

URANIUM - FAQ

What is uranium?

Uranium is a naturally occurring metal. It is the tenth most abundant metal in the earth's crust, about the same as tin and tungsten. The naturally occurring isotope U-235 is most valuable, as it fissions to release heat energy.

How is uranium used?

Almost all of the world's uranium production is used to produce greenhouse gas-free electricity in 440 nuclear power plants. Other uses for uranium are in medicine, agriculture and ship ballast.

Why is the price of uranium increasing?

A large supply deficit (60 million pounds annually), high oil prices and a dramatic increase in nuclear power plant construction worldwide are pushing uranium prices higher. These conditions are expected to remain, particularly as both China and India develop their power infrastructures. The lead time necessary to find and develop new mines, plus future depletion of existing high-grade uranium deposits, means extensive new exploration must occur in the shorter term. New deposits are most likely to be found in **Canada**, Australia, the U.S. and Kazakhstan.

How does uranium generate nuclear power?

Actually, steam turbines generate the electricity. Nuclear fission from uranium atoms generates heat to create the steam. The process is much like a coal-fired steam power plant, except that uranium fission generates the heat instead of burning coal.

What are the benefits of nuclear power?

One kilogram of natural uranium will yield 20,000 times as much energy as the same amount of coal, yet nuclear power produces no greenhouse gases or acid rain.

*"France relies on nuclear power for 78% of its energy.
Belgium is 55% nuclear, Sweden 50%, Japan 29%,
the United States 20% and Canada 15%."*

What about waste?

A 1000 MWe nuclear reactor produces 27 tonnes of spent fuel, of which 97% is recycled and 3% is hazardous waste. A coal-fired plant of the same capacity produces 7 million tonnes of carbon dioxide, 200,000 tonnes of sulphur dioxide and 150,000 to 200,000 tonnes of solid waste.

How much power does uranium produce now?

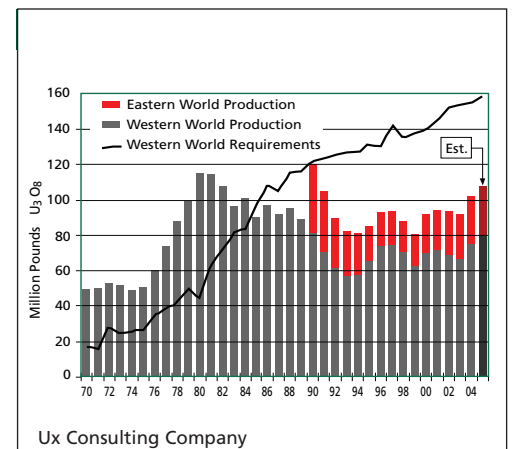
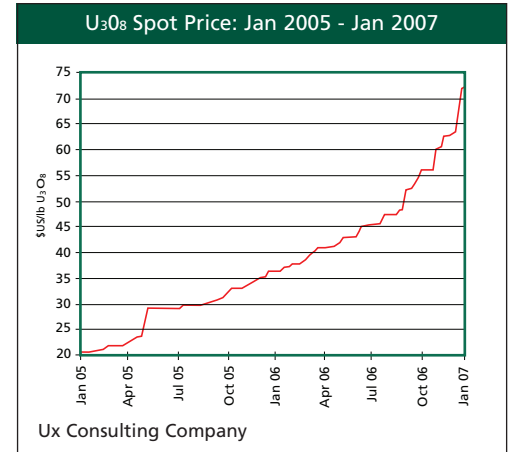
Uranium produces 17% of the world's energy from 440 operating reactors. France relies on nuclear power for 78% of its energy, Sweden nearly 50%, Japan 25% and the United States 20%. About one billion consumers depend on nuclear electricity for some of their power needs

Where does the world get its uranium?

Canada produces about 30% of world supply from four mines in Saskatchewan. The next largest producers are Australia, Kazakhstan, Russia and Niger.

Is there enough uranium for world energy needs?

The world's 440 nuclear reactors currently need about 160 million to 180 million pounds of uranium per year, but world uranium production totals only 100 million pounds. Demand will further increase as at least 50 new reactors come on stream in China, Taiwan, Russia, India, Brazil and Eastern Europe. Even with the sharp increase in price, world uranium production is expected to reach only 115 million pounds annually by 2010.



"Yellowcake", uranium concentrate ready to be enriched for power generation.

Firestone Ventures Inc.

#220 17010 - 103rd Ave
Edmonton, Alberta T5S 1K7

Tel: (780) 428-3465 Fax: (780) 428-3476

Toll-Free 1-888-221-5588