Powers Energy Investor

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Now is the Time…

Welcome to the inaugural issue of the Powers Energy Investor! The focus of this publication is twofold. First, I will attempt to provide readers with a macro overview of the world of oil and gas and alternative energy sectors. Initially, the publication will focus on the oil and gas sector and will move its focus increasingly over the years towards alternative energy since I am a firm believer that many of the great energy technologies of tomorrow will involve renewable resources. My second focus is to provide readers with investment ideas that will provide outstanding returns. This publication will cover a wide variety of firms along the risk spectrum and unlike much of today's so called "research" will take truly contrarian views on many energy related subjects. Also, this initial publication will be longer than the usual monthly issue since I will be introducing all of the Model Portfolio companies. I plan to add and remove companies in the future based on their risk/reward profiles, among other factors. Expect each mid-month update to be one to two pages and the monthly issue to contain approximately eight pages.

10 Reasons Now is a Great Time to Invest in the Energy Sector

Reason 1: Low Valuations

It is often written that truly great investment returns are closely tied to low valuations at the time of investment. For example, many investors who took the plunge over a decade ago into great technology companies such as Cisco Systems, still find themselves underwater despite tremendous growth by the company on nearly every front. Meanwhile, investors who chose to allocate funds to the oil and gas sector (or nearly any commodity related investment) when valuations were very cheap, have enjoyed nearly a decade of great returns despite the incredible volatility over the past two years.

The 74% drop in the price of crude and a similar drop in the price of natural gas that began in mid-2008 and continues into mid 2009, devastated valuations in the oil and gas sector. Exploration and production companies (E&P), which never traded at valuations that incorporated \$100+ oil and double-digit natural gas prices, found themselves caught in the selling tsunami. While there will be many companies who will not be able to make it through today's lower commodity price environment, the surviving companies are now trading at historically low valuations on nearly every metric. While it is difficult to invest at the bottom, investors who are bullish on the energy sector have not had such an attractive entry point in nearly a decade.

Reason 2: Peak Oil

Probably one of the most important events of the first decade of the 21st century will be the peaking of worldwide oil production. By no means does this mean that we are running out of oil or that we are on the verge of severe shortages. Peak Oil simply means that the world will no longer be able to grow production on a year-over-year basis irrespective of price or new technology. Much of the seminal work on the study of Peak Oil can be traced back to a Shell Oil researcher named M. King Hubbert who espoused the theory that once half of the reserves of a given oil producing field are produced, that field will go into an irreversible production decline. Based on this theory, which has become known over the years as "Hubbert's Peak", Mr. Hubbert predicted in 1956 that US oil production would peak in 1970. His prediction came true and US oil production has been declining ever since. Based on Hubbert's work and intense study of the current state of world oil production, a number of prominent oil industry experts believe *worldwide* production is in the process of peaking or has already peaked. While I do not believe the exact date of Peak Oil is important, I am a firm believer that the peaking or even flattening out of world oil supply will lead to higher oil prices and greatly improve the fundamentals of investment in the energy sector.

Reason 3: Peak Natural Gas

During the summer of 2008, television commercials aired featuring the likes of Chesapeake Energy CEO Aubrey MacClendon and T. Boone Pickens promoting the use of natural gas as a cheap and plentiful alternative to imported oil. The true state of world natural gas supply is far different from the picture painted by these two gentlemen.

Examining the production profile of the United States since the start of the decade is very helpful in understanding some of the changes occurring in natural gas production -- changes which are yet to be recognized by most gas market observers. According to the US Department of Energy, domestic natural gas production reached a post-1970's peak in 2001 at 20.57 trillion cubic feet (tcf) from 373,304 producing wells. The following year, the US produced only 19.88 tcf from 387,772 producing wells. US production continued to drop until 2005 when mass implementation of horizontal drilling and advanced fracture stimulation technology opened up a large number of previously uneconomic unconventional gas plays.

Year	NG Production TCF	Producing Wells
1998	19.96	316,929
1999	19.80	302,421
2000	20.19	341,678
2001	20.57	373,304
2002	19.88	387,772
2003	19.97	393,327
2004	19.51	406,147
2005	18.92	425,887
2006	19.40	440,516
2007	20.01	452,768
2008	21.44	NA

Source: US Department of Energy

Natural gas directed drilling on a scale never seen before caused US production to reach a second peak of 21.44 tcf in 2008. However, this second peak is not only unsustainable, but it has set the stage for an enormous collapse in US gas production and a spike in prices in the second half of 2009 or early 2010.

While many in the energy industry have touted the potential of liquefied natural gas (LNG) as a potential savior for any US natural gas supply shortfall, I do not see LNG playing a significant role in US supply for at least another decade - if ever. It is not for a lack of re-gassification capacity but rather shortage of available supply. It is difficult to overstate the impact the collapse of Russian natural gas production is having on world production and therefore on world LNG demand. According to a March 4, 2009 Wall Street Journal article, Russia's federal statistics agency reported February 2008 natural gas production fell 16% from a year earlier. The article went on to discuss how some of this drop in output is due to falling demand but it also stated that production is expected to fall further in the balance of 2009.

After Vladamir Putin's turning off gas supplies to the Ukraine and eventually Europe in January 2009, during one of the continent's worst cold spells in years, many whispers about the true state of gas production in Russia have begun to surface. While Russia is widely recognized as the largest producer of natural gas in the world and the country with the largest natural gas reserves, few have acknowledged that much of the country's natural gas production is dependent on one aging field in Western Siberia. Julian Darly's book, *High Noon for Natural Gas* published in 2004, had the following to say about the state of affairs of Russia's largest natural gas field nearly five years ago:

> "Russian gas production relies very heavily on western Siberia, particularly its largest gas field, Urengoi. This field is now estimated at 230 tcf, down from earlier estimates of 350 tcf, and at least half its gas has been extracted. Furthermore, some analysts believe that despite a large new development, western Siberia faces serious gas depletion problems, and will start to contract by more than 5 percent as soon as 2003 or 2004."
>
> – Page 105 *High Noon for Natural Gas*

It seems increasingly unlikely Russia will continue to supply Europe with 25% of its natural gas, 80% of which comes via pipeline through the Ukraine. This in turn will set off one of the largest grabs for LNG cargoes by concerned European nations in history. The decline of Russian natural gas production combined with the sliding production by several of the world's largest natural gas producers, such as the US, Canada and the United Kingdom, which along with Russia account for 52% of total world production, will eventually cause demand for LNG cargoes to overwhelm supply. This will drive the price of gas in both North America and worldwide to previously unheard of levels.

Reason 4: Terrible Investor Sentiment

After a cathartic selling of everything energy in the second half of 2008 and into the first quarter of 2009, many industry insiders and investors have reached a level of despair that has rarely been seen before. From fellow Chicagoan and market historian/analyst Don Coxe, who also happens to be a big believer that we are in a long term commodity bull market, comes the following saying about bull markets:

> "You know that you are in a bull market when those who know it best love it the least because they have been disappointed the most."

During a couple of visits to Calgary earlier this year, I saw bearishness everywhere. It has become very clear to me that we are now in a period when those who know the oil and gas business the best, love it the least because they have been disappointed the most. Taking the contrarian view on the energy sector is never easy but I believe the values we are seeing today are due in large part to negative investor sentiment. Investors who are able to go against the grain have the opportunity to generate spectacular returns over the long term.

Reason 5: The Credit Crisis

While it is difficult to quantify the exact impact the tightening of credit has had on the oil and gas industry, it is quite obvious that it is leading to a decline in activity. The cost of capital for nearly every industry participant is much higher than at any time this decade. Companies of all sizes are seeing their revolving lines of credit reduced and many are being forced to live within cash flow. Additionally, lack of access to capital has forced many companies into mergers on unfavorable terms and some of the weaker players into bankruptcy.

More importantly, lack of easy credit or credit on any terms, will not only force companies to massively reduce capital expenditure budgets during periods of weak commodity prices, but it will keep a lid on spending once commodity prices improve. Reduced capital expenditures for much of 2009 and into 2010 will inevitably lead to reduced supply of both oil and gas due to the long lead times many projects require.

Reason 6: Industry Consolidation

The consolidation of the oil and gas industry has been proceeding at a rather steady pace in recent years but it is likely to pick up speed as the larger independent companies and majors rush to tie-up the remaining non-OPEC reserves. With many companies with significant reserves in the ground trading well below the net present value of their reserves, I believe this situation cannot last for long. Industry consolidation for small and intermediate sized companies that remain independent is an excellent thing for three reasons. First, the remaining companies will see their valuations trend upwards as their peers are taken over at higher and higher valuations. Second, industry consolidation reduces the competition for attractive farm-in arrangements or tuck-in acquisitions with large independents or majors looking to monetize non-core acreage. Lastly, when investor sentiment turns and money flows into the oil and gas sector, there will exist fewer independent oil and gas companies and therefore valuations should move up sharply.

Reason 7: Lower Service Costs

With the cost of drilling and completing wells expected to fall approximately 25% in 2009, it appears the days of oilfield service inflation appear to be over for the foreseeable future. The drop in commodity prices and the tightness of credit has led to large capital expenditure program reductions around the world. After having lived through five years of double digit inflation in the cost of everything related to drilling and completing wells, many of the major oil and gas companies are waging war with their service providers at a time of very low rig utilization rates. The downward pressure applied by the majors and larger independents has already lowered some rig rates by more than half, lowered the cost of workovers and dropped fracture stimulation costs. With a service capacity glut showing no signs of abating due a rig count that continues to drop, I expect oil and gas producers to be able to significantly increase the rates of return on many projects.

Reason 8: Rampant Money Growth

With the supply of money growing in every corner of the globe at a never seen before pace, investors will increasingly favor hard assets in this new era of negative real interest rates and quantitative easing. With the inability of central banks to create energy supplies out of thin air, there should be little doubt that investors will gravitate towards hard assets especially depleting resources such as oil and gas. The depreciation of the world's reserve currency, the US dollar, will pick up speed in coming months and create a huge rally in the commodity currencies of the world, especially the Canadian dollar. Oil and gas prices should appreciate handsomely in the current world of easy money. As many OPEC countries, who already have their fill of dollars ratchet down exports of both oil and LNG, expect higher prices to make up for a decline in the US dollar.

Reason 9: Relatively Inelastic Demand

While much has been made in the economic press about how the significant economic contraction has led to declines in demand for oil and gas, little has been mentioned that nearly all of the decline in demand for oil and refined products has been solely in Organization for Economic Co-Operation and Development (OECD) countries. On a worldwide basis, demand for oil has been relatively flat. Countries such as China and India, whose economies continue to grow despite the worldwide slowdown, continue to increase their demand for oil and gas. The following was provided by the US Department of Energy's *Energy Information Agency Short Term Outlook* on March 10th :

> "Average annual world oil consumption is projected to decline by almost 1.4 million barrels per day (bbl/d) in 2009, with consumption in the OECD falling by 1.6 million bbl/d."

It should be noted that in a world that consumes approximately 85 million barrels a day, a drop of 1.4 million barrels is less than 2%. Given severity of the worldwide economic contraction, I would consider the demand for oil very inelastic.

Pinpointing demand for natural gas is much more difficult than determining demand for oil since much of the demand for natural gas is based on the weather. However, demand for natural gas, at least here in North America, has become much more inelastic over the last decade. According to the US Energy Information Agency, the consumption of natural gas by producers of electricity has risen from 4.58 tcf in 1998 to 6.65 tcf in 2008. To put the 2008 number into perspective, it represented 29% of total US natural gas consumption of 23.23 tcf. As more large users of natural gas (such as chemical plants) move overseas, demand for natural gas will become less dependent on economic activity and more dependent on the relatively stable demand as feedstock for natural gas fired power plants. Given the movement towards cleaner burning fuels to power the electricity grid, I see natural gas demand continuing to increase in the stable base load electricity-generating sector.

Reason 10: Very Elastic Supply

In a world of Peak Oil and Peak Natural Gas and massive cuts in capital expenditures in every link of the oil and gas production chain, there is a strong possibility that we are on the verge of an energy shock that will make the shock of the 1970's look tame. While there are few in the analyst community that share this view, the facts speak for themselves. There are countless examples of where record spending on development at times of high prices still could not halt production declines in either specific fields or countries. For example, over the last 10 years, US oil production dropped every year despite a 14-fold rise in prices from 1998 to 2008 and record spending on exploration and development.

Year	US Oil Production (Billions of Barrels)	Average US Prices/$ barrel
1998	2.28	10.94
1999	2.14	15.53
2000	2.13	27.15
2001	2.11	21.89
2002	2.09	22.50
2003	2.07	27.55
2004	1.98	36.86
2005	1.89	50.53
2006	1.86	59.65
2007	1.84	66.56
2008	1.81	94.22

Source: US Energy Information Agency

This indicates that a small reduction in spending will likely lead to significant declines in production. With development projects taking longer to come online and few new large discoveries waiting in the wings for development at today's prices, the decline rates of today's mature fields will likely be revealed very quickly. For example, few in the analyst community foresee the huge drop in North American gas production we will see in second half of 2009 and in the first half of 2010. With the US natural gas rig count down over 50% from its September 2008 peak and continuing to decline, I see a huge drop in North American natural gas production coming in the second half of this year. With the increased use of horizontal drilling technology and large fracture stimulations in unconventional gas resource plays, the overall rate of decline of many fields is approaching 40%. Production declines in oil fields will not be nearly as dramatic but will become quite significant when the impact of massive capex reductions begin to be felt.

Given the above ten reason why I believe now is a great time to invest in the energy sector, I will now introduce 12 exploration and production companies and one alternative energy company that I believe will benefit greatly from the changes that are occurring in the energy markets.

MODEL PORTFOLIO

The Model Portfolio is comprised of my best ideas right now for investing in the energy space. As you consider these companies, keep in mind that it is very difficult to invest at the bottom. I encourage investors to review each company's details, consider your risk tolerance and your overall portfolio and goals before investing. For current price and market capitalization, please see the last page of the newsletter where the portfolio is summarized.

[Portfolio table is omitted for this sample]

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