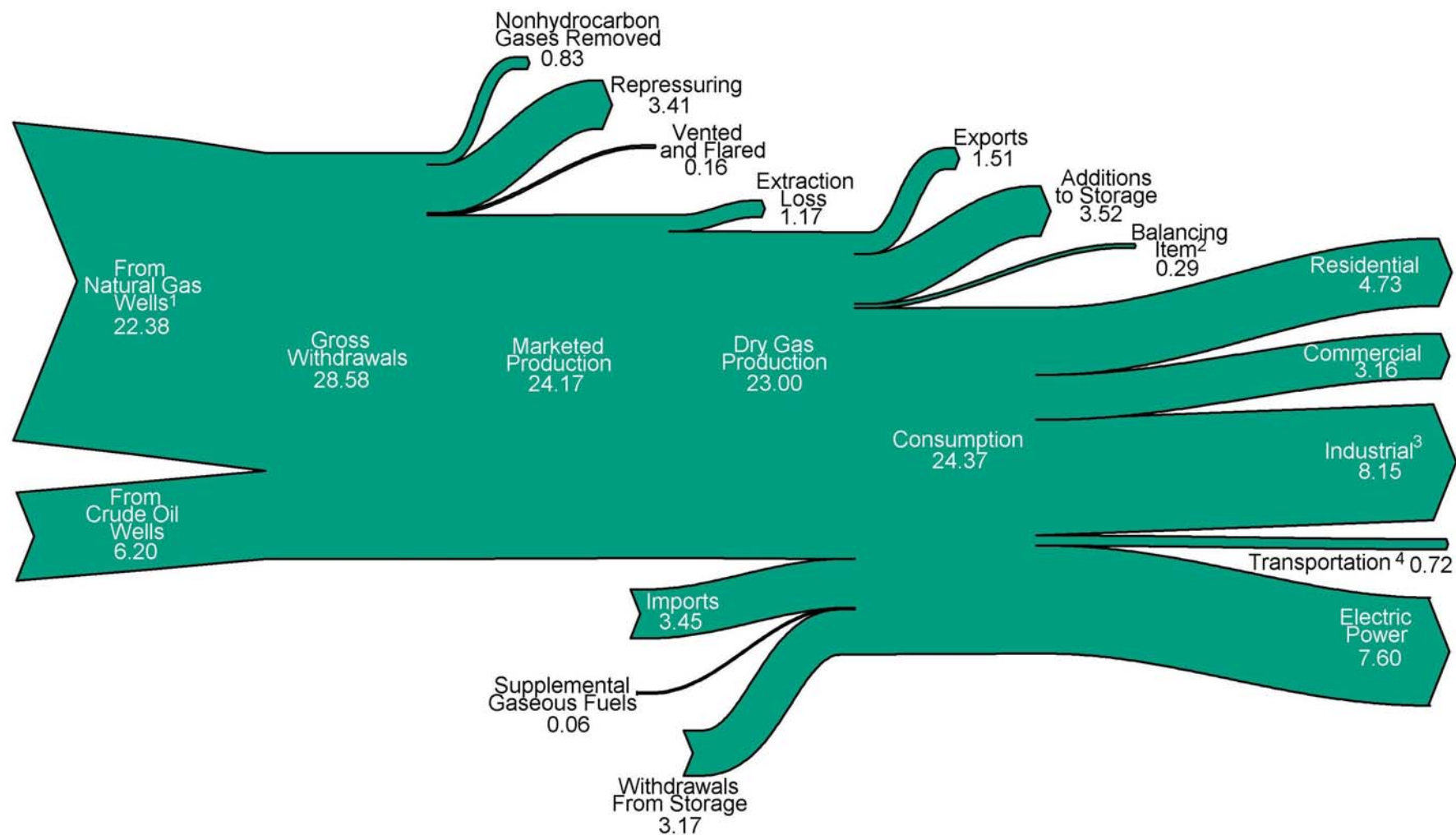


6. Natural Gas

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Figure 6.0 Natural Gas Flow, 2011
(Trillion Cubic Feet)



¹ Includes natural gas gross withdrawals from coalbed wells and shale gas wells.

² Quantities lost and imbalances in data due to differences among data sources.

³ Lease and plant fuel, and other industrial.

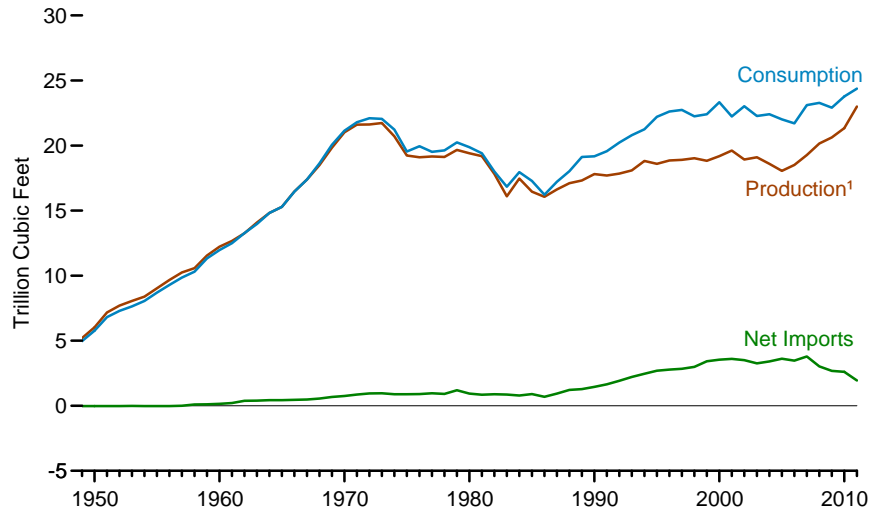
⁴ Natural gas consumed in the operation of pipelines (primarily in compressors), and as fuel in the delivery of natural gas to consumers; plus a small quantity used as vehicle fuel.

Notes: • Data are preliminary. • Values are derived from source data prior to rounding for publication. • Totals may not equal sum of components due to independent rounding.

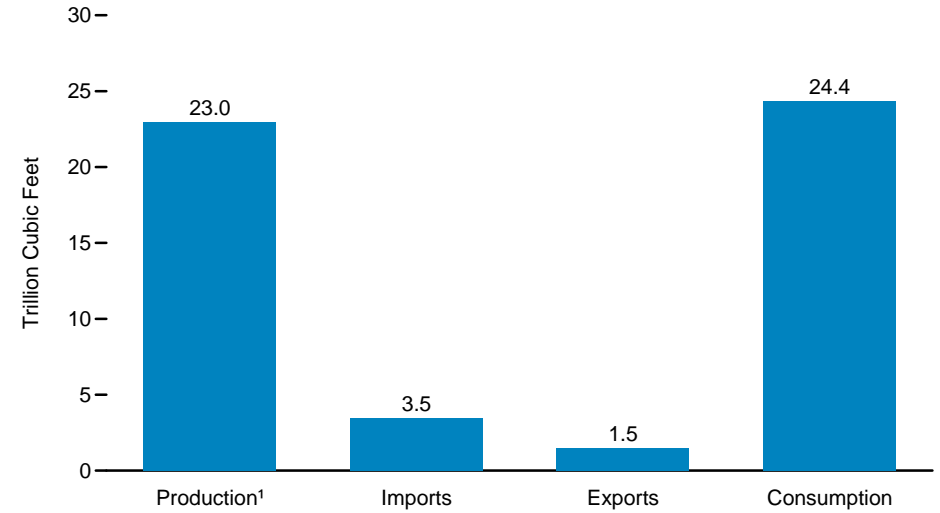
Sources: Tables 6.1, 6.2, and 6.5.

Figure 6.1 Natural Gas Overview

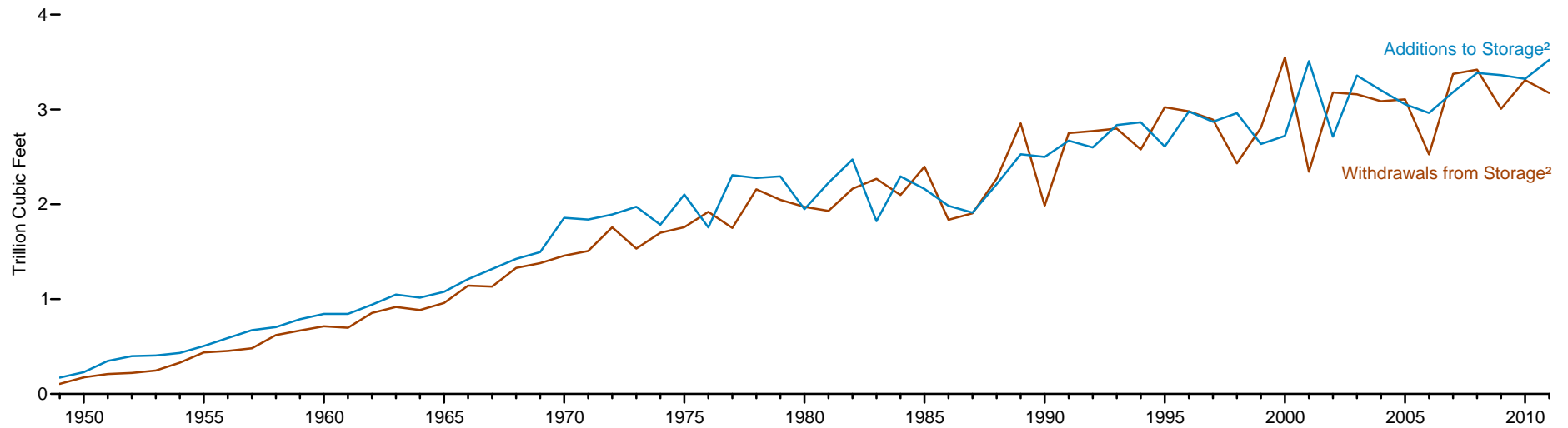
Overview, 1949-2011



Overview, 2011



Storage Additions and Withdrawals, 1949-2011



¹ Dry gas.

² Underground storage. For 1980-2010, also includes liquefied natural gas in above-ground tanks.

Source: Table 6.1.

Table 6.1 Natural Gas Overview, Selected Years, 1949-2011

(Billion Cubic Feet)

Year	Dry Gas Production	Supplemental Gaseous Fuels ²	Trade			Storage ¹ Activity			Balancing Item ⁵	Consumption ⁶
			Imports	Exports	Net Imports ³	Withdrawals	Additions	Net Withdrawals ⁴		
1949	5,195	NA	0	20	-20	106	172	-66	-139	4,971
1950	6,022	NA	0	26	-26	175	230	-54	-175	5,767
1955	9,029	NA	11	31	-20	437	505	-68	-247	8,694
1960	12,228	NA	156	11	144	713	844	-132	-274	11,967
1965	15,286	NA	456	26	430	960	1,078	-118	-319	15,280
1970	21,014	NA	821	70	751	1,459	1,857	-398	-228	21,139
1975	19,236	NA	953	73	880	1,760	2,104	-344	-235	19,538
1976	19,098	NA	964	65	899	1,921	1,756	165	-216	19,946
1977	19,163	NA	1,011	56	955	1,750	2,307	-557	-41	19,521
1978	19,122	NA	966	53	913	2,158	2,278	-120	-287	19,627
1979	19,663	NA	1,253	56	1,198	2,047	2,295	-248	-372	20,241
1980	19,403	155	985	49	936	1,972	1,949	23	-640	19,877
1981	19,181	176	904	59	845	1,930	2,228	-297	-500	19,404
1982	17,820	145	933	52	882	2,164	2,472	-308	-537	18,001
1983	16,094	132	918	55	864	2,270	1,822	447	-703	16,835
1984	17,466	110	843	55	788	2,098	2,295	-197	-217	17,951
1985	16,454	126	950	55	894	2,397	2,163	235	-428	17,281
1986	16,059	113	750	61	689	1,837	1,984	-147	-493	16,221
1987	16,621	101	993	54	939	1,905	1,911	-6	-444	17,211
1988	17,103	101	1,294	74	1,220	2,270	2,211	59	-453	18,030
1989	17,311	107	1,382	107	1,275	2,854	2,528	326	101	⁷ 19,119
1990	17,810	123	1,532	86	1,447	1,986	2,499	-513	307	⁷ 19,174
1991	17,698	113	1,773	129	1,644	2,752	2,672	80	27	⁷ 19,562
1992	17,840	118	2,138	216	1,921	2,772	2,599	173	176	⁷ 20,228
1993	18,095	119	2,350	140	2,210	2,799	2,835	-36	401	20,790
1994	18,821	111	2,624	162	2,462	2,579	2,865	-286	139	21,247
1995	18,599	110	2,841	154	2,687	3,025	2,610	415	396	22,207
1996	18,854	109	2,937	153	2,784	2,981	2,979	2	860	22,609
1997	18,902	103	2,994	157	2,837	2,894	2,870	24	871	22,737
1998	19,024	102	3,152	159	2,993	2,432	2,961	-530	657	22,246
1999	18,832	98	3,586	163	3,422	2,808	2,636	172	-119	22,405
2000	19,182	90	3,782	244	3,538	3,550	2,721	829	^R -306	23,333
2001	19,616	86	3,977	373	3,604	2,344	3,510	-1,166	99	22,239
2002	18,928	68	4,015	516	3,499	3,180	2,713	467	^R 65	^R 23,027
2003	19,099	68	3,944	680	3,264	3,161	3,358	-197	44	22,277
2004	18,591	60	4,259	854	3,404	3,088	3,202	-114	^R 461	^R 22,403
2005	18,051	64	4,341	729	3,612	3,107	3,055	52	^R 236	^R 22,014
2006	18,504	66	4,186	724	3,462	2,527	2,963	-436	^R 103	^R 21,699
2007	19,266	63	4,608	822	3,785	3,375	3,183	192	^R -203	^R 23,104
2008	20,159	61	3,984	963	3,021	3,420	3,385	34	^R 2	^R 23,277
2009	^R 20,624	65	3,751	1,072	2,679	3,007	3,362	-355	^R -103	^R 22,910
2010	^R 21,332	^R 65	^R 3,741	^R 1,137	^R 2,604	^R 3,311	^R 3,324	^R -13	^R -213	^R 23,775
2011	^E 23,000	^P 61	^P 3,453	^P 1,507	^P 1,946	^P 3,175	^P 3,523	^P -348	^P -290	^P 24,369

¹ Underground storage. For 1980–2010, also includes liquefied natural gas in above-ground tanks.

² See Note 1, "Supplemental Gaseous Fuels," at end of section.

³ Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.

⁴ Net withdrawals equal withdrawals minus additions. Minus sign indicates additions are greater than withdrawals.

⁵ Quantities lost and imbalances in data due to differences among data sources. Since 1980, excludes intransit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).

⁶ See Note 2, "Natural Gas Consumption," at end of section.

⁷ For 1989–1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector" on Table 6.5. See Note 3, "Natural Gas Consumption, 1989–1992," at end of section.

R=Revised. P=Preliminary. E=Estimate. NA=Not available.

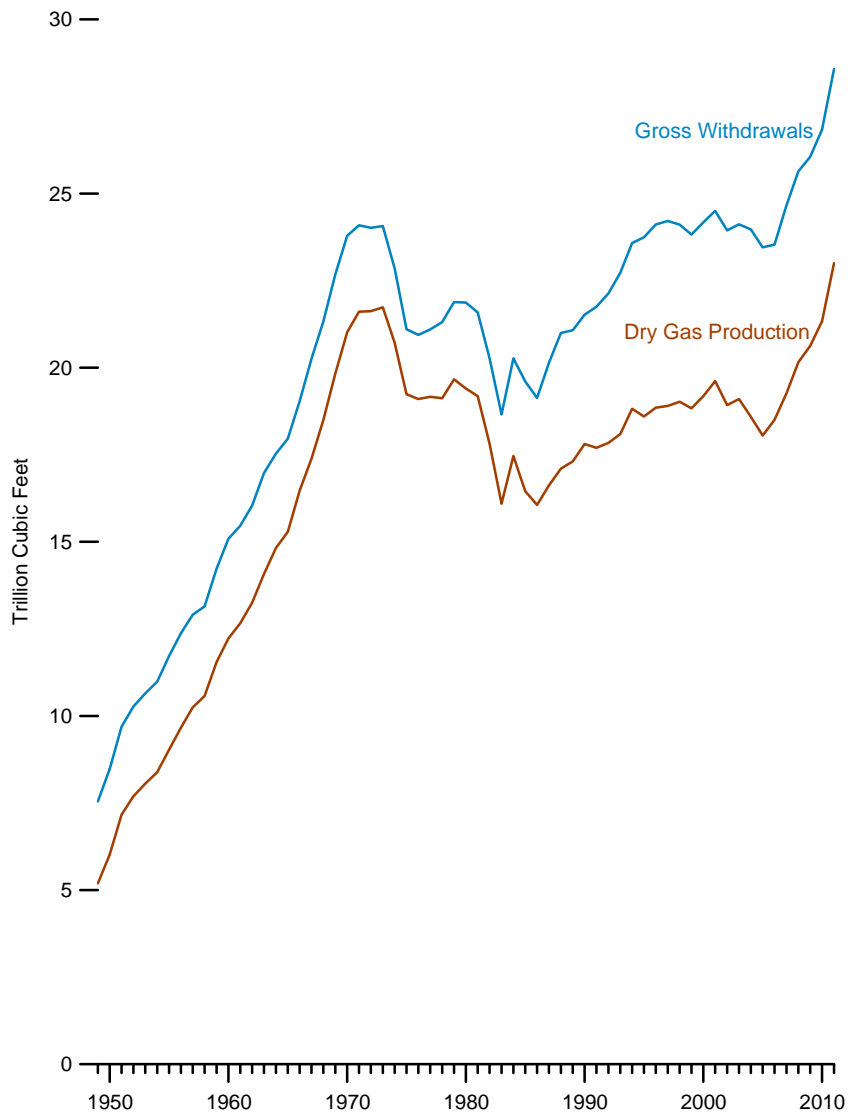
Notes: • Beginning with 1965, all volumes are shown on a pressure base of 14.73 p.s.i.a. at 60° F. For prior years, the pressure base was 14.65 p.s.i.a. at 60° F. • Totals may not equal sum of components due to independent rounding.

Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1949. • See <http://www.eia.gov/naturalgas/> for related information.

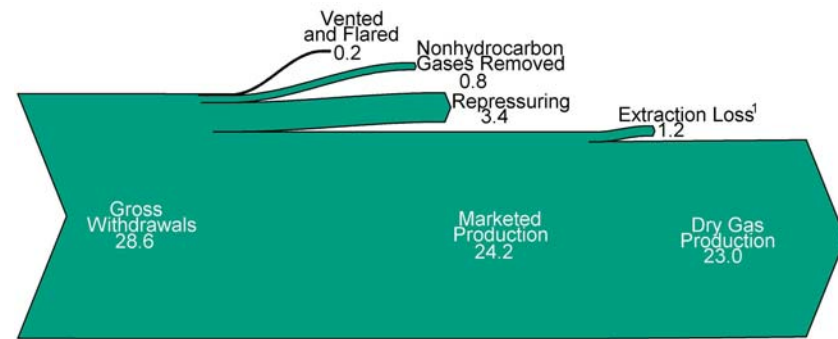
Sources: **Dry Gas Production:** Table 6.2. **Supplemental Gaseous Fuels:** • 1980-2006—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. • 2007 forward—EIA, *Natural Gas Monthly (NGM)* (March 2012), Table 1. **Trade:** Table 6.3. **Storage Activity:** • 1949-2010—EIA, NGA, annual reports. • 2011—EIA, NGM (March 2012), Table 8. **Balancing Item:** Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net withdrawals. **Consumption:** Table 6.5.

Figure 6.2 Natural Gas Production

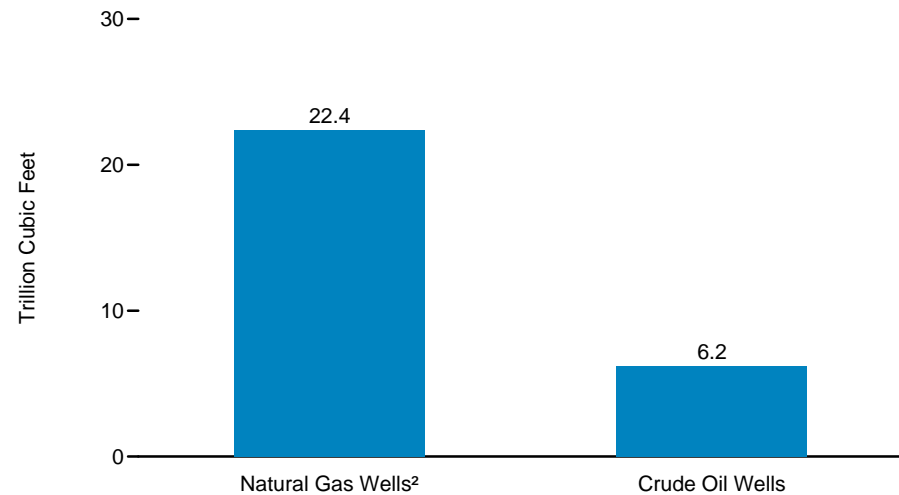
Gross Withdrawals and Dry Gas Production, 1949-2011



Production Flow, 2011 (Trillion Cubic Feet)



Gross Withdrawals by Well Type, 2011



¹ Volume reduction resulting from the removal of natural gas plant liquids, which are transferred to petroleum supply.

² Includes natural gas gross withdrawals from coalbed wells and shale gas wells. Source: Table 6.2.

Table 6.2 Natural Gas Production, Selected Years, 1949-2011
(Billion Cubic Feet)

Year	Natural Gas Gross Withdrawals					Repressuring	Nonhydrocarbon Gases Removed	Vented and Flared	Marketed Production	Extraction Loss ¹	Dry Gas Production
	Natural Gas Wells	Crude Oil Wells	Coalbed Wells	Shale Gas Wells	Total						
1949	4,986	2,561	NA	NA	7,547	1,273	NA	854	5,420	224	5,195
1950	5,603	2,876	NA	NA	8,480	1,397	NA	801	6,282	260	6,022
1955	7,842	3,878	NA	NA	11,720	1,541	NA	774	9,405	377	9,029
1960	10,853	4,234	NA	NA	15,088	1,754	NA	563	12,771	543	12,228
1965	13,524	4,440	NA	NA	17,963	1,604	NA	319	16,040	753	15,286
1970	18,595	5,192	NA	NA	23,786	1,376	NA	489	21,921	906	21,014
1975	17,380	3,723	NA	NA	21,104	861	NA	134	20,109	872	19,236
1976	17,191	3,753	NA	NA	20,944	859	NA	132	19,952	854	19,098
1977	17,416	3,681	NA	NA	21,097	935	NA	137	20,025	863	19,163
1978	17,394	3,915	NA	NA	21,309	1,181	NA	153	19,974	852	19,122
1979	18,034	3,849	NA	NA	21,883	1,245	NA	167	20,471	808	19,663
1980	17,573	4,297	NA	NA	21,870	1,365	199	125	20,180	777	19,403
1981	17,337	4,251	NA	NA	21,587	1,312	222	98	19,956	775	19,181
1982	15,809	4,463	NA	NA	20,272	1,388	208	93	18,582	762	17,820
1983	14,153	4,506	NA	NA	18,659	1,458	222	95	16,884	790	16,094
1984	15,513	4,754	NA	NA	20,267	1,630	224	108	18,304	838	17,466
1985	14,535	5,071	NA	NA	19,607	1,915	326	95	17,270	816	16,454
1986	14,154	4,977	NA	NA	19,131	1,838	337	98	16,859	800	16,059
1987	14,807	5,333	NA	NA	20,140	2,208	376	124	17,433	812	16,621
1988	15,467	5,532	NA	NA	20,999	2,478	460	143	17,918	816	17,103
1989	15,709	5,366	NA	NA	21,074	2,475	362	142	18,095	785	17,311
1990	16,054	5,469	NA	NA	21,523	2,489	289	150	18,594	784	17,810
1991	16,018	5,732	NA	NA	21,750	2,772	276	170	18,532	835	17,698
1992	16,165	5,967	NA	NA	22,132	2,973	280	168	18,712	872	17,840
1993	16,691	6,035	NA	NA	22,726	3,103	414	227	18,982	886	18,095
1994	17,351	6,230	NA	NA	23,581	3,231	412	228	19,710	889	18,821
1995	17,282	6,462	NA	NA	23,744	3,565	388	284	19,506	908	18,599
1996	17,737	6,376	NA	NA	24,114	3,511	518	272	19,812	958	18,854
1997	17,844	6,369	NA	NA	24,213	3,492	599	256	19,866	964	18,902
1998	17,729	6,380	NA	NA	24,108	3,427	617	103	19,961	938	19,024
1999	17,590	6,233	NA	NA	23,823	3,293	615	110	19,805	973	18,832
2000	17,726	6,448	NA	NA	24,174	3,380	505	91	20,198	1,016	19,182
2001	18,129	6,371	NA	NA	24,501	3,371	463	97	20,570	954	19,616
2002	17,795	6,146	NA	NA	23,941	3,455	502	99	19,885	957	18,928
2003	17,882	6,237	NA	NA	24,119	3,548	499	98	19,974	876	19,099
2004	17,885	6,084	NA	NA	23,970	3,702	654	96	19,517	927	18,591
2005	17,472	5,985	NA	NA	23,457	3,700	711	119	18,927	876	18,051
2006	17,996	5,539	NA	NA	23,535	3,265	731	129	19,410	906	18,504
2007	17,065	5,818	1,780	NA	24,664	3,663	661	143	20,196	930	19,266
2008	15,618	5,747	1,986	2,284	25,636	3,639	719	167	21,112	953	20,159
2009	^R 14,885	^R 5,812	1,977	3,384	^R 26,057	3,522	722	165	^R 21,648	1,024	^R 20,624
2010	² ^R 20,841	^R 5,995	(²)	(²)	^R 26,836	^R 3,432	^R 837	^R 166	^R 22,402	^R 1,070	^R 21,332
2011	^E 22,378	^E 6,199	(²)	(²)	^P 28,576	^E 3,410	^E 831	^E 165	^E 24,170	^P 1,169	^E 23,000

¹ Volume reduction resulting from the removal of natural gas plant liquids, which are transferred to petroleum supply (see Tables 5.1b and 5.10).

² Beginning in 2010, natural gas gross withdrawals from coalbed wells and shale gas wells are included in "Natural Gas Wells."

R=Revised. P=Preliminary. E=Estimate. NA=Not available.

Notes: • Beginning with 1965 data, all volumes are shown on a pressure base of 14.73 p.s.i.a. at 60° F. For prior years, the pressure base was 14.65 p.s.i.a. at 60° F. • Totals may not equal sum of components due to independent rounding.

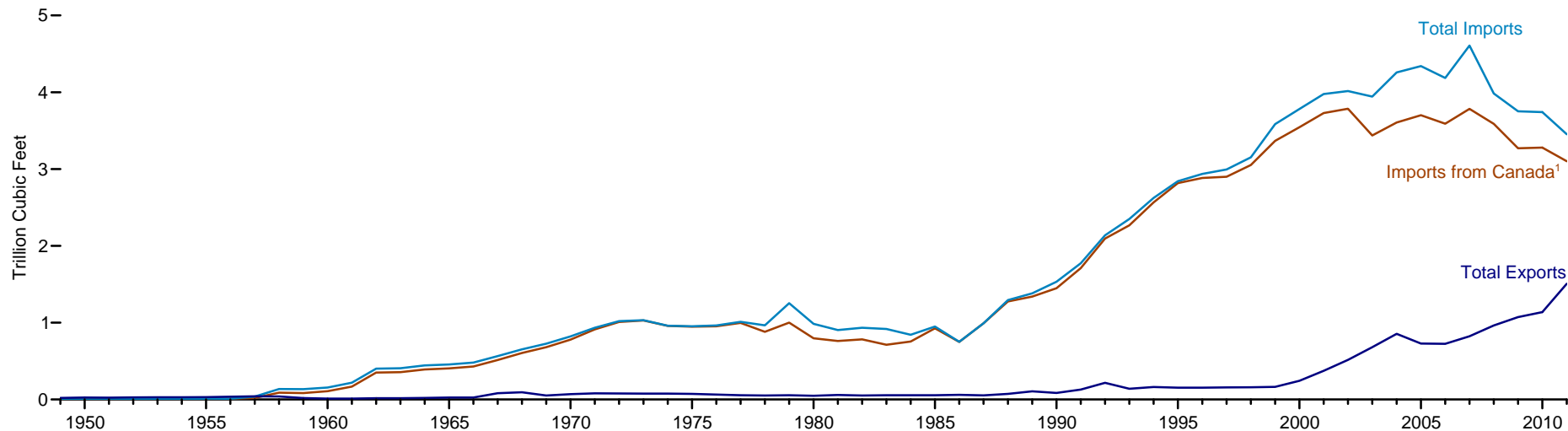
Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for updated monthly and

annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1949. • See <http://www.eia.gov/naturalgas/> for related information.

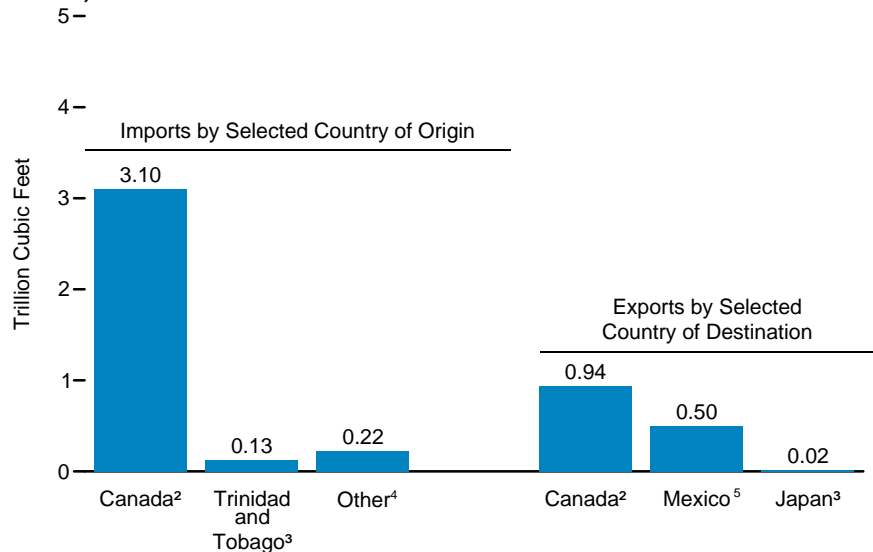
Sources: **Natural Gas Wells, Crude Oil Wells, Coalbed Wells, and Shale Gas Wells:** • 1949-1966—Bureau of Mines, *Minerals Yearbook*, "Natural Gas" chapter. • 1967-2010—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. • 2011—EIA estimates based on previous year's data. **Total Gross Withdrawals, Marketed Production, Extraction Loss, and Dry Gas Production:** • 1949-2006—EIA, NGA, annual reports. • 2007 forward—EIA, *Natural Gas Monthly* (March 2012), Table 1. **All Other Data:** • 1949-2010—EIA, NGA, annual reports. • 2011—EIA estimates based on previous year's data.

Figure 6.3 Natural Gas Imports, Exports, and Net Imports

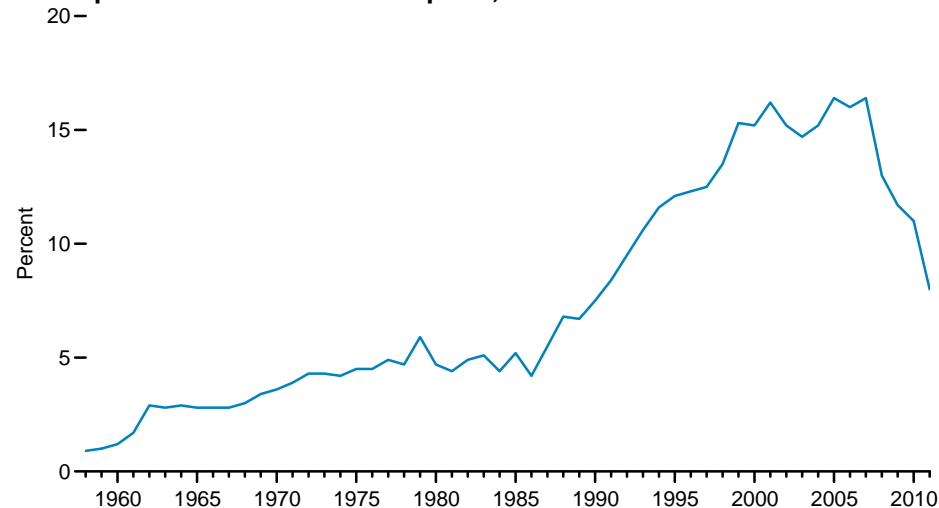
Trade Overview, 1949-2011



Trade, 2011



Net Imports as Share of Consumption, 1958-2011



¹ By pipeline, except for very small amounts of liquefied natural gas in 1973, 1977, and 1981.

² By pipeline.

³ As liquefied natural gas.

⁴ By pipeline from Mexico, and as liquefied natural gas from Egypt, Nigeria, Norway, Qatar, Peru, and Yemen.

⁵ By pipeline, except for very small amounts of liquefied natural gas.

Source: Table 6.3.

Table 6.3 Natural Gas Imports, Exports, and Net Imports, Selected Years, 1949-2011

(Billion Cubic Feet, Except as Noted)

Year	Imports by Country of Origin									Exports by Country of Destination					Net Imports ¹	
	Algeria ²	Canada ³	Egypt ²	Mexico ³	Nigeria ²	Qatar ²	Trinidad and Tobago ²	Other ^{2,4}	Total	Canada ³	Japan ²	Mexico ³	Other ^{2,5}	Total	Total	Percent of U.S. Consumption
1949	0	0	0	0	0	0	0	0	0	(s)	0	20	0	20	-20	(⁶)
1950	0	0	0	0	0	0	0	0	0	3	0	23	0	26	-26	(⁶)
1955	0	11	0	(s)	0	0	0	0	11	11	0	20	0	31	-20	(⁶)
1960	0	109	0	47	0	0	0	0	156	6	0	6	0	11	144	1.2
1965	0	405	0	52	0	0	0	0	456	18	0	8	0	26	430	2.8
1970	1	779	0	41	0	0	0	0	821	11	44	15	0	70	751	3.6
1975	5	948	0	0	0	0	0	0	953	10	53	9	0	73	880	4.5
1976	10	954	0	0	0	0	0	0	964	8	50	7	0	65	899	4.5
1977	11	997	0	2	0	0	0	0	1,011	(s)	52	4	0	56	955	4.9
1978	84	881	0	0	0	0	0	0	966	(s)	48	4	0	53	913	4.7
1979	253	1,001	0	0	0	0	0	0	1,253	(s)	51	4	0	56	1,198	5.9
1980	86	797	0	102	0	0	0	0	985	(s)	45	4	0	49	936	4.7
1981	37	762	0	105	0	0	0	0	904	(s)	56	3	0	59	845	4.4
1982	55	783	0	95	0	0	0	0	933	(s)	50	2	0	52	882	4.9
1983	131	712	0	75	0	0	0	0	918	(s)	53	2	0	55	864	5.1
1984	36	755	0	52	0	0	0	0	843	(s)	53	2	0	55	788	4.4
1985	24	926	0	0	0	0	0	0	950	(s)	53	2	0	55	894	5.2
1986	0	749	0	0	0	0	0	2	750	9	50	2	0	61	689	4.2
1987	0	993	0	0	0	0	0	0	993	3	49	2	0	54	939	5.5
1988	17	1,276	0	0	0	0	0	0	1,294	20	52	2	0	74	1,220	6.8
1989	42	1,339	0	0	0	0	0	0	1,382	38	51	17	0	107	1,275	6.7
1990	84	1,448	0	0	0	0	0	0	1,532	17	53	16	0	86	1,447	7.5
1991	64	1,710	0	0	0	0	0	0	1,773	15	54	60	0	129	1,644	8.4
1992	43	2,094	0	0	0	0	0	0	2,138	68	53	96	0	216	1,921	9.5
1993	82	2,267	0	2	0	0	0	0	2,350	45	56	40	0	140	2,210	10.6
1994	51	2,566	0	7	0	0	0	0	2,624	53	63	47	0	162	2,462	11.6
1995	18	2,816	0	7	0	0	0	0	2,841	28	65	61	0	154	2,687	12.1
1996	35	2,883	0	14	0	0	0	5	2,937	52	68	34	0	153	2,784	12.3
1997	66	2,899	0	17	0	0	0	12	2,994	56	62	38	0	157	2,837	12.5
1998	69	3,052	0	15	0	0	0	17	3,152	40	66	53	0	159	2,993	13.5
1999	76	3,368	0	55	0	20	51	17	3,586	39	64	61	0	163	3,422	15.3
2000	47	3,544	0	12	13	46	99	21	3,782	73	66	106	0	244	3,538	15.2
2001	65	3,729	0	10	38	23	98	14	3,977	167	66	141	0	373	3,604	16.2
2002	27	3,785	0	2	8	35	151	8	4,015	189	63	263	0	516	3,499	15.2
2003	53	3,437	0	0	50	14	378	11	3,944	271	66	343	0	680	3,264	14.7
2004	120	3,607	0	0	12	12	462	46	4,259	395	62	397	0	854	3,404	15.2
2005	97	3,700	73	9	8	3	439	11	4,341	358	65	305	0	729	3,612	16.4
2006	17	3,590	120	13	57	0	389	0	4,186	341	61	322	0	724	3,462	16.0
2007	77	3,783	115	54	95	18	448	18	4,608	482	47	292	2	822	3,785	16.4
2008	0	3,589	55	43	12	3	267	15	3,984	559	39	365	0	963	3,021	13.0
2009	0	3,271	160	28	13	13	236	29	3,751	701	31	338	3	1,072	2,679	11.7
2010	0	R3,280	73	30	42	46	190	81	R3,741	R739	33	333	32	R1,137	R2,604	R11.0
2011 ^P	0	3,102	35	3	2	91	129	92	3,453	937	18	500	52	1,507	1,946	8.0

¹ Net imports equal imports minus exports.

² As liquefied natural gas.

³ By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981, and exported to Mexico beginning in 1998.

⁴ Australia in 1997–2001 and 2004; Brunei in 2002; Equatorial Guinea in 2007; Indonesia in 1986 and 2000; Malaysia in 1999 and 2002–2005; Norway in 2008 forward; Oman in 2000–2005; Peru in 2010 and 2011; United Arab Emirates in 1996–2000; Yemen in 2010 and 2011; and Other (unassigned) in 2004.

⁵ Brazil in 2010 and 2011; Chile in 2011; China in 2011; India in 2010 and 2011; Russia in 2007; South Korea in 2009 forward; Spain in 2010 and 2011; and United Kingdom in 2010 and 2011.

⁶ Not meaningful because there were net exports during this year.

R=Revised. P=Preliminary. (s)=Less than 0.5 billion cubic feet.

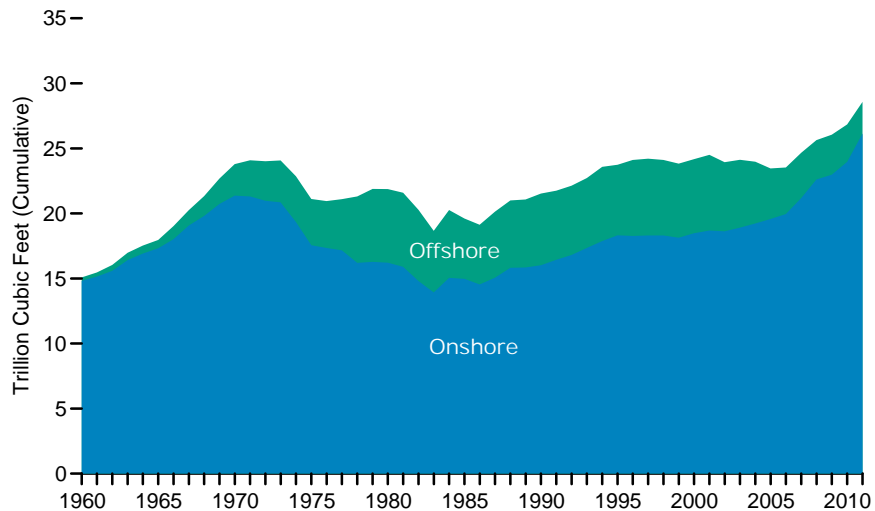
Note: Totals may not equal sum of components due to independent rounding.

 Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1949. • See <http://www.eia.gov/naturalgas/> for related information.

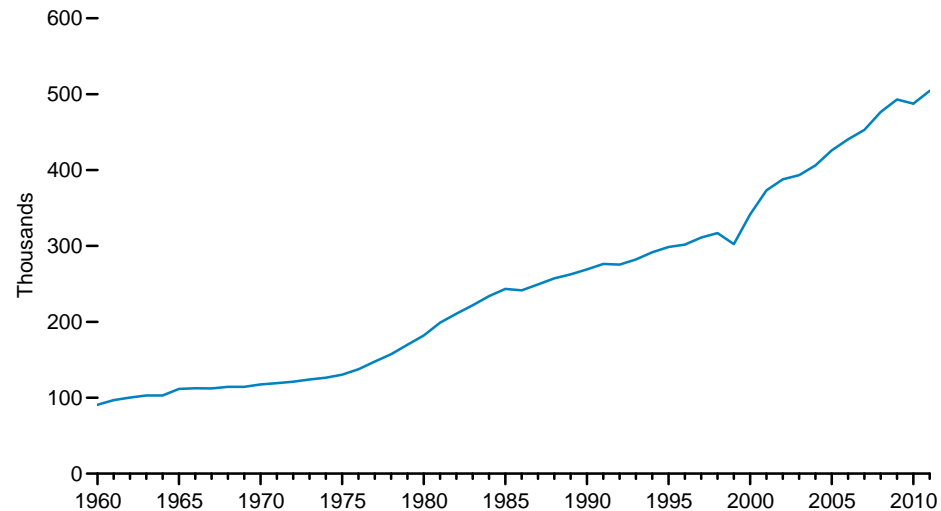
 Sources: **Percent of U.S. Consumption:** Calculated by dividing natural gas net imports by total natural gas consumption—see Table 6.1. **All Other Data:** • 1949–1954—U.S. Energy Information Administration (EIA) estimates based on Bureau of Mines, Minerals Yearbook, "Natural Gas" chapter. • 1955–1971—EIA, Federal Power Commission, by telephone. • 1972–1987—EIA, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • 1988–2009—EIA, *Natural Gas Annual*, annual reports. • 2010 and 2011—EIA, *Natural Gas Monthly* (March 2012), Tables 4 and 5.

Figure 6.4 Natural Gas Gross Withdrawals and Natural Gas Well Productivity, 1960-2011

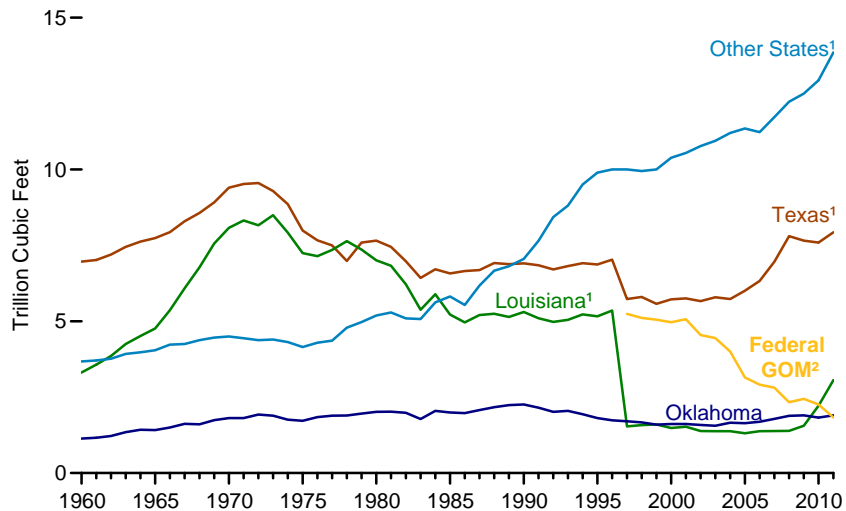
Gross Withdrawals by Location



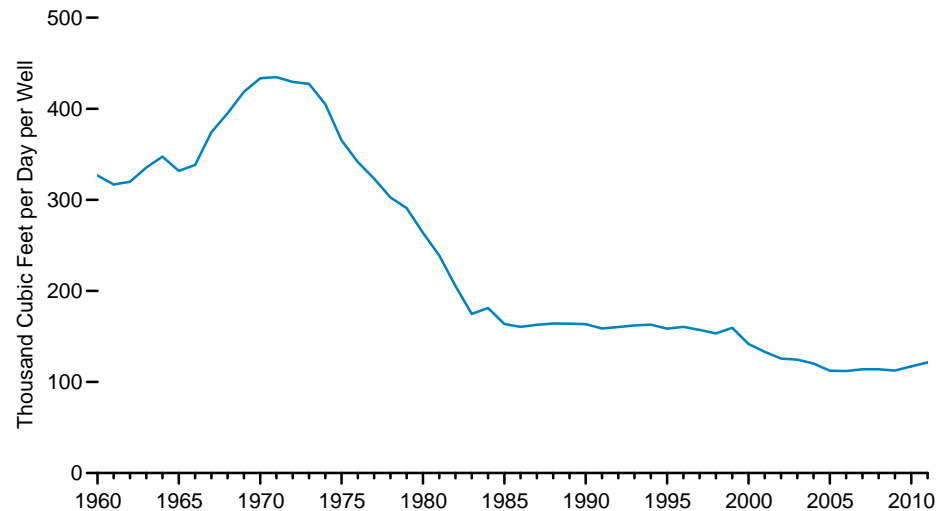
Number of Producing Wells



Gross Withdrawals by State and Federal Gulf of Mexico



Natural Gas Well Average Productivity



¹ Through 1996, includes gross withdrawals in Federal offshore areas of the Gulf of Mexico; beginning in 1997, these are included in "Federal Gulf of Mexico."

² Gulf of Mexico.
Source: Table 6.4.

Table 6.4 Natural Gas Gross Withdrawals and Natural Gas Well Productivity, Selected Years, 1960-2011

Year	Natural Gas Gross Withdrawals From Crude Oil, Natural Gas, Coalbed, and Shale Gas Wells										Natural Gas Well Productivity			
	Texas ¹	Louisiana ¹	Oklahoma	Other States ¹	Federal Gulf of Mexico ²	Total	Onshore	Offshore			Total	Gross Withdrawals From Natural Gas Wells ³	Producing Wells ⁴	Average Productivity
								Federal	State	Total				
	Billion Cubic Feet					Billion Cubic Feet					Billion Cubic Feet	Thousands	Thousand Cubic Feet Per Day Per Well	
1960	6,965	3,313	1,133	3,677	(²)	15,088	14,815	273	NA	273	15,088	10,853	91	326.7
1965	7,741	4,764	1,414	4,044	(²)	17,963	17,318	646	NA	646	17,963	13,524	112	331.8
1966	7,935	5,365	1,502	4,232	(²)	19,034	18,026	1,007	NA	1,007	19,034	13,894	112	338.4
1967	8,292	6,087	1,621	4,252	(²)	20,252	19,065	1,187	NA	1,187	20,252	15,345	112	374.3
1968	8,566	6,778	1,607	4,375	(²)	21,325	19,801	1,524	NA	1,524	21,325	16,540	114	395.1
1969	8,915	7,561	1,742	4,462	(²)	22,679	20,725	1,954	NA	1,954	22,679	17,489	114	418.6
1970	9,399	8,076	1,811	4,501	(²)	23,786	21,368	2,419	NA	2,419	23,786	18,595	117	433.6
1971	9,519	8,319	1,809	4,442	(²)	24,088	21,311	2,777	NA	2,777	24,088	18,925	119	434.8
1972	9,550	8,160	1,928	4,378	(²)	24,016	20,978	3,039	NA	3,039	24,016	19,043	121	429.4
1973	9,290	8,491	1,890	4,396	(²)	24,067	20,856	3,212	NA	3,212	24,067	19,372	124	427.4
1974	8,859	7,920	1,757	4,314	(²)	22,850	19,335	3,515	NA	3,515	22,850	18,669	126	404.9
1975	7,989	7,242	1,721	4,152	(²)	21,104	17,555	3,549	NA	3,549	21,104	17,380	130	365.3
1976	7,666	7,143	1,842	4,293	(²)	20,944	17,348	3,596	NA	3,596	20,944	17,191	138	341.5
1977	7,496	7,351	1,888	4,362	(²)	21,097	17,165	3,932	NA	3,932	21,097	17,416	148	323.1
1978	6,988	7,639	1,892	4,790	(²)	21,309	^R 16,197	4,356	756	^R 5,111	21,309	17,394	157	302.7
1979	7,594	7,359	1,958	4,973	(²)	21,883	^R 16,280	4,822	781	^R 5,603	21,883	18,034	170	290.8
1980	7,656	7,008	2,019	5,187	(²)	21,870	^R 16,220	4,902	748	^R 5,650	21,870	17,573	182	263.8
1981	7,452	6,830	2,019	5,287	(²)	21,587	^R 15,894	4,991	703	^R 5,693	21,587	17,337	199	238.9
1982	6,976	6,217	1,985	5,094	(²)	20,272	^R 14,806	4,773	693	^R 5,466	20,272	15,809	211	205.5
1983	6,429	5,379	1,780	5,071	(²)	18,659	^R 13,924	4,182	553	^R 4,735	18,659	14,153	222	174.7
1984	6,712	5,888	2,046	5,620	(²)	20,267	^R 15,046	4,707	513	^R 5,220	20,267	15,513	234	181.2
1985	6,577	5,218	1,993	5,818	(²)	19,607	^R 14,975	4,186	446	^R 4,632	19,607	14,535	243	163.6
1986	6,656	4,965	1,972	5,538	(²)	19,131	^R 14,542	4,186	403	^R 4,589	19,131	14,154	242	160.6
1987	6,688	5,205	2,073	6,174	(²)	20,140	^R 15,062	4,672	406	^R 5,078	20,140	14,807	249	162.8
1988	6,919	5,248	2,167	6,665	(²)	20,999	^R 15,818	4,747	434	^R 5,181	20,999	15,467	257	164.3
1989	6,881	5,143	2,237	6,813	(²)	21,074	^R 15,843	4,771	460	^R 5,231	21,074	15,709	262	164.0
1990	6,907	5,303	2,258	7,054	(²)	21,523	^R 16,013	5,047	463	^R 5,509	21,523	16,054	^R 270	^R 163.0
1991	6,846	5,100	2,154	7,651	(²)	21,750	^R 16,442	4,850	459	^R 5,308	21,750	16,018	^R 277	^R 158.4
1992	6,708	4,977	2,017	8,429	(²)	22,132	^R 16,808	4,772	552	^R 5,324	22,132	16,165	^R 276	^R 160.0
1993	6,817	5,047	2,050	8,812	(²)	22,726	^R 17,352	4,766	607	^R 5,373	22,726	16,691	282	162.1
1994	6,912	5,226	1,935	9,508	(²)	23,581	^R 17,880	4,996	704	^R 5,701	23,581	17,351	292	162.9
1995	6,873	5,163	1,812	9,896	(²)	23,744	^R 18,312	4,942	490	^R 5,432	23,744	17,282	299	158.6
1996	7,028	5,351	1,735	9,999	(²)	24,114	^R 18,270	5,246	597	^R 5,844	24,114	17,737	302	160.6
1997	¹⁵ 7,300	¹ 5,538	1,704	¹⁹ 9,999	5,242	24,213	^R 18,306	5,316	591	^R 5,906	24,213	17,844	311	157.2
1998	5,799	1,579	1,669	9,950	5,110	24,108	^R 18,308	5,185	615	^R 5,801	24,108	17,729	317	153.3
1999	5,575	1,599	1,594	10,002	5,053	23,823	^R 18,133	5,131	559	^R 5,689	23,823	17,590	302	159.4
2000	5,723	1,485	1,613	10,386	4,968	24,174	^R 18,474	5,044	656	^R 5,699	24,174	17,726	342	141.7
2001	5,752	1,525	1,615	10,542	5,066	24,501	^R 18,685	5,137	679	^R 5,816	24,501	18,129	373	133.1
2002	5,661	1,382	1,582	10,769	4,548	23,941	^R 18,629	4,615	697	^R 5,312	23,941	17,795	388	125.7
2003	5,791	1,378	1,558	10,944	4,447	24,119	^R 18,903	4,505	710	^R 5,216	24,119	17,882	393	124.6
2004	5,734	1,377	1,656	11,202	4,001	23,970	^R 19,233	4,055	681	^R 4,736	23,970	17,885	406	120.3
2005	6,007	1,310	1,639	11,350	3,151	23,457	^R 19,567	3,205	685	^R 3,890	23,457	17,472	426	112.4
2006	6,326	1,378	1,689	11,227	2,914	23,535	^R 19,951	2,955	630	^R 3,584	23,535	17,996	441	111.9
2007	6,961	1,383	1,784	11,723	2,813	24,664	^R 21,187	2,859	618	^R 3,477	24,664	^{3,R} 18,845	453	^R 114.0
2008	7,801	1,388	1,887	12,231	2,330	25,636	^R 22,608	2,375	654	^R 3,029	25,636	^R 19,889	477	^R 114.0
2009	7,654	1,559	^R 1,902	12,499	2,444	^R 26,057	^R 22,985	2,485	587	^R 3,072	^R 26,057	^R 20,245	493	^R 112.5
2010	^R 7,594	^R 2,218	1,827	^R 12,938	2,259	^R 26,836	^R 23,960	2,300	576	^R 2,876	^R 26,836	^R 20,841	^R 488	^R 117.1
2011	^P 7,931	^P 3,060	^P 1,899	^P 13,855	^P 1,830	^P 28,576	^E 26,152	^E 1,868	^E 556	^E 2,424	^P 28,576	^E 22,378	^E 504	^E 121.5

¹ Through 1996, includes gross withdrawals in Federal offshore areas of the Gulf of Mexico; beginning in 1997, these are included in "Federal Gulf of Mexico."

² Gross withdrawals from Federal offshore areas of the Gulf of Mexico. Through 1996, these gross withdrawals are included in "Texas," "Louisiana," and "Other States."

³ Beginning in 2007, includes natural gas gross withdrawals from coalbed wells, and beginning in 2008, from shale gas wells.

⁴ As of December 31.

R=Revised, P=Preliminary, E=Estimate, NA=Not available.

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

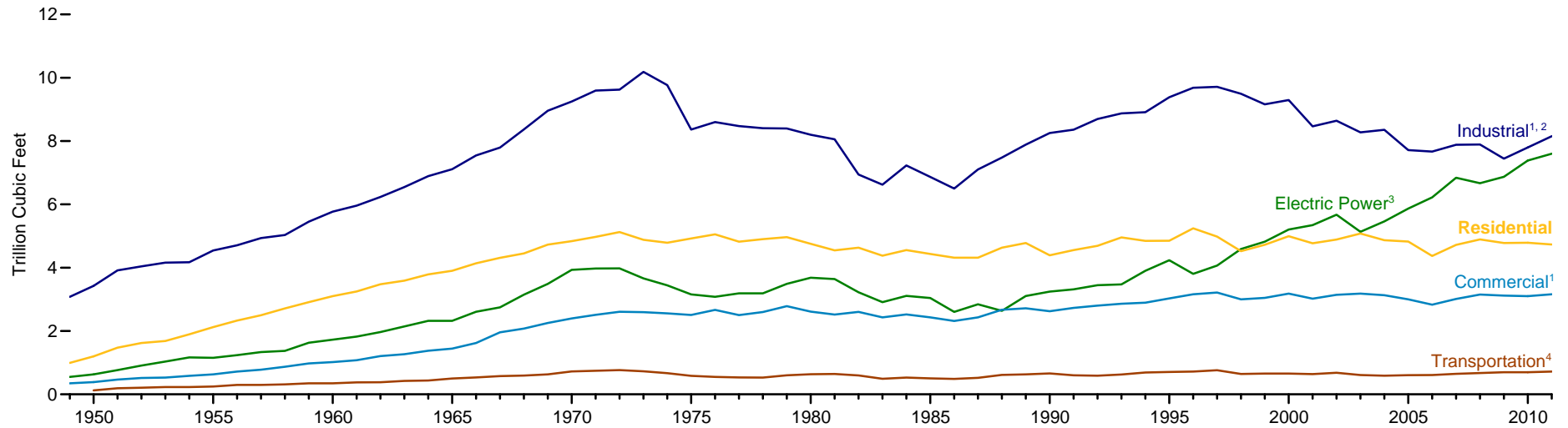
Web Pages: • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all data beginning in 1960. • For related information, see <http://www.eia.gov/naturalgas/>.

Sources: **Total (Gross Withdrawals):** • 1960-2006—U.S. Energy Information Administration (EIA),

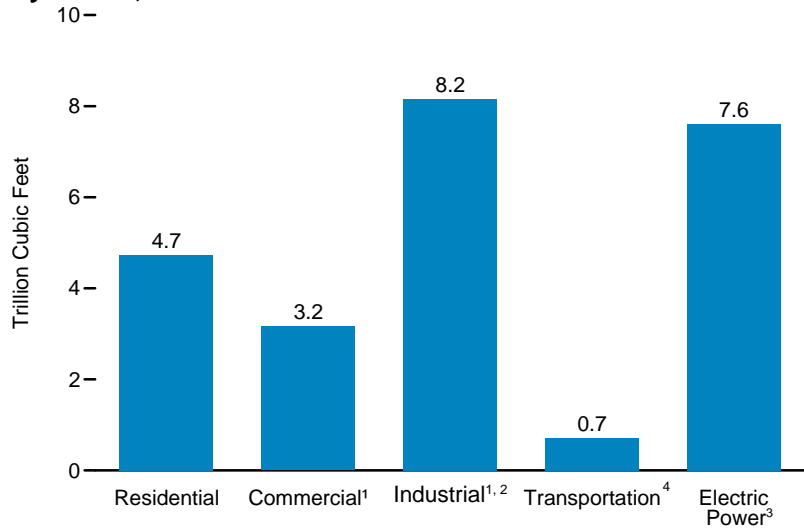
Natural Gas Annual (NGA), annual reports. • 2007 forward—EIA, *Natural Gas Monthly* (March 2012), Table 1. **Total (Offshore):** • 1960-1981—U.S. Geological Survey. • 1982-1985—U.S. Minerals Management Service, *Mineral Revenues—The 1989 Report on Receipts from Federal and Indian Leases*, and predecessor annual reports. • 1986-2010—EIA, NGA, annual reports • 2011—Calculated as total gross withdrawals minus onshore withdrawals. **State (Offshore) and Federal (Offshore):** • 1960-2010—EIA, NGA, annual reports. • 2011—EIA estimates based on Bureau of Safety and Environmental Enforcement and State reports and websites. **Average Productivity:** Calculated as gross withdrawals from natural gas wells divided by the number of producing wells, and then divided by the number of days in the year. **All Other Data:** • 1960-1966—Bureau of Mines, *Natural Gas Production and Consumption*. • 1967-2010—EIA, NGA, annual reports and unpublished revisions. • 2011—EIA estimates based on previous year's data.

Figure 6.5 Natural Gas Consumption by Sector

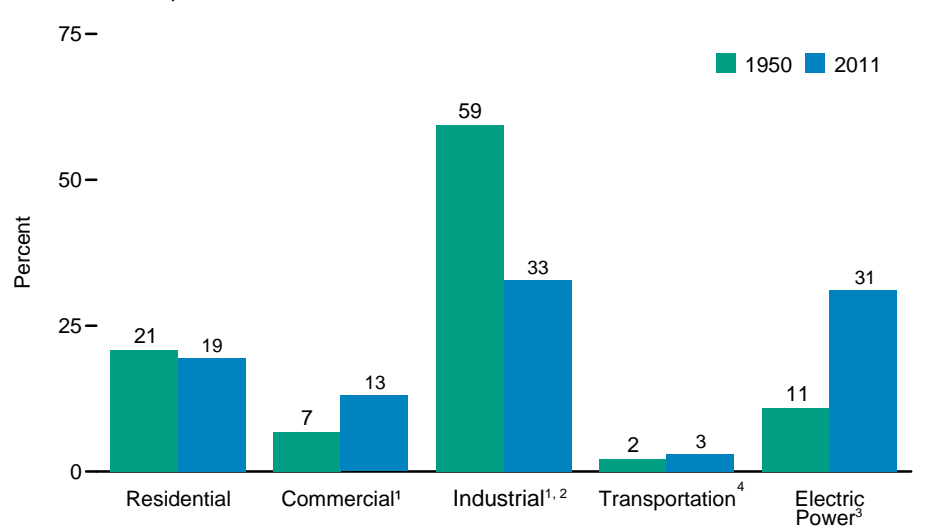
By Sector, 1949-2011



By Sector, 2011



Sector Shares, 1950 and 2011



¹ Includes combined-heat-and-power plants and a small number of electricity-only plants.

² Lease and plant fuel, and other industrial.

³ Electricity-only and combined-heat-and-power plants whose primary business is to sell electricity, or electricity and heat, to the public.

⁴ Natural gas consumed in the operation of pipelines (primarily in compressors), and as fuel in the delivery of natural gas to consumers; plus a small quantity used as vehicle fuel.

Source: Table 6.5.

Table 6.5 Natural Gas Consumption by Sector, Selected Years, 1949-2011
(Billion Cubic Feet)

Year	Residential Sector	Commercial Sector			Industrial Sector				Transportation Sector			Electric Power Sector ¹			Total	
		CHP ²	Other ³	Total	Lease and Plant Fuel	Other Industrial		Total	Pipelines and Distribution ⁶	Vehicle Fuel ⁸	Total	Electricity Only	CHP	Total		
						CHP ⁴	Non-CHP ⁵									
1949	993	(⁹)	348	348	835	(¹⁰)	2,245	2,245	3,081	NA	NA	NA	550	NA	550	4,971
1950	1,198	(⁹)	388	388	928	(¹⁰)	2,498	2,498	3,426	126	NA	126	629	NA	629	5,767
1955	2,124	(⁹)	629	629	1,131	(¹⁰)	3,411	3,411	4,542	245	NA	245	1,153	NA	1,153	8,694
1960	3,103	(⁹)	1,020	1,020	1,237	(¹⁰)	4,535	4,535	5,771	347	NA	347	1,725	NA	1,725	11,967
1965	3,903	(⁹)	1,444	1,444	1,156	(¹⁰)	5,955	5,955	7,112	501	NA	501	2,321	NA	2,321	15,280
1970	4,837	(⁹)	2,399	2,399	1,399	(¹⁰)	7,851	7,851	9,249	722	NA	722	3,932	NA	3,932	21,139
1975	4,924	(⁹)	2,508	2,508	1,396	(¹⁰)	6,968	6,968	8,365	583	NA	583	3,158	NA	3,158	19,538
1976	5,051	(⁹)	2,668	2,668	1,634	(¹⁰)	6,964	6,964	8,598	548	NA	548	3,081	NA	3,081	19,946
1977	4,821	(⁹)	2,501	2,501	1,659	(¹⁰)	6,815	6,815	8,474	533	NA	533	3,191	NA	3,191	19,521
1978	4,903	(⁹)	2,601	2,601	1,648	(¹⁰)	6,757	6,757	8,405	530	NA	530	3,188	NA	3,188	19,627
1979	4,965	(⁹)	2,786	2,786	1,499	(¹⁰)	6,899	6,899	8,398	601	NA	601	3,491	NA	3,491	20,241
1980	4,752	(⁹)	2,611	2,611	1,026	(¹⁰)	7,172	7,172	8,198	635	NA	635	3,682	NA	3,682	19,877
1981	4,546	(⁹)	2,520	2,520	928	(¹⁰)	7,128	7,128	8,055	642	NA	642	3,640	NA	3,640	19,404
1982	4,633	(⁹)	2,606	2,606	1,109	(¹⁰)	5,831	5,831	6,941	596	NA	596	3,226	NA	3,226	18,001
1983	4,381	(⁹)	2,433	2,433	978	(¹⁰)	5,643	5,643	6,621	490	NA	490	2,911	NA	2,911	16,835
1984	4,555	(⁹)	2,524	2,524	1,077	(¹⁰)	6,154	6,154	7,231	529	NA	529	3,111	NA	3,111	17,951
1985	4,433	(⁹)	2,432	2,432	966	(¹⁰)	5,901	5,901	6,867	504	NA	504	3,044	NA	3,044	17,281
1986	4,314	(⁹)	2,318	2,318	923	(¹⁰)	5,579	5,579	6,502	485	NA	485	2,602	NA	2,602	16,221
1987	4,315	(⁹)	2,430	2,430	1,149	(¹⁰)	5,953	5,953	7,103	519	NA	519	2,844	NA	2,844	17,211
1988	4,630	(⁹)	2,670	2,670	1,096	(¹⁰)	6,383	6,383	7,479	614	NA	614	2,636	NA	2,636	18,030
1989	4,781	30	2,688	2,718	1,070	914	¹¹ 5,903	¹¹ 6,816	7,886	629	NA	629	¹¹ 2,791	¹¹ 315	¹¹ 3,105	¹¹ 19,119
1990	4,391	46	2,576	2,623	1,236	1,055	¹¹ 5,963	¹¹ 7,018	8,255	660	(s)	660	¹¹ 2,794	¹¹ 451	¹¹ 3,245	¹¹ 19,174
1991	4,556	52	2,676	2,729	1,129	1,061	¹¹ 6,170	¹¹ 7,231	8,360	601	(s)	602	¹¹ 2,822	¹¹ 494	¹¹ 3,316	¹¹ 19,562
1992	4,690	62	2,740	2,803	1,171	1,107	¹¹ 6,420	¹¹ 7,527	8,698	588	2	590	¹¹ 2,829	¹¹ 619	¹¹ 3,448	¹¹ 20,228
1993	4,956	65	2,796	2,862	1,172	1,124	6,576	7,700	8,872	624	3	627	2,755	718	3,473	20,790
1994	4,848	72	2,823	2,895	1,124	1,176	6,613	7,790	8,913	685	3	689	3,065	838	3,903	21,247
1995	4,850	78	2,953	3,031	1,220	1,258	6,906	8,164	9,384	700	5	705	3,288	949	4,237	22,207
1996	5,241	82	3,076	3,158	1,250	1,289	7,146	8,435	9,685	711	6	718	2,824	983	3,807	22,609
1997	4,984	87	3,128	3,215	1,203	1,282	7,229	8,511	9,714	751	8	760	3,039	1,026	4,065	22,737
1998	4,520	87	2,912	2,999	1,173	1,355	6,965	8,320	9,493	635	9	645	3,544	1,044	4,588	22,246
1999	4,726	84	2,961	3,045	1,079	1,401	6,678	8,079	9,158	645	12	657	3,729	1,090	4,820	22,405
2000	4,996	85	3,098	3,182	1,151	1,386	6,757	8,142	9,293	642	13	655	4,093	1,114	5,206	23,333
2001	4,771	79	2,944	3,023	1,119	1,310	6,035	7,344	8,463	625	15	640	4,164	1,178	5,342	22,239
2002	4,889	74	3,070	3,144	1,113	1,240	^R 6,287	^R 7,527	^R 8,640	667	15	682	4,258	1,413	5,672	^R 23,027
2003	5,079	58	3,121	3,179	1,122	1,144	6,007	7,150	8,273	591	18	610	3,780	1,355	5,135	22,277
2004	4,869	72	3,057	3,129	1,098	1,191	^R 6,066	^R 7,256	^R 8,354	566	21	587	4,142	1,322	5,464	^R 22,403
2005	4,827	68	2,931	2,999	1,112	1,084	^R 5,518	^R 6,601	^R 7,713	584	23	607	4,592	1,277	5,869	^R 22,014
2006	4,368	68	2,764	2,832	1,142	1,115	^R 5,412	^R 6,527	^R 7,669	584	24	608	5,091	1,131	6,222	^R 21,699
2007	4,722	70	2,943	3,013	1,226	1,050	^R 5,604	^R 6,655	^R 7,881	621	25	646	5,612	1,230	6,841	^R 23,104
2008	4,892	66	3,086	3,153	1,220	955	^R 5,715	^R 6,670	^R 7,890	648	26	674	5,520	1,148	6,668	^R 23,277
2009	^R 4,779	76	3,043	3,119	1,275	990	^R 5,178	6,167	^R 7,443	^R 670	^R 27	^R 697	5,751	1,122	6,873	^R 22,910
2010	^R 4,787	^R 86	^R 3,016	^R 3,102	^R 1,282	^R 1,029	^R 5,488	^R 6,517	^R 7,800	^R 669	^R 31	^R 700	^R 6,239	^R 1,148	^R 7,387	^R 23,775
2011 ^P	4,735	81	3,080	3,161	1,383	1,024	5,746	6,769	8,153	686	33	718	6,440	1,162	7,602	24,369

¹ Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers. Electric utility CHP plants are included in "Electricity Only."

² Commercial combined-heat-and-power (CHP) and a small number of commercial electricity-only plants.

³ All commercial sector fuel use other than that in "Commercial CHP."

⁴ Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants.

⁵ All industrial sector fuel use other than that in "Lease and Plant Fuel" and "Industrial CHP."

⁶ Natural gas consumed in the operation of pipelines, primarily in compressors.

⁷ Natural gas used as fuel in the delivery of natural gas to consumers.

⁸ Vehicle fuel data do not reflect revised data shown in Table 10.5. See Note 4, "Natural Gas Vehicle Fuel," at end of section.

⁹ Included in "Commercial Other."

¹⁰ Included in "Industrial Non-CHP."

¹¹ For 1989–1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector." See Note 3, "Natural Gas Consumption, 1989–1992," at end of section.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.5 billion cubic feet.

Notes: • Data are for natural gas, plus a small amount of supplemental gaseous fuels. See Note 1,

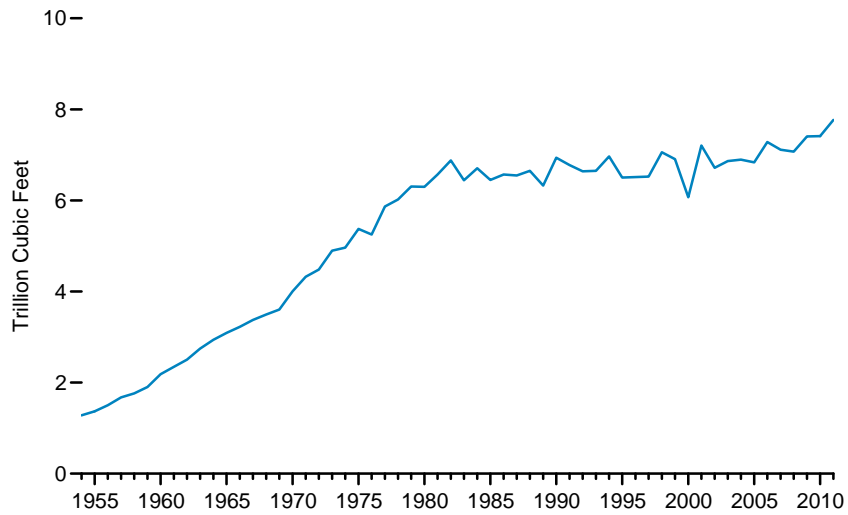
"Supplemental Gaseous Fuels," at end of section. • See Tables 8.5a–8.5d for the amount of natural gas used to produce electricity and Tables 8.6a–8.6c for the amount of natural gas used to produce useful thermal output. • See Note 2, "Natural Gas Consumption," at end of section. • Beginning with 1965, all volumes are shown on a pressure base of 14.73 p.s.i.a. at 60° F. For prior years, the pressure base was 14.65 p.s.i.a. at 60° F. • Totals may not equal sum of components due to independent rounding.

Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1949. • See <http://www.eia.gov/naturalgas/> for related information.

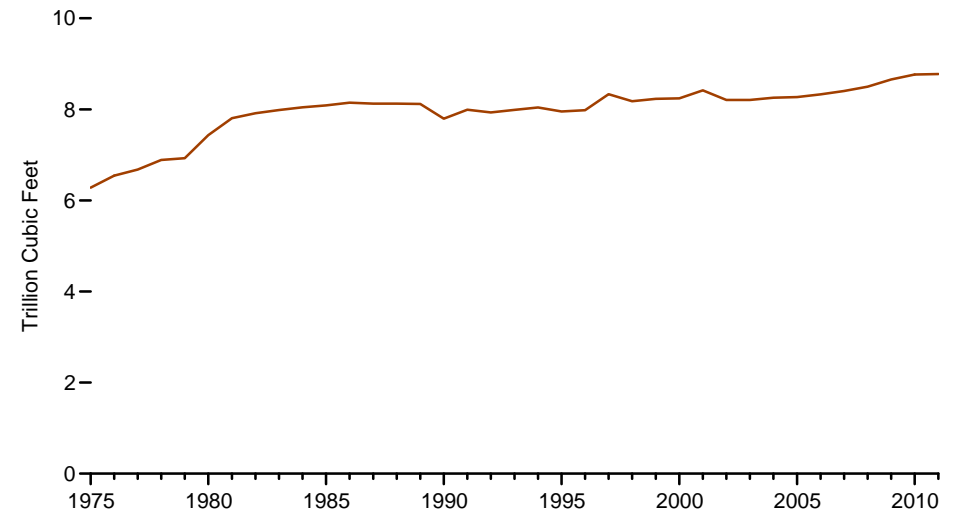
Sources: **Residential, Commercial Total, Lease and Plant Fuel, Other Industrial Total, and Pipelines and Distribution:** • 1949–2006—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports and unpublished revisions. • 2007 forward—EIA, *Natural Gas Monthly (NGM)* (March 2012), Table 2. **Commercial CHP and Industrial CHP:** Table 8.7c. **Vehicle Fuel:** • 1990 and 1991—EIA, NGA 2000 (November 2001), Table 95. • 1992–1998—EIA, "Alternatives to Traditional Transportation Fuels 1999" (October 1999), Table 10, and "Alternatives to Traditional Transportation Fuels 2003" (February 2004), Table 10. Data for compressed natural gas and liquefied natural gas in gasoline-equivalent gallons were converted to cubic feet by multiplying by the motor gasoline conversion factor (see Table A3) and dividing by the natural gas end-use sectors conversion factor (see Table A4). • 1999–2006—EIA, NGA, annual reports. • 2007 forward—EIA, NGM (March 2012), Table 2. **Electric Power Sector:** Tables 8.5b, 8.5c, 8.6b, and 8.7b. **All Other Data:** Calculated.

Figure 6.6 Natural Gas Underground Storage, End of Year

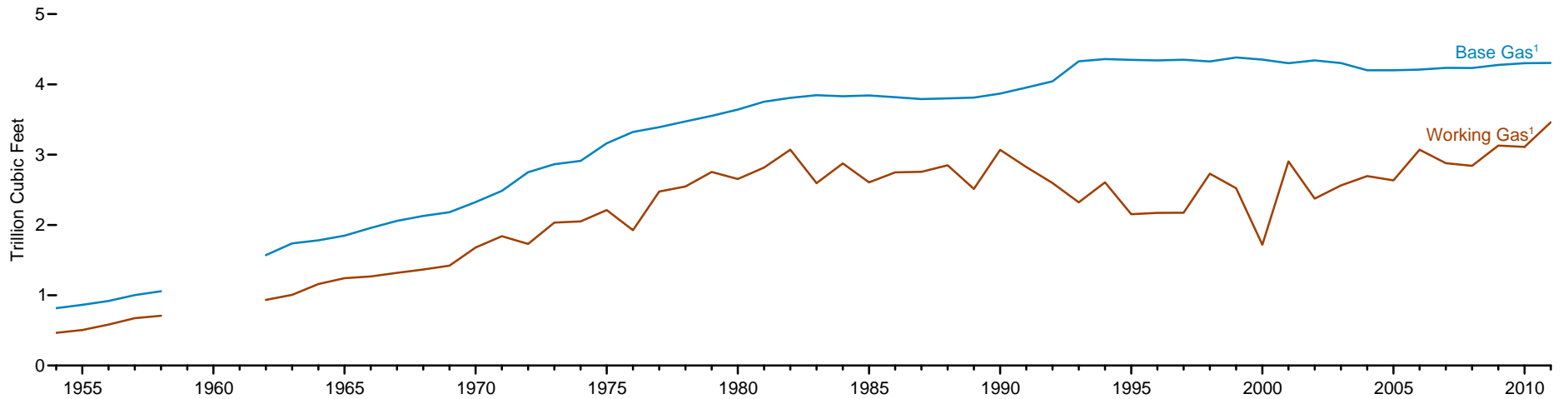
Total (Base Gas and Working Gas) Underground Storage, 1954-2011



Underground Storage Capacity, 1975-2011



Base Gas and Working Gas in Underground Storage, 1954-2011



¹ Working-gas and base-gas data were not collected in 1959, 1960, and 1961.

Source: Table 6.6.

Table 6.6 Natural Gas Underground Storage, Selected Years, End of Year 1954-2011
(Billion Cubic Feet)

Year	Natural Gas in Underground Storage									Natural Gas Underground Storage Capacity ³
	Base Gas ¹			Working Gas			Total			
	Salt Caverns	Other Than Salt Caverns ²	Total	Salt Caverns	Other Than Salt Caverns ²	Total	Salt Caverns	Other Than Salt Caverns ²	Total	
1954	NA	NA	817	NA	NA	465	NA	NA	1,281	NA
1955	NA	NA	863	NA	NA	505	NA	NA	1,368	NA
1960	NA	NA	NA	NA	NA	NA	NA	NA	2,184	NA
1961	NA	NA	NA	NA	NA	NA	NA	NA	2,344	NA
1962	NA	NA	1,571	NA	NA	933	NA	NA	2,504	NA
1963	NA	NA	1,738	NA	NA	1,007	NA	NA	2,745	NA
1964	NA	NA	1,781	NA	NA	1,159	NA	NA	2,940	NA
1965	NA	NA	1,848	NA	NA	1,242	NA	NA	3,090	NA
1966	NA	NA	1,958	NA	NA	1,267	NA	NA	3,225	NA
1967	NA	NA	2,058	NA	NA	1,318	NA	NA	3,376	NA
1968	NA	NA	2,128	NA	NA	1,366	NA	NA	3,495	NA
1969	NA	NA	2,181	NA	NA	1,421	NA	NA	3,602	NA
1970	NA	NA	2,326	NA	NA	1,678	NA	NA	4,004	NA
1971	NA	NA	2,485	NA	NA	1,840	NA	NA	4,325	NA
1972	NA	NA	2,751	NA	NA	1,729	NA	NA	4,480	NA
1973	NA	NA	2,864	NA	NA	2,034	NA	NA	4,898	NA
1974	NA	NA	2,912	NA	NA	2,050	NA	NA	4,962	NA
1975	NA	NA	3,162	NA	NA	2,212	NA	NA	5,374	6,280
1976	NA	NA	3,323	NA	NA	1,926	NA	NA	5,250	6,544
1977	NA	NA	3,391	NA	NA	2,475	NA	NA	5,866	6,678
1978	NA	NA	3,473	NA	NA	2,547	NA	NA	6,020	6,890
1979	NA	NA	3,553	NA	NA	2,753	NA	NA	6,306	6,929
1980	NA	NA	3,642	NA	NA	2,655	NA	NA	6,297	7,434
1981	NA	NA	3,752	NA	NA	2,817	NA	NA	6,569	7,805
1982	NA	NA	3,808	NA	NA	3,071	NA	NA	6,879	7,915
1983	NA	NA	3,847	NA	NA	2,595	NA	NA	6,442	7,985
1984	NA	NA	3,830	NA	NA	2,876	NA	NA	6,706	8,043
1985	NA	NA	3,842	NA	NA	2,607	NA	NA	6,448	8,087
1986	NA	NA	3,819	NA	NA	2,749	NA	NA	6,567	8,145
1987	NA	NA	3,792	NA	NA	2,756	NA	NA	6,548	8,124
1988	NA	NA	3,800	NA	NA	2,850	NA	NA	6,650	8,124
1989	NA	NA	3,812	NA	NA	2,513	NA	NA	6,325	8,120
1990	NA	NA	3,868	NA	NA	3,068	NA	NA	6,936	7,794
1991	NA	NA	3,954	NA	NA	2,824	NA	NA	6,778	7,993
1992	NA	NA	4,044	NA	NA	2,597	NA	NA	6,641	7,932
1993	NA	NA	4,327	NA	NA	2,322	NA	NA	6,649	7,989
1994	44	4,317	4,360	70	2,536	2,606	113	6,853	6,966	8,043
1995	60	4,290	4,349	72	2,082	2,153	131	6,371	6,503	7,953
1996	64	4,277	4,341	85	2,087	2,173	149	6,364	6,513	7,980
1997	67	4,283	4,350	83	2,092	2,175	150	6,375	6,525	8,332
1998	67	4,259	4,326	104	2,626	2,730	171	6,884	7,056	8,179
1999	69	4,314	4,383	100	2,423	2,523	169	6,738	6,906	8,229
2000	70	4,282	4,352	72	1,647	1,719	142	5,929	6,071	8,241
2001	77	4,224	4,301	115	2,789	2,904	191	7,013	7,204	8,415
2002	75	4,265	4,340	102	2,273	2,375	177	6,539	6,715	8,207
2003	76	4,227	4,303	125	2,438	2,563	201	6,665	6,866	8,206
2004	72	4,129	4,201	98	2,598	2,696	170	6,727	6,897	8,255
2005	78	4,122	4,200	123	2,513	2,635	201	6,635	6,835	8,268
2006	77	4,134	4,211	144	2,926	3,070	222	7,059	7,281	8,330
2007	80	4,154	4,234	123	2,756	2,879	203	6,910	7,113	8,402
2008	86	4,146	4,232	154	2,686	2,840	240	6,832	7,073	8,499
2009	116	4,161	4,277	186	2,944	3,130	302	7,105	7,407	8,656
2010	135	R4,166	R4,301	R220	R2,891	R3,111	R355	R7,057	7,412	R8,764
2011 ^P	142	4,163	4,305	308	3,154	3,462	451	7,317	7,767	8,776

¹ Includes native gas.

² Depleted fields, aquifers, and other types of storage not using salt formations.

³ Includes both active and inactive fields.

R=Revised, P=Preliminary, NA=Not available.

Notes: • Beginning with 1965, all volumes are shown on a pressure base of 14.73 p.s.i.a. at 60° F. For prior years, the pressure base was 14.65 p.s.i.a. at 60° F. • Totals may not equal sum of components due to independent rounding.

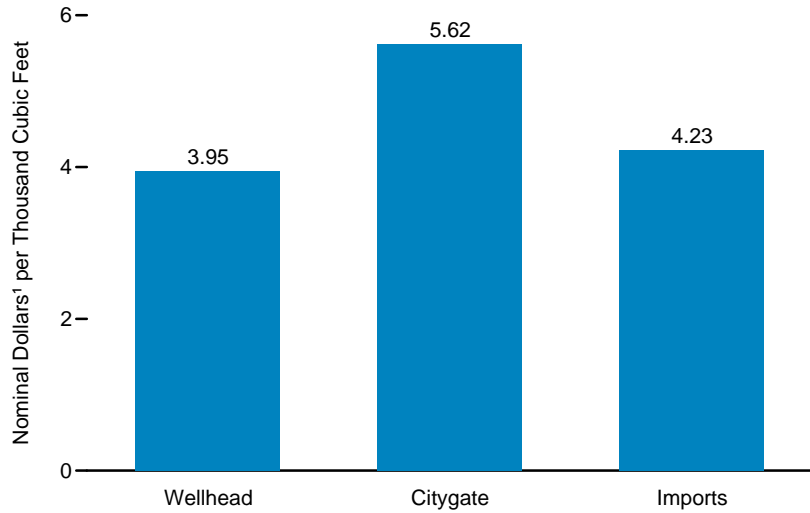
Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in

1954. • See <http://www.eia.gov/naturalgas/> for related information.

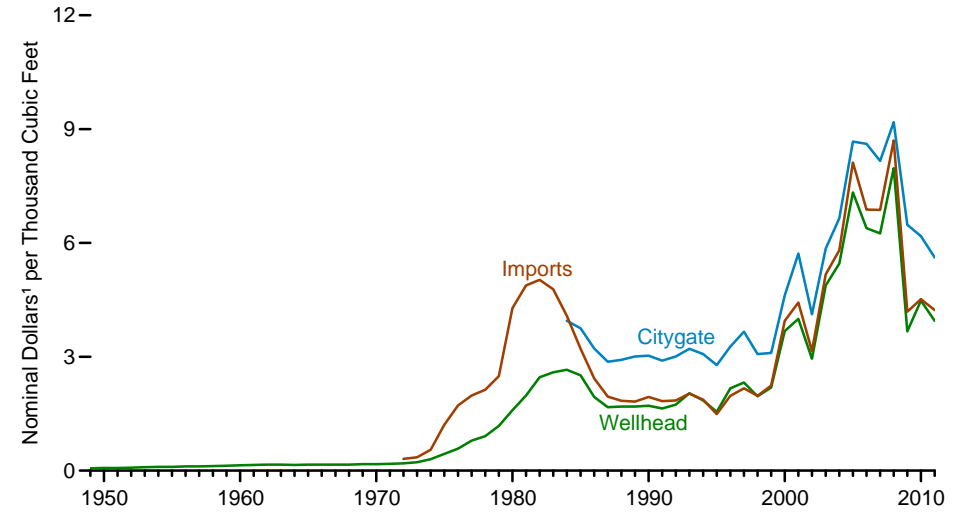
Sources: • 1954-1974—American Gas Association, *Gas Facts*. • 1975-1978—Federal Energy Administration, Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission, Form FPC-8, "Underground Gas Storage Report." • 1979-1984—U.S. Energy Information Administration (EIA), Form EIA-191, "Underground Gas Storage Report," and Federal Energy Regulatory Commission, Form FERC-8, "Underground Gas Storage Report." • 1985-2009—EIA, *Natural Gas Monthly (NGM)*, monthly reports, and *Natural Gas Annual*, annual reports. • 2010 and 2011—EIA, NGM (March 2012), Tables 8, 10, and 11, and Form EIA-191M, "Monthly Underground Gas Storage Report."

Figure 6.7 Natural Gas Wellhead, Citygate, and Imports Prices

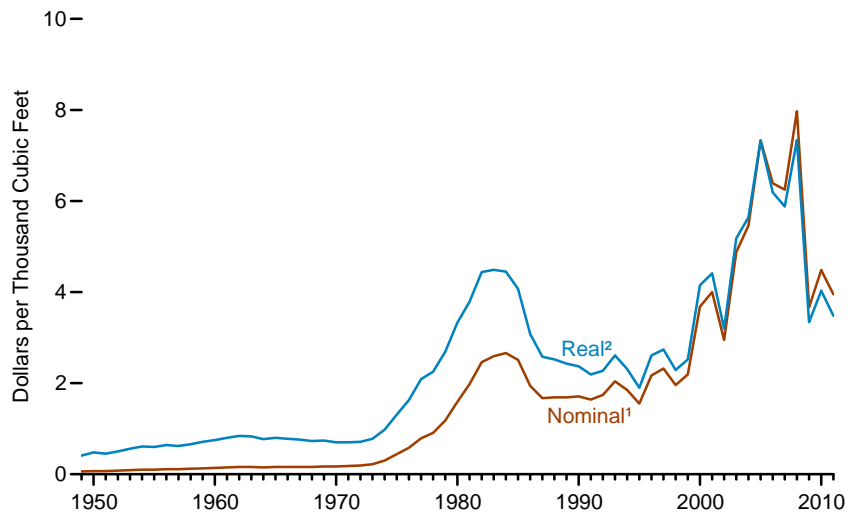
Wellhead, Citygate, and Imports, 2011



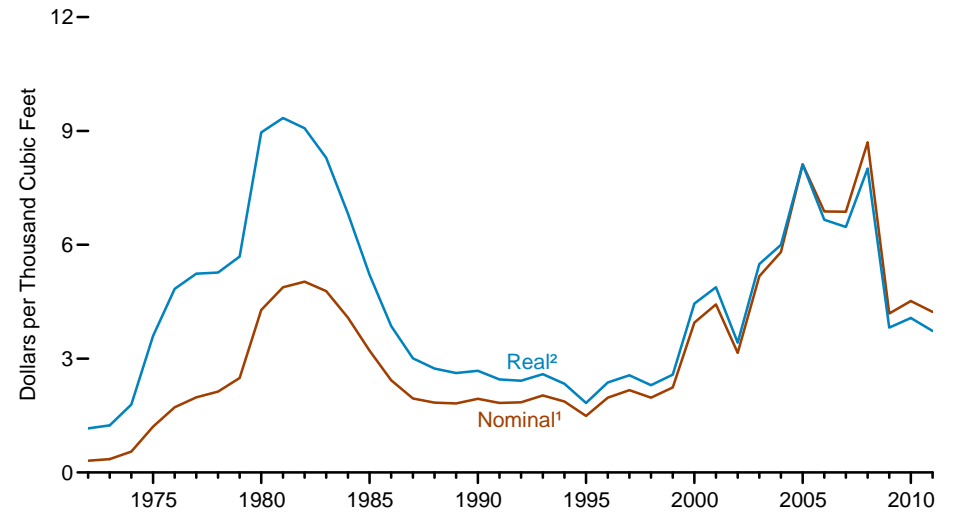
Wellhead, Citygate, and Imports, 1949-2011



Wellhead, 1949-2011



Imports, 1972-2011



¹ See "Nominal Dollars" in Glossary.

² In chained (2005) dollars, calculated by using gross domestic product implicit price deflators in Table D1. See "Chained Dollars" in Glossary.

Source: Table 6.7.

Table 6.7 Natural Gas Wellhead, Citygate, and Imports Prices, Selected Years, 1949-2011
(Dollars per Thousand Cubic Feet)

Year	Wellhead ¹		Citygate ²		Imports	
	Nominal ³	Real ⁴	Nominal ³	Real ⁴	Nominal ³	Real ⁴
1949	0.06	0.41	NA	NA	NA	NA
1950	.07	.48	NA	NA	NA	NA
1955	.10	.60	NA	NA	NA	NA
1960	.14	.75	NA	NA	NA	NA
1965	.16	.80	NA	NA	NA	NA
1970	.17	.70	NA	NA	NA	NA
1975	.44	1.31	NA	NA	1.21	^R 3.60
1976	.58	1.63	NA	NA	1.72	^R 4.84
1977	.79	2.09	NA	NA	1.98	5.24
1978	.91	2.25	NA	NA	2.13	5.27
1979	1.18	^R 2.69	NA	NA	2.49	5.69
1980	1.59	3.33	NA	NA	4.28	8.96
1981	1.98	3.79	NA	NA	4.88	9.34
1982	2.46	4.44	NA	NA	5.03	^R 9.07
1983	2.59	^R 4.49	NA	NA	4.78	^R 8.29
1984	2.66	4.45	3.95	^R 6.60	4.08	^R 6.82
1985	2.51	^R 4.07	3.75	^R 6.08	3.21	5.21
1986	1.94	3.08	3.22	^R 5.11	2.43	3.86
1987	1.67	2.58	2.87	4.43	1.95	3.01
1988	1.69	2.52	2.92	4.36	1.84	^R 2.74
1989	1.69	2.43	3.01	4.33	1.82	2.62
1990	1.71	2.37	3.03	^R 4.19	1.94	^R 2.68
1991	1.64	2.19	2.90	3.88	1.83	2.45
1992	1.74	2.27	3.01	3.93	1.85	2.42
1993	2.04	2.61	3.21	4.10	2.03	^R 2.59
1994	1.85	^R 2.31	3.07	3.84	1.87	2.34
1995	1.55	1.90	2.78	3.41	1.49	1.83
1996	2.17	2.61	3.27	^R 3.93	1.97	2.37
1997	2.32	2.74	3.66	^R 4.32	2.17	^R 2.56
1998	1.96	2.29	3.07	3.59	1.97	2.30
1999	2.19	2.52	3.10	3.57	2.24	2.58
2000	3.68	4.15	4.62	5.21	3.95	^R 4.45
2001	4.00	4.41	5.72	^R 6.30	4.43	^R 4.88
2002	2.95	3.20	4.12	4.47	3.15	3.42
2003	4.88	^R 5.18	5.85	^R 6.21	5.17	5.49
2004	5.46	5.64	6.65	6.87	5.81	6.00
2005	7.33	7.33	8.67	8.67	8.12	8.12
2006	6.39	6.19	8.61	8.34	6.88	6.66
2007	6.25	5.88	8.16	7.68	6.87	^R 6.47
2008	7.97	7.34	9.18	8.45	8.70	8.01
2009	3.67	3.34	^R 6.48	^R 5.91	4.19	3.82
2010	^R 4.48	^R 4.04	^R 6.18	5.57	4.52	^R 4.07
2011	^E 3.95	^E 3.48	^P 5.62	^P 4.96	^P 4.23	^P 3.73

¹ See "Natural Gas Wellhead Price" in Glossary.

² See "Citygate" in Glossary.

³ See "Nominal Dollars" in Glossary.

⁴ In chained (2005) dollars, calculated by using gross domestic product implicit price deflators in Table

D1. See "Chained Dollars" in Glossary.

R=Revised. P=Preliminary. E=Estimate. NA=Not available.

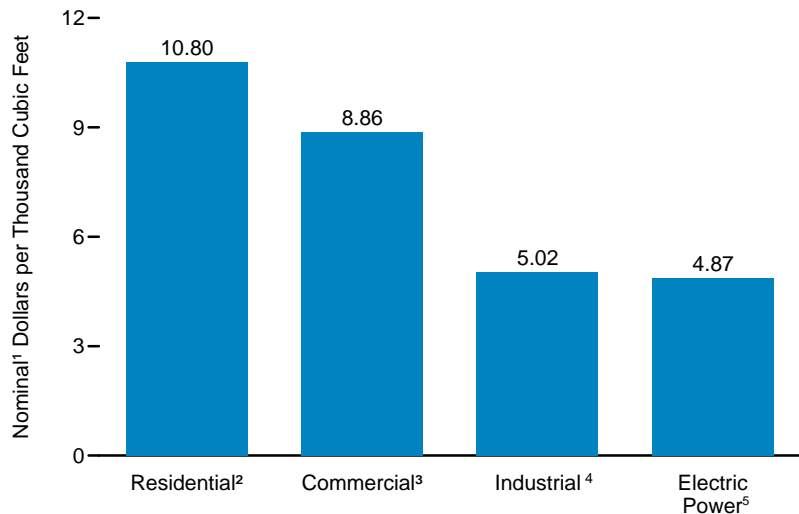
Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#prices> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1949.

• See <http://www.eia.gov/naturalgas/> for related information.

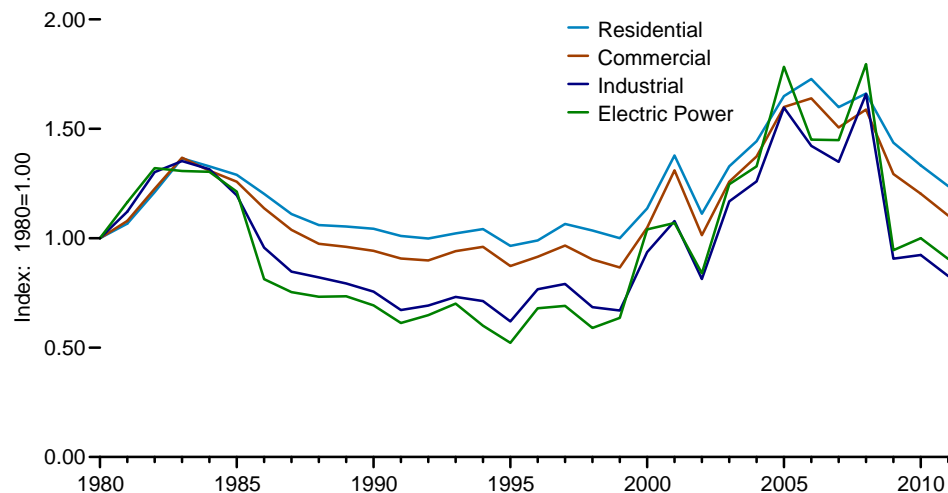
Sources: **Wellhead and Citygate:** • 1949-2006—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. • 2007 forward—EIA, *Natural Gas Monthly (NGM)* (March 2012), Table 3. **Imports:** • 1972 and 1973—Federal Power Commission (FPC), *Pipeline Imports and Exports of Natural Gas—Imports and Exports of LNG*. • 1974-1976—FPC, *United States Imports and Exports of Natural Gas*, annual reports. • 1977-2009—EIA, NGA, annual reports. • 2010 and 2011—EIA, NGM (March 2012), Tables 3 and 4.

Figure 6.8 Natural Gas Prices by Sector

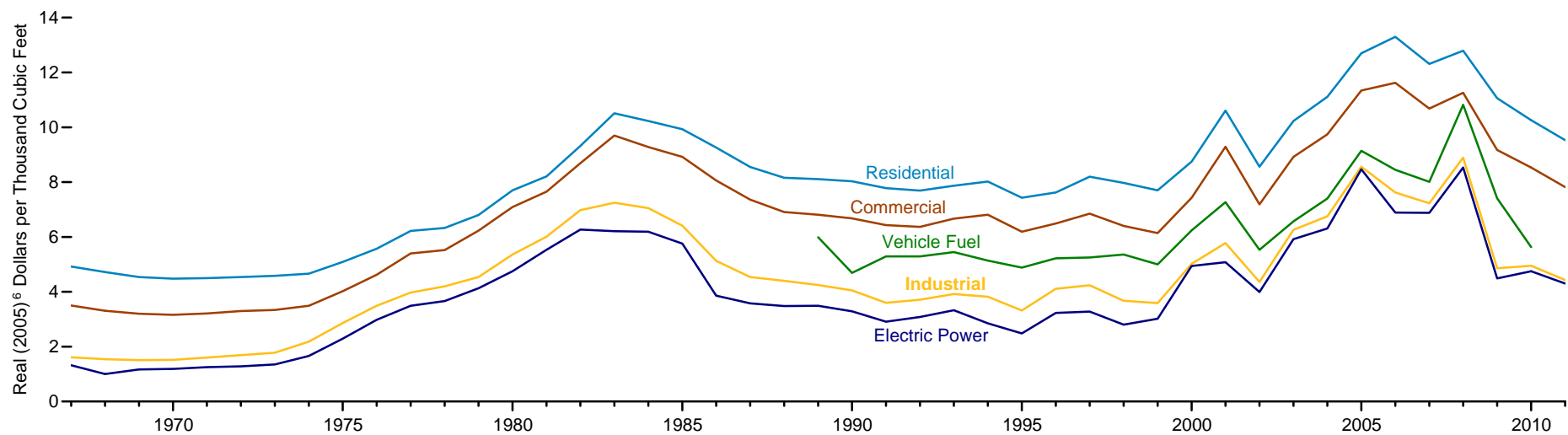
Nominal¹ Prices, 2011



Real⁶ Prices, Indexed, 1980-2011



Real⁶ Prices, 1967-2011



¹ See "Nominal Dollars" in Glossary.

² Based on 95.7 percent of volume delivered.

³ Based on 62.3 percent of volume delivered.

⁴ Based on 16.0 percent of volume delivered.

⁵ Based on 101.2 percent of volume delivered. For an explanation of values over 100 percent, see Table 6.8, footnote 8.

⁶ In chained (2005) dollars, calculated by using gross domestic product implicit price deflators in Table D1. See "Chained Dollars" in Glossary.

Source: Table 6.8.

Table 6.8 Natural Gas Prices by Sector, Selected Years, 1967-2011
(Dollars per Thousand Cubic Feet, Except as Noted)

Year	Residential Sector			Commercial Sector ¹			Industrial Sector ²			Transportation Sector		Electric Power Sector ³		
	Prices		Percentage of Sector ⁷	Prices		Percentage of Sector ⁷	Prices		Percentage of Sector ⁷	Vehicle Fuel ⁴ Prices		Prices		Percentage of Sector ^{7,8}
	Nominal ⁵	Real ⁶		Nominal ⁵	Real ⁶		Nominal ⁵	Real ⁶		Nominal ⁵	Real ⁶	Nominal ⁵	Real ⁶	
1967	1.04	R4.92	NA	0.74	3.50	NA	0.34	1.61	NA	NA	NA	0.28	R1.32	NA
1970	1.09	4.48	NA	.77	R3.16	NA	.37	1.52	NA	NA	NA	.29	1.19	NA
1975	1.71	5.09	NA	1.35	4.02	NA	.96	2.86	NA	NA	NA	.77	2.29	96.1
1976	1.98	R5.57	NA	1.64	4.62	NA	1.24	3.49	NA	NA	NA	1.06	R2.98	96.2
1977	2.35	R6.22	NA	2.04	5.40	NA	1.50	3.97	NA	NA	NA	1.32	R3.49	97.1
1978	2.56	R6.33	NA	2.23	5.52	NA	1.70	R4.20	NA	NA	NA	1.48	3.66	98.0
1979	2.98	R6.80	NA	2.73	R6.23	NA	1.99	R4.54	NA	NA	NA	1.81	R4.13	96.1
1980	3.68	R7.70	NA	3.39	R7.09	NA	2.56	5.36	NA	NA	NA	2.27	4.75	96.9
1981	4.29	8.21	NA	4.00	R7.65	NA	3.14	6.01	NA	NA	NA	2.89	5.53	97.6
1982	5.17	R9.32	NA	4.82	R8.69	NA	3.87	6.98	85.1	NA	NA	3.48	R6.27	92.6
1983	6.06	R10.51	NA	5.59	9.70	NA	4.18	R7.25	80.7	NA	NA	3.58	6.21	93.9
1984	6.12	R10.23	NA	5.55	R9.28	NA	4.22	R7.05	74.7	NA	NA	3.70	6.19	94.4
1985	6.12	R9.93	NA	5.50	R8.92	NA	3.95	6.41	68.8	NA	NA	3.55	R5.76	94.0
1986	5.83	9.26	NA	5.08	R8.06	NA	3.23	5.13	59.8	NA	NA	2.43	3.86	91.7
1987	5.54	8.55	NA	4.77	R7.36	93.1	2.94	4.54	47.4	NA	NA	2.32	3.58	91.6
1988	5.47	R8.16	NA	4.63	6.91	90.7	2.95	4.40	42.6	NA	NA	2.33	3.48	89.6
1989	5.64	8.11	99.9	4.74	R6.81	89.1	2.96	R4.25	36.9	4.17	R5.99	2.43	R3.49	79.6
1990	5.80	8.03	99.2	4.83	R6.68	86.6	2.93	R4.05	35.2	3.39	R4.69	2.38	R3.29	76.8
1991	5.82	7.78	99.2	4.81	6.43	85.1	2.69	3.60	32.7	3.96	R5.29	2.18	R2.91	79.3
1992	5.89	R7.69	99.1	4.88	R6.37	83.2	2.84	3.71	30.3	4.05	5.29	2.36	3.08	76.5
1993	6.16	7.87	99.1	5.22	6.67	83.9	3.07	3.92	29.7	4.27	R5.45	2.61	R3.33	74.1
1994	6.41	R8.02	99.1	5.44	6.81	79.3	3.05	3.82	25.5	4.11	R5.14	2.28	2.85	73.4
1995	6.06	7.43	99.0	5.05	6.19	76.7	2.71	3.32	24.5	3.98	4.88	2.02	2.48	71.4
1996	6.34	R7.62	99.0	5.40	R6.49	77.6	3.42	R4.11	19.4	4.34	5.22	2.69	R3.23	68.4
1997	6.94	R8.20	98.8	5.80	R6.85	70.8	3.59	R4.24	18.1	4.44	5.25	2.78	R3.28	68.0
1998	6.82	R7.97	97.7	5.48	R6.40	67.0	3.14	3.67	16.1	4.59	R5.36	2.40	R2.80	63.7
1999	6.69	R7.70	95.2	5.33	6.14	66.1	3.12	R3.59	18.8	4.34	5.00	2.62	3.02	58.3
2000	7.76	8.75	92.6	6.59	7.43	63.9	4.45	5.02	19.8	5.54	R6.24	4.38	4.94	50.5
2001	9.63	R10.61	92.4	8.43	R9.29	66.0	5.24	5.78	20.8	6.60	R7.27	4.61	R5.08	40.2
2002	7.89	R8.56	97.9	6.63	R7.19	77.4	4.02	4.36	22.7	5.10	R5.53	3.68	3.99	383.9
2003	9.63	10.23	97.5	8.40	R8.92	78.2	5.89	6.26	22.1	6.19	R6.57	5.57	5.92	91.2
2004	10.75	11.11	97.7	9.43	9.74	78.0	6.53	6.75	R23.6	7.16	7.40	6.11	6.31	89.8
2005	12.70	12.70	R98.1	11.34	11.34	82.1	8.56	8.56	R24.0	9.14	9.14	8.47	8.47	91.3
2006	13.73	13.30	98.1	12.00	11.62	80.8	7.87	7.62	23.4	8.72	8.45	7.11	6.89	93.4
2007	13.08	12.31	98.0	11.34	R10.68	80.4	7.68	7.23	22.2	8.50	R8.01	7.31	6.88	92.2
2008	13.89	12.79	97.5	12.23	11.26	79.9	9.65	R8.89	20.5	11.75	10.82	9.26	8.53	101.1
2009	12.14	R11.06	97.4	10.06	R9.17	77.8	5.33	4.86	18.8	8.13	7.41	4.93	R4.49	101.1
2010	R11.39	R10.26	R97.4	R9.47	R8.53	R77.5	R5.49	R4.95	R18.0	R6.25	R5.63	R5.27	4.75	R100.8
2011 ^P	10.80	9.53	95.7	8.86	7.82	62.3	5.02	4.43	16.0	NA	NA	4.87	4.30	101.2

¹ Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

² Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

³ Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 2001, data are for electric utilities only; beginning in 2002, data are for electric utilities and independent power producers. See Note 5, "Coverage of Electric Power Sector Natural Gas Prices," at end of section.

⁴ Much of the natural gas delivered for vehicle fuel represents deliveries to fueling stations that are used primarily or exclusively by fleet vehicles. Thus, the prices are often those associated with the cost of gas in the operation of fleet vehicles.

⁵ See "Nominal Dollars" in Glossary.

⁶ In chained (2005) dollars, calculated by using gross domestic product implicit price deflators in Table D1. See "Chained Dollars" in Glossary.

⁷ The percentage of the sector's consumption in Table 6.5 for which price data are available.

⁸ Percentages exceed 100 percent when reported natural gas receipts are greater than reported natural gas consumption—this can occur when combined-heat-and-power (CHP) plants report fuel receipts related to non-electric generating activities.

R=Revised. P=Preliminary. NA=Not available.

Notes: • Prices are for natural gas, plus a small amount of supplemental gaseous fuels. • The average for each end-use sector is calculated by dividing the total value of the natural gas consumed by each sector

by the total quantity consumed. • Prices are intended to include all taxes. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8.

Web Pages: • See <http://www.eia.gov/totalenergy/data/monthly/#prices> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#naturalgas> for all annual data beginning in 1967. • See <http://www.eia.gov/naturalgas/> for related information.

Sources: **Residential Percentage of Sector:** • 1989-2006—U.S. Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." • 2007 forward—EIA, *Natural Gas Monthly (NGM)* (March 2012), Table 3. **Vehicle Fuel:** EIA, *Natural Gas Annual (NGA)*, annual reports. **Electric Power Percentage of Sector:** • 1973-2001—Calculated by EIA as the quantity of natural gas receipts by electric utilities reported on Form FERC-423, "Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants" (and predecessor forms), divided by the quantity of natural gas consumed by the electric power sector (for 1973-1988, see Table 8.5b; for 1989-2001, see Table 8.7b). • 2002-2007—Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Forms FERC-423, "Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants," and EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," divided by the quantity of natural gas consumed by the electric power sector (see Table 8.7b). • 2008 forward—Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form EIA-923, "Power Plant Operations Report," divided by the quantity of natural gas consumed by the electric power sector (see Table 8.7b). **All Other Data:** • 1967-2006—EIA, NGA, annual reports. • 2007 forward—EIA, NGM (March 2012), Table 3.

Natural Gas

Note 1. Supplemental Gaseous Fuels. Supplemental gaseous fuels are any substances that, introduced into or commingled with natural gas, increase the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for British thermal unit (Btu) stabilization.

Annual data beginning with 1980 are from the U.S. Energy Information Administration (EIA), *Natural Gas Annual*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

Although the total amount of supplemental gaseous fuels consumed is known for 1980 forward, the amount consumed by each energy-use sector is estimated by EIA. These estimates are used to create natural gas (without supplemental gaseous fuels) data for Tables 1.3, 2.1b, 2.1c, 2.1d, and 2.1f (note: to avoid double-counting in these tables, supplemental gaseous fuels are accounted for in their primary energy category: “Coal,” “Petroleum,” or “Biomass”). It is assumed that supplemental gaseous fuels are commingled with natural gas consumed by the residential, commercial, other industrial, and electric power sectors, but are not commingled with natural gas used for lease and plant fuel, pipelines and distribution, or vehicle fuel. The estimated consumption of supplemental gaseous fuels by each sector (residential, commercial, other industrial, and electric power) is calculated as that sector’s natural gas consumption (see Table 6.5) divided by the sum of natural gas consumption by the residential, commercial, other industrial, and electric power sectors (see Table 6.5), and then multiplied by total supplemental gaseous fuels consumption (see Table 6.1). For estimated sectoral consumption of supplemental gaseous fuels in Btu, the residential, commercial, and other industrial values in cubic feet are multiplied by the “End-Use Sectors” conversion factors (see Table A4), and the electric power values in cubic feet are multiplied by the “Electric Power Sector” conversion factors (see Table A4). Total supplemental gaseous fuels consumption in Btu is calculated as the sum of the Btu values for the sectors.

Note 2. Natural Gas Consumption. Natural gas consumption statistics are compiled from surveys of natural gas production, transmission, and distribution companies and from surveys of electric power generation. Consumption by sector from these surveys is compiled on a national and individual State basis and then balanced with national and individual State supply data. Included in the data are the following: **Residential Sector**—Consumption by private households for space heating, cooking, and other household uses; **Commercial Sector**—Consumption by nonmanufacturing establishments; government agencies; and, through 1995, those engaged in agriculture, forestry, and fishing. The commercial sector includes

generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercialestablishments; **Industrial Sector**—Consumption by establishments engaged primarily in processing unfinished materials into another form of product (including mining; petroleum refining; manufacturing; and, beginning in 1996, agriculture, forestry, and fishing), and natural gas industry use for lease and plant fuel. The industrial sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities; **Transportation Sector**—Natural gas transmission (pipeline) fuel, and natural gas delivered for use as vehicle fuel; and **Electric Power Sector (electric utilities and independent power producers)**—Consumption for electricity generation and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants within the NAICS (North American Industry Classification System) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

Note 3. Natural Gas Consumption, 1989-1992. Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.” As a result, for 1989-1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

Note 4. Natural Gas Vehicle Fuel. In Table 6.5, for 1992 forward, natural gas vehicle fuel data do not reflect revised data shown in Table 10.5. These revisions, in million cubic feet, are: 1992–2,112; 1993–2,860; 1994–3,222; 1995–4,619; 1996–6,111; 1997–8,393; 1998–9,416; 1999–10,398; 2000–11,461; 2001–13,788; 2002–15,872; 2003–17,484; 2004–21,487; 2005–22,578; 2006–23,317; 2007–24,256; 2008–25,659; 2009–26,936; and 2010 –28,297.

Note 5. Coverage of Electric Power Sector Natural Gas Prices. For 1973-1982, data for electric power sector natural gas prices include all electric utility plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. For 1974-1982, peaking units are also included and counted toward the 25-megawatt-or-greater total. For 1983-1990, data include all electric utility plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. For 1991-2001, data include all electric utility plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater. For 2002 forward, data include electric utility and independent power producer plants at which the total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.