

URANIUM ANALYSIS - POISED FOR AN UPWARD MOVE

Based on projected demand for uranium there is a huge shortfall. The current price at US\$64 a pound does not encourage new supply, putting existing producers like Paladin Energy (PDN) & Boss Energy (BOE) in the box seat. This will be the case until the price moves significantly higher, which is expected to pick up later this year, according to uranium giant Cameco (NYSE:CCJ). If this happens, earlier projects benefit (see Bannerman Energy (BMN) and Lotus Resources (LOT)).

GET SET IN NUCLEAR STOCKS

5-year uranium oxide (U3O8) in US\$ per pound



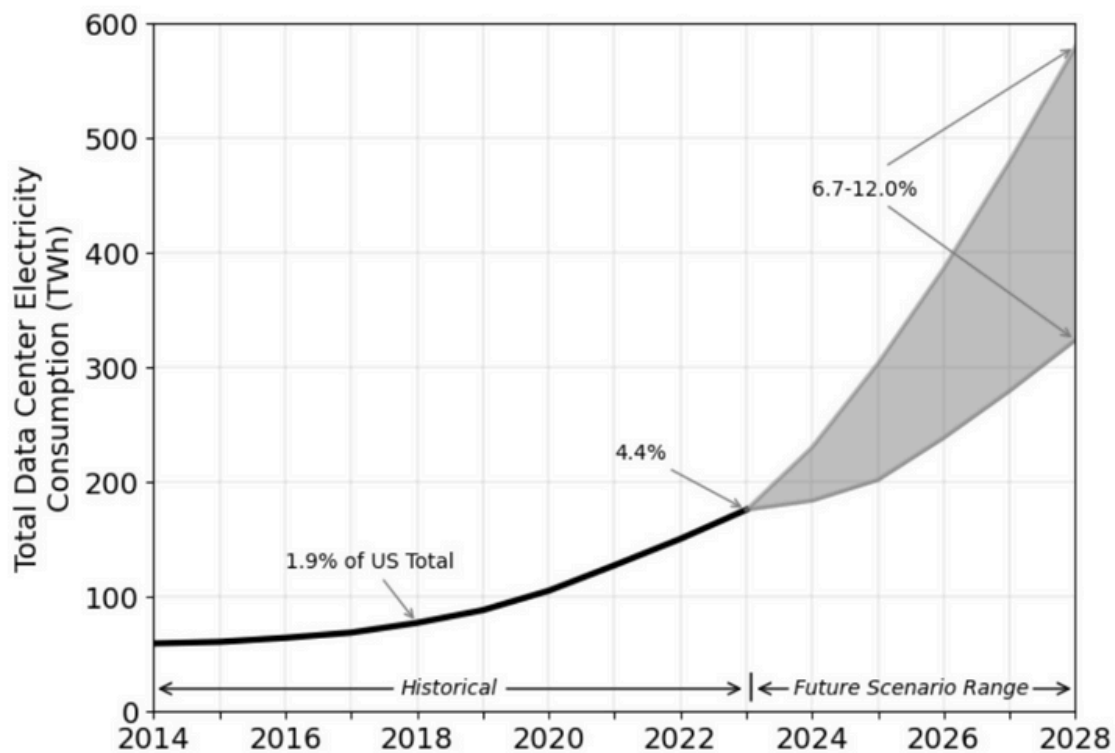
As we say in our Portfolio Risk Rating for uranium stocks, the commodity remains early in its life cycle, hence sentiment plays a big role in the price. Fundamentals are catching up, however. The spot price is volatile and thinly traded, the term price (see analysis) has been much more stable. We remain confident in the longer-term due to rising demand and limited supply.

SOURCE: Trading Economics

URANIUM ANALYSIS CONT.

AI DEMAND TRANSLATES TO INCREASING NUCLEAR POWER

Total US data centre electricity use from 2014 to 2028



This highlights the rising proportion of power used by data centres in the US, which is being powered by increasing use of Artificial Intelligence. For this to occur you need a good, solid source of power, which is why the tech giants like Amazon and Microsoft are turning to nuclear energy. The US already has more installed nuclear power than anywhere else. This alone requires more uranium to be mined.

Berkeley Lab, 2024 US Data Center Energy Usage Report

URANIUM ANALYSIS CONT.

THE NUCLEAR INVESTMENT OPPORTUNITY

The uranium market is unusual because nuclear power stations accumulate fuel stocks years in advance. However, the projected uranium supply in the next three years is substantially less than the demand from utilities, leading to a substantial uncovered uranium supply deficit.

This is an opportunity for investors because much higher uranium prices are needed to incentivise new production. A flex point is at hand, although the timing is uncertain, with increased term contracting expected in 2025. Once prices start rising again, we predict a substantial rerating of the sector.

SENTIMENT AT A LOW EBB

Uranium remains a boom-bust commodity, early in its life cycle, despite having been around for many years. Recent events have damaged sentiment including the revelation that AI could be generated at lower cost and for less energy via China's DeepSeek large language model.

There are also complicated geopolitical factors including supply from Kazakhstan and Russian enrichment capability. The prospect of peace in Ukraine could mean an increase in short-term supply.

However, data centre construction continues and the Ukrainian situation is as complicated as ever. Nuclear generation is being expanded in many countries to replace carbon fuels and provide firming to renewables.

TERM-PRICES ARE WHAT MATTER (AND ARE RISING)

The uranium spot price is volatile, however, the long-term contracting price is much more important for utilities. The average price has been rising steadily and has stabilised at US\$80/lb, well above the current spot price of just over US\$64 a pound. These contracts can have floor and ceiling structures, with some ceilings holding firm at around US\$135.

The fact is that there is more uranium being consumed than is contracted because utilities have been nervous about locking in big contracts. In 2024, the long-term contracted uranium was just over 106 million pounds far below consumption of 190 million pounds.

Long-term contracting has been deferred, but cannot be avoided forever. **Cameco (NYSE: CCJ)** said, in its recent earnings call, that it expected contracting to pick up pace in 2025.

This is backed up by the industry consultant UxC, (Uranium Market Outlook, Q4 2024), which asserts that global utilities have 1 billion pounds of uncovered uranium requirements over the next decade. Nuclear power stations might have an adequate supply of uranium now, but have not locked in long-term supply.

At some point, levels of contracting will have to rise to match demand to meet reality. This will be a major catalyst for bringing uranium prices back to where the fundamentals are.

URANIUM ANALYSIS CONT.

HIGHER PRICE NEEDED FOR NEW PRODUCTION

Prices now are historically high and have encouraged brownfield production such as **Paladin Energy (PDN)**, **Boss Energy (BOE)** and **Lotus Resources (LOT)** but for new greenfield projects (not re-starts) uranium needs to be over US\$100 a pound.

The uranium industry also faces a future production decline due to resource depletion which will have to be replaced with new projects. In the second half of the 2030s, Kazatomprom output is expected to be declining. Other currently established projects such as McArthur River and Cigar Lake, Canada (Cameco) and Husab and Rossing in Namibia (China ownership) will be depleting.

NUCLEAR MOMENTUM

Countries that had put moratoriums on nuclear power are reversing their positions. These include German, Italy, Spain and Taiwan. France is extending reactors beyond 50 years, with a large number due to be retired in the next 10-15 years.

In China, the National Energy Commission invests in large energy projects, including nuclear power. China nuclear builds continue to be rapid relative to other jurisdictions, with completed nuclear power stations taking only 5 years, more than half the time in other countries. In South Korea, three additional nuclear reactors are to be built by 2038, lifting nuclear's share of the energy supply to 35%.

INVESTMENT SUMMARY

Uranium prices available to producers are generally above spot. Although these generate strong returns for existing producers, the level is not sufficient to get new projects across the line. There will be a serious production shortfall within three years, which will cause prices to rise from the next 12 months. Existing producers are the big beneficiaries, which is why we are buyers **Paladin Energy (PDN)**, **Boss Energy (BOE)** and **Lotus Resources (LOT)**. We are positive on **Bannerman Energy (BMN)** but it remains in pre-production phase and is much higher risk.