

A Nuclear Powered World

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As a general rule, the most successful man in life
is the man who has the best information

The electricity needed to succeed in replacing fossil fuels, both for transportation and everyday use, will have to come from nuclear generation. There is simply no other logical alternative.

- Coal and natural gas plants emit carbon dioxide emissions.
- Extensive use of hydrogen is not practical due to its volatile nature and lack of infrastructure.
- Solar, wind and geothermal are all niche suppliers and are untried on a large scale. Solar and wind have extremely large footprints and geothermal seems to be limited to a few parts of the country. All three of these technologies are extremely important and each will successfully contribute, in a small way, to our independence from fossil fuels.
- High emissions, a negative energy return and severe environmental costs are associated with ethanol and make its use impractical.
- Hydro, going to clean eco-friendly energy isn't accomplished by damming what free-flowing rivers are left.

And this fact, that there is no other logical alternative to going nuclear, is being recognized. Developing countries such as China and India, with 2.3 billion people between them, will, even while going mostly nuclear, drastically increase their consumption of fossil fuels. Is oil going to get any cheaper in the future? Not likely according to Dr. Fatih Birol chief economist at the International Energy Agency (IEA) in Paris.

“In most fields, oil production has now peaked...Even if demand remained steady, the world would have to find the equivalent of four Saudi Arabia's to maintain production, and six Saudi Arabia's if it is to keep up with the expected increase in demand between now and 2030.” Dr Birol said.

The IEA has estimated that the decline in oil production in existing fields is now running at 6.7% a year compared to the 3.7 % decline it had estimated in 2007. The coming high price of energy derived from fossil fuels combined with ever increasing competition for limited resources will make the switch to nuclear production of our energy happen.

“Some 16 countries with existing nuclear power programs (Argentina, Brazil, Bulgaria, Canada, France, Russia, China, India, Pakistan, Japan, Romania, Slovakia, South Korea, South Africa, Ukraine, USA) have plans to build new power reactors (beyond those now under construction). In all, over 100 power reactors with a total net capacity of almost 120,000 MWe are planned and over 250 more are proposed.”

<http://www.world-nuclear.org/info/inf17.html>

Global warming, reducing our carbon footprints, weaning ourselves off fossil fuels and achieving energy independence are all key issues facing us and future generations and no one is paying attention to HOW our future power is going to be produced, instead all seem to be concentrating on how this yet to be produced power will be stored.

Uranium stocks are cheap; but few new deposits are being discovered or permitted. Two junior uranium explorers that I follow have recently announced significant mineralization yet investors are yawning.

Uracan Resources (URC-TSXv) announced the highest grades of uranium ever found on their North Shore Property in Quebec.

The company assayed a 4-meter long sample that averaged about 3.5 pounds per tonne uranium. These samples are cut with a stone cutting saw and investors can consider them as basically horizontal drill holes.

3.5 pounds per tonne, at a US\$48/lb uranium price (I'm using \$48/lb since most investors use the spot price, but 80% of all uranium sales are done at the term price which is US\$65 per pound) equals gross metal value per tonne of US\$168.00, that's for open pit rock. Open pit operating costs are generally around \$15-\$20 per tonne and can be lower, it depends on the scale and size of the mine.

That's potentially very profitable rock if the company can cobble together a compliant 43-101 resource of any significant size. Management comes from the former Bema Gold, now B2 Gold. Clive Johnson and Tom Garagan, who are both on the board of Uracan, are open pit mining specialists. They formed Uracan with Frank Giustra and Gregg Sedun (both very, very successful venture capitalists) to go after open pit uranium back in 2006 when everybody else was chasing the deep, high-grade targets in the Athabasca Basin of Saskatchewan.

This discovery is located in a new zone, about 5 km north of their Double S deposit. The Double S already has 40 million pounds of uranium but the grade is a quarter of a pound, or 0.012% U₃O₈. While it is the same grade as Forsys Metals (FSY-TSX) Valencia deposit in Namibia investors have been shy about giving Uracan even a remotely similar valuation.

Uracan can drill year round at their North Shore Property, it's right on the coast of the St. Lawrence Seaway in the Province of Quebec, Canada, which year after year is named one

of the best mining jurisdictions in the world by the highly respected Fraser Institute. Power and a highway run through the property.

The other junior high on my radar screen is Kivalliq (KIV-TSXv). CEO John Robins is one of the top exploration geologists in the world. Aside from Chuck Fipke and his DiaMet diamond discovery in 1992 in northern Canada, nobody has been responsible for raising more money and doing more exploration than John. He goes where nobody else is and seems to make the discoveries.

KIV just released scintillometer (a Geiger counter) counts off the core of seven holes at their Lac Cinquante project in Nunavut, with all holes showing more than 9000 counts per second (cps), these are very high grade readings.

A scintillometer reads radioactivity levels. It really is impossible to equate cps to an assay of uranium – to say that $9000 \text{ cps} = X\% \text{ U}_3\text{O}_8$ doesn't work, but investors can expect that a cps count of 9000 will result in a measurable percentage of uranium, i.e. management will report results not just as "ppm", or parts per million, but the assay will be good enough to show as a percentage.

The overall historical grade of the Lac Cinquante project, drilled in the mid-1980s by Pan Ocean, a multi-national oil and gas company, is 1% U_3O_8 . Pan Ocean drilled over 100 holes and even developed a mineable reserve, but the data is, unfortunately, lost. There is a historical resource (not 43-101 compliant) of 20.4 million pounds of uranium oxide with grades averaging 1.03%.

1% = 22.04 pounds uranium, which at the current spot price of US\$48 per pound, equals a gross metal value per tonne of \$1057. This deposit is close enough to surface to likely be an open pit for the first two – four years before going underground, it would need a lot of overburden removed but I'm thinking at \$1057 a tonne rock it would get done!

As a higher grade deposit, it will by definition have some very high grade sections right beside some very low-to-no grade mineralization, which means investors should expect to see some holes miss ore completely. Uracan's mineralization has been much more evenly disseminated, as you would expect from a lower grade deposit, but this new zone could be different. I'll be watching the upcoming drill program closely.

Conclusion

Both of these companies have just released high grade, but early stage results. For Uracan drilling doesn't start at the new zone until mid-September. Kivalliq won't have new drill results out until mid-October at the earliest.

But it will only take a couple weeks of upticks in the uranium price for investors to start flocking back to the sector, and as always, those companies with the highest prospects for discovery will take the lead.

Put these two companies on your radar screen and watch the charts.

If you're interested in the junior resource market and would like to learn more please come and visit us at www.aheadoftheherd.com

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Bio - Richard is host of www.aheadoftheherd.com and invests in the junior resource sector. His articles have been published on over 60 websites including - Wall Street Journal, 321Gold, Kitco, USA Today, SafeHaven, Stockhouse, Casey Research, The Gold/Energy Reports, Gold-Eagle, Market Oracle and Financial Sense.

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