

06/04/10 - What the future of rare earth metals could mean for Toyota (NYSE:TM)

Earlier this year our team at Pinnacle went on a rant about rare earth elements and an impending supply crisis.

The rare earth sector, in our opinion, must be capitalised on by all investors as there will be more profitable opportunities in this commodity space over the coming years than perhaps any other. And you can thank China for this...More on that later.

Rare earth elements are not just a commodity with simple supply and demand imbalances, but are at the very core of an energy revolution. The renewable energy industry is exploding and it cannot exist without rare earth elements. The renewable energy sector relies heavily (and solely in many cases) on the availability of rare earth elements. Just as fossil fuels have been central to our economies and industries over the past two hundred years, renewable energy will be for the next two hundred years.

The way in which we create energy to power our homes and move our vehicles is changing. The 'writing is on the wall' and being supported by every government in both the developed and developing world. The race to reduce carbon emissions and promote more efficient clean energy is on. Electric vehicles, wind turbines, cell phone power sources, flat screen TV's and hundreds of other products are leading the demand increase for rare earth elements.

Let us be very clear that there is too much market (consumer level) and political demand for the renewable energy revolution to be derailed. The shift is happening and it will not be stopped.

When you hear renewable energy, think rare earth elements as they go hand in hand.

In case you aren't aware of what exactly rare earth elements are, don't panic, very few investors do. For that reason, we have included a prior report on exactly what rare earth elements are and strongly encourage you to read it by clicking [here](#).

What investors need to understand is the difficulty the world currently has in meeting the market's growing demand for rare earth elements. There will be countless investment opportunities that will thrive because of this. Understanding why we are short of supply, and the likely event that prices will skyrocket for rare earth

elements, is crucial.

China currently supplies upwards of 97% of the world's demand for rare earth elements ? a staggering and potentially very dangerous situation. This has not always been the case. The Mountain Pass Mine in California once produced close to 40% of global production and supplied the entire western world with rare earth elements. It closed in 2002 because of China's ridiculously low production costs, due to zero health or environmental regulations.

Rare Earth Production

Just recently, China has been keeping more rare earth elements at home to satisfy its own demand and has been implementing higher taxes on the exportation of the resource. Combine this dangerous supply dependence on China with the fierce emergence of the global renewable energy sector and we have a situation where we **MUST** find new domestic sources of rare earth elements or become dependent on a communist nation for our supply.

The situation has become so dire that in a few years, worldwide demand for rare earth elements is expected to exceed supply by 40,000 tonnes annually; unless major new sources are developed.

China has already shown what it can do when it controls the world's supply of a particular rare earth element. Over the past five years, neodymium, a rare earth element used in rechargeable batteries, has shot up almost 400%. This uncontrollable price increase can be blamed on China controlling the production of the rare earth as well as an increasing appetite for it. This is what we meant by a dangerous situation. You're probably wondering why you haven't heard about neodymium before this report. As we continue to run low on supply of rare earths you'll likely hear a lot more about it as its price continues to skyrocket.

Rare earth elements are very strategic in nature. It is not farfetched to assume that if a steady, reliable source of rare earth elements are not found, wars could eventually be fought over them. The US Department of Defense is very concerned as Chinese made magnets (made from rare earth elements) are currently present in every weapons guidance system, every fighter jet, not to mention every modern day communication device. As the United States falls deeper into debt with China, the lack of supply of these rare earth elements becomes more of a delicate and troublesome situation.

Wars have been fought over oil. Rare earth elements, in our view, have the potential

to become the new oil.

New rare earth element discoveries must be made in North America. Unfortunately time is not on our side as demand for rare earth elements is increasing by the day.

From a supply side, the rare earth element story is looking scary. However, this situation has created a sector that will provide investors with tremendous opportunities to potentially bag 10 or even 20 times their money on a company who can find an economic rare earth discovery. This is every prospectors dream. We all want to be involved in a play before it makes that next major discovery and that is what we have set out to find...

More on rare earth elements:

There are thousands of applications and uses for rare earth elements. The most strategic and time sensitive applications lie within the military. In terms of capital and the main driving force behind the increased demand, look no further than the electric car. These new vehicles will be whatelectric car drives rare earth elements for many years to come.

Every Toyota Prius has roughly 2 kilograms of neodymium in its motor generators. A completely electric vehicle will need much more than this.

The car market is entering a period of exponential growth as emerging markets around the world begin to increase the number of drivers per capita dramatically (led by China). Major car manufacturers, including Nissan and **Toyota (NYSE:TM)**, are coming out with 100% electric vehicles in 2011.

Neodymium* is worth \$43 dollars per kilogram. You can expect that price to continue to rise with the plans Nissan and Toyota have for 2011.

Jack Lifton, an independent commodities consultant and strategic metals expert, calls the Prius "the biggest user of rare earths of any object in the world."

Mr. Lifton went on to explain that, each electric Prius motor not only requires neodymium, but each battery uses 10 to 15 kg (22-33 lb) of lanthanum (another rare earth element). That number will nearly double under Toyota's plans to boost the car's fuel economy, he said.

Toyota has reported that it plans to sell 180,000 Prius cars in the United States alone in 2010. The company forecasts sales of 1 million units worldwide per year

starting in 2010.

Japan, fearful of losing its heavy tech and car industries, has begun nervously stockpiling reserves of rare earth elements. This is significantly adding to the strain of supply on rare earth elements across the globe. It is thus easy to understand the powerful position in which China finds itself in this situation.

Jack Lifton recently commented on the rare earth market in a recent interview by the BBC. He explained that China has plans to increase its wind turbine renewable electricity tremendously and has announced construction of an additional 120 gigawatts of wind generated electricity by 2020. This means that Chinese production would have to double just to meet Chinese demand for the magnets needed in these wind turbines.

You can listen to the interview by visiting this url:

<http://www.bbc.co.uk/programmes/b00scY0d>

China is currently supplying the entire world with rare earths. If its output has to double just to supply itself, what are the chances there will be any left for the rest of the world?

Imagine the potential market cap increase for a company if it was to define a domestic, mineable source of rare earth elements. We are confident that rare earth elements are entering a decade long period of heightened demand and significant price increase. During this time, there will be stories of wealth created by investors who found a rare earth exploration company before it made its major discovery. Our goal is to be one of those investors.

The market is hungry for a domestic supply of rare earth elements and speculation is rampant in junior explorers. There is a lot of big money flowing into this arena. Even a discovery years away from production will be rewarded by the marketplace as the world's short and long term supply of these 'precious' rare earth elements remain in question.

Within one week our team will be announcing our new Featured Rare Earth Company. This is a company with historical rare earth element results that compare favourably with those found in the richest heavy REE deposits in the world.

All the best with your investments,
Pinnacle Digest

*For more info on Lanthanum and where these figures originate visit this url:
en.wikipedia.org/wiki/Lanthanum

CLICK HERE to continue exploring Oakshire Financial