

# NUCLEAR FUEL MARKET ISSUES & INSIGHTS

NAC International's annual front-end market analysis report, *Nuclear Fuel Market Issues & Insights*, will be available in July 2024.

Throughout the world, new nuclear is gaining prominence as an attractive option for meeting future electricity needs, which is creating momentum for the advancement of SMRs and advanced reactors. In parallel, a major restructuring of the nuclear fuel markets is underway due to the war in Ukraine. Swift changes in utility procurement strategies and risk management practices are pulling demand forward, which is impacting inventories and influencing decisions to expand production capacity throughout the fuel cycle. This is further complicated by the increasing involvement of investment funds and the uncertainty of their decisions to buy and sell.

With these concurrent shifts underway, difficult decisions are required to navigate the uncertainties that lie ahead. To better prepare market players to make well-informed decisions, NAC performs robust country-by-country assessments to derive a long-range forecast of nuclear generation (MWe). This underpins NAC's analysis of each sector of the fuel cycle, which provides the basis for the most likely projection of future demand, leading to conclusions that result in important insights into the future direction of the front-end markets.

Some of the key issues addressed in the report include the following:

- What are market impacts of Russian sanctions in the near-term and long-term?
- How will enrichment underfeeding likely evolve?
- When is new production needed in each sector of the fuel cycle?
- Will deployment of SMRs and advanced reactors have a meaningful impact on the nuclear fuel markets?
- Will primary U<sub>3</sub>O<sub>8</sub> producers, particularly Kazatomprom, continue to limit near-term production?
- What is the outlook for the uranium market with the announced and expected increases in production?
- How will China handle its excess uranium inventory?
- How will the influx of financial investors and funds influence market prices and affect the competitive landscape?



**NUCLEAR FUEL MARKET ISSUES & INSIGHTS | 2024**

**WHY YOU NEED THIS REPORT**

Descriptions of the **Issues** that will drive front-end markets and NAC's **Insights** into future trends through 2040 will provide critical inputs to the business decisions of both buyers and suppliers. NAC International's *NFMI&I 2024* meets these needs.

Featuring concise commentaries on the main issues and conclusions, *NFMI&I 2024* presents NAC's expert opinion of where the markets are heading and why.

**AVAILABLE IN JULY 2024 | \$9,950**

- What is the outlook for the conversion market now that Honeywell has restarted the Metropolis Works facility?
- What are the term price forecasts for uranium, conversion, and enrichment?
- How will fabrication facilities be affected by the interest in qualifying alternate VVER fuel suppliers?
- What market developments are likely to influence the degree of competition in fabrication markets, including VVERs?
- What are the challenges for having a secure and sustained supply of HALEU?

Overall, our market analyses and price forecasts, which make use of detailed supply demand models together with cost of production benchmarks, provide a solid evaluation tool in support of planning and developing strategy, whether for buyers, sellers or investors.

*Continued*

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# KEY TOPICS FOR THE 2024 EDITION OF *NUCLEAR FUEL MARKET ISSUES & INSIGHTS*

## NUCLEAR GENERATING CAPACITY

- Situation with Potential Reactor Restarts in Japan
- Nuclear Capacity Expansion Trends in China
- Export Trends of Russian-designed Plants
- Trends in Capacity of Unique Reactor Designs
- New Construction Trends in Other Countries
- Shutdown Trends
- Megawatt Forecasts

*NFMI&I 2024* evaluates the worldwide markets for U<sub>3</sub>O<sub>8</sub>, UF<sub>6</sub> conversion and enrichment services, and nuclear fuel fabrication including demand, the status of major suppliers, as well as projected ranges of and general trends for spot and long-term price movements. The report addresses the relative sensitivity of the price forecasts to changes in supply-demand balance driven by plausible future scenarios. It also assesses the market and technical drivers for the fabrication market.

NUCLEAR FUEL MARKET  
ISSUES & INSIGHTS | 2024

## U<sub>3</sub>O<sub>8</sub> MARKET

- Key Issues Affecting the Market
- Current Market Overview
- Review of Primary Supply
- Review of Secondary Supply
- Initial Supply/Demand Comparisons
- Worldwide Cost Trend Analysis
- Term Price Forecast

## U<sub>3</sub>O<sub>8</sub> -TO-UF<sub>6</sub> CONVERSION MARKET

- Overview of Major Converters
- Conversion Capacities and Secondary Supply
- Supply/Demand Comparisons
- Outlook for Future Prices

## ENRICHMENT MARKET

- Uncommitted Demand
- Capacity, Projects and Financial Performance
- Supply/Demand Analyses
- Enrichment Production Costs
- Market Competition
- Outlook for Future Prices

## FABRICATION

- Market Drivers
- Expanding and Declining Market Segments
- Developments and Price Trends
- Fabrication Facility Shop Loads

## SMALL MODULAR AND ADVANCED REACTORS

- SMRs and ARs: Impacts to the Fuel Cycle Including HALEU

## APPENDICES

- Appendix A: U<sub>3</sub>O<sub>8</sub> Price Forecasting Methodology