Uranium:
Controversial Necessity?

by Oliver J. Schatz

Uranium is an important source of energy. It provides about 16% of the world's electricity supply. With world population growing and energy consumption expected to rise—especially in developing countries—additional sources of energy will be needed. A significant proportion of this additional energy will come from nuclear power as fossil fuel prices rise and as concerns over global warming continue to mount. These factors may make nuclear power a safe, clean, reliable, competitive and environmentally-friendly alternative to fossil fuels, such as coal, oil and natural gas, which produce greenhouse gases.

According to the World Nuclear Association, there are currently 439 operating nuclear reactors in the world requiring an estimated 64,615 tonnes of uranium or 76,200 tonnes (about 168,000 pounds) of U_3O_8 in 2008.

There are 34 nuclear reactors under construction, including seven in Russia, six in India and five in China. A further 93 are planned or on order; thirty of these are in China. An additional 222 are proposed, 86 by China.

In 2006, primary mine production accounted for about 60% of the annual requirment from power utilities. The rest of the supply came from existing inventories held by power utilities and secondary sources such as enriched uranium from nuclear warheads blended down to reactor grade fuel; reprocessed spent nuclear fuel; and re-enriched depleted uranium tails. These secondary supplies are projected to decrease. Increased primary mine production will be required to meet the demand.

Exploration for uranium is ongoing at a feverish pace around the world as poor market fundamentals from the late 1970s until recently curtailed uranium exploration.

Apprehension over the safety of nuclear energy, following the Three Mile Island accident in 1979 and the Chernobyl disaster in 1986, was the initial cause of the downturn in uranium exploration. The end of the Cold War in 1989 precluded the need for uranium to manufacture new nuclear warheads. Enriched uranium was instead blended down and used for reactor grade fuel.

Impacted by current challenges at mines in development and long lead times to production for new uranium mines—due in part to environmental, legal, permitting and security issues as well as a lack of workers with expertise in the uranium industry—supply and demand forces have resulted in a vibrant uranium exploration industry that is likely to continue for the foreseeable future.

Uranium Mining: The Top Eights

In 2006, primary mine production totaled 39,429 tonnes of uranium or about 102.51 million pounds U_3O_8 (World Nuclear Association - see Table 1).

Three countries produced over half of the world's uranium, with Canada leading the way at 25%. All its production comes from Saskatchewan's prolific Athabasca Basin. Canada is followed by Australia at 19.3% and Kazakhstan at 13.4%. Rounding out the top eight, which collectively produced 92.4% of the world's uranium, were Niger (8.7%), Russia (8.3%), Namibia (7.8%), Uzbekistan (5.7%) and the United States (4.2%).

Three companies marked over half of the world's uranium mine production in 2006 (World Nuclear Association - see Table 2). The world's largest uranium producer, Canadian-based Cameco Corporation, led the way with 20.9% of world uranium production and mines in both Canada and the United States. London-based Rio Tinto plc was number two, marketing 18.0% of the world's uranium mine production. Rio Tinto has a 69% interest in Rossing Uranium in Namibia and a 68% interest in Energy Resources of Australia (ERA). AREVA, the French nuclear giant and largest nuclear company in the world, was third with 13.4% of production and an interest in mines in Canada, Niger and Kazakhstan. Rounding out the top eight, which together marketed 85.5% of the world's uranium mine production, were KazAtomProm (9.4%), TVEL (8.3%), BHP Billiton (BHP)(7.3%), Navoi (5.7%) and Uranium One (2.5%).

Collectively, the eight largest uranium mines market 64.7% of the world's uranium in 2006, with the top three contributing to more than a third of world production (World Nuclear Association - see Table 3). The McArthur River mine, the highest grade uranium deposit in the world and 70:30 joint venture between Cameco and AREVA Resources Canada (a subsidiary of the AREVA group), produced 7,200 tonnes of uranium, by far the most with 18.3% of the market. The Ranger mine in Northern Territory, Australia and the Rossing mine in Namibia—both majority-owned by Rio Tinto—produced 4,026 tonnes U (10.2%) and 3,067 tonnes (7.8%), for second and third place, respectively. Rounding out the top eight were Krazbokamensk (Priargunsky) in Russia (7.4%), Olympic Dam in Southern Australia (7.3%), Rabbit Lake in Canada (5.0%), and Akouta (4.7%) and Arlit (4.0%), both in Niger.

World uranium production results for 2007 were not yet reported at the time of printing. However, preliminary results for the year are trickling in. The Australian Uranium Association reported that 2007 production from Australia's three uranium mines was 13.3% higher than 2006, with increases of 14% at Ranger (ERA) and 17.8% at Olympic Dam (BHP) more than compensating for the 9.3% shortfall at Beverley (Heathgate Resources). Moreover, according to KazAtomProm, uranium production in Kazakhstan increased by 25.7% in 2007 and is projected to increase a further 44.6% in 2008.

The Future

Additional production is anticipated to come online in the near to medium term. Uranium One's recently approved Honeymoon uranium project in South Australia is expected to begin production in 2008 and ramp up to 880,000 pounds U_3O_8 per year. Paladin Energy's Kayelakera uranium project in Malawi will likely be commissioned in March 2009 and ramp up to 2.2 million pounds U_3O_8 per year. AREVA recently signed an agreement with the government in Niger that would see the company investing about US$1.5 billion to develop the Imouraren project in Niger—reportedly one of the largest untapped uranium deposits—with production expected in

Table 1: Top 8 Uranium Producing Countries in 2006

COUNTRY	TONNES U	POUNDS U_3O_8
Canada	9,862	25,639,718
Australia	7,593	19,740,659
Kazakhstan	5,279	13,724,607
Niger	3,434	8,927,884
Russia (est)	3,262	8,480,710
Namibia	3,067	7,973,739
Uzbekistan	2,260	5,875,660
USA	1,672	4,346,949
Top 8	36,429	94,709,925
Total world	**39,429**	**102,509,474**

WNA Market Report Data

Table 2: Top 8 Companies Marketing Uranium Mine Production in 2006

COMPANY	TONNES U	POUNDS U_3O_8
Cameco	8,249	21,446,160
Rio Tinto	7,094	18,443,334
Areva	5,272	13,706,408
KazAtomProm	3,699	9,616,844
TVEL	3,262	8,480,710
BHP Billiton	2,868	7,456,369
Navoi	2,260	5,875,660
Uranium One	1,000	2,599,850
Top 8	33,704	87,625,334

Source: World Nuclear Association

Table 3: Top 8 Uranium Producing Mines in 2006

MINE	COUNTRY	MAIN OWNER	PRODUCTION (TONNES U)	POUNDS U_3O_8
McArthur River	Canada	Cameco	7,200	18,718,918
Ranger	Australia	ERA (Rio Tinto 68%)	4,026	10,466,995
Rossing	Namibia	Rio Tinto (69%)	3,067	7,973,739
Krazbokamensk	Russia	TVEL	2,900	7,539,564
Olympic Dam	Australia	BHP Billiton	2,868	7,456,369
Rabbit Lake	Canada	Cameco	1,972	5,126,904
Akouta	Niger	Areva	1,869	4,859,119
Arlit	Niger	Areva	1,565	4,068,765
Top 8			25,467	66,210,372

Source: World Nuclear Association

2010. This is in addition to the Trekkopje project in Namibia which AREVA acquired through the friendly takeover of Uramin (completed in August 2007). Trekkopje is expected to come online this July and ramp up to produce 8.5 million pounds U_3O_8 per year.

Despite all this new mine output anticipated over the next few years, possibly making up for the projected increase in demand depending on the status of the secondary supplies of uranium, the real wildcard in the supply-demand equation (and consequently the outlook for the uranium industry) is Cameco's Cigar Lake. Back in October 2006, Cigar Lake experienced a water inflow that flooded the underground mine and effectively set back construction for an unknown period of time. Designed to produce 18 million pounds U_3O_8 per year upon full operation, Cigar Lake would have accounted for about 15% of world production. If and when Cigar Lake begins production—which is tentatively slated for 2010—Cigar Lake will rank just behind McArthur River in terms of output. It will also likely be the only way that Cameco and Canada will retain their positions of top uranium producing company and country in the world. Kazakhstan plans to increase its uranium production to over 15,000 tonnes (39 million pounds U_3O_8) by 2010.

Another challenger for eventual top spot is BHP Billiton's Olympic Dam deposit in South Australia. Despite only being number five on the list of top uranium producing mines in 2006, Olympic Dam—currently the world's fourth largest copper producer as well as a significant producer of gold and silver—is the world's largest uranium deposit with resources totaling approximately 2.24 million tonnes U_3O_8. A preliminary feasibility study on tripling production in 2008.

Uranium Mining in Canada

In 2006, uranium production in Canada was derived from three mines, all situated on the eastern edge of the prolific Athabasca Basin in Saskatchewan.

The Athabasca Basin

Covering an area of about 100,000 square km, the Athabasca Basin is situated in northern Saskatchewan with its western edge extending slightly into Alberta. It is the location of the highest-grade and lowest-discovery-cost uranium deposits in the world and currently produces all of Canada's uranium, which amounts to one quarter of the world's production.

The major player in the uranium mining and mineral exploration industry, both in Canada and the world, is Cameco. Though technically not a true pure-play uranium miner and explorer due to its 53% interest in Centerra Gold, Cameco is the world's largest uranium producer with 20.9% of world uranium production in 2006. It also has a 31.6% interest in the Bruce Power Limited Partnership and is involved in the refining and conversion of uranium concentrates, as well as the manufacturing and sale of fuel bundles for Candu reactors, thereby giving it a hand in most things nuclear. Together, Cameco and French nuclear giant AREVA—a world leader in nuclear power through its involvement in all activities related to the nuclear fuel cycle, from mining through to the reprocessing and recycling of nuclear spent fuel—have a controlling interest in all currently producing mines in the Athabasca Basin, as well as all development projects scheduled to come on line in the foreseeable future.

McArthur River Mine

The McArthur River mine (owned – 69.8% by Cameco and 30.2% by AREVA) produced 73% of Canada's uranium in 2006. An underground mine that began operating in December 1999 and requires freezing to control groundwater, McArthur River is the world's largest high-grade uranium deposit with proven and probable reserves as at December 2006 totaling 367 million pounds U_3O_8 at an average grade U_3O_8 of 20.5%. It has an annual production capacity of 18.7 million pounds U_3O_8 and a mine life of more than 20 years. Ore is mined by line-of-sight remote-controlled raise-boring equipment, slurried, pumped to the surface, and then processed at the Key Lake mill (Cameco – 88.3% / AREVA 11.7%) 80 km to the south after the primary ore slurry is blended with low-grade stockpiled waste from the mined-out Key Lake mine and low-grade ore from McArthur. Tailings are disposed of in the mined-out Deilmann pit of the Key Lake mine.

Mining is constrained by licensed capacity and an application to increase production to 22 million pounds U_3O_8 per year is currently under review by government agencies. Implementation is expected in 2009.

Eagle Point Mine, Rabbit Lake

Mining at Rabbit Lake (Cameco – 100% interest) accounted for 20% of Canada's uranium production in 2006. The longest operating uranium mining-milling facility in Saskatchewan with an annual production capacity of 12 million pounds U_3O_8, Rabbit Lake opened in 1975 and has produced over 165 million pounds U_3O_8 from five different orebodies. The original Rabbit Lake open pit deposit was mined out in 1984. Currently, uranium is produced from underground operations at Eagle Point, where reserves total 19.1 million pounds U_3O_8 grading 1.18% U_3O_8 as at Dec 31/06. Mill expansion to accommodate ore from Cigar Lake is expected to be completed by 2010.

Ore from Eagle Point will continue to be processed at Rabbit Lake until Cigar Lake comes online. It is expected (pending regulatory approval) that approximately half of Cigar Lake's uranium will undergo final processing at Rabbit Lake after initial processing at McClean Lake.

Cigar Lake is the world's largest undeveloped uranium deposit (courtesy of Cameco Corporation)

McClean Lake Mine

The McClean Lake open pit mine (owned 70% by AREVA, / 22.5% by Denison Mines Corp., and 7.5% by OURD (Canada) Co. Ltd.) produced 7% of Canada's uranium in 2006. In operation since 1999, the McClean Lake complex comprises the JEB mill and hosts the Sue A, B, C, D and E, JEB, Caribou and McClean North deposits, as well as other prospects. JEB, Sue C and Sue A have been mined out, and production in 2006 came from stockpiled Sue A ore and new Sue E ore. Reserves (as at Dec 31/06), in situ and stockpiled, total 28.2 million pounds U_3O_8 at an average grade of 1.63% U_3O_8.

The JEB mill has an annual production capacity of 8 million pounds U_3O_8. To accommodate ore from Cigar Lake, the mill is expanding to the currently licensed 12 million pounds U_3O_8 per year.

Canadian uranium production is expected to increase in the next few years with the opening of the Cigar Lake and Midwest mines, also in the Athabasca Basin.

Cigar Lake

The world's second largest high-grade uranium deposit, Cigar Lake (Cameco – 50% / AREVA – 37.1% / Idemitsu Canada Resources Ltd. – 7.9% / TEPCO Resources Inc. – 5%) has proven and probable reserves (as at Dec 31/06) of 226.3 million pounds U_3O_8 at an average grade of 20.67% U_3O_8. It will be developed as a non-entry 450-meter deep underground mine in poor ground conditions that uses ground freezing and high-pressure water jets to mine the ore. Ore will be slurried, pumped to the surface and then processed at AREVA's expanded JEB mill at McClean Lake, 70 km to the north-east. As production ramps up, approximately half of the slurry will undergo final processing at Rabbit Lake, where mill expansion is expected to be completed by 2010. Tailings will remain at McClean Lake and Rabbit Lake. Mining will be performed in two phases, for a total mine life of approximately 40 years. After ramping up for three years, annual production is targeted at 18 million pounds U_3O_8. Targeted annual production will be lowered to 6 million pounds U_3O_8 for the last 25 years (Phase II) when the lower grade part of the deposit will be mined.

Construction began in January 2005 and was expected to be completed in 2007. However, influx of water from a drill hole flooded the second shaft (which was used for underground ventilation) in April 2007. In October 2007, a more substantial flood occurred in the production area and could not be maintained, submerging all the underground workings and suspending underground development. The

The McArthur River mine has an annual uranium production capacity of 18.7 million pounds U_3O_8

flooded area was successfully sealed off in February 2008. Remediation is still underway, with production expected in 2011.

Midwest

Initially to be an underground mine using ground freezing and water jet boring to mine the ore, the Midwest deposit (AREVA – 69.16% / Denison Mines – 25.17% / OURD Canada Co. Ltd.) – 5.67%) will now be developed as a 215-m deep open pit mine with surface dimensions of approximately 900 meters by 350 meters to produce an estimated 36 million pounds U_3O_8. Proven and probable reserves (as at Dec 31/06) total 33.0 million pounds U_3O_8 at an average grade of 4.8% U_3O_8. Ore will be processed at the JEB mill, McClean Lake, about 15 km east. Construction is slated to begin in mid-2009, with production commencing in 2011 and increasing to about 9 million pounds U_3O_8 per year.

A formal decision to proceed with development was made in December 2007. As development of the Cigar Lake mine has been delayed, Midwest ore will benefit from the mill expansion at McClean Lake.

The Worldwide Search for Uranium

After languishing for over two decades, exploration for uranium is experiencing unprecedented growth in what can only be described as a uranium exploration boom—the so-called "Nuclear Renaissance". Companies are actively scouring the planet for economic accumulations of the radioactive metal, both in new regions where geologically prospective areas are known or thought to exist, but mostly in previously explored areas where uranium occurrences and uranium deposits known to exit were left undeveloped due to poor market fundamentals in the late 1970s and 1980s. Moreover, the last few years have seen an explosion of new uranium exploration companies joining the hunt: mostly Canadian- and Australian-based juniors seeking to capitalize from the recent spectacular increase in the price of uranium.

Although most countries with any hint of uranium are being explored at this time, exploration is concentrated in several geographic regions or countries.

Canada is arguably the address of choice in the search for the mineral with the radioactive signature. In addition to the Athabasca Basin which is home to probably the densest accumulation of junior uranium explorers as well as heavyweights Cameco and AREVA, exploration is occurring in Canada from coast to coast to coast.

Australia, reported to contain 27% of the world's reasonably assured resources of uranium (to $80/kg U) at the end of 2006. The country is also host to intense exploration activity, mostly in South Australia and Northern Territory, but also in Western Australia and Queensland.

Exploration has been heating up in the United States as well. In addition to Texas and Wyoming, the Four Corners states of Utah, Colorado, Arizona and New Mexico have been getting the most attention in a bid to resurrect the uranium "province" of the American mid-west.

Africa is considered another veritable hotbed of activity when it comes to uranium exploration. Juniors, in particular Australian-listed companies, have flocked to the continent, either revisiting deposits abandoned in the late 1970s and early 1980s or seeking to make new uranium discoveries.

Exploration is also ongoing in several South and Central American countries, as well as a handful of European countries. Moreover, advanced projects are even found in countries of significant political risk such as Mongolia. Despite a relative lack of publicly available information, there is undoubtedly significant exploration ongoing in China and countries of the Commonwealth of Independent States, such as Kazakhstan and Uzbekistan.

With spot prices of U_3O_8 currently about ten times those in the year 2000 and strong supply-demand fundamentals, exploration is even going forward in countries which may make it difficult to ultimately take the pounds out of the ground economically. For example, both Khan Resources and Western Prospector Group are active in Mongolia and have collectively defined indicated resources of over 75 million pounds U_3O_8.

Exploration in Canada

Like many areas or countries in the world, exploration for uranium in Canada is so hot it's practically on fire.

This is especially true in Saskatchewan's Athabasca Basin—home

to the world's richest uranium deposits—where over 40 companies hold uranium exploration titles and half of which are actively conducting exploration, often in joint ventures. Expenditures for uranium mining in Saskatchewan (including capital, exploration and pre-development expenditures, but not operating expenditures) totaled 343.2 million in 2006, up from 215.6 million and 101.5 million in 2005 and 2004, respectively, and significantly more than was spent between 2000 to 2003 (i.e., between 47.1 million and 74.7 million per year).

Not surprisingly, the big fish in the basin are Cameco and AREVA. After the exploration boom in the 1970s and early 1980s, uranium prices declined and most explorers abandoned their projects. As they operated mines in the basin, Cameco and AREVA continued exploring, but with scaled-down exploration expenditures. Today, along with mid-size juniors Denison Mines and UEX, Cameco and AREVA are again among the most active explorers and operate the largest programs, from greenfields projects to near-mine area exploration and advanced delineation work. Other big names include Uranium One and Mega Uranium, with important players JNR Resources and Fission Energy (a spin-out company of Strathmore Minerals) also actively involved in the hunt for the radioactive element, either alone or in joint ventures.

Exploration in the basin has thus far borne tangible and tasty fruit, for the big fish at least. The Millennium deposit (Cameco – 42% / JCU Exploration (Canada) Co. Ltd. (JCU) 30% / AREVA 28%) is at the feasibility stage, with study completion expected in 2008. Indicated resources are estimated at 21,000 tonnes U_3O_8, with a further 4,400 tonnes in the inferred category. At the Shea Creek project (AREVA 60% / UEX 40%, as part of an agreement to earn 49%) work has moved from exclusively exploration to exploration and development, with an underground exploratory shaft with related test mining facilities proposed. Shea Creek hosts the Kianna, Anne and Colette deposits and is located 15 km south of the past-producing Cluff Lake mine.

Canada also boasts other potentially great discovery areas such as the Thelon basin — touted by some as an analogue to the Athabasca basin in that it is similar in size, age and geological characteristics, and the Hornby Bay basin. The Thelon basin area, located in eastern Northwest Territories and extending northeast into Nunavut, is being explored by several companies, among them Bayswater Uranium and Uravan Minerals (in joint venture with Cameco), while the Hornby Bay basin, located further northwest and also located in the Northwest Territories/Nunavut, is being explored by the Pitchstone Exploration – Triex Minerals joint venture. A handful of companies are undertaking exploration in both basins, among them Uranium North Resources and Ur-Energy.

Rabbit Lake is the longest producing uranium operation in Saskatchewan (courtesy of Cameco Corporation)

The most advanced project in the Northwest Territories/Nunavut is the Kiggavik project (a joint venture between AREVA, JCU and DAEWOO Corporation), with a resource estimate of about 57,000 tonnes of uranium (148 million pounds of U_3O_8) at an average grade of about 0.24%. The joint venture partners decided in December 2007 to proceed with a feasibility study and commence the regulatory process to obtain approval for a uranium mine and mill complex. Mining reportedly could begin as early as 2015 following an estimated four years for environmental assessment and several years of construction.

Another hot area for uranium exploration is the Central Mineral Belt in Labrador. Among the companies working in the area are Crosshair Exploration & Mining, UCore Uranium and Bayswater Uranium, as well as the Santoy Resources – Mega Uranium and Universal Uranium – Silver Spruce Resources joint ventures.

Arguably the most significant find outside the Athabasca basin is Aurora Energy Resources' Michelin project in Labrador's Central Mineral Belt, presently at the pre-feasibility stage. The Michelin project consists of the Michelin and Jacques Lake uranium deposits which together host combined National Instrument 43-101-compliant resources of 57.88 million pounds U_3O_8 in the measured and indicated categories and a further 38.03 million pounds U_3O_8 in the inferred category.

Other areas in Canada prospective for uranium include the Wernecke Mountains in Yukon Territory, the Otish Mountains in central Quebec and the Elliot Lake area in Ontario. Cash Minerals and joint venture partner Mega Uranium are actively exploring the Wernecke Mountain area, as are joint venture

partners Rimfire Minerals and Fronteer Development Group. Strateco Resources, Nova Uranium and Ditem Explorations are working in the Otish Mountains, as are Cameco and AREVA. In the Elliot Lake area, Pele Mountain Resources is proceeding with its Elliot Lake uranium project after receiving positive scoping study results.

Health and Safety

All matters concerning nuclear energy, including uranium mining and processing, fall under the jurisdiction of the Government of Canada. In 2003, the Canadian Nuclear Safety Commission (CNSC) – the federal government nuclear watchdog – entered into a Memorandum of Understanding with the Province of Saskatchewan concerning uranium mining "to ensure cooperation and reduce any duplication of effort, while acknowledging provincial legislation and interests in such areas as environment and labour".

The CNSC drafted the uranium mines and mills regulations that provide provisions relating to, among other things, worker health and safety, the environment and waste management, in addition to applications for licences for site preparation, construction, operation, decommissioning and abandonment of a uranium mine.

In particular, the licensing process for new uranium mines and mills requires the applicant to show that it has "established the safety management systems, plans and programs that are appropriate to ensure safe and secure operation". Such information would include "proposed measures, policies and procedures" for, among other things, the operation and maintenance of the nuclear facility, as well as the handling of nuclear substances and hazardous materials.

Consequently, Canada's uranium mining industry takes specific measures to ensure the health and safety of its workers above and beyond those required for conventional (i.e., non-uranium) mines. This is especially important due to the radiation associated with uranium mining, milling and processing operations, in particular at high-grade mines such as McArthur River and Cigar Lake, where uranium grades are the highest in the world and locally may attain 70% U_3O_8.

In all operations, precautions are used to minimize worker exposure to radiation. In addition to suppressing dust (in mills and especially in open pit mines) and providing sufficient ventilation (in the mill and in underground mines), safety measures include 1) increasing the

distance between the source of the radiation and the worker, 2) placing shielding between the source of the radiation and the worker, and 3) reducing the amount of time that the worker is exposed to the radiation. Where radiation is a major concern, workers at uranium operations are continuously monitored for radiation exposure through the use of individual radiation dosimeters which record the cumulative radiation dose received.

In addition, at high-grade uranium mines such as McArthur River, line-of-sight remote-controlled non-entry mining equipment is used to minimize the worker exposure to radiation given off while mining the high-grade ore. Similarly, the ore processing circuit is remotely operated.

Outlook

Despite its plunge to around US$75 per pound in October 2007 from a high of US$136 per pound in June and its more recent fall to US$73 per pound (February 25, 2008 month-end spot price) after rebounding to just over US$90 per pound at the end of November 2007, the spot price of uranium (U_3O_8) is still extremely healthy, especially considering it sat at just over US$7 at the end of 2000 (Ux Consulting, LLC).

The most recent decrease in spot price comes following the announcement of increased production from Australia and Kazakhstan. While near-term supply may temporarily exceed demand, the overall outlook for the future is bullish and exploration for uranium is still arguably the hottest sub-sector of world exploration activities.

The recent near-meltdown of the U.S. economy—though a major concern to world markets and the economies of most countries—does not change the supply and demand fundamentals for uranium. Regardless of what happens to the U.S. economy, growth in the BRIC countries (Brazil, Russia, India and China), especially China, will not cease. It may slow down, but considering China's rate of growth in 2007 was 11.4%, a decrease of a few percentage points will not significantly impact China's (and the rest of the world's) inexorable need for cheap and clean energy – an important part of which will come from nuclear power.

In the next issue of MINING.com, we'll review uranium mining and mineral exploration in Africa.

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