

Jennifer Law, CFA Senior Portfolio Manager Empire Life Investments Inc. Off the Cuff Video March 8, 2024

Uranium and the demand for nuclear power generation

1. Why should we care about nuclear power generation?

Why do we care about nuclear power generation? Well, nuclear is a largest source of carbon free electricity in North America. In the US, that's about 18% of your electricity, and then in Canada, about 20% on average. Looking forward as a global basis as the government pushes for net zero initiatives by 2050, what we need is about three times greater amount of nuclear power over that period of time, even in provinces such as Ontario, with over 50% coming from nuclear right now, we still need to double that footprint. So this is very bullish for investors such as us who like uranium. We see multi-decades of demand increases.

2. What are some of the factors that affected the uranium price last cycle?

After Fukushima, it's not surprising that the public perception of nuclear power was negative for many years. What's changed this cycle? The most material change is that the perception that social license has improved because as we aim for net zero by 2050, it's no longer a debate that we need nuclear power generation to reach that goal.

3. What is happening in the current uranium price cycle?

With respect to uranium prices, what killed the last cycle was overproduction. So producers changed two things this cycle. First of all, they stopped investing in new capacity. Second of all, they actually reduce their current production and instead they stepped into the spot market and bought inventory to firm up prices and reduce excess inventory.

And also, what's different about this cycle is that we have a number of new players, financial players that are coming to the uranium space companies such as Yellow Cake, Sprott and a number of hedge funds, to raise hundreds of millions of dollars to buy uranium in the spot market, to reduce excess supply.

4. How do geopolitical factors affect the price of uranium?

So Russia's invasion of Ukraine in 2022 dramatically changed how the world procure uranium. Prior to the war, a number of countries relied on Russian nuclear technology as well as their services for their nuclear industry. Now they actually have to go into the market and procure uranium themselves. Canada is the world's second largest uranium producer, and we have a tremendous amount of resources to increase our production. Other countries such as Bulgaria, Poland and Czech Republic are also looking to western world for nuclear technology as well as uranium fuels.

5. Uranium prices have gone up recently, how long could this cycle last?

While uranium prices have increased, we do need to see stronger contract prices to incentivize greater uranium production. And given how long it takes to bring on uranium productions, we do believe this cycle could last longer.

What we see is that there are three use cases for uranium. First of all, we have the base usage. Like we need 180 million pounds a year. Second of all, we have life extensions, refurbishment of the current nuclear fleet. For example, in Ontario, both Darlington and Pickering are going through life extensions. So for the nuclear plant that's 30 years old. By going through refurbishment, we can add another 30, 40 years to their lives. And the third use case is new builds.

Another very important source of new demand for uranium is small modular reactors. In fact, in Ontario, we're looking to build four of them at the Darlington site.-Those four small reactors can power 1.2 million homes in Ontario.

We're not alone in Ontario. Other governments, such as Alberta, Saskatchewan, New Brunswick, are also looking at these reactors as a source of clean energy.

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Empire Life Investments Inc. c/o 259 King St. East, Kingston, Ontario K7L 3A8 Canada investment@empire.ca 1 855 823-6883

The Empire Life Insurance Company 259 King Street East, Kingston Ontario K7L 3A8 Canada info@empire.ca 1 877 548-1881