

# Uranium Marketing Annual Report

May 2011







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### **Preface**

The U.S. Energy Information Administration (EIA) reports detailed data spanning 2006 through 2010 and summary data back to 1994 on uranium marketing activities in the United States in this report, 2010 Uranium Marketing Annual Report. The Annual Energy Review provides a uranium overview table with historical data back to 1949.

Data in this report are based on information reported on Form EIA-858, "Uranium Marketing Annual Survey." Form EIA-858 survey collects data on contracts, deliveries (during the report year and projected for the next ten years), enrichment services purchased, inventories, use in fuel assemblies, feed deliveries to enrichers (during the report year and projected for the next ten years), and unfilled market requirements for the next ten years.

Prior editions of this report may be found on the EIA website at http://www.eia.gov/nuclear/reports.cfm.

The Annual Energy Review may be found on the EIA website at

http://www.eia.gov/totalenergy/data/annual/.

Definitions for terms used in this report can be found in EIA's Energy Glossary:

http://www.eia.doe.gov/glossary/index.html.

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### 2010 Uranium Marketing Annual Report

#### **Uranium purchases and prices**

Owners and operators of U.S. civilian nuclear power reactors ("civilian owner/operators" or "COOs") purchased a total of 47 million pounds  $U_3O_8e$  (equivalent) of deliveries from U.S. suppliers and foreign suppliers during 2010, at a weighted-average price of \$49.29 per pound  $U_3O_8e$ . The 2010 total of 47 million pounds  $U_3O_8e$  decreased 7 percent compared with the 2009 total of 50 million pounds  $U_3O_8e$ .

Eight percent of the  $U_3O_8$ e delivered in 2010 was U.S.-origin uranium at a weighted-average price of \$45.25 per pound. Foreign-origin uranium accounted for the remaining 92 percent of deliveries at a weighted-average price of \$49.64 per pound. Australian-origin and Canadian-origin uranium together accounted for 37 percent of the 47 million pounds. Uranium originating in Kazakhstan, Russia and Uzbekistan accounted for 41 percent and the remaining 14 percent originated from Brazil, Czech Republic, Germany, Hungary, Malawi, Namibia, Niger, South Africa, and Ukraine. Owners and operators of U.S. civilian nuclear power reactors purchased uranium for 2010 deliveries from 23 sellers, down from the 29 sellers in 2009.

COOs purchased uranium of several material types. Uranium concentrate was 63 percent of the deliveries in 2010; natural hexafluoride ( $\mathrm{UF}_6$ ) and enriched uraniumwere 37 percent. During 2010, 18 percent of the uranium was purchased under spot contracts at a weighted-average price of \$43.99 per pound. The remaining 82 percent was purchased under long-term contracts at a weighted-average price of \$50.43 per pound. Spot contracts are contracts with a one-time uranium delivery (usually) for the entire contract and the delivery is to occur within one year of contract execution (signed date). Long-term contracts with one or more uranium deliveries to occur after a year following the contract execution (signed date) and as such may reflect some agreements of short and medium terms as well as longer term.

#### New and future uranium contracts

In 2010, COOs signed 35 purchase contracts with deliveries in 2010. Thirty-one were new spot contracts with deliveries of 6 million pounds  $U_3O_8e$  in 2010 at a weighted-average price of \$43.17 per pound. Four were new long-term contracts with deliveries of less than one million pounds  $U_3O_8e$  in 2010 at a weighted-average price of \$43.69 per pound.

As of the end of 2010, the maximum uranium deliveries for 2011 through 2020 under existing purchase contracts for COOs totaled 258 million pounds  $U_3O_8e$ . Also as of the end of 2010, unfilled uranium market requirements for 2011 through 2020 totaled 255 million pounds  $U_3O_8e$ . These contracted deliveries and unfilled market requirements combined represent the maximum anticipated market requirements of 513 million pounds  $U_3O_8e$  over the ten-year period for COOs.

#### Uranium feed, enrichment services, uranium loaded

In 2010, COOs delivered 45 million pounds  $U_3O_8e$  of natural uranium feed to U.S. and foreign enrichers. Fifty-seven percent of the feed was delivered to U.S. enrichment suppliers and the remaining 43 percent was delivered to foreign enrichment suppliers. Fourteen million separative work units (SWU) were purchased under enrichment services contracts from 7 sellers in 2010. The average price paid by the COOs for the 14 million SWU was \$136.14 per SWU, a 4-percent increase compared with the 2009 average price of \$130.78 per SWU. In 2010, the U.S.-origin SWU share was 16 percent and foreign-origin SWU accounted for the remaining 84 percent. Russian-origin SWU was 37 percent of the total. Germany, Netherlands, and the United Kingdom had an aggregate share of 37 percent.

Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors during 2010 contained 44 million pounds  $U_3O_8e$ , compared with 49 million pounds  $U_3O_8e$  loaded during 2009. Nine percent of the uranium loaded during 2010 was U.S.-origin uranium, and 91 percent was foreign-origin uranium.

#### Uranium foreign purchases/sales and inventories

U.S. suppliers (brokers, converters, enrichers, fabricators, producers, and traders) and COOs purchase uranium each year from foreign suppliers. Foreign purchases totaled 55 million pounds  $U_3O_8e$  in 2010, and the weighted-average price was \$47.01 per pound  $U_3O_8e$ . Also, U.S. suppliers and COOs sold uranium to foreign suppliers. Foreign sales totaled 23 million pounds  $U_3O_8e$  in 2010, and the weighted-average price was \$42.78 per pound  $U_3O_8e$ .

 $^{1}$ Uranium quantities are expressed in the unit of measure  $U_{3}O_{8}e$  (equivalent).  $U_{3}O_{8}e$  is uranium oxide (or uranium concentrate) and the equivalent uranium-component of hexafluoride (UF<sub>6</sub>) and enriched uranium.

Year-end commercial uranium inventories represent ownership of uranium in different stages of the nuclear fuel cycle (inprocess for conversion, enrichment, or fabrication) at domestic or foreign nuclear fuel facilities. Total U.S. commercial inventories (including inventories owned by COOs, U.S. brokers, converter, enrichers, fabricators, producers, and traders) was 112.3 million pounds  $U_3O_8e$  as of the end of 2010. Commercial uranium inventories owned at the end of 2010 by COOs totaled 86.5 million pounds  $U_3O_8e$ , an increase of 2 percent from year-end 2009. Uranium inventories owned by U.S. brokers and traders were 12.1 million pounds  $U_3O_8e$ . U.S. converter, enrichers, fabricators and producers owned 13.6 million pounds  $U_3O_8e$  of inventories at the end of 2010.

Table S1a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2010 million pounds U₃O<sub>8</sub> equivalent

Delivery Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Purchased	38.3	43.4	47.3	42.0	42.7	47.9	51.8	55.4	52.7	56.6	64.1	65.7	66.5	51.0	53.4	49.8	46.6
Purchased from U.S. Producers	5.4	5.3	5.8	5.7	6.5	5.2	3.6	2.3	1.5	0.6	0.0	W	0.0	0.0	0.6	W	0.4
Purchased from U.S. Brokers and Traders	15.3	16.2	13.3	9.9	10.5	10.4	9.1	11.7	13.4	10.5	13.2	10.4	13.9	9.8	9.4	11.1	11.7
Purchased from other Owners and Operators of U.S. Civilian Nuclear Power Reactors, other U.S. Suppliers, (and U.S. Government for 2007) 1	1.1	0.6	1.9	3.0	4.5	5.6	8.8	11.4	5.7	8.3	12.2	W	12.6	7.6	6.3	W	1.9
Purchased from Foreign Suppliers	16.5	21.4	26.4	23.4	21.3	26.8	30.4	30.0	32.2	37.2	38.7	39.4	40.0	33.5	37.2	36.8	32.6
U.SOrigin Uranium	7.7	5.2	8.3	8.1	7.2	11.4	13.3	13.2	6.2	10.2	12.3	11.0	10.8	4.0	7.7	7.1	3.7
Foreign-Origin Uranium	30.6	38.2	39.0	33.9	35.6	36.5	38.6	42.2	46.5	46.4	51.8	54.7	55.7	47.0	45.6	42.8	42.9
Spot Contracts <sup>2</sup>	8.5	13.6	9.1	5.5	7.8	8.0	10.4	14.4	8.6	8.2	9.2	6.9	6.3	6.6	8.7	8.1	8.2
Short, Medium, and Long-Term Contracts <sup>3</sup>	29.8	29.8	38.3	36.5	34.9	40.0	39.1	40.0	41.4	46.7	53.3	58.8	59.4	43.7	42.8	41.0	37.9

### Table S1b. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2010

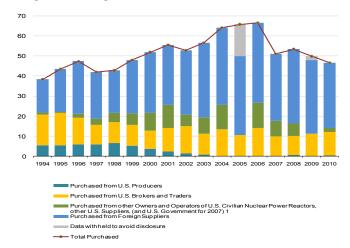
dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

Delivery Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Purchased (Weighted-Average Price)	10.40	11.25	14.12	12.88	12.14	11.63	11.04	10.15	10.36	10.81	12.61	14.36	18.61	32.78	45.88	45.86	49.29
Purchased from U.S. Producers	13.72	14.84	14.20	13.60	13.61	13.93	14.81	13.26	13.03	14.17		W			75.16	W	47.13
Purchased from U.S. Brokers and Traders Purchased from other Owners and	9.34	9.83	13.36	12.31	11.95	11.54	11.28	10.44	10.21	11.05	12.08	13.76	20.49	34.10	39.62	41.88	44.98
Operators of U.S. Civilian Nuclear Power Reactors, other U.S. Suppliers, (and U.S.																	
Government for 2007) <sup>1</sup>	8.04	12.52	14.98	W	W	W	10.45	9.98	W	10.16	11.30	W	W	W	W	W	42.24
Purchased from Foreign Suppliers	10.43	11.40	14.45	12.91	11.97	11.47	10.65	9.86	10.37	10.82	13.15	14.70	18.62	32.36	48.49	46.68	51.30
U.SOrigin Uranium (Weighted-Average Price)	12.08	14.20	14.62	13.36	13.37	12.24	11.52	10.50	10.89	10.81	11.87	15.11	17.85	28.89	59.55	48.92	45.25
Foreign-Origin Uranium (Weighted-Average Price)	9.97	10.84	14.02	12.78	11.90	11.47	10.88	10.05	10.29	10.81	12.76	14.21	18.75	33.05	43.47	45.35	49.64
Spot Contracts <sup>2</sup> (Weighted-Average Price) Short, Medium, and Long-Term Contracts <sup>3</sup>	9.01	10.30	14.22	11.61	10.56	9.52	8.54	7.92	9.29	10.10	14.77	20.04	39.48	88.25	66.95	46.45	43.99
(Weighted-Average Price)	NA	NA	NA	NA	NA	NA	11.70	10.96	10.58	10.94	12.24	13.70	16.38	24.45	41.59	45.74	50.43

<sup>1</sup> Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers which are U.S. converters, enrichers, and fabricators.

Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 10, 11 and 16. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2010 deliveries million pounds  $\rm U_3O_8$  equivalent



Source: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2010 deliveries

\$60.00
\$50.00
\$40.00
\$10.00
\$0.00
\$10.00

Source: U.S. U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

<sup>&</sup>lt;sup>2</sup> Spot Contract: A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

<sup>&</sup>lt;sup>3</sup> Short, Medium, and Long-Term Contracts: One or more deliveries to occur after a year following contract execution (signed date). - - = Not applicable. W = Data withheld to avoid disclosure of individual company data. NA = Not available.

Notes: "Other U.S. Suppliers" are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

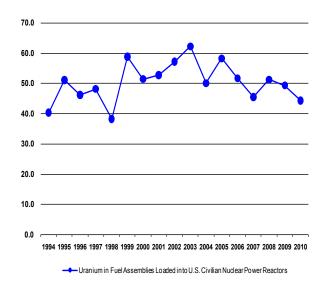
Table S2. Uranium feed deliveries, enrichment services, and uranium loaded by owners and operators of U.S. civilian nuclear power reactors, 1994-2010

million pounds U<sub>3</sub>O<sub>8</sub> equivalent

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Feed Deliveries by Owners and Operators of U.S. Civilian Nuclear																	
Power Reactors	37.6	44.3	49.1	40.3	40.6	43.9	47.8	47.3	54.7	49.3	53.4	52.9	56.6	49.0	43.4	51.9	45.5
Uranium in Fuel Assemblies Loaded into U.S. Civilian Nuclear Power Reactors	40.4	51.1	46.2	48.2	38.2	58.8	51.5	52.7	57.2	62.3	50.1	58.3	51.7	45.5	51.3	49.4	44.3
Million Separative Work Units (SWU)																	
U.SOrigin Enrichment Services Purchased	7.5	6.7	8.0	6.0	5.7	4.6	5.2	1.3	1.7	1.7	1.4	1.1	1.6	1.5	1.9	4.1	2.3
Foreign-Origin Enrichment Services Purchased	1.7	2.8	3.2	2.9	4.4	5.4	6.6	9.1	9.8	10.3	10.4	10.3	11.8	12.7	10.7	13.1	11.5
Total Purchased Enrichment Services	9.2	9.5	11.2	8.9	10.1	10.0	11.8	10.4	11.5	12.0	11.8	11.4	13.4	14.2	12.6	17.2	13.8
Average Price (US\$ per SWU)	_				_	_					-	_	106.57	114.58	121.33	130.78	136.14

Figure S3. Uranium loaded into U.S. civilian nuclear power reactors, 1994-2010

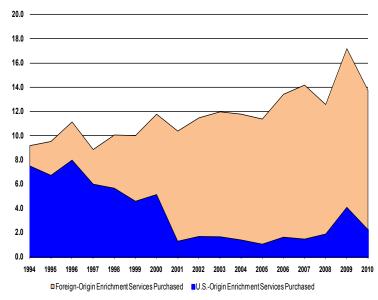
million pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S4. Uranium enrichment services purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2010

million separative work units (SWU)



Source: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Table S3a. Foreign purchases, foreign sales, and uranium inventories owned by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1994-2010

million pounds U<sub>3</sub>O<sub>8</sub> equivalent

Delivery Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Foreign Purchases by U.S. Suppliers	21.1	20.2	21.7	20.4	22.6	21.0	17.4	18.7	22.7	18.2	30.2	27.0	26.1	21.6	24.1	26.7	25.0
Foreign Purchases by Owners and Operators of U.S. Civilian Nuclear Power Reactors	15.5	21.1	23.7	22.5	21.1	26.6	27.5	28.0	30.0	34.9	35.9	38.5	38.7	32.5	32.9	32.2	30.4
Total Foreign Purchases	36.6	41.3	45.4	43.0	43.7	47.6	44.9	46.7	52.7	53.0	66.1	65.5	64.8	54.1	57.1	58.9	55.3
U.S. Broker and Trader Purchases from Foreign Suppliers	22.3	18.3	17.8	15.7	21.7	19.2	15.8	18.3	18.6	15.8	26.4	24.0	24.0	18.9	21.3	26.8	24.7
Foreign Sales	17.7	9.8	11.5	17.0	15.1	8.5	13.6	11.7	15.4	13.2	13.2	20.5	18.7	14.8	17.2	23.5	23.1
Year-End Inventories																	
U.S. Supplier Owned Uranium Inventories	21.5	13.7	13.9	40.4	70.7	68.8	56.5	48.1	48.7	39.9	37.5	29.1	29.1	31.2	27.0	26.8	25.7
Owners and Operators of U.S. Civilian Nuclear Power Reactors Owned Uranium Inventories	65.4	58.7	66.1	65.9	65.8	58.3	54.8	55.6	53.5	45.6	57.7	64.7	77.5	81.2	83.0	84.8	86.5
Total Commercial Uranium Inventories	86.9	72.5	80.0	106.2	136.5	127.1	111.3	103.8	102.1	85.5	95.2	93.8	106.6	112.4	110.0	111.5	112.3

Table S3b. Weighted-average price of foreign purchases and foreign sales by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1994-2010

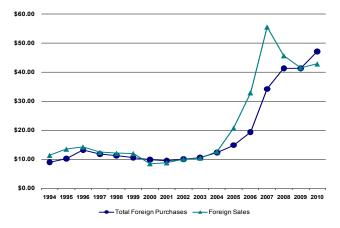
dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

anners has bresse along administration																	
Delivery Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Foreign Purchases by U.S. Suppliers	7.78	8.96	11.78	10.61	10.50	9.42	8.45	8.98	9.65	10.19	11.21	15.11	20.28	36.59	33.30	34.80	41.30
Foreign Purchases by Owners and Operators of U.S. Civilian Nuclear Power Reactors	10.53	11.39	14.41	12.89	11.96	11.45	10.68	9.87	10.37	10.79	13.13	14.63	18.66	32.58	47.46	46.55	51.69
Total Foreign Purchases (Weighted- Average Price)	8.95	10.20	13.15	11.81	11.19	10.55	9.84	9.51	10.05	10.59	12.25	14.83	19.31	34.18	41.30	41.23	47.01
U.S. Broker and Trader Purchases from Foreign Suppliers (Weighted-Average Price)	7.87	9.02	11.78	10.71	10.77	9.60	8.61	8.87	9.59	10.19	11.15	15.68	21.61	39.88	35.39	34.88	41.23
Foreign Sales (Weighted-Average Price)	11.34	13.48	14.20	12.39	12.05	11.97	8.48	8.79	10.04	10.39	12.63	20.70	32.87	55.47	45.62	41.48	42.78

Notes: Totals may not equal sum of components because of independent rounding. Foreign purchase: A uranium purchase of foreign-origin uranium from a firm located outside the United States. Foreign sale: A uranium sale to a firm located outside the United States. Weighted-average prices are not adjusted for inflation.

Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 28, 29, 30 and 31. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

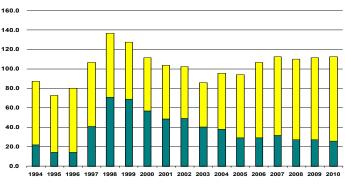
Figure S5. Weighted-average price of foreign purchases and foreign sales of uranium, 1994-2010 dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S6. Total commercial uranium inventories of U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1994-2010

million pounds U<sub>3</sub>O<sub>8</sub> equivalent



Owners and Operators of U.S. Civilian Nuclear Power Reactors Owned Uranium Inventories
 U.S. Supplier Owned Uranium Inventories

Source: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2010-Form EIA-858, "Uranium Marketing Annual Survey".

Table 1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2006-2010

thousand pounds  $U_3O_8$  equivalent; dollars per pound  $U_3O_8$  equivalent

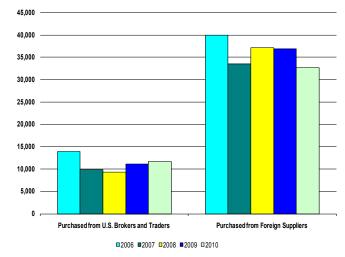
2006	2007	2008	2009	2010
	<u> </u>	'		
0	0	562	W	350
		75.16	W	47.13
13,920	9,849	9,373	11,125	11,745
20.49	34.10	39.62	41.88	44.98
W	W	W	W	0
W	W	W	W	
W	W	W	W	1,851
W	W	W	W	42.24
39,972	33,523	37,156	36,823	32,637
18.62	32.36	48.49	46.68	51.30
66,539	50,983	53,353	49,830	46,582
18.61	32.78	45.88	45.86	49.29
	0  13,920 20.49 W W W 39,972 18.62	0 0  13,920 9,849 20.49 34.10  W W W W W W  W W  39,972 33,523 18.62 32.36	0 0 562 75.16  13,920 9,849 9,373 20.49 34.10 39.62  W W W W W W W W W W W W W W W 4 W W W W	0       0       562       W           75.16       W         13,920       9,849       9,373       11,125         20.49       34.10       39.62       41.88         W       W       W       W         W       W       W       W         W       W       W       W         W       W       W       W         W       W       W       W         W       W       W       W         W       W       W       W         39,972       33,523       37,156       36,823         18.62       32.36       48.49       46.68         66,539       50,983       53,353       49,830

W = Data withheld to avoid disclosure of individual company data.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Maketing Annual Survey" (2006-2010).

Figure 1. Uranium purchased by owners and operators of U.S. civilian nuclear reactors by supplier and delivery year, 2006-2010

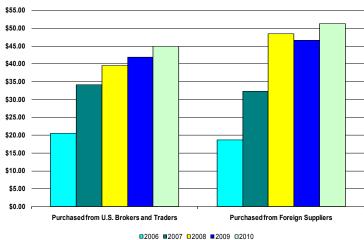




Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Figure 2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear reactors by supplier and delivery year, 2006-2010

dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

<sup>-- =</sup> Not applicable.

Notes: "Other U.S. Suppliers" are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Table 2. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2006-2010

thousand pounds  $U_3O_8$  equivalent; dollars per pound  $U_3O_8$  equivalent

Deliveries	2006	2007	2008	2009	2010
U.SOrigin Uranium					
Purchases	10,807	3,973	7,720	7,053	3,687
Weighted-Average Price	17.85	28.89	59.55	48.92	45.25
Foreign-Origin Uranium					
Purchases	55,732	47,011	45,633	42,777	42,895
Weighted-Average Price	18.75	33.05	43.47	45.35	49.64
Total					
Purchases	66,539	50,983	53,353	49,830	46,582
Weighted-Average Price	18.61	32.78	45.88	45.86	49.29

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2006-2010).

Figure 3. Uranium purchased by owners and operators of U.S. civilian nuclear reactors by origin and delivery year, 2006-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

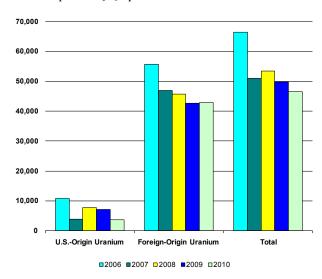
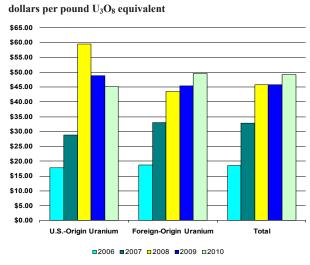


Figure 4. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear reactors by origin and delivery year, 2006-2010



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Table 3. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin country and delivery year, 2006-2010

thousand pounds  $U_3O_8$  equivalent; dollars per pound  $U_3O_8$  equivalent

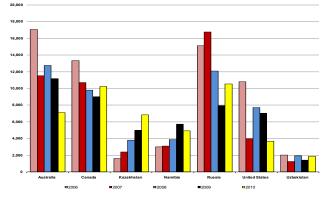
	Deliveri	es in 2006	Deliver	ies in 2007	Deliveri	es in 2008	Deliver	ies in 2009	Deliver	ies in 2010
Origin Country	Purchases	Weighted- Average Price								
Australia	17,052	21.23	11,507	30.35	12,758	41.59	11,164	52.25	7,112	51.35
Brazil	822	19.61	W	W	W	W	W	W	W	W
Canada	13,325	17.61	10,717	32.89	9,791	48.72	8,975	42.25	10,238	50.35
China	W	W	0		0		0		0	
Czech Republic	W	W	347	77.02	W	W	W	W	W	W
Germany	0		0		0		0		W	W
Hungary	0		0		0		0		W	W
Kazakhstan	1,628	25.74	2,407	57.36	3,818	60.61	4,985	43.41	6,830	47.81
Kyrgyzstan	0		W	W	0		0		0	
Malawi	0		0		0		0		W	W
Namibia	3,009	18.46	3,115	25.24	3,880	54.79	5,732	47.30	4,913	47.90
Niger	W	W	W	W	W	W	2,001	47.55	587	49.00
Russia	15,116	16.34	16,766	32.04	12,080	27.64	7,938	37.98	10,544	50.28
South Africa	725	20.69	W	W	783	27.50	W	W	W	W
Ukraine	W	W	W	W	0		0		W	W
United Kingdom	W	W	0		W	W	0		0	
Uzbekistan	2,020	15.89	1,263	24.42	1,923	56.06	1,424	46.65	1,865	48.57
Total Foreign	55,732	18.75	47,011	33.05	45,633	43.47	42,777	45.35	42,895	49.64
United States	10,807	17.85	3,973	28.89	7,720	59.55	7,053	48.92	3,687	45.25
Total Purchases	66,539	18.61	50,983	32.78	53,353	45.88	49,830	45.86	46,582	49.29

W = Data withheld to avoid disclosure of individual company data. -- = Not applicable.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

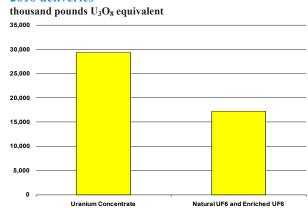
 $Source: U.S.\ Energy\ Information\ Administration: Form\ EIA-858\ "Uranium\ Marketing\ Annual\ Survey"\ (2006-2010).$ 

Figure 5. Uranium purchased by owners and operators of U.S. civilian nuclear reactors by selected origin country and delivery year, 2006-2010



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

# Figure 6. Uranium purchased by owners and operators of U.S. nuclear reactors by material type, 2010 deliveries



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

# Table 4. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and material type, 2010 deliveries

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

Deliveries	Uranium Concentrate	Natural UF6	Enriched UF6	Natural UF6 and Enriched UF6	Total
U.SOrigin Uranium					
Purchases	W	W	W	W	3,687
Weighted-Average Price	W	W	W	W	45.25
Foreign-Origin Uranium					
Purchases	W	W	W	W	42,895
Weighted-Average Price	W	W	W	W	49.64
Total					
Purchases	29,352	W	W	17,230	46,582
Weighted-Average Price	48.89	W	W	50.00	49.29

W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Natural UF<sub>6</sub> is uranium hexafluoride. The natural UF<sub>6</sub> and enriched UF<sub>6</sub> quantity represents only the U<sub>3</sub>O<sub>8</sub> equivalent uranium-component quantity specified in the contract for each delivery of natural UF<sub>6</sub>, and enriched UF<sub>6</sub>, equivalent uranium-component price specified in the contract for each delivery of natural UF<sub>6</sub> and enriched UF<sub>6</sub>, and enriched UF<sub>6</sub>, and does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

## Table 5. Average price and quantity for uranium purchased by owners and operators of U.S. civilian nuclear power reactors by pricing mechanisms and delivery year, 2009-2010

dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent; thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

	Domestic Purchase	s <sup>1</sup>	Foreign Purchases <sup>2</sup>		Total Purch	ases
Pricing Mechanisms	2009	2010	2009	2010	2009	2010
Contract-Specified (Fixed and Base-Esc	calated) Pricing					
Weighted-Average Price	41.96	42.03	35.34	45.75	38.76	43.78
Quantity with Reported Price	13,162	10,783	12,332	9,557	25,494	20,341
Spot-Market Pricing						
Weighted-Average Price	45.45	46.44	56.12	51.51	54.44	50.32
Quantity with Reported Price	1,304	1,433	6,986	4,667	8,290	6,100
Other Pricing						
Weighted-Average Price	57.85	52.02	52.09	55.37	53.01	54.69
Quantity with Reported Price	2,458	4,004	12,921	15,615	15,380	19,620
All Pricing Mechanisms						
Weighted-Average Price	44.53	44.88	46.55	51.69	45.86	49.29
Quantity with Reported Price	16,924	16,220	32,239	29,839	49,163	46,060
Total Quantity	17,591	16,220	32,239	30,362	49,830	46,582

<sup>&</sup>lt;sup>1</sup> A uranium purchase of both U.S. origin uranium or from a firm located in the United States

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-2010).

<sup>&</sup>lt;sup>2</sup> A uranium purchase of foreign-origin uranium from a firm located outside of the United States.

Table 6a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by quantity, 2008-2010 deliveries

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

	Deliveries in 20	08	Deliveries in 2	2009	Deliveries in	2010
Quantity Distribution <sup>1</sup>	Quantity with Reported Price	Weighted- Average Price	Quantity with Reported Price	Weighted- Average Price	Quantity with Reported Price	Weighted- Average Price
First	6,438	11.40	6,145	17.84	5,757	31.91
Second	6,438	17.55	6,145	31.26	5,757	40.66
Third	6,438	28.99	6,145	39.57	5,757	43.60
Fourth	6,438	37.64	6,145	43.80	5,757	45.34
Fifth	6,438	48.20	6,145	46.71	5,757	47.89
Sixth	6,438	61.43	6,145	53.67	5,757	54.28
Seventh	6,438	72.14	6,145	62.46	5,757	60.21
Eighth	6,438	89.71	6,145	71.56	5,757	70.44
Total	51,506	45.88	49,163	45.86	46,060	49.29

<sup>&</sup>lt;sup>1</sup> Distribution divides total quantity of uranium delivered (with a price) into eight distributions by price (sorted from lowest to highest) and provides the quantity-weighted average price for each distribution

Table 6b. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by purchaser, 2008-2010 deliveries

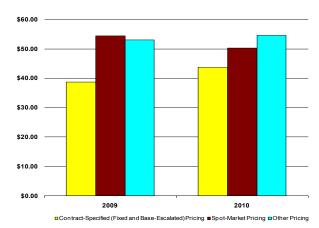
thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

	I	Deliveries in 2008			Deliveries in 2009	)		Deliveries in 201	0
Distribution of Purchasers	Number of Purchasers	Quantity with Reported Price	Weighted- Average Price	Number of Purchasers	Quantity with Reported Price	Weighted- Average Price	Number of Purchasers	Quantity with Reported Price	Weighted- Average Price
First	8	12,998	28.20	9	18,835	35.28	9	5,650	40.28
Second	8	12,968	40.79	8	10,173	44.42	9	21,274	45.77
Third	8	15,684	51.33	8	11,270	50.19	8	11,944	51.64
Fourth	8	9,855	67.23	8	8,886	64.44	8	7,192	62.88
Total	32	51,506	45.88	33	49,163	45.86	34	46,060	49.29

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2008-2010).

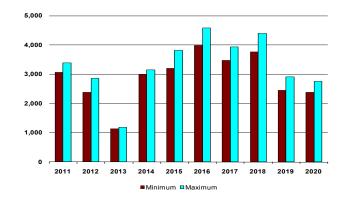
Figure 7. Average price for uranium purchased by owners and oprators of U.S. civilian nuclear power reactors by pricing mechanisms and delivery year, 2009-2010

dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Figure 8. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in 2010, by delivery year, 2011-2020 thousand pounds  $U_3O_8$  equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2008-2010).

# Table 7. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by contract type and material type, 2010 deliveries

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

	Spot Contracts	1	Long-Term Contracts <sup>2</sup>		Total		
Material Type	Quantity with Reported Price	Weighted- Average Price	Quantity with Reported Price	Weighted- Average Price	Quantity with Reported Price	Weighted- Average Price	
_U <sub>3</sub> O <sub>8</sub>	4,338	44.72	25,014	49.61	29,352	48.89	
Natural UF <sub>6</sub>	W	W	W	W	W	W	
Enriched UF <sub>6</sub>	W	W	W	W	W	W	
Natural UF <sub>6</sub> and Enriched UF <sub>6</sub>	3,829	43.17	12,879	52.03	16,707	50.00	
_Total	8,167	43.99	37,893	50.43	46,060	49.29	

 $<sup>\</sup>ensuremath{\mathsf{W}}$  = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. UF<sub>6</sub> is uranium hexafluoride. The natural UF<sub>6</sub> and enriched UF<sub>6</sub> quantity represents only the  $U_3O_8$  equivalent uranium-component quantity specified in the contract for each delivery of natural UF<sub>6</sub>, and enriched UF<sub>6</sub>, The natural UF<sub>6</sub> and enriched UF<sub>6</sub>, weighted-average price represent only the  $U_3O_8$  equivalent uranium-component price specified in the contract for each delivery of natural UF<sub>6</sub>, and enriched UF<sub>6</sub>, and does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

### Table 8. Contracts signed in 2010 by owners and operators of U.S. civilian nuclear power reactors by contract type thousand pounds $U_3O_8$ equivalent; dollars per pound $U_3O_8$ equivalent

Purchase Contract Type (Signed in 2010)	Quantity of Deliveries Received in 2010	Weighted- Average Price	Number of Purchase Contracts for Deliveries in 2010
Spot	5,957	43.17	31_
Long-Term	573	43.69	4
Total	6,530	43.22	35

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

# Table 9. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in 2010, by delivery year, 2011-2020

thousand pounds  $U_3O_8$  equivalent

Year of Delivery	Minimum	Maximum
2011	3,067	3,389
2012	2,388	2,861_
2013	1,132	1,191
2014	2,998	3,157
2015	3,211	3,812
2016	3,989	4,592
2017	3,484	3,946
2018	3,771	4,393
2019	2,447	2,906
2020	2,390	2,763
Total	28,878	33,010

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

<sup>&</sup>lt;sup>1</sup> A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

<sup>&</sup>lt;sup>2</sup> One or more deliveries to occur after a year following contract execution (signed date).

Table 10. Contracted purchases of uranium from suppliers by owners and operators of U.S. civilian nuclear power reactors, in effect at the end of 2010, by delivery year, 2011-2020

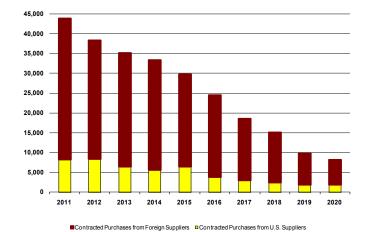
	Contracted Purchases from	m U.S. Suppliers	Contracted Purchase Supplier		Contracted Purchases fro	om All Suppliers
Year of Delivery	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
2011	8,197	8,253	34,649	35,755	42,847	44,008
2012	8,113	8,373	29,018	30,038	37,131	38,411
2013	6,273	6,424	28,084	28,826	34,358	35,250
2014	5,366	5,617	26,694	27,884	32,060	33,501
2015	6,079	6,409	22,238	23,493	28,317	29,901
2016	3,558	3,868	19,392	20,738	22,950	24,606
2017	2,672	2,964	15,057	15,693	17,728	18,657
2018	2,249	2,464	11,956	12,712	14,205	15,176
2019	1,761	1,921	7,361	8,010	9,122	9,931
2020	1,761	1,921	5,828	6,391	7,589	8,312
Total	46,030	48,213	200,277	209,539	246,307	257,753

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

Figure 9. Maximum contracted purchases of uranium from suppliers by owners and operators of U.S. civilian nuclear power reactors, in effect at the end of 2010, by delivery year, 2011-2020

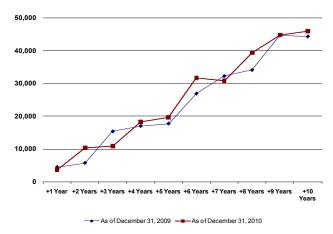
thousand pounds U3O8 equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2010).

Figure 10. Annual unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, as of 12/31/2009 and 12/31/2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey"

Table 11. Unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2010-2020

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

Year	As of December 31, 200	9	As of December 31, 20	010
	Annual	Cumulative	Annual	Cumulative
2010	4,425	4,425	-	
2011	5,688	10,113	3,658	3,658
2012	15,342	25,455	10,326	13,983
2013	16,988	42,443	10,860	24,844
2014	17,725	60,167	18,232	43,076
2015	26,892	87,059	19,672	62,748
2016	32,238	119,297	31,673	94,421
2017	34,113	153,409	30,819	125,240
2018	44,661	198,070	39,352	164,592
2019	44,374	242,444	44,836	209,428
2020	· -	·	45,907	255,336

- = No data reported. -- = Not applicable.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2009-2010).

Table 12. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2011-2020, as of December 31, 2010

Year	Maximum Under Purchase Contracts	Unfilled Market Requirements	Maximum Anticipated Market Requirements	Enrichment Feed Deliveries
2011	44,008	3,658	47,666	48,298
2012	38,411	10,326	48,736	53,752
2013	35,250	10,860	46,110	51,269
2014	33,501	18,232	51,733	56,229
2015	29,901	19,672	49,573	50,915
2016	24,606	31,673	56,279	57,108
2017	18,657	30,819	49,476	51,346
2018	15,176	39,352	54,528	55,175
2019	9,931	44,836	54,767	54,698
2020	8,312	45,907	54,219	53,039
Total	257,753	255,336	513,088	531,829

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2010).

Table 13. Deliveries of uranium feed by owners and operators of U.S. civilian nuclear power reactors by enrichment country and delivery year, 2008-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

	Fe	ed Deliveries in 2008	3	Feed Deliveries in 2009			Fe	Feed Deliveries in 2010		
<b>Enrichment Country</b>	U.SOrigin	Foreign-Origin	Total	U.SOrigin	Foreign-Origin	Total	U.SOrigin	Foreign-Origin	Total	
France	W	W	3,116	W	W	3,391	0	2,831	2,831	
Germany	W	W	W	W	W	W	0	W	W	
Netherlands	W	W	2,079	W	W	2,262	W	W	W	
Russia	0	W	W	0	W	W	0	2,112	2,112	
United Kingdom	W	W	5,658	249	6,142	6,392	W	W	4,353	
Europe <sup>1</sup>	W	W	5,662	1,044	5,824	6,868	0	5,367	5,367	
Other <sup>2</sup>	0	W	W	0	W	W	0	0	0	
Foreign Total	1,496	18,581	20,077	1,721	22,984	24,705	W	W	19,372	
United States	4,243	19,038	23,280	5,347	21,827	27,173	W	W	26,095	
Total	5,738	37.619	43,357	7,068	44,811	51.878	3,245	42,223	45,468	

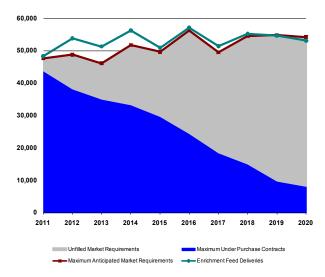
<sup>&</sup>lt;sup>1</sup> Specific country in Europe was not reported.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2008-2010).

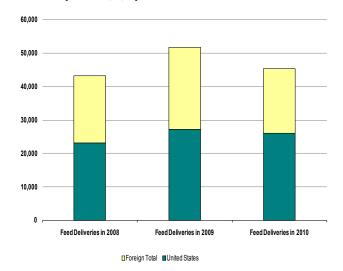
Figure 11. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2011-2020

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2010).

Figure 12. Deliveries of uranium feed for U.S. and foreign enrichment by owners and operators of U.S. civilian nuclear power reactors, 2008-2010 thousand pounds  $U_3O_8$  equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2009-2010).

<sup>&</sup>lt;sup>2</sup> Specific country was not reported.

W = Data withheld to avoid disclosure of individual company data.

Table 14. Deliveries of uranium feed for enrichment by owners and operators of U.S. civilian nuclear power reactors by origin country and delivery year, 2008-2010

	De	liveries in 2008		D	Deliveries in 2009		ı	Deliveries in 2010	
Origin Country of Feed	U.S. Enrichment	Foreign Enrichment	Total	U.S. Enrichment	Foreign Enrichment	Total	U.S. Enrichment	Foreign Enrichment	Total
Australia	3,879	5,790	9,669	3,005	6,845	9,850	2,646	2,451	5,097
Brazil	0	0	0	W	W	W	W	0	W
Canada	1,536	9,514	11,050	3,889	8,136	12,025	4,454	5,857	10,311
China	0	W	W	0	0	0	W	0	W
Czech Republic	0	W	W	0	0	0	W	0	W
Kazakhstan	1,027	524	1,551	1,492	2,068	3,561	2,532	2,887	5,418
Namibia	W	W	976	W	W	1,991	1,545	1,309	2,854
Niger	0	0	0	0	1,315	1,315	W	W	3,030
Russia	11,055	1,597	12,652	11,453	2,531	13,983	10,817	3,357	14,174
South Africa	W	W	382	W	W	W	W	W	W
United Kingdom	W	0	W	0	0	0	W	0	W
Uzbekistan	W	W	911	512	1,127	1,639	219	800	1,019
unknown	0	W	W	0	0	0	0	0	0
Foreign Total	19,038	18,581	37,619	21,827	22,984	44,811	W	W	42,223
United States	4,243	1,496	5,738	5,347	1,721	7,068	W	W	3,245
Total	23,280	20,077	43,357	27,173	24,705	51,878	26,095	19,372	45,468

W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Table 15. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2011-2020

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

	Amount of Feed to be Shi	pped	Change from 2009 to 20	010
Year of Shipment	As of December 31, 2009	As of December 31, 2010	Annual	Cumulative
2011	49,621	48,298	-1,323	-1,323
2012	52,712	53,752	1,040	-283
2013	55,712	51,269	-4,443	-4,726
2014	48,746	56,229	7,483	2,757
2015	52,020	50,915	-1,105	1,652
2016	53,686	57,108	3,422	5,074
2017	51,217	51,346	129	5,203
2018	56,379	55,175	-1,204	3,999
2019	51,575	54,698	3,123	7,122
2020	-	53,039		

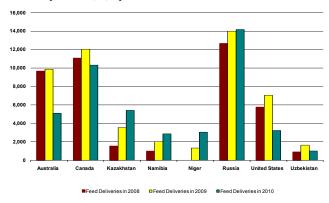
<sup>- =</sup> No data reported. -- = Not applicable.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-2010).

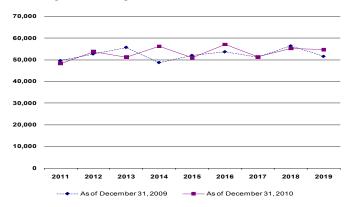
Figure 13. Deliveries of uranium feed for enrichment by owners and operators of U.S. civilian nuclear power reactors by selected origin country of feed and delivery year, 2008-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2008-2010).

Figure 14. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2011-2019 thousand pounds  $U_3O_8$  equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2009-2010).

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2008-2010).

Table 16. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by origin country and year, 2006-2010

thousand separative work units (SWU)

Country of Enrichment Service (SWU-origin)	2006	2007	2008	2009	2010
China	W	0	0	0	0
France	2,154	613	556	895	W
Germany	818	681	468	1,059	681
Netherlands	960	1,703	1,038	1,345	2,292
Russia	4,724	6,176	4,793	5,478	5,055
United Kingdom	2,000	1,939	2,195	2,940	2,119
Europe <sup>1</sup>	W	W	W	W	W
Other <sup>2</sup>	W	W	W	W	W
Foreign Total	11,808	12,729	10,709	13,115	11,526
United States	1,630	1,473	1,890	4,102	2,251
Total	13,437	14,202	12,599	17,217	13,776
Average Price (US\$ per SWU)	106.57	114.58	121.33	130.78	136.14

<sup>&</sup>lt;sup>1</sup>Specific country in Europe was not reported.

Notes: Totals may not equal sum of components because of independent rounding. Average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2006-2010).

## Table 17. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by contract type in delivery year, 2010

thousand separative work units (SWU)

Enrichment	Service	Contract	
Type			

Туре	U.S. Enrichment	Foreign Enrichment	Total
Spot	W	W	714
Long-Term	W	W	13,063
_Total	2,251	11,526	13,776_

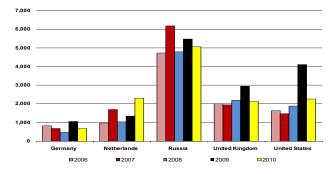
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010).

Figure 15. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by origin country and year, 2006-2010

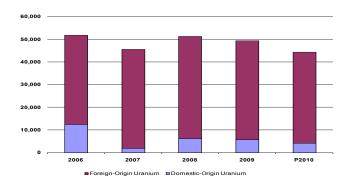
#### thousand separative work units (SWU)



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

# Figure 16. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2006-2010

#### thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2007-2010).

Table 18. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2006-2010 thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

Origin of Uranium	2006	2007	2008	2009	P2010
Domestic-Origin Uranium	12,327	1,840	6,228	5,588	4,119
Foreign-Origin Uranium	39,373	43,659	45,040	43,766	40,187
Total	51,700	45,498	51,268	49,354	44,306

P = Preliminary data. Final 2009 fuel assembly data reported in the 2010 survey.

Notes: Includes only unirradiated uranium in new fuel assemblies loaded into reactors during the year. Does not include uranium removed from reactors that subsequently will be reloaded. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2007-2010).

<sup>&</sup>lt;sup>2</sup> Specific country was not reported.

W = Data withheld to avoid disclosure of individual company data.

## Table 19. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2006-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

Deliveries	2006	2007	2008	2009	2010
U.S. Suppliers					
Foreign Purchases	26,137	21,572	24,139	26,661	24,985
Weighted-Average Price	20.28	36.59	33.30	34.80	41.30
Owners and Operators of U.S. Civilian Nuclear Power Reactors					
Foreign Purchases	38,666	32,517	32,936	32,239	30,362
Weighted-Average Price	18.66	32.58	47.46	46.55	51.69
Total					
Foreign Purchases	64,803	54,089	57,074	58,900	55,347
Weighted-Average Price	19.31	34.18	41.30	41.23	47.01

Notes: Totals may not equal sum of components because of independent rounding. Foreign Purchase: A uranium purchase of foreign-origin uranium from a firm located outside of the United States. Weighted-average prices are not adjusted for inflation.

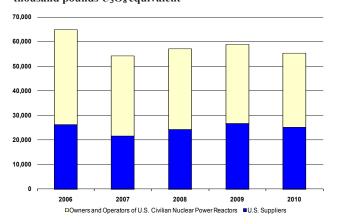
Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2006-2010).

Table 20. U.S. broker and trader purchases of uranium by origin, supplier, and delivery year, 2006-2010 thousand pounds  $U_3O_8$  equivalent; dollars per pound  $U_3O_8$  equivalent

Deliveries	2006	2007	2008	2009	2010
Received U.SOrigin Uranium		'			
Purchases	3,105	1,996	3,009	2,189	2,226
Weighted-Average Price	40.38	94.56	66.14	49.11	43.36
Received Foreign-Origin Uranium					
Purchases	26,901	20,046	24,861	29,568	27,186
Weighted-Average Price	23.99	45.00	38.78	35.96	41.42
Total Received by U.S. Brokers and Traders					
Purchases	30,006	22,042	27,871	31,757	29,412
Weighted-Average Price	25.68	49.49	41.73	36.87	41.57
Received from Foreign Suppliers					
Purchases	24,047	18,885	21,347	26,841	24,693
Weighted-Average Price	21.61	39.88	35.39	34.88	41.23

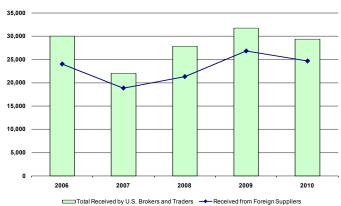
Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2006-2010).

Figure 17. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2006-2010 thousand pounds  $U_3O_8$  equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Figure 18. U.S. broker and trader purchases of uranium by supplier, and delivery year, 2006-2010 thousand pounds  $U_3O_8$  equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010)

Table 21. Foreign sales of uranium from U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2006-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent; dollars per pound U<sub>3</sub>O<sub>8</sub> equivalent

Deliveries to Foreign Suppliers and Utilities	2006	2007	2008	2009	2010
U.SOrigin Uranium					
Foreign Sales	6,315	4,106	4,531	5,801	3,440
Weighted-Average Price	32.03	36.22	46.36	41.43	37.82
Foreign-Origin Uranium					
Foreign Sales	12,432	10,668	12,709	17,688	19,708
Weighted-Average Price	33.30	62.88	45.36	41.50	43.66
Total Sent:					
Foreign Sales	18,746	14,774	17,240	23,489	23,147
Weighted-Average Price	32.87	55.47	45.62	41.48	42.78
From Owners and Operators of U.S. Civilian Nuclear Power Reacto	rs, U.S. Producers, other U.S. Suppliers	, (and U.S. Government	t for 2006)		
Foreign Sales	8,090	W	4,202	6,229	6,459
Weighted-Average Price	37.25	W	40.04	37.11	38.13
From U.S. Brokers and Traders					
Foreign Sales	10,656	W	13,038	17,260	16,688
Weighted-Average Price	29.55	W	47.42	43.06	44.63

W = Data withheld to avoid disclosure of individual company data.

Notes: "Other U.S. Suppliers" are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Foreign sale: A uranium sale to a firm located outside the United States. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2006-2010).

Table 22. Inventories of natural and enriched uranium as of end of year, 2006-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent

	Inventories at the End of the Year					
Type of Uranium Inventory	2006	2007	2008	2009	P2010	
Owners and Operators of U.S. Civilian Nuclear Power Reactors						
Inventories	77,484	81,227	82,972	84,757	86,528	
Natural Uranium	54,251	55,927	58,810	53,557	48,838	
Enriched Uranium	23,233	25,301	24,162	31,201	37,690	
U.S. Supplier Inventories	29,107	31,156	27,010	26,774	25,747	
Natural Uranium	W	W	W	W	W	
Enriched Uranium	W	W	W	W	W	
Total Commercial Inventories	106 591	112 384	109 983	111 531	112 274	

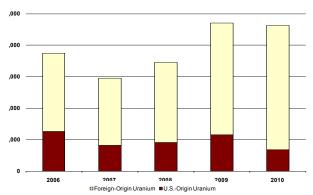
P = Preliminary data. Final 2009 inventory data reported in the 2010 survey.

Notes: Natural uranium includes uranium concentrate ( $\dot{U}_3O_8$ ) and natural uranium hexafluoride (UF<sub>6</sub>). Enriched uranium includes enriched uranium hexafluoride (UF<sub>6</sub>) and fabricated fuel not inserted into a reactor. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2007-2010).

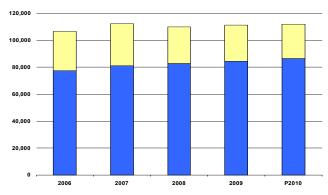
Figure 19. Foreign sales of uranium from U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2006-2010

#### thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



Source: U.S. Energy Information Administration: Form EIA-858, "Uranium Marketing Annual Survey" (2006-2010).

Figure 20. Commercial inventories of natural and enriched uranium as of end of year, 2006-2010 thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



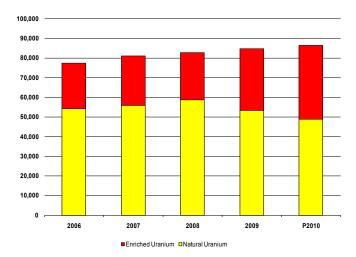
□U.S. Supplier Inventories ■Owners and Operators of U.S. Civilian Nuclear Power Reactors Inventories

P=Preliminary data. Final 2009 inventory data reported in the 2010 survey.

Source: U.S. Energy Information Administration: Form EIA-858. Uranium Marketing Annual Survey" (2007-2010).

W = Data withheld to avoid disclosure of individual company data.

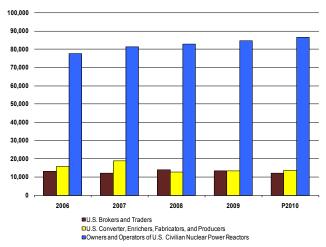
Figure 21. Owners and operators of U.S. civilian nuclear power reactors inventories by material type as of end of year, 2006-2010



P=Preliminary data. Final 2009 inventory data reported in the 2010 survey. Source: U.S. Energy Information Administration: Form EIA-858. Uranium Marketing Annual Survey" (2007-2010).

Figure 22. Commercial inventories of natural and enriched uranium by owner as of end of year, 2006-2010

thousand pounds U<sub>3</sub>O<sub>8</sub> equivalent



P=Preliminary data. Final 2009 inventory data reported in the 2010 survey. Source: U.S. Energy Information Administration: Form EIA-858. Uranium Marketing Annual Survey" (2007-2010).

Income and a second of Value

Table 23. Inventories of uranium by owner as of end of year, 2006-2010

thousand pounds  $U_3O_8$  equivalent

		Inventories	at the End of Ye	ear	
Owner of Uranium Inventory	2006	2007	2008	2009	P2010
Owners and Operators of U.S. Civilian Nuclear Power Reactors	77,484	81,227	82,972	84,757	86,528
U.S. Brokers and Traders	13,180	12,114	14,104	13,362	12,141
U.S. Converter, Enrichers, Fabricators, and Producers	15,927	19,043	12,907	13,412	13,606
Total Commercial Inventories	106,591	112,384	109,983	111,531	112,274

P = Preliminary data. Final 2009 inventory data reported in the 2010 survey.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2007-2010).

Table 24. Uranium sellers to owners and operators of U.S. civilian nuclear power reactors, 2008-2010

2008	2009	2010
223 Capital, LLC	American Fuel Resources, LLC	American Fuel Resources, LLC
American Fuel Resources, LLC	AREVA NC, Inc. (was COGEMA, Inc.)	AREVA NC, Inc. (was COGEMA, Inc.)
AREVA NC, Inc. (was COGEMA, Inc.)	CAMECO	BHP Billiton Olympic Dam Corporation Pty Ltd
BHP Billiton	ConverDyn	CAMECO
CAMECO	Denison Mines Corp.	ConverDyn
ConverDyn	Energy Resources of Australia Ltd.	Denison Mines Corp.
Energy Resources of Australia Ltd.	Energy USA, Inc.	Energy Resources of Australia Ltd.
Energy USA, Inc.	FPL Energy Point Beach, LLC	Energy USA, Inc.
FPL Energy Point Beach, LLC	GNSS (Globe Nuclear Services and Supply Ltd.)	GNSS (Globe Nuclear Services and Supply Ltd.)
GNSS (Globe Nuclear Services and Supply Ltd.)	Heathgate Resources Pty. Ltd.	INTERNEXCO GmbH
Heathgate Resources Pty. Ltd.	INTERNEXCO GmbH	Itochu Corporation / Itochu International
INTERNEXCO GmbH	Itochu Corporation / Itochu International	Mestena Uranium LLC
Itochu Corporation / Itochu International	Mestena Uranium LLC	Nufcor International Limited
Mestena Uranium LLC	MTM Trading, LLC	NUKEM, Inc. / NULUX (NUKEM Luxemburg GmbH)
MTM Trading, LLC	New Power Systems Limited	Paladin Resources Limited / Paladin Energy
New Power Systems Limited	Nufcor International Limited	Rossing Uranium Limited
Nuclear Fuels Corporation of South Africa	NUKEM, Inc.	SOPAMIN (Société de Patrimoine des Mines du Niger "Heritage Society of Mines in Niger")
Nufcor International Limited / Nufcor Uranium Ltd.	Paladin Resources Limited	Traxys North America, LLC
NUKEM, Inc.	Piney Branch Park, Inc.	UG U.S.A., Inc.
Paladin Resources Limited	Rossing Uranium Limited SOPAMIN (Société de Patrimoine des Mines du Niger "Heritage	Uranium Asset Management
Rio Grande Resources / Nuclear Fuels Corporation	Society of Mines in Niger")	Uranium One / Uranium One Africa Limited
Rossing Uranium Limited	Traxys North America, LLC	UrAsia Energy Ltd.
	Haxys North America, ELC	OTASia Elicigy Eta.
SOPAMIN (Société de Patrimoine des Mines du Niger "Heritage Society of Mines in Niger")	UG U.S.A., Inc.	USEC, Inc. (United States Enrichment Corporation)
TENEX (Techsnabexport)	Uranium One / Uranium One Africa Limited	OSEC, IIIC. (Officed States Efficient Corporation)
Traxys Group / Traxys North America, LLC	UrAsia Energy Ltd.	
UG U.S.A., Inc.	URENCO, Inc.	
Uranium Asset Management	USEC, Inc. (United States Enrichment Corporation)	
Uranium One / Uranium One Africa Limited	Westinghouse Electric Company	
UrAsia Energy Ltd.	WMC (Olympic Dam Corporation) Ptv Ltd.	
URENCO, Inc.	TTING (Olympic Buill Corporation) I ty Etu.	
USEC, Inc. (United States Enrichment Corporation)		
Westinghouse Electric Company		
WMC (Olympic Dam Corporation) Pty Ltd.		
TTTTO (OTJ. III PIC Dail Comportation) T ty Eta.		

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual survey" (2008-2010)

Table 25. Enrichment service sellers to owners and operators of U.S. civilian nuclear power reactors, 2008-2010

2008	2009	2010
AREVA NC, Inc. (was COGEMA, Inc.)	AREVA NC, Inc. (was COGEMA, Inc.)	AREVA NC, Inc. (was COGEMA, Inc.)
TENEX (Techsnabexport)	Global Nuclear Fuel (GNF)	LES, LLC (Louisiana Energy Services)
URENCO, Inc.	LES (Louisiana Energy Services)	NUKEM, Inc.
USEC, Inc. (United States Enrichment Corporation)	NUKEM, Inc.	UG U.S.A., Inc.
Westinghouse Electric Company	URENCO, Inc.	URENCO, Inc.
	USEC, Inc. (United States Enrichment Corporation)	USEC, Inc. (United States Enrichment Corporation)
	Westinghouse Electric Company	Westinghouse Electric Company

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2008-2010).