

November

## The Uranium Conundrum

Anyone even remotely associated with the resource sector has well and truly become reacquainted with the word 'patience' since the GFC. One interesting quote with respect to patience that I came across recently reads "Patience is not the ability to wait, but the ability to keep a good attitude while waiting."

This is particularly the case with respect to the uranium sector.



The graphic above clearly illustrates the roller-coaster ride that the uranium price undertook during the decade between 2004 and 2014 – stomach-churning to say the least. If we focus on the period since 2011, it has been characterized by uncertainty in the wake of the Fukushima nuclear disaster during March 2011, leading to a subsequent decimation of uranium equities.

Nevertheless, the overall energy conundrum remains the same - the world has relatively few immediate off-the-shelf alternatives in terms of substantial and reliable base-load power generation. In a world with a burgeoning population of 7 billion that's tipped to reach 10 billion by 2050 (and an exponential growth in energy demand), there will almost certainly be greater demands placed on all three forms of traditional energy - coal, gas and nuclear power.

The Fukushima nuclear disaster forced all nations to undertake a more stringent examination nuclear energy security, with many countries halting construction of new reactors or in the case of Germany and Italy, abandoning their nuclear programs altogether. Japan temporarily shut down all 50 of its functioning nuclear reactors.



November

Uranium prices however have long since bottomed and a more positive tone is enveloping the nuclear sector. Japanese reactors are slowly coming back online, attitudes toward nuclear energy are beginning to shift and countries such as China and India are looking to make the switch to uranium from other energy sources.

Whilst it's been a long time coming, escalating demand and a lack of new producing uranium mines is set to create a supply deficit over the course of the coming years - perhaps as early as 2018.

There's been an overall lack of investment in the uranium sector over the past half-dozen years or so that relates directly to two important factors: firstly, a low uranium price environment has provided an enormous disincentive for exploration activity, along with the development and commissioning of new mines; and secondly, depressed equity and lending markets have made it impossible for new developments to be funded.

New supply isn't even being contemplated – which of course is a big long-term problem. Even the industry heavyweights that maintain the balance sheet strength to fund their own developments have little incentive to bring new supply on stream when prices are low.

A hiatus on new project development ultimately means restricted supply, with existing players maintaining their position of market strength.

Let's take a look at the other key factors that will drive uranium prices over the next decade

## **Japanese Reactor Restarts**

Any news regarding Japanese reactors tends to get uranium-focused investors excited - and recently they've been even more in focus than usual. That's because on 11<sup>th</sup> August, Kyushu Electric Power Company's Sendai 1 reactor was loaded with fuel and restarted. On October 15 the Sendai 2 reactor was restarted. Industry experts Cantor Fitzgerald expect a total of nine Japanese reactors to being up and running by the end of 2016.

#### **China's Nuclear Push**

China has been working on increasing its stake in the uranium market ever since it resumed construction of new nuclear power plant projects during March. Besides the 24 reactors being built throughout the country (and others planned), China has also been looking to acquire uranium assets in Kazakhstan, Canada and Australia. It has also signed deals with nuclear power giants elsewhere.

China National Nuclear (CNNC) and China General Nuclear Power Group announced plans during May to obtain stakes in French nuclear company AREVA. In China, a total of eight reactors are expected to start up during 2015. Chinese uranium production accounts for less than a quarter of the country's current needs, and CNNC is its sole domestic supplier; however, there are plans for new mines in China.



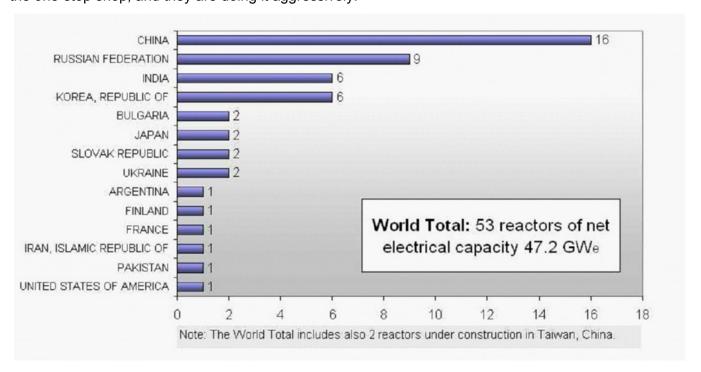
November

Interestingly too, Britain's first nuclear power plant in a generation will be 33.5% owned by China, with French nuclear group EDF recently announcing a landmark deal with regards to the £24.5bn station in Somerset that is set for commissioning in 2025. EDF and its Chinese partners are also working on two other UK plants as well as projects elsewhere in the world.

#### The Russia Factor

Whilst Japan and China are usually the major focus, Russia's influence on the uranium space shouldn't be ignored. Russia's influence will become more important as it continues to build aggressively worldwide. Rosatom, the country's state-owned nuclear energy company, has the largest number of reactors being built internationally, with 29 reactors in various stages of planning and construction in over a dozen countries.

David Talbot of Dundee Capital Markets commented recently, "The Russians are building one-third of all the power plants globally, and they are coming into these developed nations. They are not only teaching them how to set up regulations, but they are financing them, building them --- they are going to provide them [with] uranium, [then] take the uranium away at the end of the day. So the Russians are becoming the one-stop shop, and they are doing it aggressively."



## **US Utilities**

During the near-term it will likely be US utilities that will positively impact the uranium price - as contracts are expected to open up after next year and new deals will need to be signed. According to Scott Melbye, a speaker at Cantor Fitzgerald's second annual Global Uranium Conference, the US Department of Energy believes that US utilities' requirements will be "substantial" during 2017 and 2018.



November

## **India Moving Back Into the Uranium Space**

Whilst still in the early stages, the Australia-India uranium trade agreement, which could be worth up to \$1.75 billion, is one step closer to being finalized as India looks to reconnect itself to the nuclear market. The South Asian country has a fast-growing nuclear power program and expects to have 14,600 MWe of nuclear capacity on line by 2020.

According to the World Nuclear Association, India currently has 21 nuclear reactors in operation, six currently under construction, 22 planned and an estimated 35 proposed. It aims to supply 25% of electricity from nuclear power by 2050.

## **Summary**

So there we have it. \$30/lb uranium prices were clearly unsustainable, as most industry operators were barely cash flow positive. As a result, prices have consolidated between the \$30 and \$40 mark. The market will require price rises above the \$50/lb mark for the industry to be incentivized enough to engage in meaningful exploration and project appraisal. Additional price strength above \$60/lb will be necessary to justify and support new project investment and development. As they say, patience is a virtue.

