Uranium Market Heats Up: A Market Review Ahead of the Critical Minerals Institute Summit III

written by Tracy Hughes | August 12, 2024

As we prepare for the Critical Minerals Institute (CMI) Summit III, now just nine days away, I wanted to provide an update on the uranium market, one of the top five critical minerals that CMI recognizes as being in high demand globally. Uranium will be a highlight topic at this upcoming event, with notable industry leaders like CMI Summit III Keynote Speaker Mark Chalmers of Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) and Panelist Jean-Francois Meilleur from Xcite Resources Inc. (CSE: XRI) joining us at the summit.

Uranium Market Dynamics, Production Developments, Regulatory Challenges, Price Trends, and Market Sentiment

The uranium market is currently navigating through a complex landscape shaped by geopolitical shifts, rising production costs, fluctuating prices, and evolving regulatory environments. These dynamics are further influenced by changing buyer preferences, advancements in related industries, and broader macroeconomic factors. As the world increasingly turns to nuclear energy to meet zero-carbon targets and reduce reliance on fossil fuels, the demand for uranium is projected to rise significantly, reaching an estimated 250 million pounds of U3O8 annually by 2040. However, the market faces challenges, including supply constraints and volatility driven by geopolitical risks and the need for new production to replace depleting resources.

Geopolitical and Regulatory Influences

A major development in the uranium market occurred with the enactment of the **Prohibiting Russian Uranium Imports Act** on May 13, 2024. This legislation prohibits the importation of unirradiated low-enriched uranium produced in Russia into the United States. The act marks a significant shift in U.S. energy policy, aiming to reduce dependency on Russian nuclear materials and strengthen domestic energy security. The law includes strict import limitations, with a phased reduction in allowable imports through 2027. As a result, U.S. utilities are now seeking alternative uranium sources, further tightening the global uranium supply.

In response to these shifts, several uranium producers have made significant advancements:

Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) has reported substantial progress in Q2-2024. The company sold 100,000 pounds of U3O8 on the spot market at $85.90 per pound, secured a new long-term sales contract with a U.S. nuclear utility, and continued mining uranium from three conventional mines. Additionally, Energy Fuels successfully commissioned its commercial rare earth element (REE) separation circuit at its White Mesa Mill in Utah, positioning the company as a key player in the U.S. critical minerals market.

Paladin Energy Ltd (ASX: PDN | OTCQX: PALAF) and **Fission Uranium Corp. (TSX: FCU | OTCQX: FCUUF)** are currently merging, with Paladin set to acquire all outstanding shares of Fission. This merger is expected to create a global multi-asset uranium leader with a pro forma market capitalization of approximately US$3.5 billion. The combined company will have diversified production assets, including the Langer Heinrich Mine and Fission's Patterson Lake South (PLS) project. This merger not only

enhances the financial and operational strength of both companies but also de-risks the development of the PLS project by leveraging Paladin's expertise in uranium marketing and processing.

Western Uranium & Vanadium Corp. (CSE: WUC | OTCQX: WSTRF) is advancing its mining operations, particularly at the Sunday Mine Complex in Colorado. The company is also developing the San Rafael Uranium Project in Utah, with regulatory approval expected soon. These developments, coupled with the addition of a new director with extensive industry experience, position Western Uranium & Vanadium to capitalize on the improving uranium market.

F3 Uranium Corp. (TSXV: FUU | OTCQB: FUUFF) has garnered investor interest due to its exploration projects in the Athabasca Basin, one of the world's richest uranium regions. F3 is distributing shares of its spin-off, F4 Uranium Corp., to shareholders, focusing on unlocking value through targeted exploration. This strategic move underscores the company's commitment to discovering high-grade uranium deposits in a region known for its significant past discoveries.

Xcite Resources Inc. (CSE: XRI) and **Eagle Plains Resources Ltd. (TSXV: EPL)** are jointly developing the Black Bay Uranium Project in Saskatchewan's Beaverlodge Uranium District. Historical data from the site indicates significant uranium mineralization, and further exploration is planned to confirm and expand these findings. The project's location in a historically productive uranium camp enhances its potential for successful development.

However, the market's stability is threatened by geopolitical risks, particularly in Niger, where unrest has jeopardized future uranium production. **GoviEx Uranium Inc. (TSXV: GXU | OTCQX: GVXXF)** recently lost its rights over the Madaouela mining

permit, and **Orano's Imouraren deposit** was similarly reclaimed by the Niger government. These developments have introduced additional uncertainty into the global uranium supply chain…increasing the interest on where this critical will be sourced.

Rising Production Costs and Market Volatility

Rising production costs are straining the uranium supply side. **NexGen Energy Ltd.'s (TSX: NXE | NYSE: NXE | ASX: NXG**) Arrow Project, for instance, has seen a significant increase in capital costs due to inflation and design adjustments. Similarly, **Bannerman Energy Ltd. (ASX: BMN | OTCQX: BNNLF)** reported an 11.3% increase in pre-production capital for its Etango-8 project in Namibia.

Market volatility has been evident in the spot uranium price, which moderated in the first half of 2024. After reaching a 16-year high of $107 per pound U3O8, the price declined to $85 by the end of Q2. As of today, the uranium price stands at approximately $81.40 per pound [MineralPrices.com], reflecting fluctuations driven by supply and demand dynamics. Buyers are increasingly favoring Western nuclear fuel supplies, exerting pressure on Western uranium, conversion, and enrichment capacities to meet growing demand.

Strategic Shifts in Global Uranium Demand

Global uranium demand is undergoing significant shifts, driven by reactor requirements, stock building, and secondary demand. Key trends include:

- **Secondary Demand**: Purchases by producers, funds, and other financial interests are expected to account for over 52 million pounds of U3O8 from 2022 to 2025, highlighting the increasing influence of financial players in the market.

- **Western Demand Increase**: Revised projections indicate a net increase in Western uranium demand of approximately 20.1 million pounds of U3O8 for the 2021-2040 period, with annual Western uranium requirements expected to rise by about 1.1 million pounds per year from 2022 to 2040.

These trends underscore the ongoing shifts in the global uranium market and the strategic efforts by various countries to secure their nuclear fuel supplies.

Energy Fuels' Strategic Positioning

Energy Fuels is well-positioned to capitalize on current market conditions by expanding its uranium and rare earth production capabilities. The company's strong balance sheet, with over $200 million in liquidity and no debt, enables it to seize opportunities in the uranium market. Energy Fuels' strategy includes ramping up uranium production to a run-rate of approximately 1.1 to 1.4 million pounds of U3O8 per year by late 2024, with potential expansion to two million pounds per year by 2026. Additionally, the company is advancing several rare earth and heavy mineral sand projects, which could significantly enhance its long-term profitability and cement its position as a leading U.S. producer of critical minerals.

The Role of Nuclear Power in Emission-Free Energy Generation

The U.S. Energy Information Administration (EIA) reported that approximately 40% of U.S. electricity generation was emission-free through the first 10 months of 2023, with nuclear power contributing 18% of this total. This highlights the critical role of nuclear energy in achieving emission-free power generation and underscores the importance of securing reliable uranium supplies to sustain this contribution.

Conclusion

As global uranium demand trends towards 250 million pounds of U3O8 annually by 2040, the market faces increasing pressures from capital access, logistical risks, and escalating costs, further complicated by regulatory delays and the introduction of innovative technologies in new projects. The uranium market, shaped by these multifaceted challenges, remains sensitive to external developments, with evolving contracting strategies reflecting the industry's response to ongoing uncertainties.

As we look forward to these discussions at the CMI Summit III, I am excited to welcome Mark Chalmers and Jean-Francois Meilleur, among other distinguished speakers, to the stage. Their insights will be invaluable as we explore the critical topics shaping the future of the uranium market and the broader critical minerals sector. I hope to see you all in Toronto on August 21-22 for what promises to be an informative and impactful event.