

## Section 4. Natural Gas

Total dry natural gas production in the United States during July 2004 was estimated as 1.6 trillion cubic feet, slightly lower than production during July 2003.

Consumption of natural and supplemental gas in July 2004 was estimated as 1.5 trillion cubic feet, 2 percent lower than the level in July 2003.

Deliveries to residential consumers in July 2004 were estimated as 125 billion cubic feet, 2 percent lower than the previous July's deliveries. Total deliveries to industrial consumers during July 2004 were estimated as 649 billion cubic feet, 2 percent lower than the previous July's level. The electric power sector's use of natural gas in July 2004

was 601 billion cubic feet, 1 percent lower than the rate in July 2003.

Net imports of natural gas in July 2004 were estimated as 320 billion cubic feet, 8 percent higher than net imports in the previous July.

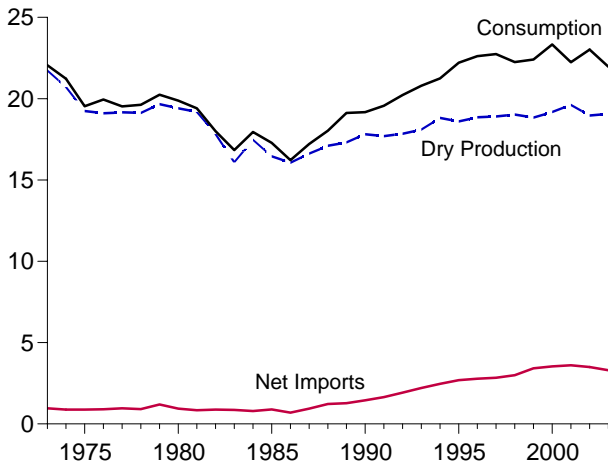
Stocks of working gas<sup>1</sup> in underground natural gas storage reservoirs at the end of July 2004 were 2,395 billion cubic feet, 12 percent higher than the level of stocks available 1 year earlier.

Net injections into underground storage during July 2004 were 366 billion cubic feet, 1 percent more than the amount of net injections during July 2003.

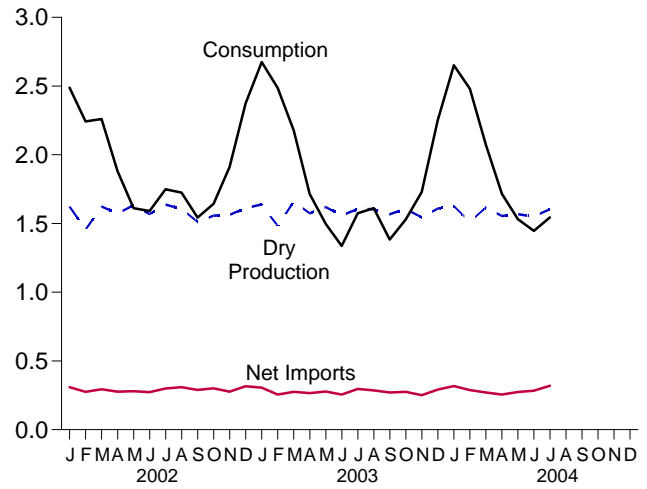
<sup>1</sup>Gas available for withdrawal.

**Figure 4.1 Natural Gas**  
(Trillion Cubic Feet)

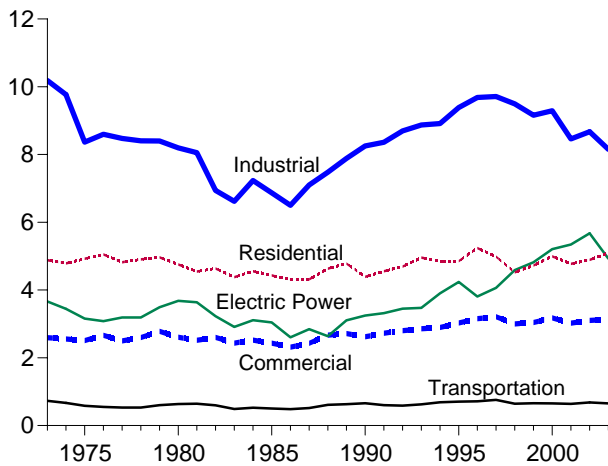
Overview, 1973-2003



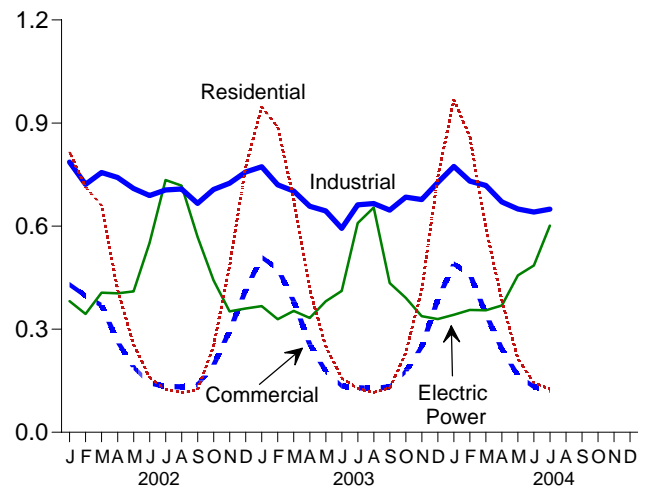
Overview, Monthly



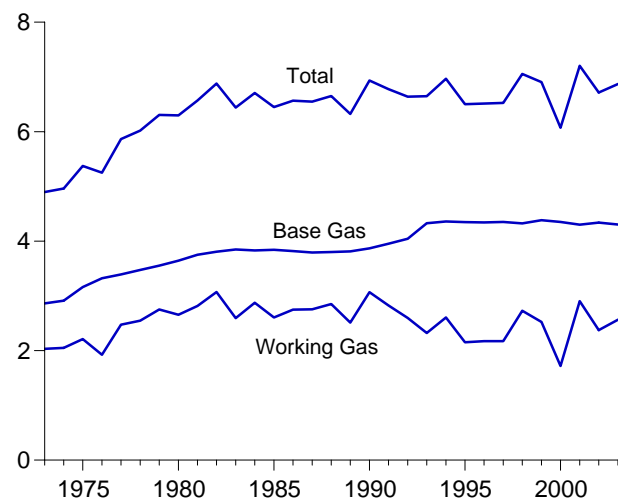
Consumption by Sector, 1973-2003



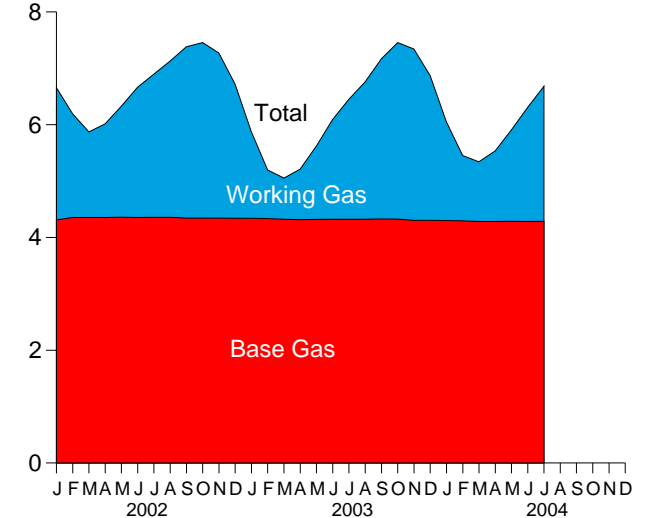
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2003



Underground Storage, End of Month



Note: Because vertical scales differ, graphs should not be compared.  
Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.  
Sources: Tables 4.1, 4.4, and 4.5.

**Table 4.1 Natural Gas Overview**  
(Billion Cubic Feet)

	Dry Gas Production <sup>a</sup>	Supplemental Gaseous Fuels <sup>b</sup>	Trade			Net Withdrawals <sup>c</sup>	Balancing Item <sup>d</sup>	Consumption <sup>e</sup>
			Imports	Exports	Net Imports			
1973 Total	f21,731	NA	1,033	77	956	-442	-196	22,049
1974 Total	f20,713	NA	959	77	882	-84	-289	21,223
1975 Total	f19,236	NA	953	73	880	-344	-235	19,538
1976 Total	f19,098	NA	964	65	899	165	-216	19,946
1977 Total	f19,163	NA	1,011	56	955	-557	-41	19,521
1978 Total	f19,122	NA	966	53	913	-120	-287	19,627
1979 Total	f19,663	NA	1,253	56	1,198	-248	-372	20,241
1980 Total	19,403	155	985	49	936	23	-640	19,877
1981 Total	19,181	176	904	59	845	-297	-500	19,404
1982 Total	17,820	145	933	52	882	-308	d-537	18,001
1983 Total	16,094	132	918	55	864	447	d-703	16,835
1984 Total	17,466	110	843	55	788	-197	-217	17,951
1985 Total	16,454	126	950	55	894	235	-428	17,281
1986 Total	16,059	113	750	61	689	-147	-493	16,221
1987 Total	16,621	101	993	54	939	-6	-444	17,211
1988 Total	17,103	101	1,294	74	1,220	59	-453	18,030
1989 Total	17,311	107	1,382	107	1,275	326	101	9 19,119
1990 Total	17,810	123	1,532	86	1,447	-513	307	9 19,174
1991 Total	17,698	113	1,773	129	1,644	80	27	9 19,562
1992 Total	17,840	118	2,138	216	1,921	173	176	9 20,228
1993 Total	18,095	119	2,350	140	2,210	-36	401	9 20,790
1994 Total	18,821	111	2,624	162	2,462	-286	139	21,247
1995 Total	18,599	110	2,841	154	2,687	415	396	22,207
1996 Total	18,854	109	2,937	153	2,784	2	860	22,610
1997 Total	18,902	103	2,994	157	2,837	24	871	22,737
1998 Total	19,024	102	3,152	159	2,993	-530	657	22,246
1999 Total	18,832	98	3,586	163	3,422	172	-119	22,405
2000 Total	19,182	90	3,782	244	3,538	829	-305	23,333
2001 Total	19,616	86	3,977	373	3,604	-1,166	99	22,239
<b>2002</b>								
January	1,623	6	343	34	309	558	-8	2,488
February	1,455	6	306	30	276	474	33	2,243
March	1,624	6	333	38	294	327	9	2,260
April	1,573	5	315	39	276	-129	156	1,881
May	1,631	5	319	39	280	-330	26	1,612
June	1,569	5	318	45	273	-350	94	1,591
July	1,638	6	345	45	300	-248	54	1,749
August	1,607	6	356	47	310	-242	44	1,725
September	1,511	5	336	47	289	-276	13	1,543
October	1,558	6	343	42	301	-89	-132	1,643
November	1,563	6	331	55	276	202	-137	1,911
December	1,612	7	371	55	316	572	-133	2,373
<b>Total</b>	<b>18,964</b>	<b>68</b>	<b>4,015</b>	<b>516</b>	<b>3,499</b>	<b>468</b>	<b>19</b>	<b>23,018</b>
<b>2003</b>								
January	E 1,638	E 6	365	60	305	841	R -115	R 2,675
February	E 1,483	E 6	314	59	255	676	R 67	2,486
March	E 1,660	E 5	329	55	275	136	103	2,178
April	E 1,574	E 4	317	52	266	-158	R 28	R 1,714
May	E 1,620	E 6	328	50	277	-412	R 7	R 1,497
June	E 1,558	E 5	310	54	256	-470	R -11	R 1,338
July	E 1,606	E 6	345	50	296	-361	R 29	R 1,574
August	E 1,604	E 6	337	51	286	-309	R 25	R 1,611
September	E 1,568	E 5	326	55	271	-411	R -49	R 1,384
October	E 1,605	E 5	336	61	275	-284	R -73	R 1,529
November	E 1,544	E 6	322	71	251	86	R -159	R 1,729
December	E 1,609	E 6	367	76	291	473	R -128	R 2,251
<b>Total</b>	<b>E 19,068</b>	<b>E 65</b>	<b>3,996</b>	<b>692</b>	<b>3,305</b>	<b>-193</b>	<b>R -277</b>	<b>R 21,967</b>
<b>2004</b>								
January	E 1,627	E 6	372	55	317	811	-109	R 2,652
February	E 1,512	E 6	346	57	289	600	74	2,480
March	E 1,617	E 5	341	70	271	103	R 76	R 2,073
April	RE 1,555	E 5	RE 316	E 60	RE 256	-198	R 98	R 1,716
May	RE 1,567	E 6	E 328	E 53	RE 275	-379	R 62	R 1,531
June	E 1,551	RE 1	E 338	E 54	RE 284	-397	R 8	R 1,447
July	E 1,603	E 2	E 374	E 54	E 320	-366	E -15	1,545
<b>7-Month Total</b>	<b>E 11,032</b>	<b>E 31</b>	<b>E 2,414</b>	<b>E 403</b>	<b>E 2,011</b>	<b>174</b>	<b>E 195</b>	<b>13,443</b>
<b>2003 7-Month Total</b>	<b>E 11,138</b>	<b>E 37</b>	<b>2,309</b>	<b>379</b>	<b>1,930</b>	<b>251</b>	<b>107</b>	<b>13,463</b>
<b>2002 7-Month Total</b>	<b>11,113</b>	<b>38</b>	<b>2,279</b>	<b>272</b>	<b>2,008</b>	<b>301</b>	<b>363</b>	<b>13,823</b>

<sup>a</sup> "Marketed Production (Wet)" minus "Extraction Loss." See Table 4.2.  
<sup>b</sup> See Note 1 at end of section.  
<sup>c</sup> Underground storage. For 1980-2002, also includes liquefied natural gas in above-ground tanks.  
<sup>d</sup> See Note 3 at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).  
<sup>e</sup> See Note 4 at end of section.  
<sup>f</sup> May include unknown quantities of nonhydrocarbon gases.  
<sup>g</sup> 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 4.4. See Note 5 at end of section.

R=Revised. E=Estimate. NA=Not available.  
 Notes: • Totals may not equal sum of components due to independent rounding.  
 • Geographic coverage is the 50 States and the District of Columbia.  
 Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.  
 Sources: • **Dry Gas Production:** Table 4.2. • **Supplemental Gaseous Fuels:** 1980-1998: Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. 1999 forward: EIA, *Natural Gas Monthly (NGM)*, September 2004, Table 2. • **Trade:** Table 4.3. • **Net Withdrawals:** 1973-1998: EIA, *NGA 2000*, Table 94. 1999 forward: EIA, *NGM*, September 2004, Table 2. • **Consumption:** Table 4.4. • **Balancing Item:** Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net withdrawals.

**Table 4.2 Natural Gas Production**  
(Billion Cubic Feet)

	Gross Withdrawals <sup>a</sup>	Repressuring <sup>b</sup>	Nonhydrocarbon Gases Removed <sup>c</sup>	Vented and Flared <sup>d</sup>	Marketed Production <sup>e</sup>	Extraction Loss <sup>f</sup>	Dry Gas Production <sup>g</sup>
1973 Total	24,067	1,171	NA	248	<sup>h</sup> 22,648	917	<sup>h</sup> 21,731
1974 Total	22,850	1,080	NA	169	<sup>h</sup> 21,601	887	<sup>h</sup> 20,713
1975 Total	21,104	861	NA	134	<sup>h</sup> 20,109	872	<sup>h</sup> 19,236
1976 Total	20,944	859	NA	132	<sup>h</sup> 19,952	854	<sup>h</sup> 19,098
1977 Total	21,097	935	NA	137	<sup>h</sup> 20,025	863	<sup>h</sup> 19,163
1978 Total	21,309	1,181	NA	153	<sup>h</sup> 19,974	852	<sup>h</sup> 19,122
1979 Total	21,883	1,245	NA	167	<sup>h</sup> 20,471	808	<sup>h</sup> 19,663
1980 Total	21,870	1,365	199	125	20,180	777	19,403
1981 Total	21,587	1,312	222	98	19,956	775	19,181
1982 Total	20,272	1,388	208	93	18,582	762	17,820
1983 Total	18,659	1,458	222	95	16,884	790	16,094
1984 Total	20,267	1,630	224	108	18,304	838	17,466
1985 Total	19,607	1,915	326	95	17,270	816	16,454
1986 Total	19,131	1,838	337	98	16,859	800	16,059
1987 Total	20,140	2,208	376	124	17,433	812	16,621
1988 Total	20,999	2,478	460	143	17,918	816	17,103
1989 Total	21,074	2,475	362	142	18,095	785	17,311
1990 Total	21,523	2,489	289	150	18,594	784	17,810
1991 Total	21,750	2,772	276	170	18,532	835	17,698
1992 Total	22,132	2,973	280	168	18,712	872	17,840
1993 Total	22,726	3,103	414	227	18,982	886	18,095
1994 Total	23,581	3,231	412	228	19,710	889	18,821
1995 Total	23,744	3,565	388	284	19,506	908	18,599
1996 Total	24,114	3,511	518	272	19,812	958	18,854
1997 Total	24,213	3,492	599	256	19,866	964	18,902
1998 Total	24,108	3,427	617	103	19,961	938	19,024
1999 Total	23,823	3,293	615	110	19,805	973	18,832
2000 Total	24,174	3,380	505	91	20,198	1,016	19,182
2001 Total	24,501	3,371	463	97	20,570	954	19,616
2002 January	2,062	305	43	9	1,705	82	1,623
February	1,864	289	39	7	1,528	73	1,455
March	2,066	308	44	8	1,706	82	1,624
April	1,986	284	43	8	1,652	79	1,573
May	2,030	264	44	8	1,713	82	1,631
June	1,969	270	43	8	1,648	79	1,569
July	2,038	266	44	8	1,720	83	1,638
August	2,023	281	44	9	1,688	81	1,607
September	1,918	279	43	8	1,588	76	1,511
October	1,982	302	37	8	1,636	78	1,558
November	1,987	298	39	8	1,642	79	1,563
December	2,052	309	40	10	1,693	81	1,612
Total	23,977	3,455	502	99	19,921	957	18,964
2003 January	<sup>E</sup> 2,095	<sup>E</sup> 333	<sup>E</sup> 33	<sup>E</sup> 9	<sup>E</sup> 1,721	<sup>E</sup> 83	<sup>E</sup> 1,638
February	<sup>E</sup> 1,905	<sup>E</sup> 310	<sup>E</sup> 30	<sup>E</sup> 8	<sup>E</sup> 1,558	<sup>E</sup> 75	<sup>E</sup> 1,483
March	<sup>E</sup> 2,115	<sup>E</sup> 331	<sup>E</sup> 32	<sup>E</sup> 9	<sup>E</sup> 1,743	<sup>E</sup> 84	<sup>E</sup> 1,660
April	<sup>E</sup> 1,999	<sup>E</sup> 307	<sup>E</sup> 30	<sup>E</sup> 8	<sup>E</sup> 1,654	<sup>E</sup> 79	<sup>E</sup> 1,574
May	<sup>E</sup> 2,042	<sup>E</sup> 302	<sup>E</sup> 30	<sup>E</sup> 9	<sup>E</sup> 1,701	<sup>E</sup> 82	<sup>E</sup> 1,620
June	<sup>E</sup> 1,973	<sup>E</sup> 297	<sup>E</sup> 31	<sup>E</sup> 7	<sup>E</sup> 1,637	<sup>E</sup> 79	<sup>E</sup> 1,558
July	<sup>E</sup> 2,014	<sup>E</sup> 287	<sup>E</sup> 32	<sup>E</sup> 8	<sup>E</sup> 1,687	<sup>E</sup> 81	<sup>E</sup> 1,606
August	<sup>E</sup> 2,027	<sup>E</sup> 302	<sup>E</sup> 33	<sup>E</sup> 8	<sup>E</sup> 1,684	<sup>E</sup> 81	<sup>E</sup> 1,604
September	<sup>E</sup> 1,981	<sup>E</sup> 294	<sup>E</sup> 32	<sup>E</sup> 8	<sup>E</sup> 1,647	<sup>E</sup> 79	<sup>E</sup> 1,568
October	<sup>E</sup> 2,044	<sup>E</sup> 316	<sup>E</sup> 34	<sup>E</sup> 8	<sup>E</sup> 1,686	<sup>E</sup> 81	<sup>E</sup> 1,605
November	<sup>E</sup> 1,977	<sup>E</sup> 314	<sup>E</sup> 33	<sup>E</sup> 7	<sup>E</sup> 1,622	<sup>E</sup> 78	<sup>E</sup> 1,544
December	<sup>E</sup> 2,072	<sup>E</sup> 341	<sup>E</sup> 34	<sup>E</sup> 8	<sup>E</sup> 1,690	<sup>E</sup> 81	<sup>E</sup> 1,609
Total	<sup>E</sup> 24,243	<sup>E</sup> 3,735	<sup>E</sup> 384	<sup>E</sup> 95	<sup>E</sup> 20,030	<sup>E</sup> 962	<sup>E</sup> 19,068
2004 January	<sup>E</sup> 2,095	<sup>E</sup> 344	<sup>E</sup> 34	<sup>E</sup> 8	<sup>E</sup> 1,709	<sup>E</sup> 82	<sup>E</sup> 1,627
February	<sup>E</sup> 1,950	<sup>E</sup> 323	<sup>E</sup> 32	<sup>E</sup> 7	<sup>E</sup> 1,588	<sup>E</sup> 76	<sup>E</sup> 1,512
March	<sup>E</sup> 2,090	<sup>E</sup> 349	<sup>E</sup> 34	<sup>E</sup> 8	<sup>RE</sup> 1,698	<sup>E</sup> 82	<sup>E</sup> 1,617
April	<sup>RE</sup> 1,999	<sup>E</sup> 325	<sup>E</sup> 33	<sup>E</sup> 8	<sup>RE</sup> 1,634	<sup>E</sup> 78	<sup>RE</sup> 1,555
May	<sup>RE</sup> 2,018	<sup>RE</sup> 329	<sup>E</sup> 34	<sup>E</sup> 8	<sup>RE</sup> 1,646	<sup>RE</sup> 79	<sup>RE</sup> 1,567
June	<sup>RE</sup> 1,998	<sup>RE</sup> 328	<sup>E</sup> 33	<sup>E</sup> 8	<sup>RE</sup> 1,629	<sup>RE</sup> 78	<sup>E</sup> 1,551
July	<sup>E</sup> 2,063	<sup>E</sup> 337	<sup>E</sup> 34	<sup>E</sup> 8	<sup>E</sup> 1,684	<sup>E</sup> 81	<sup>E</sup> 1,603
7-Month Total	<sup>E</sup> 14,213	<sup>E</sup> 2,335	<sup>E</sup> 234	<sup>E</sup> 54	<sup>E</sup> 11,589	<sup>E</sup> 557	<sup>E</sup> 11,032
2003 7-Month Total	<sup>E</sup> 14,143	<sup>E</sup> 2,167	<sup>E</sup> 218	<sup>E</sup> 57	<sup>E</sup> 11,700	<sup>E</sup> 562	<sup>E</sup> 11,138
2002 7-Month Total	14,016	1,987	299	57	11,674	561	11,113

<sup>a</sup> Gas withdrawn from gas and oil wells.  
<sup>b</sup> The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.  
<sup>c</sup> See Note 6 at end of section.  
<sup>d</sup> Vented: Natural gas released into the air on the base site or at processing plants. Flared: Natural gas burned in flares on the base site or at gas processing plants.  
<sup>e</sup> "Gross Withdrawals" minus "Repressuring," "Nonhydrocarbon Gases Removed," and "Vented and Flared." See Note 7 at end of section.  
<sup>f</sup> See Note 8 at end of section.

<sup>g</sup> "Marketed Production (Wet)" minus "Extraction Loss."  
<sup>h</sup> May include unknown quantities of nonhydrocarbon gases.  
R=Revised. NA=Not available. E=Estimate.  
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.  
Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.  
Sources: • 1973-1998: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 93. • 1999 forward: EIA, *Natural Gas Monthly*, September 2004, Table 1.

**Table 4.3 Natural Gas Trade by Country**  
(Billion Cubic Feet)

	Imports							Exports				
	Algeria <sup>a</sup>	Australia <sup>a</sup>	Canada <sup>b</sup>	Mexico <sup>b</sup>	Qatar <sup>a</sup>	Trinidad and Tobago <sup>a</sup>	Other <sup>c</sup>	Total	Canada <sup>b</sup>	Japan <sup>a</sup>	Mexico <sup>b</sup>	Total
1973 Total	3	0	1,028	2	0	0	0	1,033	15	48	14	77
1974 Total	0	0	959	(s)	0	0	0	959	13	50	13	77
1975 Total	5	0	948	0	0	0	0	953	10	53	9	73
1976 Total	10	0	954	0	0	0	0	964	8	50	7	65
1977 Total	11	0	997	2	0	0	0	1,011	(s)	52	4	56
1978 Total	84	0	881	0	0	0	0	966	(s)	48	4	53
1979 Total	253	0	1,001	0	0	0	0	1,253	(s)	51	4	56
1980 Total	86	0	797	102	0	0	0	985	(s)	45	4	49
1981 Total	37	0	762	105	0	0	(s)	904	(s)	56	3	59
1982 Total	55	0	783	95	0	0	(s)	933	(s)	50	2	52
1983 Total	131	0	712	75	0	0	(s)	918	(s)	53	2	55
1984 Total	36	0	755	52	0	0	(s)	843	(s)	53	2	55
1985 Total	24	0	926	0	0	0	0	950	(s)	53	2	55
1986 Total	0	0	749	0	0	0	2	750	9	50	2	61
1987 Total	0	0	993	0	0	0	0	993	3	49	2	54
1988 Total	17	0	1,276	0	0	0	0	1,294	20	52	2	74
1989 Total	42	0	1,339	0	0	0	0	1,382	38	51	17	107
1990 Total	84	0	1,448	0	0	0	0	1,532	17	53	16	86
1991 Total	64	0	1,710	0	0	0	0	1,773	15	54	60	129
1992 Total	43	0	2,094	0	0	0	0	2,138	68	53	96	216
1993 Total	82	0	2,267	2	0	0	0	2,350	45	56	40	140
1994 Total	51	0	2,566	7	0	0	0	2,624	53	63	47	162
1995 Total	18	0	2,816	7	0	0	0	2,841	28	65	61	154
1996 Total	35	0	2,883	14	0	0	5	2,937	52	68	34	153
1997 Total	66	10	2,899	17	0	0	2	2,994	56	62	38	157
1998 Total	69	12	3,052	15	0	0	5	3,152	40	66	53	159
1999 Total	76	12	3,368	55	20	51	5	3,586	39	64	61	163
2000 Total	47	6	3,544	12	46	99	28	3,782	73	66	106	244
2001 Total	65	2	3,729	10	23	98	50	3,977	167	66	141	373
<b>2002</b> January	3	0	334	1	0	5	0	343	16	6	13	34
February	0	0	298	1	0	8	0	306	16	4	11	30
March	0	0	322	0	0	10	0	333	14	6	18	38
April	2	0	298	0	5	10	0	315	13	7	19	39
May	7	0	291	0	6	10	5	319	15	2	23	39
June	5	0	292	0	14	7	0	318	14	6	25	45
July	5	0	323	0	5	11	0	345	12	6	28	45
August	0	0	332	0	3	16	6	356	12	6	29	47
September	0	0	319	0	3	14	0	336	13	6	28	47
October	0	0	316	0	0	22	5	343	10	6	26	42
November	3	0	309	0	0	19	0	331	28	6	21	55
December	3	0	351	0	0	18	0	371	26	6	23	55
<b>Total</b>	<b>27</b>	<b>0</b>	<b>3,785</b>	<b>2</b>	<b>35</b>	<b>151</b>	<b>16</b>	<b>4,015</b>	<b>189</b>	<b>63</b>	<b>263</b>	<b>516</b>
<b>2003</b> January	0	0	342	0	0	23	0	365	27	4	28	60
February	0	0	293	0	0	21	0	314	28	6	25	59
March	3	0	298	0	2	26	0	329	32	6	17	55
April	11	0	285	0	0	19	3	317	26	6	20	52
May	4	0	282	0	0	30	11	328	18	4	29	50
June	3	0	262	0	0	34	11	310	20	3	30	54
July	5	0	288	0	3	44	5	345	16	7	27	50
August	3	0	288	0	0	35	11	337	16	5	30	51
September	8	0	272	0	6	29	11	326	21	5	28	55
October	11	0	279	0	3	38	6	336	20	8	33	61
November	3	0	275	0	0	40	4	322	32	6	33	71
December	3	0	327	0	0	37	0	367	38	6	32	76
<b>Total</b>	<b>53</b>	<b>0</b>	<b>3,490</b>	<b>0</b>	<b>14</b>	<b>378</b>	<b>61</b>	<b>3,996</b>	<b>294</b>	<b>64</b>	<b>333</b>	<b>692</b>
<b>2004</b> January	5	0	319	0	0	43	5	372	21	5	29	55
February	8	0	297	0	0	41	0	346	26	5	26	57
March	11	0	292	0	0	38	0	341	36	6	28	70
April	E 8	0	270	0	E 3	RE 35	0	RE 316	E 21	7	E 32	E 60
May	E 5	E 3	274	0	E 3	RE 36	E 6	RE 328	E 19	2	E 32	E 53
June	E 16	E 3	R 281	0	0	RE 34	E 4	RE 338	E 18	4	E 32	E 54
July	NA	NA	E 316	0	NA	NA	NA	E 374	E 16	6	E 32	E 54
<b>7-Month Total</b>	<b>NA</b>	<b>NA</b>	<b>E 2,049</b>	<b>0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>E 2,414</b>	<b>E 157</b>	<b>34</b>	<b>E 212</b>	<b>E 403</b>
<b>2003 7-Month Total</b>	<b>26</b>	<b>0</b>	<b>2,050</b>	<b>0</b>	<b>5</b>	<b>198</b>	<b>31</b>	<b>2,309</b>	<b>166</b>	<b>35</b>	<b>177</b>	<b>379</b>
<b>2002 7-Month Total</b>	<b>21</b>	<b>0</b>	<b>2,159</b>	<b>2</b>	<b>30</b>	<b>62</b>	<b>5</b>	<b>2,279</b>	<b>100</b>	<b>35</b>	<b>136</b>	<b>272</b>

<sup>a</sup> As liquefied natural gas.

<sup>b</sup> 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. See Note 9 at end of section.

<sup>c</sup> Indonesia 1986 and 2000; the United Arab Emirates 1996-2000; Malaysia 1999 and 2002-2004; Nigeria 2000 forward; Oman 2000 forward; and Brunei 2002.

R=Revised. NA=Not available. E=Estimate. (s)=Less than 500 million cubic feet.

Notes: • See Note 9 at end of section. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: • 1973-1987: Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • 1988-1998: EIA, *Natural Gas Annual*, annual reports. • 1999 forward: EIA, *Natural Gas Monthly*, September 2004, Tables 5 and 6; and Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."



**Table 4.5 Natural Gas in Underground Storage**  
(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period			Change in Working Gas From Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total <sup>a</sup>	Volume	Percent	Withdrawals	Injections	Net <sup>b,c</sup>
1973 Total .....	2,864	2,034	4,898	305	17.6	1,533	1,974	-442
1974 Total .....	2,912	2,050	4,962	16	.8	1,701	1,784	-84
1975 Total .....	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
1976 Total .....	3,323	1,926	5,250	-286	-12.9	1,921	1,756	165
1977 Total .....	3,391	2,475	5,866	549	28.5	1,750	2,307	-557
1978 Total .....	3,473	2,547	6,020	72	2.9	2,158	2,278	-120
1979 Total .....	3,553	2,753	6,306	207	8.1	2,047	2,295	-248
1980 Total .....	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
1981 Total .....	3,752	2,817	6,569	162	6.1	1,887	2,180	-293
1982 Total .....	3,808	3,071	6,879	255	9.0	2,094	2,399	-305
1983 Total .....	3,847	2,595	6,442	-476	-15.5	2,142	1,700	442
1984 Total .....	3,830	2,876	6,706	281	10.8	2,064	2,252	-188
1985 Total .....	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
1986 Total .....	3,819	2,749	6,567	142	5.5	1,812	1,952	-140
1987 Total .....	3,792	2,756	6,548	7	.3	1,881	1,887	-6
1988 Total .....	3,800	2,850	6,650	94	3.4	2,244	2,174	69
1989 Total .....	3,812	2,513	6,325	-337	-11.8	2,804	2,491	313
1990 Total .....	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
1991 Total .....	3,954	2,824	6,778	-244	-8.0	2,689	2,608	80
1992 Total .....	4,044	2,597	6,641	-227	-8.0	2,724	2,555	168
1993 Total .....	4,327	2,322	6,649	-275	-10.6	2,717	2,760	-43
1994 Total .....	4,360	2,606	6,966	284	12.2	2,508	2,796	-288
1995 Total .....	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
1996 Total .....	4,341	2,173	6,513	19	.9	2,911	2,906	6
1997 Total .....	4,350	2,175	6,525	2	.1	2,824	2,800	24
1998 Total .....	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
1999 Total .....	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
2000 Total .....	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
2001 Total .....	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
<b>2002</b> January .....	4,313	2,344	6,657	1,078	85.2	606	59	546
February .....	4,356	1,838	6,194	925	101.4	520	55	464
March .....	4,355	1,518	5,873	776	104.7	428	108	320
April .....	4,355	1,659	6,014	666	67.1	112	238	-126
May .....	4,361	1,968	6,329	528	36.7	60	381	-322
June .....	4,355	2,308	6,663	426	22.6	56	397	-341
July .....	4,358	2,539	6,896	278	12.3	101	343	-242
August .....	4,357	2,773	7,130	198	7.7	90	325	-236
September .....	4,342	3,042	7,384	97	3.3	71	340	-269
October .....	4,342	3,116	7,458	-28	-9	145	232	-87
November .....	4,344	2,929	7,273	-325	-10.0	322	124	198
December .....	4,340	2,375	6,715	-528	-18.2	627	66	560
<b>Total .....</b>	<b>4,340</b>	<b>2,375</b>	<b>6,715</b>	<b>-528</b>	<b>-18.2</b>	<b>3,138</b>	<b>2,670</b>	<b>468</b>
<b>2003</b> January .....	4,342	1,534	5,876	-810	-34.5	886	44	841
February .....	4,334	864	5,198	-974	-53.0	723	48	676
March .....	4,324	730	5,054	-788	-51.9	305	169	136
April .....	4,315	896	5,211	-763	-46.0	118	277	-158
May .....	4,322	1,300	5,622	-668	-33.9	41	453	-412
June .....	4,323	1,768	6,091	-540	-23.4	36	506	-470
July .....	4,323	2,129	6,451	-410	-16.1	64	426	-361
August .....	4,324	2,435	6,760	-338	-12.2	62	371	-309
September .....	4,328	2,843	7,171	-199	-6.5	31	441	-411
October .....	4,327	3,130	7,457	14	.5	59	343	-284
November .....	4,305	3,038	7,343	110	3.7	228	142	86
December .....	4,305	2,565	6,869	189	8.0	543	70	473
<b>Total .....</b>	<b>4,305</b>	<b>2,565</b>	<b>6,869</b>	<b>189</b>	<b>8.0</b>	<b>3,095</b>	<b>3,288</b>	<b>-193</b>
<b>2004</b> January .....	4,301	1,751	6,052	217	14.1	869	59	811
February .....	4,297	1,156	5,452	292	33.8	646	47	600
March .....	4,283	1,058	5,342	328	45.0	269	165	103
April .....	4,283	1,252	5,535	357	39.8	95	293	-198
May .....	4,287	1,624	5,911	323	24.9	43	421	-379
June .....	4,284	2,023	6,307	255	14.4	31	428	-397
July .....	4,287	2,395	6,681	266	12.5	56	422	-366
<b>7-Month Total .....</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,010</b>	<b>1,835</b>	<b>174</b>
<b>2003 7-Month Total .....</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,172</b>	<b>1,921</b>	<b>251</b>
<b>2002 7-Month Total .....</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,883</b>	<b>1,582</b>	<b>301</b>

<sup>a</sup> For total underground storage capacity at the end of each calendar year, see Note 8 at end of section.

<sup>b</sup> For 1980-2002, data differ from those shown on Table 4.1, which include liquefied natural gas storage for that period.

<sup>c</sup> Positive numbers indicate that withdrawals are greater than injections. Negative numbers indicate that injections are greater than withdrawals. Net withdrawals or injections may not equal the difference between applicable

ending stocks. See Note 2 at end of section.

- =Not applicable.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: See end of section.

## Natural Gas

**Note 1. Supplemental Gaseous Fuels:** Any gaseous substance that, introduced into or commingled with natural gas, increases 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 Btu stabilization.

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

Monthly data are considered preliminary until after the publication of the EIA *NGA*. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

**Note 2. Storage:** Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. The difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

Total underground storage capacity at the end of each calendar year since 1975 (first year data were available), in billion cubic feet, was:

1975 ... 6,280	1985 .. 8,087	1995 ... 7,953
1976 ... 6,544	1986 .. 8,145	1996 ... 7,980
1977 ... 6,678	1987 .. 8,124	1997 ... 8,332
1978 ... 6,890	1988 .. 8,124	1998 ... 8,179
1979 ... 6,929	1989 .. 8,124	1999 ... 8,229
1980 ... 7,434	1990 .. 8,125	2000 ... 8,241
1981 ... 7,805	1991 .. 7,993	2001 ... 8,415
1982 ... 7,915	1992 .. 7,932	2002 ... 8,207
1983 ... 7,985	1993 .. 7,989	
1984 ... 8,043	1994 .. 8,043	

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Form FERC-8 (interstate data) and EIA Form EIA-191 (intrastate data). Beginning in January 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the FERC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA *NGA*.

The final monthly and annual storage and withdrawal data for 1980–2001 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

**Note 3. Balancing Item:** The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

The increase of 0.2 trillion cubic feet (Tcf) in the “Balancing Item” category in 1983, followed by a decline of 0.5 Tcf in 1984, reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15 through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 Energy Information Administration (EIA) *Natural Gas Monthly NGM*, which was published in July 1985.

**Note 4. Consumption:** Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

Final data for series other than “Other Industrial CHP” and “Electric Power Sector” are from the EIA *NGA*. Monthly data are considered preliminary until after publication of the EIA *NGA*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *NGM*.

**Note 5. 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 through 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 6. Nonhydrocarbon Gases Removed:** Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the EIA *NGA*. Data are not available prior to 1980. Monthly data are reported by three States and computed for six States. Monthly data are preliminary until after publication of the EIA *NGA*. Differences between annual data published in the EIA *NGA* and the sum of the preliminary monthly data (January–December) are allocated proportionally to the months to create final monthly data.



For further information on methods of estimating preliminary monthly data, see the EIA *NGM*.

#### **Note 7. Production.**

Annual data—Final annual data are from the EIA *NGA*.

Estimated monthly data—Data for the two most recent months presented are estimated. Some of the data for earlier months are also estimated or computed. For a discussion of computation and estimation procedures, see the EIA *NGM*.

Preliminary monthly data—Monthly data are considered preliminary until after publication of the EIA *NGA*. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard 14.73 psi pressure base. Unless there are major changes, data are not revised until after publication of the EIA *NGA*.

Final monthly data—Differences between annual data in the EIA *NGA* and the sum of preliminary monthly data (January–December) are allocated proportionally to the months to create final monthly data.

**Note 8. Extraction Loss:** Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Annual data are from the EIA *NGA*, where they are estimated on the basis of the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated extraction losses, see the EIA *NGA*.

Preliminary monthly data are estimated on the basis of extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Monthly data are revised and considered final after the publication of the EIA *NGA*. Final monthly data are estimated by allocating annual extraction loss data to the months on the basis of total natural gas marketed production data from the EIA *NGA*.

**Note 9. Imports and Exports:** The United States imports natural gas via pipeline from Canada and Mexico and imports liquefied natural gas (LNG) via tanker from Algeria, Australia, Indonesia, Nigeria, Oman, Qatar, Trinidad and Tobago, and the United Arab Emirates. In addition, very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and exports LNG via tanker to Japan. Also, small amounts of LNG have gone to Mexico since 1998.

Annual and final monthly data are from the annual EIA Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," which requires data to be reported by month for the calendar year.

Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see the EIA *NGM*. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas*.

#### **Table 4.4 Sources**

##### **Residential, Commercial, Lease and Plant Fuel, and Pipeline Fuel**

1973–1998: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 95.

1999 forward: EIA, *Natural Gas Monthly*, September 2004, Table 3.

##### **Other Industrial Total**

1973–1992: EIA, *Natural Gas Annual 2000*, Table 95.

1993–1998: EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

1999 forward: EIA, *Natural Gas Monthly*, September 2004, Table 3.

##### **Other Industrial CHP**

Table 7.3c.

##### **Electric Power Sector**

1973–1988: Table 7.3e.

1989 forward: Table 7.3b.

##### **Vehicle Fuel**

Annual Data:

1990 and 1991: EIA, *Natural Gas Annual 2000*, Table 95.

1992–1995: Science Applications International Corporation, "Alternative Transportation Fuels and Vehicles Data Development," unpublished final report prepared for EIA (McLean, VA, July 1996) and U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy.

1996–2003: EIA, Office of Coal, Nuclear, Electric, and Alternative Fuels.

Monthly Estimates: Derived by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month.

**All Other Series:** Calculated.

#### **Table 4.5 Sources**

##### **Storage Activity**

1973–1975: Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2*, Table 9.

1976–1979: EIA, *Natural Gas Production and Consumption 1979*, Table 1.

1980–1995: EIA, *Historical Natural Gas Annual 1930 Through 2000*, Table 11.

1996–1998: EIA, *Natural Gas Monthly*, February 2003, Table 9. 1999 forward: EIA, *Natural Gas Monthly*, September 2004, Table 9.

**Other Data**

1973 and 1974: American Gas Association (AGA), *Gas Facts, 1972 Data*, Table 57, *Gas Facts, 1973 Data*, Table 57, and *Gas Facts, 1974 Data*, Table 40.

1975 and 1976: Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."

1977 and 1978: EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy

Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report."

1979–1995: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."

1996–2000: EIA, *Natural Gas Monthly*, February 2002, Table 9.

2001: EIA, *Natural Gas Monthly*, February 2004, Table 9.

2002 forward: EIA, *Natural Gas Monthly*, September 2004, Table 9.