

2013 Uranium Marketing Annual Report

May 2014















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Contacts

This report was prepared by the staff of the Renewables and Uranium Statistics Team, Office of Electricity, Renewables, and Uranium Statistics. Questions about the preparation and content of this report may be directed to InfoNuclearData@eia.gov.

Preface

The U.S. Energy Information Administration (EIA) reports detailed data spanning 2009 through 2013 and summary data back to 1994 on uranium marketing activities in the United States in this report, 2013 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.gov/tools/glossary/.

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Uranium Purchases and Prices

Owners and operators of U.S. civilian nuclear power reactors ("civilian owner/operators" or "COOs") purchased a total of 57 million pounds U_3O_8e (equivalent¹) of deliveries from U.S. suppliers and foreign suppliers during 2013, at a weighted-average price of \$51.99 per pound U_3O_8e . The 2013 total of 57 million pounds U_3O_8e decreased slightly compared with the 2012 total of 58 million pounds U_3O_8e . The 2013 weighted-average price of \$51.99 per pound U_3O_8e decreased 5% compared with the 2012 weighted-average price of \$54.99 per pound U_3O_8e .

Seventeen percent of the 57 million pounds U_3O_8e delivered in 2013 was U.S.-origin uranium at a weighted-average price of \$56.37 per pound. Foreign-origin uranium accounted for the remaining 83% of deliveries at a weighted-average price of \$51.13 per pound. Uranium originating in Kazakhstan, Russia and Uzbekistan accounted for 35% of the 57 million pounds. Australian-origin and Canadian-origin uranium together accounted for 32%. The remaining 16% originated from Brazil, China, Czech Republic, Germany, Hungary, Malawi, Namibia, Niger, Portugal, and South Africa.

COOs purchased uranium of three material types for 2013 deliveries from 33 sellers, one more than in 2012. Uranium concentrate was 55% of the 57 million pounds U_3O_8e delivered in 2013. Natural UF $_6$ was 33% and enriched UF $_6$ was 12%. During 2013, 20% of the uranium was purchased under spot contracts at a weighted-average price of \$43.83 per pound. The remaining 80% was purchased under long-term contracts at a weighted-average price of \$54.00 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 are 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 2013, COOs signed 58 new purchase contracts with deliveries in 2013 of 8 million pounds U_3O_8e at a weighted-average price of \$39.63 per pound. Fifty-five were new spot contracts of 7 million pounds at a weighted-average price of \$39.35 per pound. Three were new long-term contracts of less than 1 million pounds at a weighted-average price of \$43.20 per pound.

COOs report minimum and maximum quantities of future deliveries under contract, to allow for the option of either decreasing or increasing quantities. As of the end of 2013, the maximum uranium deliveries for 2014 through 2023 under existing purchase contracts for COOs totaled 223 million pounds U_3O_8e . Also as of the end of 2013, unfilled uranium market requirements for 2014 through 2023 totaled 264 million pounds U_3O_8e . These contracted deliveries and unfilled market requirements combined represent the maximum anticipated market requirements of 487 million pounds U_3O_8e over the tenyear period for COOs.

¹ Uranium quantities are expressed in the unit of measure U_3O_8e (equivalent). U_3O_8e is uranium oxide (or uranium concentrate) and the equivalent uranium-component of uranium hexafluoride (UF₆) and enriched uranium.

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Uranium Feed, Enrichment Services, Uranium Loaded

In 2013, COOs delivered 47 million pounds U_3O_8e of natural uranium feed to U.S. and foreign enrichers. Fifty-nine percent of the feed was delivered to U.S. enrichment suppliers and the remaining 41% was delivered to foreign enrichment suppliers. Twelve million separative work units $(SWU)^2$ were purchased under enrichment services contracts from 10 sellers in 2013, one less than in 2012. The average price paid by the COOs for the 12 million SWU was \$142.22 per SWU in 2013, compared with the 2012 average price of \$141.36 per SWU. In 2013, the U.S.-origin SWU share was 31% and foreign-origin SWU accounted for the remaining 69%. Russian-origin SWU was 20% of the total. Germany, Netherlands, and the United Kingdom had an aggregate share of 45%.

Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors during 2013 contained 43 million pounds U_3O_8e , compared with 49 million pounds U_3O_8e loaded during 2012. Eight percent of the uranium loaded during 2013 was U.S.-origin uranium, and 92% 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. Together, foreign purchases totaled 57 million pounds U_3O_8e in 2013, and the weighted-average price was \$48.24 per pound U_3O_8e . Also, U.S. suppliers and COOs sold uranium to foreign suppliers. Together, foreign sales totaled 19 million pounds U_3O_8e in 2013, and the weighted-average price was \$42.75 per pound U_3O_8e .

Year-end commercial uranium inventories represent ownership of uranium in different stages of the nuclear fuel cycle (in-process 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 134 million pounds U_3O_8e as of the end of 2013. Commercial uranium inventories owned at the end of 2013 by COOs totaled 113 million pounds U_3O_8e , an increase of 16% from year-end 2012. Uranium inventories owned by U.S. brokers and traders were 8 million pounds U_3O_8e . U.S. converter, enrichers, fabricators and producers owned 13 million pounds U_3O_8e of inventories at the end of 2013.

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² Separative work unit (SWU): The standard measure of enrichment services. The effort expended in separating a mass F of feed of assay xf into a mass P of product assay xp and waste of mass W and assay xw is expressed in terms of the number of separative work units needed, given by the expression SWU = WV(xw) + PV(xp) - FV(xf), where V(x) is the "value function," defined as $V(x) = (1 - 2x) \ln((1 - x)/x)$.

Table S1a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2013

million pounds U₃O₈ equivalent

				Purchased from other					
			Bookhaard	owners and operators of					Ch - ···
		Purchased	Purchased from U.S.	U.S. civilian nuclear power reactors, other U.S.	Purchased				Short, medium, and
Delivery	Total	from U.S.	brokers and	suppliers, (and U.S.	from foreign	U.Sorigin	Foreign-origin	Spot contracts	long-term
year	purchased	producers	traders	government for 2007) 1	suppliers	uranium	uranium	2	contracts 3
1994	38.3	5.4	15.3	1.1	16.5	7.7	30.6	8.5	29.8
1995	43.4	5.3	16.2	0.6	21.4	5.2	38.2	13.6	29.8
1996	47.3	5.8	13.3	1.9	26.4	8.3	39.0	9.1	38.3
1997	42.0	5.7	9.9	3.0	23.4	8.1	33.9	5.5	36.5
1998	42.7	6.5	10.5	4.5	21.3	7.2	35.6	7.8	34.9
1999	47.9	5.2	10.4	5.6	26.8	11.4	36.5	8.0	40.0
2000	51.8	3.6	9.1	8.8	30.4	13.3	38.6	10.4	39.1
2001	55.4	2.3	11.7	11.4	30.0	13.2	42.2	14.4	40.0
2002	52.7	1.5	13.4	5.7	32.2	6.2	46.5	8.6	41.4
2003	56.6	0.6	10.5	8.3	37.2	10.2	46.4	8.2	46.7
2004	64.1	0.0	13.2	12.2	38.7	12.3	51.8	9.2	53.3
2005	65.7	W	10.4	W	39.4	11.0	54.7	6.9	58.8
2006	66.5	0.0	13.9	12.6	40.0	10.8	55.7	6.3	59.4
2007	51.0	0.0	9.8	7.6	33.5	4.0	47.0	6.6	43.7
2008	53.4	0.6	9.4	6.3	37.2	7.7	45.6	8.7	42.8
2009	49.8	W	11.1	W	36.8	7.1	42.8	8.1	41.0
2010	46.6	0.4	11.7	1.9	32.6	3.7	42.9	8.2	37.9
2011	54.8	0.6	14.8	1.1	38.4	5.2	49.6	12.0	42.3
2012	57.5	W	11.5	W	37.6	9.8	47.7	8.1	48.9
2013	57.4	W	12.8	W	37.4	9.5	47.9	11.3	46.1

^{- - =} 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.

Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 10, 11 and 16. 2003-2013-Form EIA-858, "Uranium Marketing Annual Survey".

¹ 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.

² Spot Contract: A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

³ Short, Medium, and Long-Term Contracts: One or more deliveries to occur after a year following contract execution (signed date).

Table S1b. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2013

dollars per pound U₃O₈ equivalent

Delivery	Total purchased (weighted-		Purchased	Purchased from other owners and operators of			Foreign-		medium, and
Delivery	purchased (weighted-		Durchased	owners and operators of					
Delivery	(weighted-		Durchacod	•		U.Sorigin	origin	Spot	long-term
Delivery	. •			U.S. civilian nuclear		uranium	uranium	contracts ²	contracts ³
Delivery		Purchased	from U.S.	power reactors, other	Purchased	(weighted-	(weighted-	(weighted-	(weighted-
yoor ,	average price)	from U.S. producers	brokers and traders	U.S. suppliers, (and U.S. government for 2007) ¹	from foreign suppliers	average price)	average price)	average price)	average price)
year		-	-						•
1994	10.40	13.72	9.34	8.04	10.43	12.08	9.97	9.01	NA
1995	11.25	14.84	9.83	12.52	11.40	14.20	10.84	10.30	NA
1996	14.12	14.20	13.36	14.98	14.45	14.62	14.02	14.22	NA
1997	12.88	13.60	12.31	W	12.91	13.36	12.78	11.61	NA
1998	12.14	13.61	11.95	W	11.97	13.37	11.90	10.56	NA
1999	11.63	13.93	11.54	W	11.47	12.24	11.47	9.52	NA
2000	11.04	14.81	11.28	10.45	10.65	11.52	10.88	8.54	11.70
2001	10.15	13.26	10.44	9.98	9.86	10.50	10.05	7.92	10.96
2002	10.36	13.03	10.21	W	10.37	10.89	10.29	9.29	10.58
2003	10.81	14.17	11.05	10.16	10.82	10.81	10.81	10.10	10.94
2004	12.61		12.08	11.30	13.15	11.87	12.76	14.77	12.24
2005	14.36	W	13.76	W	14.70	15.11	14.21	20.04	13.70
2006	18.61		20.49	W	18.62	17.85	18.75	39.48	16.38
2007	32.78		34.10	W	32.36	28.89	33.05	88.25	24.45
2008	45.88	75.16	39.62	W	48.49	59.55	43.47	66.95	41.59
2009	45.86	W	41.88	W	46.68	48.92	45.35	46.45	45.74
2010	49.29	47.13	44.98	42.24	51.30	45.25	49.64	43.99	50.43
2011	55.64	58.12	53.29	52.50	56.60	52.12	55.98	54.69	55.90
2012	54.99	W	54.44	W	54.40	59.44	54.07	51.04	55.65
2013	51.99	W	50.44	W	51.93	56.37	51.13	43.83	54.00

^{- - =} 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.

Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 10, 11 and 16. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".

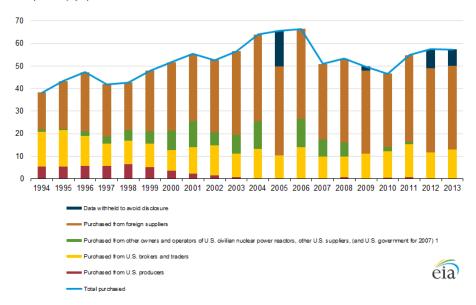
¹ Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers which are U.S. converters, enrichers, and fabricators.

² Spot Contract: A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

³ Short, Medium, and Long-Term Contracts: One or more deliveries to occur after a year following contract execution (signed date).

Figure S1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2013 deliveries

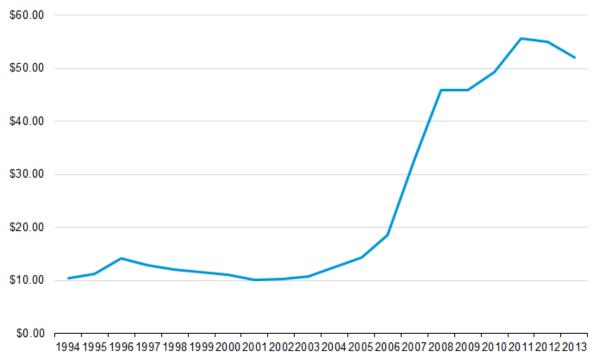




Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers which are U.S. converters, enrichers, and fabricators. Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-2013-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2013 deliveries

dollars per pound U₃O₈ equivalent



Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".



Table S2. Uranium feed deliveries, enrichment services, and uranium loaded by owners and operators of U.S. civilian nuclear power reactors, 1994-2013

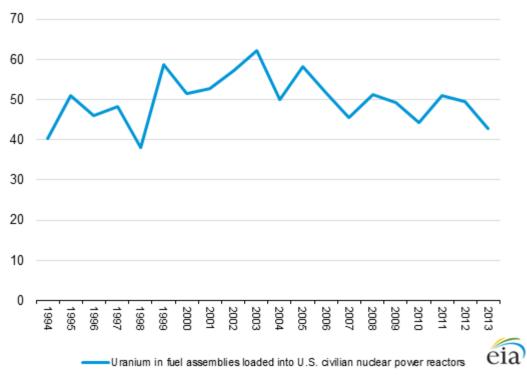
	Million pounds U	J ₃ O ₈ equivalent	Millior	Million separative work units (SWU)			
Year	Feed deliveries by owners and operators of U.S. civilian nuclear power reactors	Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors	U.Sorigin enrichment services purchased	Foreign-origin enrichment services purchased	Total purchased enrichment services	Average price (US\$ per SWU)	
1994	37.6	40.4	7.5	1.7	9.2	-	
1995	44.3	51.1	6.7	2.8	9.5	-	
1996	49.1	46.2	8.0	3.2	11.2	-	
1997	40.3	48.2	6.0	2.9	8.9	-	
1998	40.6	38.2	5.7	4.4	10.1	-	
1999	43.9	58.8	4.6	5.4	10.0	-	
2000	47.8	51.5	5.2	6.6	11.8	-	
2001	47.3	52.7	1.3	9.1	10.4	-	
2002	54.7	57.2	1.7	9.8	11.5	-	
2003	49.3	62.3	1.7	10.3	12.0	-	
2004	53.4	50.1	1.4	10.4	11.8	-	
2005	52.9	58.3	1.1	10.3	11.4	-	
2006	56.6	51.7	1.6	11.8	13.4	106.57	
2007	49.0	45.5	1.5	12.7	14.2	114.58	
2008	43.4	51.3	1.9	10.7	12.6	121.33	
2009	51.9	49.4	4.1	13.1	17.2	130.78	
2010	45.5	44.3	2.3	11.5	13.8	136.14	
2011	51.3	50.9	2.4	12.4	14.8	136.12	
2012	52.1	49.5	3.3	12.3	15.6	141.36	
2013	47.4	42.9	3.9	8.5	12.3	142.22	

^{- =} No data reported.

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

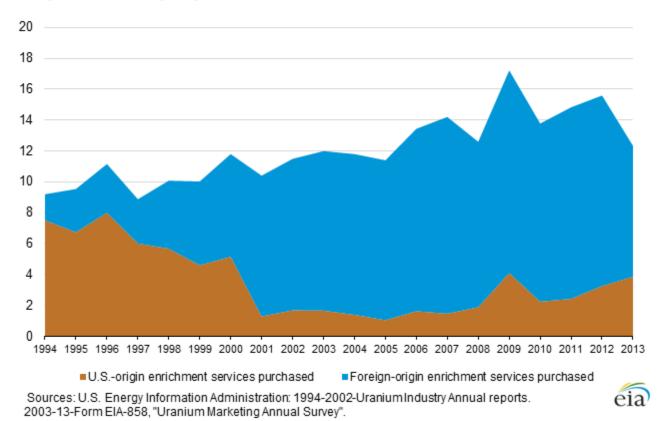
Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 22, 23, 25, and 27. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S3. Uranium loaded into U.S. civilian nuclear power reactors, 1994-2013 million pounds U_3O_8 equivalent



Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S4. Uranium enrichment services purchased by owners and operators of U.S. civilian nuclear power reactors, 1994-2013 million separative work units (SWU)



U.S. Energy Information Administration | 2013 Uranium Marketing Annual Report

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, 1994-2013

Delivery year	Foreign purchases by U.S. suppliers	Foreign Purchases by owners and operators of U.S. civilian nuclear power reactors	Total foreign purchases	U.S. broker and trader purchases from foreign suppliers	Foreign sales	U.S. supplier owned uranium inventories	Owners and operators of U.S. civilian nuclear power reactors owned uranium inventories	Total commercial uranium inventories
1994	21.1	15.5	36.6	22.3	17.7	21.5	65.4	86.9
1995	20.2	21.1	41.3	18.3	9.8	13.7	58.7	72.5
1996	21.7	23.7	45.4	17.8	11.5	13.9	66.1	80.0
1997	20.4	22.5	43.0	15.7	17.0	40.4	65.9	106.2
1998	22.6	21.1	43.7	21.7	15.1	70.7	65.8	136.5
1999	21.0	26.6	47.6	19.2	8.5	68.8	58.3	127.1
2000	17.4	27.5	44.9	15.8	13.6	56.5	54.8	111.3
2001	18.7	28.0	46.7	18.3	11.7	48.1	55.6	103.8
2002	22.7	30.0	52.7	18.6	15.4	48.7	53.5	102.1
2003	18.2	34.9	53.0	15.8	13.2	39.9	45.6	85.5
2004	30.2	35.9	66.1	26.4	13.2	37.5	57.7	95.2
2005	27.0	38.5	65.5	24.0	20.5	29.1	64.7	93.8
2006	26.1	38.7	64.8	24.0	18.7	29.1	77.5	106.6
2007	21.6	32.5	54.1	18.9	14.8	31.2	81.2	112.4
2008	24.1	32.9	57.1	21.3	17.2	27.0	83.0	110.0
2009	26.7	32.2	58.9	26.8	23.5	26.8	84.8	111.5
2010	25.0	30.4	55.3	24.7	23.1	24.7	86.5	111.3
2011	19.3	35.1	54.4	19.6	16.7	22.3	89.8	112.1
2012	20.2	36.0	56.2	20.2	18.0	23.3	97.6	120.9
2013	23.2	34.1	57.3	w	18.9	21.1	113.1	134.2

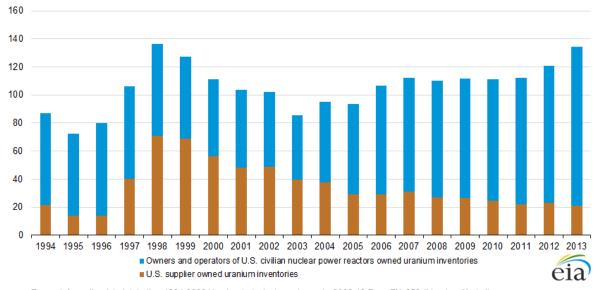
W = Data withheld to avoid disclosure of individual company data.

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.

Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual, Tables 28, 29, 30 and 31. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S5. Total commercial uranium inventories of U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1994-2013

million pounds U₃O₈ equivalent



 $Sources: Energy\ Information\ Administration:\ 1994-2002-Uranium\ Industry\ Annual\ reports.\ 2003-13-Form\ EIA-858, "Uranium\ Marketing\ Annual\ Survey"\ .$

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, 1994-2013

dollars per pound U₃O₈ equivalent

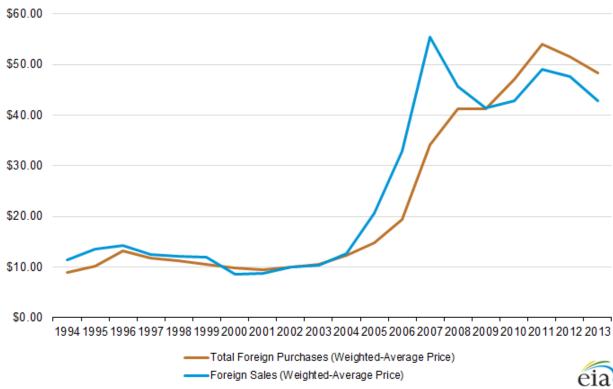
Delivery year	Foreign purchases by U.S. suppliers	Foreign purchases by owners and operators of U.S. civilian nuclear power reactors	Total Foreign Purchases (Weighted-Average Price)	U.S. Broker and Trader Purchases from Foreign Suppliers (Weighted- Average Price)	Foreign Sales (Weighted-Average Price)
1994	7.78	10.53	8.95	7.87	11.34
1995	8.96	11.39	10.20	9.02	13.48
1996	11.78	14.41	13.15	11.78	14.20
1997	10.61	12.89	11.81	10.71	12.39
1998	10.50	11.96	11.19	10.77	12.05
1999	9.42	11.45	10.55	9.60	11.97
2000	8.45	10.68	9.84	8.61	8.48
2001	8.98	9.87	9.51	8.87	8.79
2002	9.65	10.37	10.05	9.59	10.04
2003	10.19	10.79	10.59	10.19	10.39
2004	11.21	13.13	12.25	11.15	12.63
2005	15.11	14.63	14.83	15.68	20.70
2006	20.28	18.66	19.31	21.61	32.87
2007	36.59	32.58	34.18	39.88	55.47
2008	33.30	47.46	41.30	35.39	45.62
2009	34.80	46.55	41.23	34.88	41.48
2010	41.30	51.69	47.01	41.23	42.78
2011	48.80	56.87	54.00	49.27	49.05
2012	46.80	54.08	51.44	47.08	47.57
2013	43.25	51.64	48.24	w	42.75

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

Notes: Totals may not equal sum of components because of independent rounding. Foreign purchase: A uranium purchase of foreignorigin 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. 2003-13-Form EIA-858, "Uranium Marketing Annual Survey".

Figure S6. Weighted-average price of foreign purchases and foreign sales of uranium, 1994-2013 dollars per pound U₃O₈ equivalent



Sources: U.S. Energy Information Administration: 1994-2002-Uranium Industry Annual reports. 2003-13-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, 2009-13

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

Deliveries	2009	2010	2011	2012	2013
Purchased from U.S. producers					
Purchases of U.Sorigin and					
foreign-origin uranium	W	350	550	W	W
Weighted-average price	W	47.13	58.12	W	W
Purchased from U.S. Brokers and Trad	ers				
Purchases of U.Sorigin and					
foreign-origin uranium	11,125	11,745	14,778	11,545	12,835
Weighted-average price	41.88	44.98	53.29	54.44	50.44
Purchased from other owners and ope	erators of U.S. civilian nu	uclear power reacto	ors		
Purchases	W	0	0	0	0
Weighted-Average Price	W				
Purchased from other U.S. suppliers					
Purchases of U.Sorigin and					
foreign-origin uranium	W	1,851	1,061	W	W
Weighted-average price	W	42.24	52.50	W	W
Purchased from foreign suppliers					
Purchases of U.Sorigin and					
foreign-origin uranium	36,823	32,637	38,442	37,624	37,405
Weighted-average price	46.68	51.30	56.60	54.40	51.93
Total Purchased by owners and opera	tors of U.S. civilian nucl	ear power reactors			
Purchases of U.Sorigin and					
foreign-origin uranium	49,830	46,582	54,831	57,520	57,403
Weighted-average price	45.86	49.29	55.64	54.99	51.99
W = Data withhold to avoid disclosure	of individual company de	240			

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. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-2013).

^{-- =} Not applicable.

Figure 1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2009-13

thousand pounds U₃O₈ equivalent

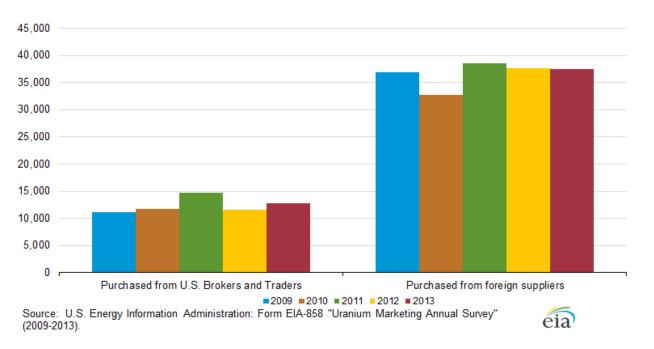
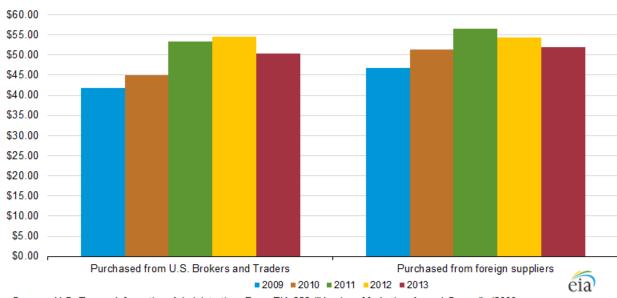


Figure 2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2009-2013

dollars per pound U3O8 equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Table 2. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2009-2013

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

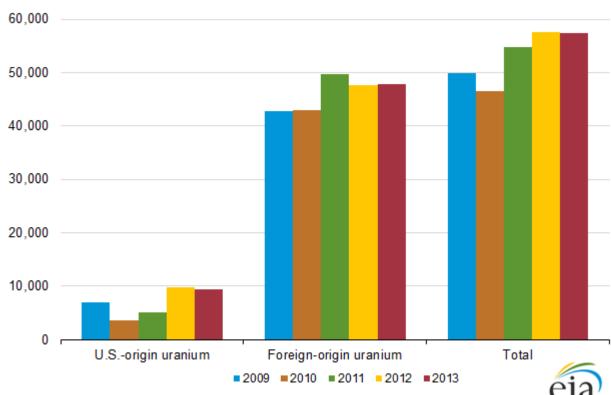
Deliveries	2009	2010	2011	2012	2013
U.Sorigin uranium					
Purchases	7,053	3,687	5,205	9,807	9,484
Weighted-average price	48.92	45.25	52.12	59.44	56.37
Foreign-origin uranium					
Purchases	42,777	42,895	49,626	47,713	47,919
Weighted-average price	45.35	49.64	55.98	54.07	51.13
Total					
Purchases	49,830	46,582	54,831	57,520	57,403
Weighted-average price	45.86	49.29	55.64	54.99	51.99

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" (2009-2013).

Figure 3. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2009-2013

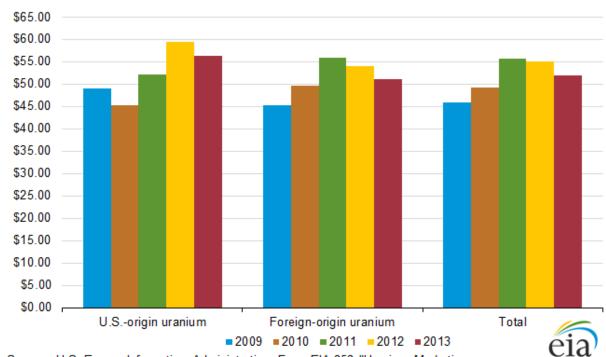
thousand pounds U₃O₈ equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-2013).

Figure 4. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2009-2013

dollars per pound U₃O₈ equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-2013).

Table 3. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin country and delivery year, 2009-2013

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

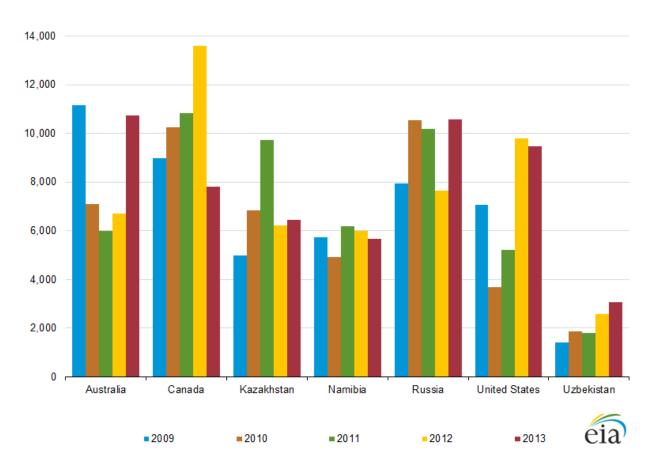
	Deliveries in 2009		Deliv	eries in 2010	Deliv	eries in 2011	Deliv	eries in 2012	Deliv	eries in 2013
Origin country	Purchases	Weighted- average price	Purchases	Weighted- average price	Purchases	Weighted- average price	Purchases	Weighted- average price	Purchases	Weighted- average price
Australia	11,164	52.25	7,112	51.35	6,001	57.47	6,724	51.17	10,741	49.92
Brazil	W	W	W	W	W	W	W	W	W	W
Canada	8,975	42.25	10,238	50.35	10,832	56.08	13,584	56.75	7,808	52.61
China	0		0		W	W	W	W	W	W
Czech Republic	W	W	W	W	0		0		W	W
Germany	0		W	W	0		0		W	W
Hungary	0		W	W	0		0		W	W
Kazakhstan	4,985	43.41	6,830	47.81	9,728	53.71	6,234	51.69	6,454	46.73
Malawi	0		W	W	780	65.44	W	W	1,277	59.89
Namibia	5,732	47.30	4,913	47.90	6,199	56.74	5,986	54.56	5,677	49.78
Niger	2,001	47.55	587	49.00	1,744	54.38	2,133	50.45	1,666	51.26
Portugal	0		0		0		0		W	W
Russia	7,938	37.98	10,544	50.28	10,199	56.57	7,643	54.40	10,580	53.73
South Africa	W	W	W	W	1,524	53.62	1,243	56.45	186	46.72
Ukraine	0		W	W	W	W	W	W	0	
Uzbekistan	1,424	46.65	1,865	48.57	1,808	55.99	2,576	52.80	3,064	50.02
unknown	0		0		0		0		W	W
Foreign Total	42,777	45.35	42,895	49.64	49,626	55.98	47,713	54.07	47,919	51.13
United States	7,053	48.92	3,687	45.25	5,205	52.12	9,807	59.44	9,484	56.37
Total										
Purchases	49,830	45.86	46,582	49.29	54,831	55.64	57,520	54.99	57,403	51.99

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" (2009-13).

Figure 5. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by selected origin country and delivery year, 2009-2013 thousand pounds U₃O₈ equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Table 4. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and material type, 2013 deliveries

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

	Uranium		Natural UF ₆ and				
Deliveries	concentrate	Natural UF ₆	Enriched UF ₆	enriched UF ₆	Total		
U.Sorigin uranium							
Purchases	3,626	W	W	5,858	9,484		
Weighted-average price	52.32	W	W	58.87	56.37		
Foreign-origin uranium							
Purchases	27,826	W	W	20,093	47,919		
Weighted-average price	49.64	W	W	53.18	51.13		
Total							
Purchases	31,452	19,031	6,920	25,951	57,403		
Weighted-average price	49.95	53.46	57.24	54.47	51.99		
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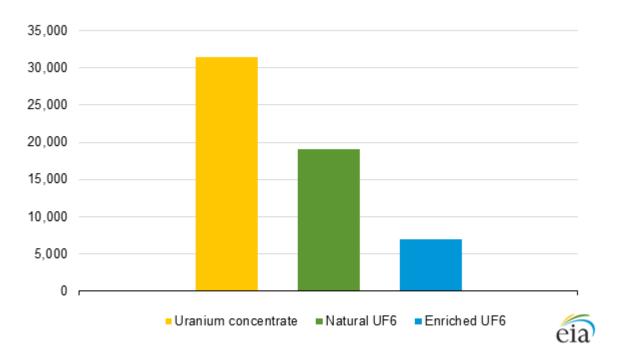
W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Natural UF₆ is uranium hexafluoride. The natural UF₆ and enriched UF₆ quantity represents only the U_3O_8 equivalent uranium-component quantity specified in the contract for each delivery of natural UF₆ and enriched UF₆. The natural UF₆ and enriched UF₆ weighted-average price represent only the U_3O_8 equivalent uranium-component price specified in the contract for each delivery of natural UF₆ and enriched UF₆, and does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2013).

Figure 6. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by material type, 2013 deliveries

thousand pounds U₃O₈ equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2013).

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, 2012-13

dollars per pound U₃O₈ equivalent; thousand pounds U₃O₈ equivalent

	Domestic purchases ¹		Foreign p	urchases ²	Total purchases		
Pricing mechanisms	2012	2013	2012	2013	2012	2013	
Contract-specified (fixed and base-	escalated) prici	ng					
Weighted-average price	57.61	54.95	54.74	55.03	56.26	54.99	
Quantity with reported price	14,495	14,530	12,941	14,732	27,436	29,262	
Spot-market pricing							
Weighted-average price	49.53	42.55	51.89	41.87	51.19	42.18	
Quantity with reported price	2,237	3,642	5,272	4,256	7,510	7,898	
Other Pricing							
Weighted-average price	56.42	52.68	54.25	51.08	54.71	51.49	
Quantity with reported price	4,751	5,136	17,253	15,107	22,004	20,243	
All pricing mechanisms							
Weighted-average price	56.51	52.51	54.08	51.64	54.99	51.99	
Quantity with reported price	21,483	23,308	35,466	34,095	56,949	57,403	
Total quantity	21,483	23,308	36,037	34,095	57,520	57,403	

¹ A uranium purchase of both U.S.-origin uranium or from a firm located in the United States.

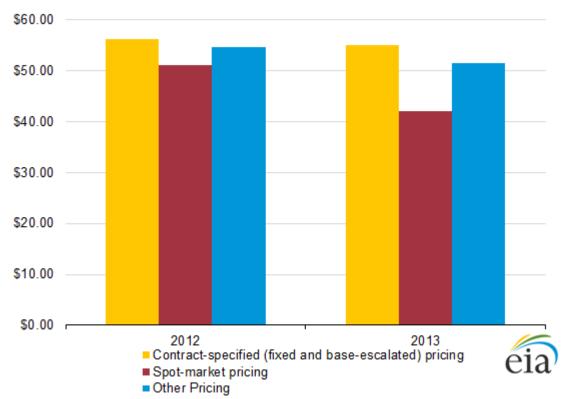
Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2012-13).

 $^{^{\}rm 2}$ A uranium purchase of foreign-origin uranium from a firm located outside of the United States.

Figure 7. Average price for uranium purchased by owners and operators of U.S. civilian nuclear power reactors by pricing mechanisms and delivery year, 2012-13

dollars per pound U₃O₈ equivalent



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2012-13).

Table 6a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by quantity, 2011-2013 deliveries

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

-	D	eliveries in 2011	eliveries in 2012	Deliveries in 2013			
Quantity distribution ¹	Quantity with reported price	Weighted- average price	Quantity with reported price	Weighted- average price	Quantity with reported price	Weighted- average price	
First	6,789	34.97	7,119	38.24	7,175	34.34	
Second	6,789	46.48	7,119	48.64	7,175	41.29	
Third	6,789	50.80	7,119	51.16	7,175	45.89	
Fourth	6,789	54.07	7,119	54.15	7,175	49.84	
Fifth	6,789	57.21	7,119	56.93	7,175	53.17	
Sixth	6,789	61.90	7,119	59.98	7,175	57.24	
Seventh	6,789	65.21	7,119	61.02	7,175	61.55	
Eighth	6,789	74.45	7,119	69.84	7,175	72.62	
Total	54,308	55.64	56,949	54.99	57,403	51.99	

¹ 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.

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" (2011-13).

Table 6b. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by purchaser, 2011-13 deliveries

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

		D	eliveries in 2011	Deliveries in 2012 Deliveries					eliveries in 2013
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	9	11,382	46.76	8	10,981	45.58	8	12,328	42.01
Second	8	21,780	54.02	7	11,659	53.03	8	13,143	49.94
Third	8	14,043	58.44	7	21,146	57.22	7	18,057	53.43
Fourth	8	7,104	69.28	7	13,163	61.01	7	13,875	60.93
Total	33	54,308	55.64	29	56,949	54.99	30	57,403	51.99

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" (2011-2013).

Table 7. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by contract type and material type, 2013 deliveries

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

	Spot Contracts ¹		Long-	Term Contracts ²	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 ₃ O ₈	6,466	42.95	24,986	51.76	31,452	49.95	
Natural UF ₆	W	W	W	W	19,031	53.46	
Enriched UF ₆	W	W	W	W	6,920	57.24	
Natural UF ₆ and enriched UF ₆	4,876	45.00	21,075	56.66	25,951	54.47	
Total	11,342	43.83	46,061	54.00	57,403	51.99	

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_6 is uranium hexafluoride. The natural UF_6 and enriched UF_6 quantity represents only the U_3O_8 equivalent uranium-component quantity specified in the contract for each delivery of natural UF_6 and enriched UF_6 , and enriched UF_6 weighted-average price represent only the U_3O_8 equivalent uranium-component price specified in the contract for each delivery of natural UF_6 and enriched UF_6 , and does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2013).

¹ A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

² One or more deliveries to occur after a year following contract execution (signed date).

Table 8. Contracts signed in 2013 by owners and operators of U.S. civilian nuclear power reactors by contract type

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

Purchase contract type (Signed in 2013)	Quantity of deliveries received in 2013	Weighted-average price	Number of purchase contracts for deliveries in 2013
Spot	7,308	39.35	55
Long-term	582	43.20	3
Total	7,890	39.63	58

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" (2013).

Table 9. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in 2013, by delivery year, 2014-23

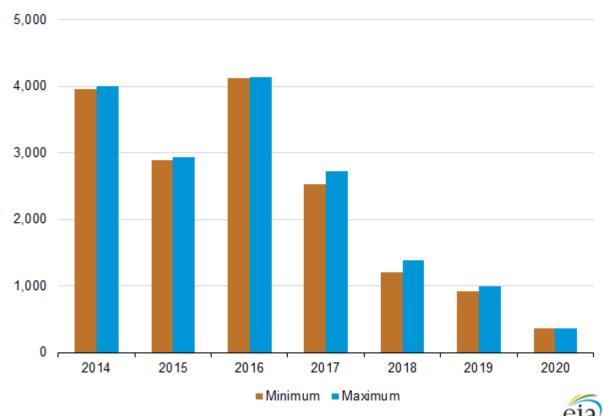
Year of delivery	Minimum	Maximum
2014	3,959	4,000
2015	2,893	2,940
2016	4,115	4,130
2017	2,521	2,731
2018	1,211	1,388
2019	920	995
2020	360	360
2021	0	0
2022	0	0
2023	0	0
Total	15,979	16,544

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

Source: U.S. Energy Information Administration, Form EIA-858 $\,$

[&]quot;Uranium Marketing Annual Survey" (2013).

Figure 8. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in in 2013, by delivery year, 2014-20



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2013).

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 2013, by delivery year, 2014-23

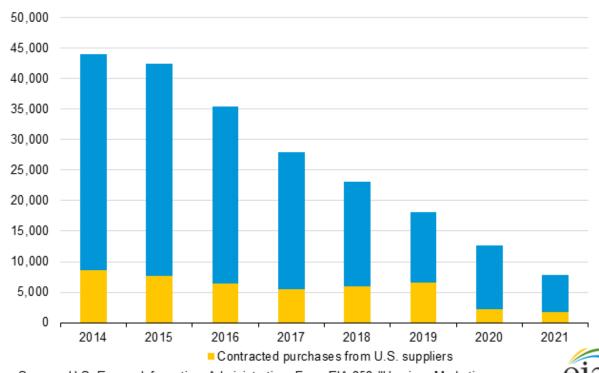
	Contracted pure U.S. supp		Contracted purchases from foreign suppliers		•	
Year of delivery	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
2014	8,362	8,591	31,700	35,404	40,063	43,995
2015	7,182	7,619	31,067	34,833	38,249	42,452
2016	6,030	6,442	26,840	28,931	32,869	35,373
2017	5,006	5,496	20,749	22,388	25,755	27,884
2018	5,503	5,886	16,286	17,276	21,789	23,162
2019	6,285	6,631	10,764	11,558	17,049	18,189
2020	2,111	2,271	9,669	10,453	11,780	12,723
2021	1,487	1,678	6,017	6,105	7,505	7,783
2022	W	W	W	W	5,652	5,840
2023	W	W	W	W	5,389	5,672
Total	43,907	46,845	162,193	176,228	206,100	223,073

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" (2013).

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 2013, by delivery year, 2014-21



Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2013).

Table 11. Unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2013-23

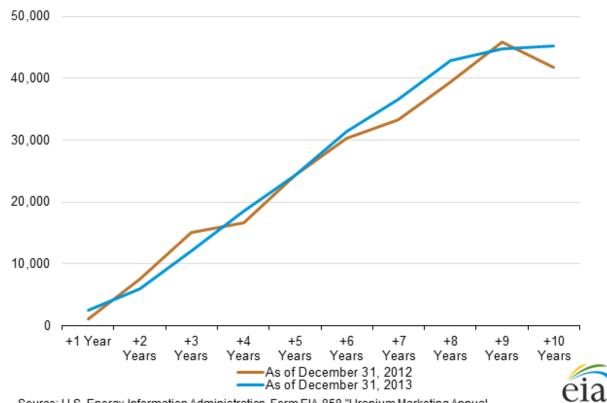
	As of Decen	nber 31, 2012	As of Dece	mber 31, 2013
Year	Annual	Cumulative	Annual	Cumulative
2013	1,153	1,153	-	
2014	7,494	8,647	2,494	2,494
2015	15,029	23,675	6,014	8,507
2016	16,607	40,282	12,121	20,629
2017	24,316	64,597	18,476	39,104
2018	30,310	94,908	24,303	63,407
2019	33,296	128,204	31,356	94,763
2020	39,442	167,645	36,593	131,356
2021	45,780	213,425	42,845	174,201
2022	41,720	255,145	44,797	218,998
2023	-		45,219	264,217

^{- =} 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" (2012-13).

Figure 10. Annual unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, as of 12/31/2012 and 12/31/2013



Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2012-13).

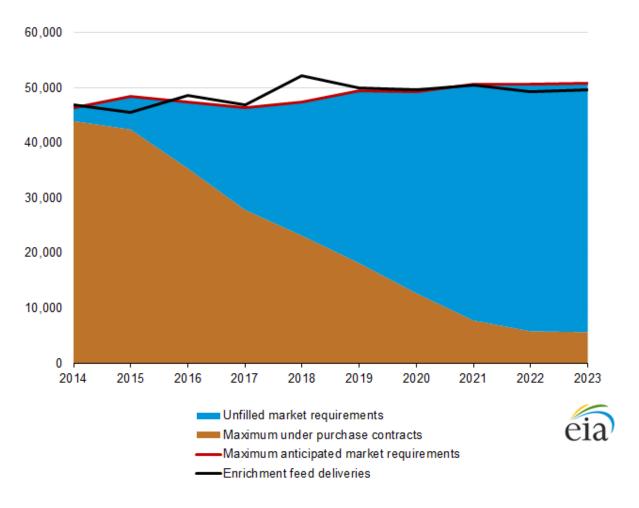
Table 12. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2014-23, as of December 31, 2013

Year	Maximum under purchase contracts	Unfilled market requirements	Maximum anticipated market requirements	Enrichment feed seliveries
2014	43,995	2,494	46,489	47,001
2015	42,452	6,014	48,465	45,498
2016	35,373	12,121	47,495	48,693
2017	27,884	18,476	46,359	47,005
2018	23,162	24,303	47,465	52,138
2019	18,189	31,356	49,545	50,041
2020	12,723	36,593	49,317	49,726
2021	7,783	42,845	50,628	50,455
2022	5,840	44,797	50,637	49,320
2023	5,672	45,219	50,891	49,688
Total	223,073	264,217	487,290	489,564

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" (2013).

Figure 11. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2014-23, as of December 31, 2013



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2013).

Table 13. Deliveries of uranium feed by owners and operators of U.S. civilian nuclear power reactors by enrichment country and delivery year, 2011-13

		Feed deliveries in 2011 Feed deliveries in 2012			es in 2012	Feed deliveries in 2013			
Enrichment country	U.S origin	Foreign- origin	Total	U.S origin	Foreign- origin	Total	U.S origin	Foreign- origin	Total
China	0	W	W	0	W	W	0	W	W
France	0	2,126	2,126	0	4,578	4,578	0	1,606	1,606
Germany	W	W	2,665	W	W	1,904	W	W	W
Netherlands	0	W	W	W	W	2,674	1,058	2,773	3,831
Russia	W	W	W	W	W	3,794	W	W	2,333
United Kingdom	W	W	3,816	W	W	3,930	438	4,097	4,535
Europe ¹	1,116	7,617	8,733	W	W	W	W	W	4,374
Foreign total	2,137	18,977	21,113	157	19,757	19,914	1,809	17,664	19,473
United States	2,293	27,865	30,158	3,908	28,282	32,190	2,600	25,345	27,945
Total	4,430	46,842	51,271	4,065	48,039	52,104	4,409	43,009	47,418

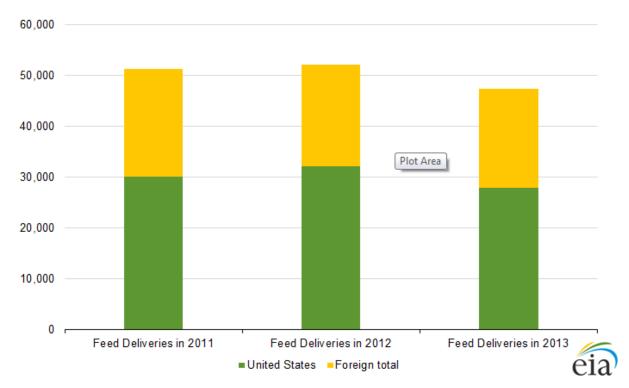
W = Data withheld to avoid disclosure of individual company data.

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" (2011-13).

¹ Specific country in Europe was not reported.

Figure 12. Deliveries of uranium feed for U.S. and foreign enrichment by owners and operators of U.S. civilian nuclear power reactors by delivery year, 2011-13



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2011-13).

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, 2011-13

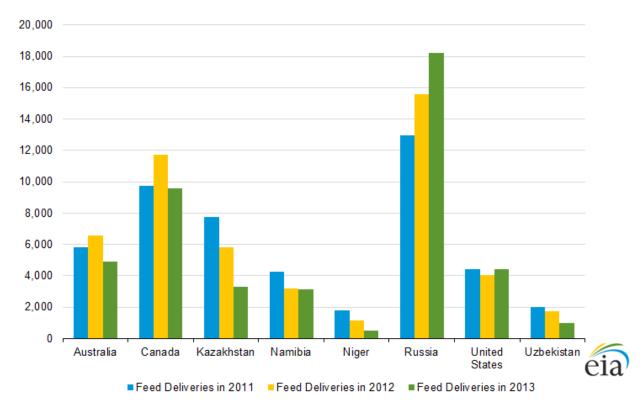
		De	liveries in 2011	Deliveries in 2012			Deliveries in 2013		
Origin country of feed	U.S. enrichment	Foreign enrichment	Total	U.S. enrichment	Foreign enrichment	Total	U.S. enrichment	Foreign enrichment	Total
Australia	3,504	2,311	5,815	3,195	3,352	6,547	2,417	2,476	4,893
Brazil	0	W	W	0	0	0	0	W	W
Canada	6,171	3,565	9,736	6,741	5,007	11,748	4,889	4,673	9,562
China	0	W	W	0	W	W	0	W	W
Czech Republic	W	0	W	W	0	W	0	0	0
Germany	0	W	W	0	0	0	0	0	0
Kazakhstan	3,761	3,980	7,740	2,968	2,858	5,825	1,366	1,941	3,307
Malawi	0	W	W	0	0	0	W	W	W
Namibia	2,745	1,522	4,267	1,733	1,440	3,173	1,260	1,882	3,142
Niger	W	W	1,795	W	W	1,140	W	W	518
Portugal	0	0	0	0	0	0	0	W	W
Russia	10,400	2,580	12,979	12,154	3,427	15,581	14,797	3,423	18,220
South Africa	W	W	847	W	W	1,325	W	W	211
Ukraine	0	W	W	W	W	W	0	0	0
Uzbekistan	777	1,224	2,001	650	1,080	1,731	422	585	1,007
Foreign total	27,865	18,977	46,842	28,282	19,757	48,039	25,345	17,664	43,009
United States	2,293	2,137	4,430	3,908	157	4,065	2,600	1,809	4,409
Total	30,158	21,113	51,271	32,190	19,914	52,104	27,945	19,473	47,418

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" (2011-13).

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, 2011-13



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2011-13).

Table 15. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2014-23

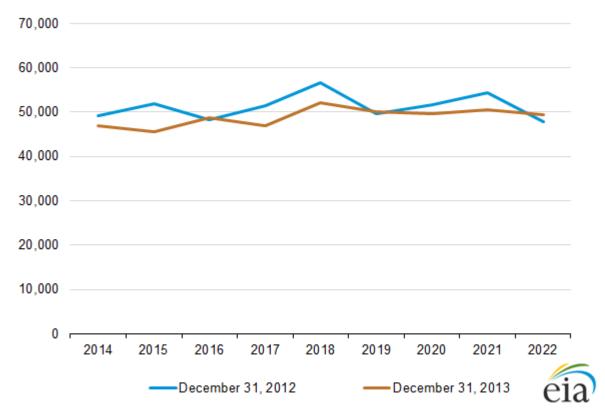
	Amount of feed to be shipped		Change	from 2012 to 2013	
	As of	As of			
Year of shipment	December 31, 2012	December 31, 2013	Annual	Cumulative	
2014	49,256	47,001	-2,255	-2,255	
2015	51,920	45,498	-6,422	-8,677	
2016	48,190	48,693	503	-8,174	
2017	51,420	47,005	-4,415	-12,589	
2018	56,730	52,138	-4,592	-17,181	
2019	49,753	50,041	288	-16,893	
2020	51,680	49,726	-1,954	-18,847	
2021	54,404	50,455	-3,949	-22,796	
2022	47,868	49,320	1,452	-21,344	
2023	-	49,688			

^{- =} 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" (2012-13).

Figure 14. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2014-22



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2012-13).

Table 16. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by origin country and year, 2009-13

thousand separative work units (SWU)

Country of enrichment service (SWU-

origin)	2009	2010	2011	2012	2013
China	0	0	W	W	W
France	895	W	W	0	0
Germany	1,059	681	1,539	1,075	753
Netherlands	1,345	2,292	1,506	1,496	2,112
Russia	5,478	5,055	5,308	6,560	2,491
United Kingdom	2,940	2,119	2,813	2,648	2,674
Europe ¹	W	W	670	W	0
Other ²	W	W	0	W	W
Foreign total	13,115	11,526	12,395	12,330	8,464
United States	4,102	2,251	2,434	3,261	3,867
Total	17,217	13,776	14,829	15,590	12,331
Average price (US\$ per SWU)	130.78	136.14	136.12	141.36	142.22

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

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

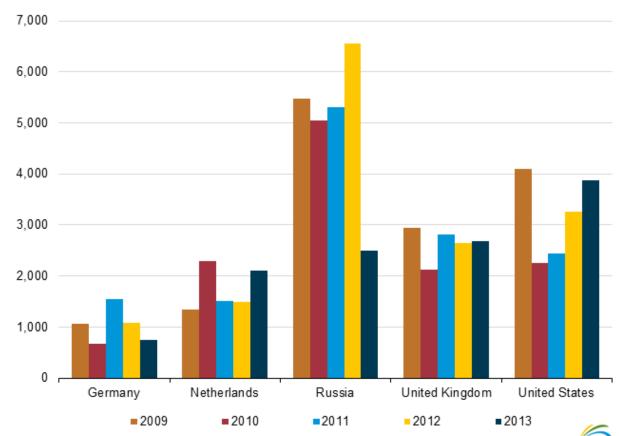
 $Source: U.S.\ Energy\ Information\ Administration: Form\ EIA-858\ "Uranium\ Marketing\ Annual\ Survey"\ (2009-13).$

¹ Specific country in Europe was not reported.

² Specific country was not reported.

Figure 15. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by selected origin country and year, 2009-13

thousand separative work units (SWU)



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Table 17. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by contract type in delivery year, 2013

thousand separative work units (SWU)

Enrichment service

contract type	U.S. enrichment	Foreign enrichment	Total
Spot	W	W	353
Long-term	W	W	11,978
Total	3,867	8,464	12,331

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" (2013).

Table 18. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2009-13

thousand pounds U₃O₈ equivalent

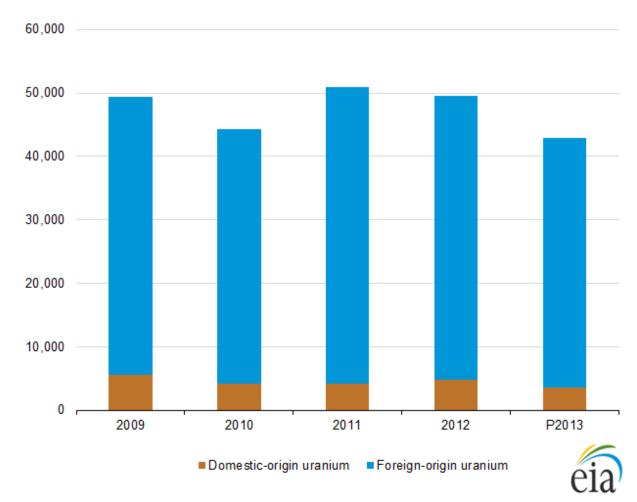
Origin of uranium	2009	2010	2011	2012	P2013
Domestic-origin uranium	5,588	4,119	4,134	4,825	3,643
Foreign-origin uranium	43,766	40,187	46,809	44,657	39,262
Total	49,354	44,306	50,943	49,483	42,905

P = Preliminary data. Final 2012 fuel assembly data reported in the 2013 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" (2010-13).

Figure 16. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2009-13



P = Preliminary data. Final 2012 fuel assembly data reported in the 2013 survey. Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010-13).

Table 19. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2009-13

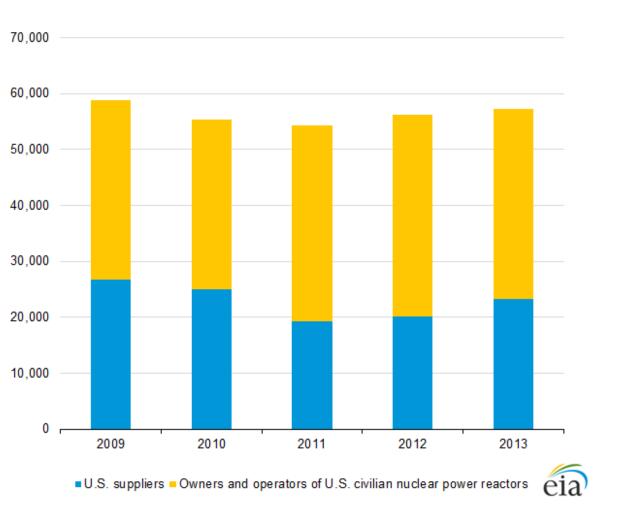
thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

Deliveries	2009	2010	2011	2012	2013	
U.S. suppliers						
Foreign purchases	26,661	24,985	19,318	20,196	23,233	
Weighted-average price	34.80	41.30	48.80	46.80	43.25	
Owners and operators of U.S. civilian nuclear power reactors						
Foreign purchases	32,239	30,362	35,071	36,037	34,095	
Weighted-average price	46.55	51.69	56.87	54.08	51.64	
Total						
Foreign purchases	58,900	55,347	54,388	56,233	57,328	
Weighted-average price	41.23	47.01	54.00	51.44	48.24	

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" (2009-13).

Figure 17. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2009-13



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Table 20. U.S. broker and trader purchases of uranium by origin, supplier, and delivery year, 2009-13

thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

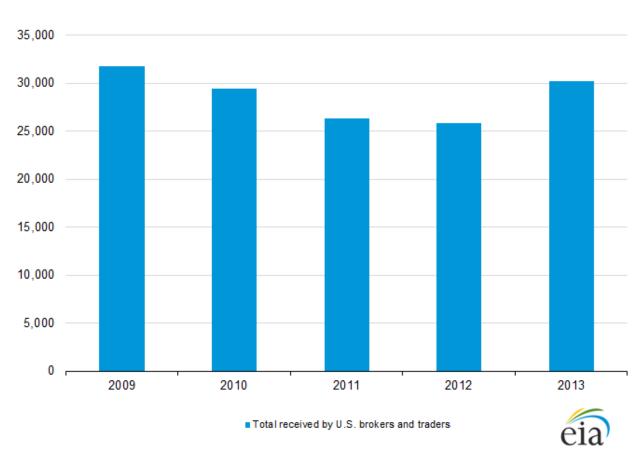
Deliveries	2009	2010	2011	2012	2013
Received U.Sorigin uranium					
Purchases	2,189	2,226	1,668	1,194	W
Weighted-average price	49.11	43.36	54.85	51.78	W
Received foreign-origin uranium					
Purchases	29,568	27,186	24,695	24,606	W
Weighted-average price	35.96	41.42	49.69	47.75	W
Total received by U.S. brokers and traders					
Purchases	31,757	29,412	26,363	25,800	30,191
Weighted-average price	36.87	41.57	50.02	47.94	42.95
Received from foreign suppliers					
Purchases	26,841	24,693	19,579	20,243	W
Weighted-average price	34.88	41.23	49.27	47.08	W

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.

Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Figure 18. U.S. broker and trader purchases of uranium by delivery year, 2009-13



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

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, 2009-13

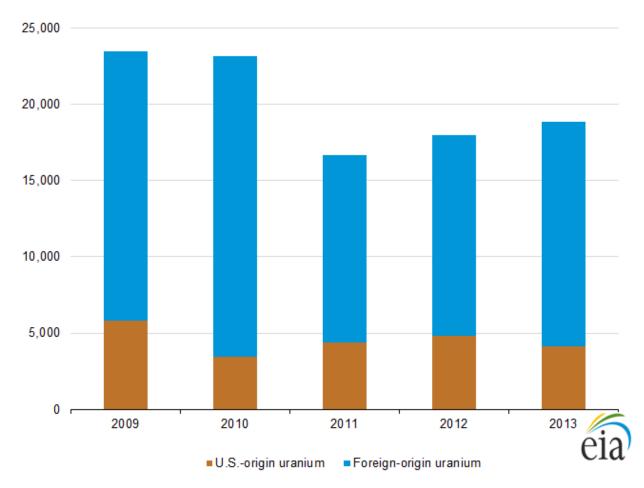
thousand pounds U₃O₈ equivalent; dollars per pound U₃O₈ equivalent

Deliveries to foreign suppliers and utilities	2009	2010	2011	2012	2013	
U.Sorigin uranium						
Foreign sales	5,801	3,440	4,387	4,798	4,148	
Weighted-average price	41.43	37.82	53.08	47.53	43.10	
Foreign-origin uranium						
Foreign sales	17,688	19,708	12,297	13,185	14,717	
Weighted-average price	41.50	43.66	47.61	47.58	42.66	
Total sent:						
Foreign sales	23,489	23,147	16,683	17,982	18,864	
Weighted-average price	41.48	42.78	49.05	47.57	42.75	
From owners and operators of U.S. civiliannuclear power reactors, U.S. producers, and other U.S. suppliers						
Foreign sales	6,229	6,459	4,538	3,699	4,177	
Weighted-average price	37.11	38.13	52.63	47.26	44.61	
From U.S. brokers and traders						
Foreign sales	17,260	16,688	12,145	14,284	14,687	
Weighted-average price Notes: "Other LLS Suppliers" are LLS converters enrice	43.06	44.63	47.71	47.65	42.26	

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" (2009-13).

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, 2009-13



Source: U.S. Energy Information Administration: Form EIA-858 "Uranium Marketing Annual Survey" (2009-13).

Table 22. Inventories of natural and enriched uranium by material type as of end of year, 2009-13

Inventories at the end of the year 2009 2012 P2013 Type of Uranium Inventory Owned by 2010 2011 Owners and operators of U.S. civilian nuclear power reactors inventories 84,757 86,527 89,835 97,647 113,077 15,094 13,076 14,718 15,963 18,131 Uranium concentrate (U₃O₈) Natural UF₆ 38,463 35,767 35,883 29,084 38,715 Enriched UF₆ 18,195 25,392 19,596 38,428 40,458 Fabricated fuel (not inserted into a reactor) 13,006 12,292 19,638 14,173 15,773 U.S. supplier inventories 26,774 24,732 22,269 23,289 21,148 Uranium concentrate (U₃O₈) 12,132 10,153 7,057 W 7,613 Natural UF₆ W W W W W Enriched UF₆ W W W W W 0 Fabricated fuel (not inserted into a reactor) 0 0 0 **Total Commercial Inventories** 111,531 111,259 112,104 120,936 134,225

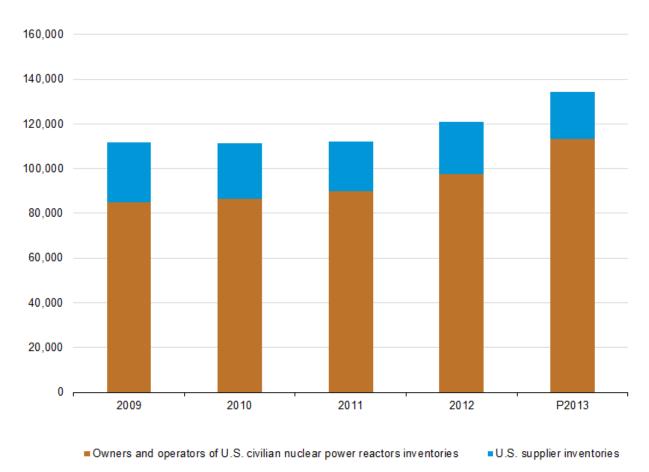
Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010-13).

P = Preliminary data. Final 2012 inventory data reported in the 2013 survey.

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

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

Figure 20. Commercial inventories of natural and enriched uranium as of end of year, 2009-13

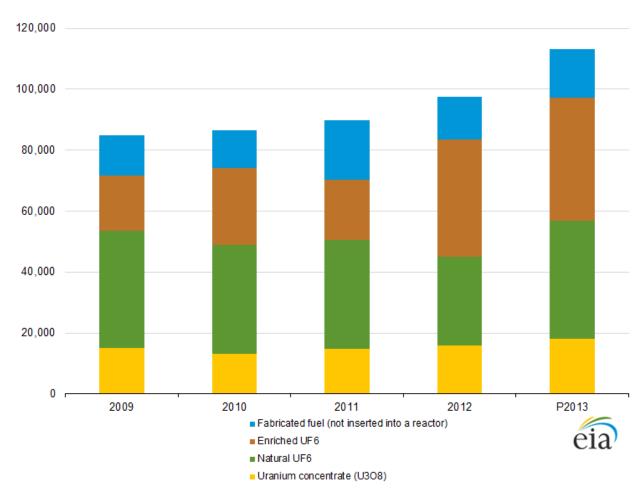


P = Preliminary data. Final 2012 inventory data reported in the 2013 survey.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010-13).



Figure 21. Owners and operators of U.S. civilian nuclear power reactors inventories by material type as of end of year, 2009-13



P = Preliminary data. Final 2012 inventory data reported in the 2013 survey.

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010-13).

Table 23. Inventories of uranium by owner as of end of year, 2009-13

Inventories at the End of Year

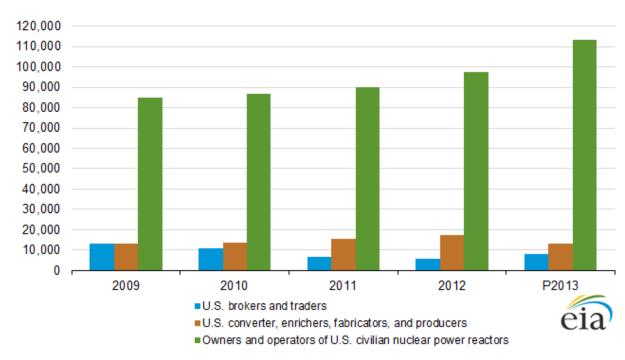
Owner of uranium inventory	2009	2010	2011	2012	P2013
Owners and operators of U.S. civilian nuclear power reactors	84,757	86,527	89,835	97,647	113,077
U.S. brokers and traders	13,362	11,125	6,841	5,677	7,926
U.S. converter, enrichers, fabricators, and producers	13,412	13,608	15,428	17,611	13,223
Total commercial inventories	111,531	111,259	112,104	120,936	134,225

P = Preliminary data. Final 2012 inventory data reported in the 2013 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" (2010-13).

Figure 22. Commercial inventories of uranium by owner as of end of year, 2009-13



P=Preliminary data. Final 2012 inventory data reported in the 2013 survey. Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2010-13).

Table 24. Uranium sellers to owners and operators of U.S. civilian nuclear power reactors, 2011-13

2011	2012	2013
Advance Uranium Asset Management Ltd. (was Uranium	Advance Uranium Asset Management Ltd. (was Uranium	
Asset Management)	Asset Management)	American Fuel Resources, LLC
American Fuel Resources, LLC	American Fuel Resources, LLC	AREVA NC, Inc.
AREVA NC, Inc.	AREVA NC, Inc.	BHP Billiton Olympic Dam Corporation Pty Ltd
BHP Billiton Olympic Dam Corporation Pty Ltd	BHP Billiton Olympic Dam Corporation Pty Ltd	CAMECO
CAMECO	CAMECO	ConverDyn
ConverDyn	ConverDyn	Deutsche Bank
Denison Mines Corp.	Energy Fuels Resources	Energy Fuels Resources
Effective Energy N.V.	Energy Resources of Australia Ltd.	Energy Resources of Australia Ltd.
Energy Resources of Australia Ltd.	Energy USA, Inc.	Energy USA, Inc.
Energy USA, Inc.	GNSS (Globe Nuclear Services and Supply Ltd.)	Itochu Corporation / Itochu International
GNSS (Globe Nuclear Services and Supply Ltd.)	INTERNEXCO GmbH	J. Aron & Company
INTERNEXCO GmbH	Itochu Corporation / Itochu International	Kazatomprom
Itochu Corporation / Itochu International	J. Aron & Company	Langer Heinrich Uranium Ltd (Paladin Energy)
Kazatomprom	Kazatomprom	Louisiana Energy Services LLC
Langer Heinrich Uranium Ltd (Paladin Energy)	Langer Heinrich Uranium Ltd (Paladin Energy)	Mestena Uranium LLC
Mestena Uranium LLC	Mestena Uranium LLC	MTM Trading, LLC
MTM Trading, LLC	MTM Trading, LLC	Nufcor International Limited
NuCore	Nufcor International Limited	NUKEM, Inc.
Nufcor International Limited	NUKEM, Inc.	NYNCO Trading, Ltd.
NUKEM, Inc.	Paladin Resources Limited / Paladin Energy	Paladin Resources Limited / Paladin Energy
Paladin Resources Limited / Paladin Energy	Rio Tinto Uranium Limited	Rossing Uranium Limited
PPL Energy Plus LLC	Rossing Uranium Limited	SOPAMIN (Société de Patrimoine des Mines du Niger "Heritage Society of Mines in Niger")
	SOPAMIN (Société de Patrimoine des Mines du Niger	The mage society of Milles III Miger /
Rossing Uranium Limited	"Heritage Society of Mines in Niger")	TENAM Corporation
SOPAMIN (Société de Patrimoine des Mines du Niger		
"Heritage Society of Mines in Niger")	Southern Cross Resources Australia Pty. Ltd.	TENEX (Techsnabexport)
TENEX (Techsnabexport)	TENEX (Techsnabexport)	Traxys North America, LLC
Traxys North America, LLC	Traxys North America, LLC	UG U.S.A., Inc.
UG U.S.A., Inc.	UG U.S.A., Inc.	Uranium One
Uranium One / Uranium One Africa Limited	Uranium One / Uranium One Africa Limited	UrAsia Energy Ltd.
UrAsia Energy Ltd.	UrAsia Energy Ltd.	URENCO, Inc.
URENCO, Inc.	URENCO, Inc.	URENCO USA (LES)
USEC, Inc. (United States Enrichment Corporation)	USEC, Inc. (United States Enrichment Corporation)	Ur-Energy / Ur-Energy USA Inc
Westinghouse Electric Company, LLC	Westinghouse Electric Company, LLC	USEC, Inc. (United States Enrichment Corporation)
		Westinghouse Electric Company, LLC

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2011-13).

Table 25. Enrichment service sellers to owners and operators of U.S. civilian nuclear power reactors, 2011-13

2011	2012	2013
Advance Uranium Asset Management Ltd.	Advance Uranium Asset Management Ltd.	AREVA NC, Inc.
AREVA NC, Inc.	AREVA NC, Inc.	CNEIC (China Nuclear Energy Industry Corporation)
CNEIC (China Nuclear Energy Industry Corporation)	CNEIC (China Nuclear Energy Industry Corporation)	LES, LLC (Louisiana Energy Services)
Energy Northwest	LES, LLC (Louisiana Energy Services)	NUKEM, Inc.
LES, LLC (Louisiana Energy Services)	NextEra Energy Seabrook	NYNCO Trading, LTD
NUKEM, Inc.	NUKEM, Inc.	TENAM Corporation
TENEX (Techsnabexport Joint Stock Company)	TENEX (Techsnabexport Joint Stock Company)	TENEX (Techsnabexport Joint Stock Company)
URENCO, Inc.	UG U.S.A., Inc.	URENCO, Inc.
USEC, Inc. (United States Enrichment Corporation)	URENCO, Inc.	URENCO USA, Inc.
	URENCO USA, Inc.	USEC, Inc. (United States Enrichment Corporation)
	USEC, Inc. (United States Enrichment Corporation)	

Source: U.S. Energy Information Administration, Form EIA-858 "Uranium Marketing Annual Survey" (2011-13).