate, which means that it increases the level of oxygen in gasoline, improving combustion, which is good for the environment.

If the Dupont/BP project succeeds, the politics surrounding biobutanol could be fascinating to watch. It could hasten the end of corn ethanol's reign by being a flat-out superior fuel. Major oil companies will also have something to consider. While their initial reaction might be to fight the rise of biobutanol, seeing it as a threat, the more forward-thinking among them will see biobutanol's development for what it will likely be — one of the biggest opportunities ever to come down the road. ●

Substitute Liquid Fuels: Unconventional Fossil Fuels

Unconventional fossil fuels get their name from the fact that while gasoline can be made the conventional way (from the refining of crude oil), it also can be made unconventionally, from other fossil fuel sources. Tar sands, coal and oil shale all have hydrocarbons, just in solid form. These three, and also natural gas, can be turned into what may be called synthetic oil through processes that have long been considered too expensive to compete with crude oil.

An Unconventional Future?

It takes a lot of money (hundreds of millions or even billions of dollars per project) and really long lead times (5 to 10 years or longer) to build the infrastructure required for a new unconventional oil industry, such as tar sands. To justify the time and expense, tar sands and the other unconventional oils must be considered economically viable not just for a few years, but for a few decades or longer. The fact is, at least two out of the three solid fossil fuels oils — tar sands and coal — definitely have a future in the world, and the third, oil shale, eventually may too, in spite of obvious inefficiencies in extraction and refinement. What remains unclear is exactly how long of a future.

Why do they *definitely* have a future? Energy security is one of biofuel's selling points. But until scientists figure out things like how to genetically engineer microbes to increase productivity, synthetic gasoline will trump bio-gasoline as a "secure" transportation fuel. A case can be made that if a nation were to rely too heavily on biofuel, it would put itself in danger of using so much of its agricultural land to grow crops for energy that it would have to import more food, thereby risking becoming food insecure in order to become energy secure. No politician is going to be willing to take that risk.

Defense to the Rescue

When one considers how much the United States spends to ensure imported oil reaches its shores, it's easy to recognize that gasoline made from American coal or oil shale reserves — or from tar sands found in Canada — is not just an important way to boost the national security of the United States. Relatively speaking, it's also a financial bargain. Given the "war on terror" and the general state of the world today, the U.S. Department of Defense (DoD) is primed to spur the development of domestically available unconventional fossil fuels.

The military brass are said to be emphasizing alternatives that employ so-called Fischer-Tropsch (FT) technology, which uses a chemical reaction to convert carbon monoxide and hydrogen into liquid hydrocarbons after the gases have been generated by partial oxidation of coal or wood-based fuels. The same process can be used to directly convert natural gas into liquid hydrocarbons.

One especially active area of military research is synthetic jet fuel. The Air Force's ambitious goal is to have 50 percent of its aviation fuel come from alternative sources by 2016. It is interested in acquiring 100 million gallons of synthetic jet fuel by 2008. Initially, the Air

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Force is working with natural gas but has said that long term, it will use coal.

A point that investors should note is that the DoD could eventually use this sort of fuel in all branches of the military.

Coal — Hope for the Future?

Coal is rapidly becoming the world's "everyman" fuel, the resource probably best able to compensate for tightening supplies of the conventional oil and natural gas the world has long depended on to keep the wheels turning in many vitally important global industries such as plastics and chemicals.

One of the greatest governmental challenges of the next half-century will be figuring out how to use coal without poisoning the environment. It's a challenge that includes tar sands and oil shale. Given the urgency of the situation, it is hard to believe how slowly Washington is proceeding on a project to demonstrate that coal can be used cleanly to generate electricity. At present, the United States has no requirements for controlling carbon emissions from fossil fuel sources, the Bush administration having opted for a voluntary approach that environmentalists say will be devastating because it will permit an entire new generation of coal-fired power plants to be built without carbon capture technology.

Instead, companies such as General Electric have taken the lead in clean development, transport and storage of carbon byproducts. The timing of these efforts is significant — globally today, fossil-fuel power generation accounts for roughly 40 percent of man-made carbon dioxide emissions. When a Chinese-led global CTL industry kicks into gear sometime in the next decade, those emissions from coal could get even worse. ●

The Power of Efficiency

Depending on whom you ask, in 2006 plug-in hybrid automotive technology either was ready to go immediately, close to a breakthrough that would make it ready, or still in need of considerable development.

There was, however, a common thread — that plug-in hybrids *are coming*. There appear to be any number of companies in the running to develop a PHEV40, a plug-in hybrid electric vehicle that can go the first 40 miles on electricity before having to switch over to a liquid fuel. However, plug-in advocates have had to fight the perception that people generally drive long distances on a daily basis. Citing federal and other statistics, plug-in proponents have argued that four out of five personal automobiles on the road travel 50 miles a day or less.

Such statistics, on the surface, seem to underestimate the number of miles the average car travels on a daily basis in at least some of America's fast-growing cities, like Phoenix and Atlanta. It also may not give sufficient weight to the growing number of commuters who regularly travel 90 minutes or more each way to get to and from work.

Regardless, plug-in hybrid vehicles have the potential to make it possible for people to not use gasoline.

In the absence of a clear and coherent government policy for incorporating plug-ins (not to mention biofuel) into America's transportation system, there could be more frequent oil price gyrations as traders face the new uncertainty of trying to predict how much gasoline Americans are going to consume in their cars and trucks, versus how much electricity and how much cellulose and grains. Planning must extend to global commodities markets, for in the new oil industry, there will be unprecedented linkage between agricultural and energy commodities. ●

Every Drop of Oil We Can Get Is Important

In 2005, the world used 30 billion barrels of oil and 5 billion new barrels were found. Compare that with 1964, when 48 billion barrels were found and only 15 billion were used. According to energy investment analyst Charley Maxwell, 1964 was the best year in terms of the ratio of oil discovered versus oil consumed. The two lines crossed in 1988 at 23 billion barrels, and ever since then the world has been using more oil than it has replaced through new discoveries.

Don't expect new oil field technology to save the day. While there have been many major breakthroughs over the last 35 years, when you add them up, they have not been enough to keep supply comfortably ahead of demand. However, oil field technology could make a difference in how much more oil the world might be able to recover.

Enhanced Oil Recovery

The two basic technologies involved in enhanced oil recovery (EOR) have been around for many years. One approach uses thermal heat to thin heavy oil, so that it flows more easily to the surface. The other, more widely used approach employs primarily carbon dioxide to force "stranded" oil to the surface. This technique makes it technically possible to recover an estimated 89 billion barrels of stranded oil in the United States. It should be noted that these are *potential* reserves.

Moreover, historically EOR has been hampered by its relatively high cost. Indeed, however much more oil might be pushed up by EOR, it takes so much energy to

do the job that it doesn't take very long before the cost of recovering the oil is equal to the value of the oil itself.

Other Drilling Frontiers

The Gulf of Mexico, Africa and Brazil, considered the "Golden Triangle," are the primary sites for deepwater drilling, or drilling in wells located in more than 1,000 feet of water. As more explorers go down farther in search of oil (the technical limit in the Gulf of Mexico is said to be around 12,000 feet), the cost of deepwater drilling keeps increasing. By one estimate, the average day-rate on deepwater units in the Gulf of Mexico capable of drilling in water depths of 6,000 feet or deeper increased 118 percent in the second quarter of 2006.

Deepwater is not the only frontier that is going to be explored to a much greater degree in the new oil industry. The areas north of the Arctic Circle are becoming more accessible as global warming shrinks the polar ice cap. It is easier to get at what, by some estimates, could be as much as 25 percent of the remaining oil and natural gas reserves. It is also a controversial area, due to environmentalists' objections and the question of who owns what with Russia, Canada, Norway, the United States and others all trying to stake their claims. ●

The New Oil Economy?

America has two energy futures from which to choose — one a future of limitations, the other a future of possibilities. As much as the present-day oil industry is a drain on the overall economy, the new oil industry could be a stimulant. Eliminate some of the hidden cost of gasoline, and you would free up billions of dollars a year that the government could spend on other priorities.

If people were willing to accept a new layer of government bureaucracy in their lives, the new oil industry just might be able to reduce energy consumption across the board — natural gas and electricity, as well as oil, at home and on the road — and do so while putting money in people's pockets.

For the new oil industry to pay off over the next 10 to 20 years to the fullest extent possible for nations and investors alike, the public needs to feel in the driver's seat. People must be able to literally take something to the bank.

The TGR System

Martin Feldstein, noted scholar and CEO of the National Bureau of Economic Research, has suggested creating a system he calls *tradable gasoline rights* (TGRs). In his system:

- Every adult would get a TGR debit card, using it in combination with money to pay for gasoline. Businesses that use trucks would also get allotments. A gallon of gas would cost one TGR.

- The government would determine the total number of gallons consumed by the nation per year and would give out that total number of TGRs.

- These rights would be tradable — people with more TGRs than they need could sell the excess, while those who want more than their allocation would have to buy extra TGRs.

- The gasoline companies would act as clearing houses for these trades, using their pumps. Banks could also trade TGRs for cash. Individuals could buy and sell TGRs among themselves by letting others use their card.

- The market price of a TGR would depend on the number distributed by the government. The smaller the number of TGRs, the greater the price of each TGR.

- TGRs could be distributed in a way that actually raises the income of a majority of households while giving everyone an incentive to reduce gasoline consumption. In a way, TGRs would put monetary value on gasoline not used—on *negoil*.

The TGR idea is not as outrageous as it might at first sound. In Great Britain, ideas are already being discussed for what some have described as a "carbon credit card" system, under which the government would give everyone a carbon allotment. People whose carbon footprint exceeded their allotment (by driving a gas-guzzling vehicle, for example) would have to buy points from people who kept their footprint to a minimum. Both the British and TGR approach cut pollution and encourage conservation.

Given the global nature of energy, there is every reason to believe that TGRs would not only work, but also become a global phenomenon.

Final Thoughts

Major oil companies may not want to change, but change in the form of new technology has started to be thrust upon them.

Conventional oil production — crude oil — will continue to be a vital part of the world's energy mix for years to come. But it will be one of a number of sectors that will need to both compete with and complement one another. It will be the job of government to come up with a strategy that does that; that hits the trifecta of energy security and environmental friendliness at a reasonable price. It will be the task of investors to follow the new oil industry where technology and politics take it. ●

Summary: FUTURE ENERGY

100 Companies to Watch

Here are 100 companies (plus two overall businesses) that have great potential for influence in the “new” oil industry.

Category 1: Biobutanol

Technology

- Dupont

Category 2: Ethanol and Biodiesel Technology

- Ceres
- Dyadic International
- Genencor International
- Imperium Renewables
- Iogen
- Neste Oil
- Novozymes
- SunOpta

Category 3: Battery Technology

- A123 Systems
- Altair Nanotechnologies
- EESor
- Johnson Controls
- Valence Technology

Category 4: Automotive Efficiency

- Toyota
- Honda
- Volkswagen

Category 5: Investment Bankers

- British Petroleum
- Chevron
- Exxon/Mobil
- Shell
- Goldman Sachs
- Lehman
- JP Morgan
- Merrill Lynch

Category 6: Coal Technology

- GreatPoint Energy
- Rentech
- Saso
- Syntroleum

Category 7: Synthetic Oil and LNG Providers

- Arch
- Canadian Natural Resources
- CONSOL
- EnCana
- Peabody
 - Suncor
- Woodside Petroleum

Category 8: Biofuel Production

- Aventine Renewable Energy
- Abengoa
- Archer Daniels Midland
- Dynamotive Energy Systems
- Pacific Ethanol
- VeraSun Energy

Category 9:

Infrastructure Providers

- ABB
- AMCOL International
- Cheniere
- Chicago Bridge & Iron
- Daewoo Shipbuilding
- Diamond Offshore Drilling
- ENSCO
- Fluor
- Foster Wheeler
- General Electric
- GlobalSantaFe
- Grand Prideco
- Halliburton
- Hydril
- Hyundai Heavy Industries
- Jacobs Engineering
- McDermott
- Samsung Heavy Industries
- Schlumberger
- Shaw Group
- Smith International
- Tetra Technologies
- Todco
- Transocean
- Weatherford International

Category 10:

Transportation Providers

- Burlington Northern
- Canadian National

- Canadian Pacific
- CSX
- Frontline
- Norfolk Southern
- OMI Corporation
- Overseas Shipholding
- Teekay
- Union Pacific

Category 11: Oil Producers

- Apache
- Anadarko Petroleum
- EOG Resources
- Imperial Oil
- Lukoil
- Petrobras
- Talisman Energy

Category 12: Alternative Transportation Providers

- Flexcar
- Tesla Motors
- Zipcar
- ZAP

Category 13: Consumer Information Providers

- Alternative Energy Store
- CalCars.org
- Google
- Home Depot
- Lowe's
- Wireless providers (any)

Category 14: Nonliquid Fuel Providers

- Constellation Energy
- Exelon
- Nanosolar
- NRG
- PSEG
- Sharp
- Suntech Power Holdings

Category 15: Defense Companies

- None stand out above the rest, but all should do well.

Note: this list is presented for information purposes only.