

How to invest in the nuclear energy renaissance

ASX: URNM

Betashares Global Uranium ETF

Introducing the Betashares Global Uranium ETF (ASX: URNM)

Nuclear energy is increasingly being accepted as a safe, reliable, low-carbon energy source and seen as a critical supplementary means of meeting the world's growing energy demands. As a result, demand for uranium to fuel the nuclear power stations of tomorrow appears on course to grow strongly in the years ahead.

After several years of low prices and low mining activity, however, the prospective lift in uranium demand gives rise to the risk of potential shortages and an associated strong rebound in uranium prices.

To tap into this growth potential, Betashares is pleased to introduce the Betashares Global Uranium ETF (ASX: URNM), which provides exposure to a portfolio of global companies involved in the mining, exploration, development and production of uranium, modern nuclear energy, or companies that hold physical uranium or uranium royalties.



Nuclear power to fuel uranium demand

Demand for uranium is likely to rise significantly as it remains the critical commodity input for nuclear powered energy – which in turn is seen as an increasingly important element in the global quest towards energy transition.

Nuclear power is one of the lowest carbon-emitting power sources available and, critically, can meet the need for consistent 'base load' power 24 hours a day. As such, it's clear that uranium has an important role to play in maintaining the world's energy security, as well as acting as a bridge and complement to renewable energy solutions.



Source: World Nuclear Association Carbon Dioxide Emissions From Electricity, May 2021.

At present there are around 440 nuclear power plants around the world producing around 400 gigawatts (GW) of energy, or 10% of our electricity needs. In France, nuclear power provides 70% of the nation's electricity, and it provides at least one-quarter of electricity needs in a further 13 countries¹.

Small modular nuclear reactors (SMRs) are a new technology that seeks to lower build costs and reduce build times. These have long been barriers to expanding the use of nuclear power in the developed world. As a result, along with the ongoing need to deal with climate change, nuclear energy capacity is expected to grow solidly in the years ahead. According to the International Energy Agency (IEA), the energy created from nuclear power would ideally need to double by 2050 – from 400GW per year to 800GW - to be consistent with the net-zero carbon emissions target². Current projections suggest investment in many more nuclear power plants than currently planned worldwide will be needed to meet this target.

Modern nuclear power plants are also safer to run than those in the past. The safety flaws that led to disasters such as Three Mile Island, Chernobyl, and Fukushima have been addressed in modern reactor designs. Modern reactors are built to be passively safe, meaning that if outside input is lost, the reactor will cool of its own accord.



Source: IEA.

High prices may be required to generate sufficient uranium supply

Although there was a strong uptake in nuclear powered energy from the 1970s to the mid-2000s, its use as an energy source has levelled off in the past decade or so due to community concerns over safety and, perhaps ironically given today's climate challenges, the environment. Japan's Fukushima disaster in 2011 further undermined public and political sentiment towards the sector. Germany, for example, pledged to phase out nuclear power altogether.

This shift in views resulted in a slowing in demand for uranium, and an associated decline in uranium prices and mining activity. After reaching as high as US\$173 a pound in 2007, the spot price of uranium sank to around US\$20 a pound by 2016.

² Nuclear Power Not on Track, IEA, November 2021.





In more recent years, however, uranium prices and interest in the sector haves begun to recover, in line with a re-appraisal of nuclear power in light of the pressing need to transition away from traditional energy sources. More recently, Russia's invasion of Ukraine has also exposed the lingering reliance of some countries – notably Germany – on potentially unreliable and morally questionable Russian oil and gas exports.

According to Australia's official commodity forecasting department "after years of deferrals of uranium projects, there is a growing prospect that supply shortfalls could emerge as existing mines gradually deplete [later this decade]"³.

In its base case scenario, the Department expects spot uranium prices to rise from just over US\$40 a pound earlier this year to over US\$50 in coming years, with contract prices moving above US\$60.

That said, it also concedes that due to the long lead times in developing mining deposits, "the [uranium] shortfall could lead to prices spiking significantly above forecast levels".



Source: Department of Industry, Science, Energy and Resource. Resources & Energy Quarterly March 2022.

Adding to the potential upward risk on uranium prices, it's worth noting the price of uranium per se is a relatively small component of the overall cost of producing nuclear energy. As a result, uranium prices could spike significantly if shortages emerge before there was much curtailment in demand.

³ Department of Industry, Science, Energy and Resource. Resources & Energy Quarterly March 2022.

The Betashares Global Uranium ETF (ASX: URNM)

To tap into the growth potential of this sector, the Betashares Global Uranium ETF (ASX: URNM) is designed to provide exposure to a portfolio of global companies involved in the mining, exploration, development and production of uranium, modern nuclear energy, or companies that hold physical uranium or uranium royalties.

URNM will reduce stock specific and geographic risk compared to investing in individual uranium companies - an important consideration given the risks associated with individual projects in the uranium industry.

To ensure sufficient liquidity and diversification within the index, companies must meet minimum market capitalisation thresholds. Stock and sector specific limits are also in place⁴.

As evident in the table below, the index of companies which URNM aims to track currently includes some of the largest and most successful uranium producers and developers in the world.

Top 10 Constituents: 31 st May 2022	
Company Weight	%Weight
Cameco Corp	15.5%
Nac Kazatomprom JSC	14.2%
Sprott Physical Uranium Trust	12.7%
Energy Fuels Inc/Canada	5.2%
Paladin Energy Ltd	4.9%
Nexgen Energy Ltd	4.8%
Denison Mines Corp	4.8%
Boss Energy Ltd	4.3%
Yellow Cake PLC	4.2%
CGNH Mining Co Ltd	4.0%

⁴ Further details regarding index construction can be found in URNM's product disclosure statement of PDS.



Summary

Global use of nuclear energy is predicted to increase on the back of several powerful trends – including efforts to transition energy sources, the need to improve energy security, improvements in safety and reliability, and improving economics. More immediately, nuclear energy may help countries reduce their reliance on Russian oil and gas exports.

In turn, demand for nuclear energy seems likely to spark renewed demand for uranium and higher uranium prices – especially given current low level of activity within the sector.

With this in mind, Betashares is pleased to offer URNM, which aims to provide a cost-effective and easily accessible way to gain exposure to some of the world's leading companies involved in the uranium industry.

There are risks associated with investment in the Fund, including market risk, sector risk, emerging markets risk and concentration risk. The Fund's returns can be expected to be more volatile (i.e. vary up and down) than a broad global shares exposure, given its more concentrated exposure. The Fund should only be considered as a component of a diversified portfolio. For more information on risks and other features of the Fund, please see the Target Market Determination (TMD) and Product Disclosure Statement, available at www.betashares.com.au.

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