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The summer will tell the story of whether a third quarter turnaround will come in our sector or not. The price of Oil has doubled in the last few months from its basement low of \$35 bbl. Those in the "financial" know suggest this is all due to speculators however assuming the speculators are betting on a sure thing, the upward swing is coming.

Mathew Simmons of Simmons and Company recently (May 19, 2009) did an interesting presentation at the Oklahoma State University Energy Symposium discussing the US's consumption of energy and the oxymoron (in his words) of Energy Independence and Energy Security. My discussion here follows from that presentation.

Only a handful of countries in the world produce exportable energy of any quantity – Canada being one of them. Other notables include Norway, Saudi Arabia, Venezuela, Mexico, Nigeria, Iraq, Algeria, Russia and Angola. Most of these countries live on the poverty line with a small rich elite class and a large poor class. Canada, with a large middle class, is an energy hog meaning its middle class uses a tremendous amount of energy on a per person basis. Norway has bucked the trend largely however it is safe to presume that if the rest of these countries created middle classes, they too would become energy hogs and without the abundance of resources versus a small population size (Canada) they would rapidly lose their ability to export energy.

The USA have 5 % of the world's population which use 25 % of the world's energy. Some concept of this include the following metrics: The US uses a trainload of coal every second (86,400 train cars per day); 10,000 gallons of oil per second (864 million gallons per day); 60 billion cubic feet of natural gas per day (linear to the moon and back 25 times). This is in contrast to the fact that 85% of the world's population (5.7 billion people) barely use energy at all. Certainly one reason why poor countries cannot see their way into energy limiting international treaties of the Kyoto concept. Imagine the demand if these poor nations began to consume energy in even a small manner.

Population models may also work against us. We continue to expand population faster than our models have predicted as we have controlled global pandemics, global famine, and world war. We currently are adding a billion people every 12 years. This is expected to slow however the point is that we continue to increase our population base relentlessly.

There is nothing to suggest that our fuel mix for energy will change much. As conventional oils fall off, unconventional pick up and certainly there is room for growth within natural gas as the cleanest of the fossil fuels. Renewables will surge but in the scope of the energy mix as a percentage of overall supply it will remain a sliver. Coal will remain `king`. It is cheap and abundant. Natural gas is the only real alternative to replace any type of substantive amount with the environmental concerns on other possibilities such as building dams (hydroelectric) or building nuclear plants in developed countries (NIMBY- not in my backyard).

The items working against solving this problem include: Volumes are too high and continuous; there are no energy dikes; world population growth continues; poor countries

need energy to escape poverty; the rich get richer; the US problem mirrors the world's problem; their no universal social concept to turn the clock back instead we behave as individuals and expect someone else to solve the problem.

Historically the supply problem has been solved by technology including: drilling ultra-deep vertical wells; drilling offshore wells, horizontal drilling, hydraulic fracturing and deep acidizing, multi-lateral well completions, and 3D and 4D seismic techniques. All of these were invented in the 1970's. Deepwater gas fast; Conventional gas declines fast; and unconventional gas declines super fast. The rock is not permeable. Without horizontal wells there is no flow but with hydraulic fracturing the flow is too fast. Today we can only expect unconventional gas plays to keep supply flat if we continue to find new sweet shale plays; and drilling rigs, pumping service trucks, vacuum trucks, etc. are limitless; and water use remains free, and gas prices remain high. Any new energy play that uses vast amounts of useable water has embedded risks. Any new energy play that requires massive amounts of equipment and-or manpower has embedded risks. Any new energy source that has high initial flows coupled with high decline rates is not sustainable. Any new source of energy that needs exponential use of rigs takes too much energy and rigs or trucks will be scarce.

However unconventional sources will continue to be the future. The biggest challenges will be manpower and rust. Both problems will take years to solve in the current boom-bust model cycle. We do a poor job of creating sustainability even within our own industry – yet alone the global perspective on energy.

Canada faces all of this mired within an identity crisis. We have long been beholden to Central Canada for governance and direction with its large population base and strong manufacturing base. However the world has changed. A couple of years of sustained upward pressure on the Canadian Dollar (now largely reflective of commodity prices) has pulled the rug out of the manufacturing business. Whereas a low Canadian dollar went a long way in masking ineffectiveness in productivity in Canada, this was lost as our dollar ascended. The recent downfall of the car manufacturing industry in Canada further heightens the new reality. Canada needs to accept its place in the world as an Energy Superpower and create policies that will drive us towards solutions and balance rather than taking the current fragmented and convoluted political model that takes us one step forward and two back (most days).

From the Thursday Files

Funerals are not necessarily depressing. I have been to a lot and generally they are more cheerful than the weddings I have been to.

- Emma Thompson