

Aussies make push to cash in on nuclear revival

Naturally!

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Surging global demand for uranium as countries turn increasingly to nuclear power has spurred potential for a modern-day gold rush in Australia, where the dusty red Outback contains the world's largest known reserves of yellowcake.

This month's deal to supply China with the nuclear fuel caused shares in mining and exploration companies to skyrocket, and is intensifying pressure on state governments across Australia to lift a ban on new uranium mines.

A ban on new mines, in force since 1984, has held back the industry and allowed Canada to outpace Australia in global production, despite having substantially smaller reserves.

"Uranium mining in terms of exploration, production and processing should be treated no differently from any other mineral," said Mitchell Hooke, head of the Minerals Council of Australia, an industry lobby group.

Worldwide demand for nuclear fuel is growing, pushed by rising oil prices and pressure to reduce greenhouse gas emissions. China, Russia, Finland, France and India are just some of the countries expanding their nuclear capacity, said Mr. Hooke, whose council estimates that some 60 new reactors are planned worldwide -- which would increase current levels of nuclear generation by 17 per cent.

Uranium is the key raw material. Its atoms are split in a reactor, creating a controlled fission reaction. The resulting heat is tremendous and is used to make steam, which spins turbines and thus generates electricity.

Australia holds 30 per cent of the world's known recoverable reserves of uranium and accounts for 22 per cent of the world's production. The European Union, Japan, South Korea and the United States are Australia's biggest customers. Canada holds 12 per cent of the world's reserves, yet produces 30 per cent of world mine output, according to the Uranium Information Centre, an industry body in Australia.

Ian Hore-Lacy, general manager of the centre, said China's demand for uranium was expected to rise from 1,500 tonnes a year to 8,000 tonnes by 2020, which alone could absorb all of Australia's present exports.

Yet despite the massive global demand -- which has driven up prices for uranium ore by 40 per cent to more than \$40 (U.S.) a pound in the past 12 months -- producers cannot simply turn a tap to increase supply.

There are only three uranium mining operations in Australia: the giant Olympic Dam mine controlled by BHP Billiton Ltd. in South Australia, the Ranger mine in the Northern Territory run by Energy Resources of Australia Ltd. and General Atomics' Beverley mine in South Australia.

Olympic Dam produces 4,500 tonnes of uranium a year. The company is considering a major expansion that could see output more than triple to 15,000 tonnes annually, although not for several years.

The Ranger mine produces 5,500 tonnes a year and needs approval from the local aboriginal population, which holds land rights, before a proposed extension can go ahead. Beverley produces 1,180 tonnes a year.

Currently, the most likely source of new uranium is the Honeymoon mine in South Australia, owned by Toronto-listed company SXR Uranium One Inc.

Despite the mining moratorium, there are no political impediments to Honeymoon going into operation, as a 21-year mining lease was granted in 2002 when the Liberal Party controlled the South Australian government.

An updated feasibility study is expected to go next month to the company's board, which will then decide whether to proceed to commercial production.

A feasibility study completed in October, 2004, estimated it would cost \$30-million for Honeymoon to go into production at an overall cash operating cost of about \$13 a pound. The mine is expected to produce 400 tonnes of uranium oxide a year for up to eight years, based on the current known resource on the mining lease.

"China is a massive emerging market in addition to the rest of the Western world market, which is currently experiencing a shortage in supply," said Leigh Curyer, the company's vice-president of corporate development in Australia and Asia.

While the uranium industry promotes nuclear power as a clean form of energy, environmentalists warn there are hidden costs to extracting more uranium.

Gavin Mudd, an expert in environmental engineering at Monash University, said the mining, milling and enrichment of uranium ore causes substantial carbon dioxide emissions.

"The CO₂ emissions, the consumption of water and the build up of radioactive waste for every tonne of uranium taken from the ground is all adding to the environmental cost," he said.

The power Down Under

Almost half the world's uranium for nuclear generation comes from weapons stockpiles, while the rest is mined. Backers of Australia's uranium industry hope the lifting of a mining moratorium will boost the country's share of world production from 22 per cent.

Who has it

Tonnes, percentage of world recoverable resources:

Australia	1,074,000	30%
Kazakhstan	622,000	17%
Canada	439,000	12%
South Africa	298,000	8%
Namibia	213,000	6%
Russian Federation	158,000	4%
Brazil	143,000	4%
United States	102,000	3%
Uzbekistan	93,000	3%
World total	3,622,000	

Who uses it

Percentage of electricity generated by nuclear power:

France	over 75%
Germany	over 30%
Netherlands	over 30%
Spain	over 30%
United States	over 17%
Canada	less than 17%
China	less than 17%
Australia	0%
Italy	0%
World	16%