

# Mastering Nuclear Fuel Markets:

MODULE NO. 2

PROCUREMENT OF URANIUM ENRICHMENT SERVICES

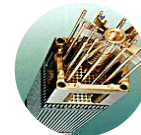
Enrichment is the most costly step in the front end of the nuclear fuel cycle, comprising as much as 50 percent of the typical nuclear fuel cost for U.S. utilities. Utilities are limited in their enrichment choices as the uranium enrichment market has become an oligopoly with only four primary suppliers worldwide. Unlike the uranium concentrates and conversion services spot markets, the primary suppliers control essentially all spot SWU supply. One of these suppliers, Minatom, is severely limited in its ability to compete by trade restrictions. Another, Eurodif, is currently subject to significant import duties imposed by the U.S. Department of Commerce. Of the four competitors only one, USEC, is privately owned. The other three suppliers are at least majority-owned by governments. Although each of these suppliers routinely states that they operate without government control, the decisions they have made have been influenced significantly by their government ownership.

Russian enrichment supply to the U.S. market is effectively controlled by USEC through its Executive Agent status under the current Russian-U.S. HEU agreement. This, coupled with the 2001 shutdown of the Portsmouth enrichment facility, and the current operating levels of the Paducah and Georges Besse enrichment facilities, supply is in basic balance with demand. While enrichment prices have firmed since the USEC trade case action was announced in December 2000, industry analysts agree that USEC's and Eurodif's long-term ability to compete with Urenco will depend upon a successful transition from existing diffusion technology to the more advanced centrifuge technology. Eurodif, Urenco and USEC all have recently announced plans to gain access to centrifuge technology or expand existing centrifuge capacity. Consolidation within the supply sector is a possibility. As in the fabrication sector, a key area of focus for fuel buyers will be how to promote and maintain competition among the limited number of suppliers.

This module gives an overview of the current uranium enrichment service markets including projections of future prices and summary profiles of the four primary suppliers. It then focuses on evaluation of procurement options and preparation of the bidding documents; reviews the bid evaluation process; and discusses negotiation of the final contract.

The objectives of the standard Enrichment Services Procurement Module are as follows, but the training sessions can be customized to meet your specific needs. For example, the module can be extended to provide valuable review and discussion of your company's current enrichment service procurement strategy. This base module can be conducted in less than one day.

- ◆ Summarize and Discuss the Current Enrichment Services Market
  - Current spot and term contract prices
  - Key factors currently impacting the market
  - Near-term supply/demand balances
  - Recent trends in commercial terms and conditions
- ◆ Forecast and Discuss Future Spot and Term Prices
  - Projected supply/demand balances
  - Estimated costs of primary supply
  - Impact of secondary supply sources
  - Estimated range of future price levels
  - Sensitivity of prices to key supply and demand parameters



- ◆ Describe and Discuss Profiles of the Four Primary Enrichers
  - Ownership structure
  - Existing production capacities
  - Anticipated production lifetimes
  - Marketing emphasis
  - Potential for expansion
  - Estimated costs of production
- ◆ Describe and Discuss Procurement Options and Preparation of Bidding Documents
  - Issues related to spot versus term contracting
  - Factors in developing near-term and longer term procurement strategies
  - Spot and term contract bid specifications
  - Market timing
    - Ways to generate competition
    - Expected changes in contract terms
- ◆ Describe and Discuss Bid Evaluation Process
  - Types of available contract specified pricing provisions
  - Quantitative evaluation of prices
  - Qualitative evaluation of non-price related items
    - Delivery flexibility
    - Quantity flexibility
    - Payment terms
    - Optional deliveries
    - Other contractual terms and conditions
- ◆ Describe and Discuss Negotiation of Final Contract
  - Negotiating strategy
  - Best and final offers
  - Contract award
  - Conducting the negotiations
  - Letter of intent
- ◆ Extended Scope: Review and Discuss Your Company's Current Enrichment Services Procurement Strategy
  - Is the strategy effective?
  - Is the strategy too conservative or too aggressive?
  - Are there any industry or market-related factors that are not currently addressed by the strategy?