TradeTech
uranium prices & analysis since 1968

Website Information

Uranium Primer - Overview

TradeTech, through its predecessor the Nuclear Exchange Corporation, which later became known as NUEXCO, was the first organization to publish uranium prices, beginning in August 1968 with the NUEXCO Exchange Value® as a measure of spot uranium prices and the NUEXCO Loan Rate as a measure of the annual percentage rate for natural uranium loans. During the 1970s, the NUEXCO Exchange Value® began to be incorporated into many long-term uranium contracts as the settlement price for deliveries under those contracts.

Since 1968, NUEXCO, and then TradeTech, have added a series of uranium prices, to cover the full range of products and services in the "front end" of the nuclear fuel cycle (uranium, conversion, and enrichment [SWU]), for both the spot and long-term markets.

Uranium Primer Nuclear Fuel
Nuclear power plants are fueled by processed uranium, through a series of steps called the nuclear fuel cycle. Unlike their fossil-fueled cousins, nuclear power plants are not continuously fueled during operation; rather they are shut down at specified intervals and refueled in batches, with only part of the nuclear plant's fuel replaced at during these "refueling outages." The discharged or "spent" fuel contains uranium and plutonium, which can be recovered and recycled in subsequent refuelings or in other nuclear plants.

The world market for nuclear fuel and its processing services have always had a special set of circumstances, primarily due to the strategic (nuclear weapons) aspects of uranium. As such, the early years of the industry were dominated by purchases made by the US government. In fact, in the USA, only the federal government was allowed to own uranium, creating a monopsony (only one buyer) situation. A few other governments were also buyers of lesser quantities in the world (outside communist areas), while the former Soviet government was the only buyer in the communist areas.

Uranium Production
A large worldwide production industry emerged in response to these military needs, but as military needs subsided in the 1960s, commercial demand for nuclear power plants remained low, as the international nuclear power industry was still in its infancy. As the use of nuclear power grew, the US Congress passed legislation in 1964 to permit the private ownership of nuclear fuel in the USA, starting in 1968. The US Government was still involved, however, as the US Atomic Energy Commission was the non-Communist world's monopoly supplier of uranium enrichment services.

This private ownership required the development of market mechanisms, which have remained in place with little structural change since the 1970s. For the most part, utilities buy uranium and processing services separately directly from uranium-producing and processing companies on a one-to-one basis under long-term (multiple-year) contracts. There is also an active "spot" market, traditionally used for the minority of the industry's business.

Because of historical overproduction, technologies for recycling of nuclear fuel products, and the more recent programs in Russia and the USA to dispose of excess military stocks (including those from the dismantlement of nuclear warheads under the "Megatons to Megawatts" program, also known as the US-Russian HEU Deal), these "secondary sources" have become a major portion of the market's supply and are expected to continue to exist for some time.

Government Intervention

Government intervention has been another hallmark of nuclear fuel markets, from the government monopsony period of nuclear weapons development, through government ownership of uranium facilities and processing companies, to trade restrictions on imports or exports of uranium from targeted regions.

Uranium Price Terms in Contracts

Most uranium is delivered under long-term contracts, with pricing terms that are specified at the date of contract finalization (usually a base price at a specific date, escalated by any of various public economic indexes to the date of delivery) or pricing terms tied to the prevailing spot price as of the delivery date.

For general and media inquiries contact:
TradeTech
Denver Tech Center, 7887 E. Belleview Avenue, Suite 888
Englewood, CO 80111, USA
Phone +1 (303) 573-3530 | Fax +1 (303) 573-3531
info@tradetech.com | www.uranium.info