

Natural Gas 1998: A Preliminary Summary

This Special Report provides preliminary natural gas data for 1998 which were reported on monthly surveys of the industry through December. These data will be revised and become final with the release of the *Natural Gas Annual 1998* in the fall of 1999. That report will include data from an annual survey of the industry.

Production and Wellhead Prices

Preliminary data for 1998 show that dry production remained even with that of 1997 despite a 16-percent drop in the annual average wellhead price. Dry natural gas production is estimated to have been 18,906 billion cubic feet in 1998, essentially the same as in 1997. Even on a monthly basis, natural gas production during 1998 followed a pattern similar to that of 1997, starting at 52.7 billion cubic feet per day in January and falling to just over 51 billion cubic feet per day by the summer. Patterns in the fall were also similar, but daily production rates rose from November to December in 1998, while they had dropped in 1997. The net result was that dry natural gas production in December 1998 was 2 percent higher than in December 1997.

Dry natural gas production is gas from which liquids that are originally associated with the produced gas have been removed. Marketed production occurs earlier in the production process. Dry natural gas is what is used at the burner tip by end users. State-level data on dry production will not be available until the fall of 1999 in the Energy Information Administration's *Natural Gas Annual 1998*. However, State-level data on marketed production are available to exam-

ine production patterns in different parts of the country.

Marketed natural gas production is estimated to have been 19,870 billion cubic feet in 1998, compared with 19,865 billion cubic feet in 1997. Despite the similarity of the national levels, there were some notable changes at the State level. The largest increase occurred in New Mexico where marketed production rose by an estimated 114 billion cubic feet (7 percent) to 1,673 billion cubic feet in 1998. The second largest increase, roughly 31 billion cubic feet was experienced by three States—California, Colorado, and Louisiana.¹ This change was equivalent to an 11-percent increase for California, 5 percent for Colorado, but less than 1 percent for Louisiana.

The largest decline in marketed production at the State level occurred in Kansas where production fell 106 billion cubic feet, or 15 percent, to 581 billion cubic feet in 1998. The next largest declines were 61 billion cubic feet (4 percent) in Oklahoma and 56 billion cubic feet (1 percent) in Texas.

Texas and Louisiana remained the largest producing States in 1998, accounting for 32 and 27 percent, respectively, of the Nation's marketed natural gas production. The next largest producers were New Mexico and Oklahoma, with 8 percent each. In all, 32 States reported measurable production in 1998.

The estimated natural gas wellhead price was \$1.96 per thousand cubic feet in 1998, compared with \$2.32 in 1997. Not only was the annual average wellhead price lower in 1998 than in 1997, monthly average prices were also more stable. During 1998, the well-

1 The estimate of marketed production in Louisiana for 1998 includes the total of Federal offshore production for Louisiana and Alabama. This estimate cannot be allocated to the States until publication of the Energy Information Administration's *Natural Gas Annual 1998*, which is expected in the fall of 1999. Data for 1997 were adjusted to allow for consistent State-level comparisons in this analysis. Federal offshore production in Alabama in 1997 was 195 billion cubic feet.

head price varied from a low of \$1.73 per thousand cubic feet (December) to a high of \$2.22 (April), a difference of only \$0.49. During 1997, however, the wellhead price varied from a low of \$1.79 per thousand cubic feet (March) to a high of \$3.40 (January), a difference of \$1.61. Also during 1997, there was a second strong peak in the price at \$2.92 per thousand cubic feet in November.

Underground Storage

Injections of natural gas into underground storage facilities were 104 billion cubic feet, or 4 percent, higher in 1998 than in 1997. However, withdrawals were 438 billion cubic feet, or 16 percent lower, reflecting both the adequate amount of gas in storage at the beginning of 1998 and the generally warmer temperatures seen in the heating season months (January, February, October, November, and December) compared with 1997.² For example, according to heating degree days, January and February 1998 were 18 and 10 percent warmer than in 1997, respectively. Warmer temperatures prevailed from the Midwest to the East where natural gas consumption is greatly affected by space-heating needs during the winter.

The largest change in both injections and withdrawals occurred in Michigan, the State with the largest amount of underground storage capacity, 993 billion cubic feet. In Michigan in 1998, injections of natural gas were down by 33 billion cubic feet, or 8 percent, compared with 1997, while withdrawals were down by 107 billion cubic feet, or 25 percent.

As in 1997, the top four States in terms of underground storage capacity in 1998 were all in market areas: Michigan, Illinois, West Virginia, and Pennsylvania. These four States combined accounted for 41 percent of U.S. underground natural gas storage capacity. The producing area State with the largest amount of capacity in both 1997 and 1998 was Texas, which, like Pennsylvania, accounted for 8 percent of the Nation's storage capacity.

Imports

Natural gas imports continued to climb for the 12th consecutive year, reaching a record 3.1 trillion cubic feet in 1998. They rose by 5 percent, showing a faster growth rate than in 1997 (2 percent) and 1996 (3 percent). Most of the increase occurred in pipeline imports from Canada. Additional capacity from Canada became available in the last quarter of the year. Canadian imports represented 97 percent of total imports, while imports from Mexico represented less than 1 percent of the total.

Net imports for the year totaled 3.0 trillion cubic feet and represented an estimated 14 percent of natural gas consumption in the United States. Net imports were higher in each month of 1998 than in the corresponding month of 1997, except in November. During 1998, they ranged from 7.7 billion cubic feet per day in May to 8.6 billion cubic feet per day in January and December.

Imports of liquefied natural gas (LNG) also increased, reaching 85 billion cubic feet, the highest level since 1983. They represented 3 percent of total imports. Most of the LNG (69 billion cubic feet) was imported under contract from Algeria. LNG spot market purchases continued to grow as imports from Australia rose 20 percent to 12 billion cubic feet and imports from the United Arab Emirates more than doubled to reach 5 billion cubic feet. LNG was imported into terminals at Everett, Massachusetts, and Lake Charles, Louisiana.

Reflecting the decline in wellhead prices, the price of pipeline imports from Canada also fell. It dropped 9 percent from 1997 to \$1.95 per thousand cubic feet in 1998, only \$0.01 less than the 1996 price. The average price of LNG imports also decreased from 1997 to 1998, but by a lesser amount, 4 percent.

Exports

Exports of natural gas increased by 5 percent between 1997 and 1998 to 165 billion cubic feet. Pipeline exports to Mexico rose by 40 percent to 54 billion cubic feet, while exports to Canada fell by 20 percent to 45 billion cubic feet. LNG exports to Japan totaled 66

2 Energy Information Administration, Natural Gas Monthly, DOE/EIA-130(98/04) (Washington, DC, May 1998), Table 26 and Table 26 of the current issue.

billion cubic feet in 1998. During the past 5 years, they have ranged from 62 to 68 billion cubic feet and have represented about 40 percent of all U.S. exports.

The average price of total exports declined by 20 percent from 1997 to 1998. The price to each country of export decreased, but the largest drop occurred in the price for LNG exports to Japan, which fell by 24 percent to \$2.90 per thousand cubic feet.

End-Use Consumption

End-use consumption of natural gas in 1998 was estimated at 19.4 trillion cubic feet, 3 percent below the levels in 1997 and 1996. Declines in residential, commercial, and industrial consumption between 1997 and 1998 were only partially offset by an increase in natural gas consumption by electric utilities.

The largest decline in natural gas consumption during 1998 occurred in the residential sector. Residential natural gas consumption in 1998 was estimated at 4.5 trillion cubic feet, down 10 percent from that in 1997 and down more than 14 percent from 1996. Moderate temperatures in 1997 and 1998 explain most of the declines in residential consumption following the historical peak of 5.2 trillion cubic feet in 1996. Temperatures during the heating season months were generally warmer in 1998 than in 1997, reducing demand for natural gas to meet space-heating needs. Residential demand in 1998 was lower than in 1997 for all months except March and July.

Commercial consumption of natural gas in 1998 was estimated at 3.1 trillion cubic feet, a decline from the record high of 3.2 trillion cubic feet the previous year. As in the residential sector, the decrease in commercial consumption can be explained in part by generally warmer temperatures that reduced space-heating demand. During the year, demand fell for all months except March and July through September.

Natural gas consumption by the industrial sector in 1998 was estimated at 8.6 trillion cubic feet. This estimate was only slightly less than the 1995 level of industrial consumption, although it was 3 percent less than the level in both 1996 and 1997. In contrast with the other consuming sectors, electric utilities' consumption of natural gas grew in 1998 to an estimated 3.3 trillion cubic feet, exceeding the 1997 level by 10 percent. The volume increase from 1997 to 1998 is estimated to be 289 billion cubic feet. The rise in 1998

continues a trend of increased demand that began in 1996. Demand for natural gas to fuel electric utilities showed increases in all months of 1998 except February, April, November, and December.

Extremely high temperatures that lingered in the Southwest during the summer, particularly in Texas, contributed to the increased demand for gas by electric utilities. As a result, this sector's use of gas in July and August was driven by peak air-conditioning demand. Electric utilities in Texas accounted for more than 60 percent of the 1998 total national increase in gas consumption for this sector. They consumed 1,243 billion cubic feet of natural gas during the year, 38 percent of all electric utility gas consumption in the United States in that year.

City Gate and End-Use Prices

The average wellhead price of natural gas fell \$0.36 per thousand cubic feet in 1998. This 16-percent decrease was echoed by an identical 16-percent decrease in the city gate price, which fell \$0.59 from \$3.61 per thousand cubic feet in 1997 to \$3.02 in 1998. Accordingly, the average annual prices paid by end users fell for all sectors.

The 1997-1998 heating season was dominated by one of the largest "El Nino" weather patterns of this century, and November 1997 was the only month that recorded colder-than-normal weather. Temperatures gradually moderated in succeeding months. Some of the coldest temperatures of the season occurred in early March 1998, contributing to a rise in wellhead prices during that month. Wellhead prices fell in June owing to the effects of low demand during the generally moderate summer temperatures that were prevalent throughout most parts of the country at that time. The one exception was in the Southwest, specifically Texas, where triple-digit temperatures prevailed. In July 1998, wellhead prices increased an estimated 6 percent because the severely high temperatures in the Southwest spread to most areas east of the Rockies during the month.

In the residential sector, the average price paid for natural gas declined \$0.12 in 1998 to an estimated \$6.82 per thousand cubic feet, the smallest decrease of any of the consuming sectors. The decline in the average price paid by commercial consumers for natural gas in 1998 was \$0.32 per thousand cubic feet. This decrease brought the average price paid for natural gas by commercial users in 1998 to an estimated \$5.47 per thousand cubic feet.

Price decreases were approximately 14 percent in 1998 for both the industrial and electric utility sectors. In the industrial sector, the average price paid for natural gas fell sharply to \$3.07 per thousand cubic feet, a decrease of \$0.52. Even with peak demand owing to extremely high temperatures that lingered

in the Southwest during the summer of 1998, particularly in Texas, electric utilities paid \$0.37 per thousand cubic feet less for natural gas than in 1997. The estimated electric utility price in 1998 is \$2.37 per thousand cubic feet.

SR1. Summary Statistics for Natural Gas in the United States, 1994-1998

	1994	1995	1996	1997	1998
Production (million cubic feet)					
Gross Withdrawals					
From Gas Wells.....	17,351,060	17,282,032	17,680,777	17,844,046	17,791,033
From Oil Wells.....	6,229,645	6,461,596	6,370,888	6,368,631	6,693,626
Total.....	23,580,706	23,743,628	24,051,665	24,212,677	24,484,660
Repressuring.....	-3,230,667	-3,565,023	-3,510,330	-3,491,542	-3,816,832
Nonhydrocarbon Gases Removed.....	-412,178	-388,392	-518,425	-592,134	-533,241
Wet After Lease Separation.....	19,937,861	19,790,213	20,022,909	20,129,001	20,134,586
Vented and Flared.....	-228,336	-283,739	-272,117	-263,819	-264,382
Marketed Production.....	19,709,525	19,506,474	19,750,793	19,865,182	19,870,204
Extraction Loss.....	-888,500	-907,795	-958,178	-963,759	-963,705
Total Dry Production.....	18,821,025	18,598,679	18,792,615	18,901,423	18,906,500
Supply (million cubic feet)					
Dry Production.....	18,821,025	18,598,679	18,792,615	18,901,423	18,906,500
Receipts at U.S. Borders					
Imports.....	2,623,839	2,841,048	2,937,413	2,994,173	3,141,386
Intransit Receipts.....	487,760	492,481	536,333	548,000	NA
Withdrawals from Storage					
Underground Storage.....	2,508,151	2,974,102	2,911,327	2,824,245	2,386,419
LNG Storage.....	70,689	50,446	69,287	69,517	NA
Supplemental Gas Supplies.....	110,826	110,290	109,455	103,153	117,455
Balancing Item.....	-415,579	-230,002	278,937	76,044	NA
Total Supply.....	24,206,711	24,837,044	25,635,365	25,516,554	24,396,377
Disposition (million cubic feet)					
Consumption.....	20,707,717	21,580,665	21,966,991	21,972,770	21,326,952
Deliveries at U.S. Borders					
Exports.....	161,739	154,119	153,393	157,006	164,828
Intransit Deliveries.....	472,499	492,481	536,333	516,620	NA
Additions to Storage					
Underground Storage.....	2,796,279	2,565,882	2,905,592	2,800,294	2,904,597
LNG Storage.....	68,478	43,897	73,057	69,865	NA
Total Disposition.....	24,206,711	24,837,044	25,635,365	25,516,554	24,396,377
Consumption (million cubic feet)					
Lease and Plant Fuel.....	1,123,720	1,220,168	1,250,037	1,202,492	1,243,875
Pipeline Fuel.....	685,362	700,335	711,446	751,595	729,528
Delivered to Consumers					
Residential.....	4,847,702	4,850,318	5,241,414	4,983,772	4,481,500
Commercial.....	2,895,013	3,031,077	3,158,244	3,218,606	3,052,880
Industrial.....	8,167,033	8,579,585	8,870,422	8,842,896	8,561,122
Vehicle Fuel.....	1,741	2,674	2,932	4,424	NA
Electric Utilities.....	2,987,146	3,196,507	2,732,496	2,968,984	3,258,054
Total Delivered to Consumers.....	18,898,635	19,660,161	20,005,508	20,018,683	19,353,555
Total Consumption.....	20,707,717	21,580,665	21,966,991	21,972,770	21,326,952
Average Prices for Natural Gas (dollars per thousand cubic feet)					
Wellhead (Marketed Production).....	1.85	1.55	2.17	2.32	1.96
Imports.....	1.87	1.49	1.97	2.17	1.97
Exports.....	2.50	2.39	2.97	3.02	2.43
City Gate.....	3.07	2.78	3.27	3.61	3.02
Delivered to Consumers					
Residential.....	6.41	6.06	6.34	6.94	6.82
Commercial.....	5.44	5.05	5.40	5.79	5.47
Industrial.....	3.05	2.71	3.42	3.59	3.07
Electric Utilities.....	2.28	2.02	2.69	2.74	2.37

NA = Not available.

Notes: Beginning in 1987, prices for gas delivered to consumers are calculated using only on-system sales data. No imputations are made for prices of gas delivered for the account of others. In previous years, prices were calculated using reported values and values imputed for gas delivered for the account of others. The United States includes the 50 states and the District of Columbia. Totals may not equal sum of components due to independent rounding. Beginning in 1996, consumption of natural gas for agricultural use was classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use.

Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1994 and 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 through 1998); Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"; Form EIA-759, "Monthly Power Plant Report"; Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"; Form EIA-191, "Underground Gas Storage Report"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1998); U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports, DOE/EIA-0216; and the U.S. Minerals Management Service.

SR2. Gross Withdrawals and Marketed Production of Natural Gas by State, 1998
 (Million Cubic Feet)

State	Gross Withdrawals			Repressuring	Nonhydrocarbon Gases Removed	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
Alabama.....	424,588	8,392	432,980	13,980	26,604	1,526	390,870
Alaska.....	190,404	3,340,040	3,530,444	3,037,763	0	9,461	483,221
Arizona.....	429	28	457	0	0	0	457
Arkansas.....	180,129	35,562	215,691	1,907	0	159	213,625
California.....	81,445	316,415	397,860	79,278	1,863	907	315,813
Colorado.....	582,583	94,010	676,592	7,244	0	1,334	668,014
Florida.....	0	6,547	6,547	0	751	0	5,796
Illinois.....	188	6	193	0	0	0	193
Indiana.....	878	0	878	0	0	0	878
Kansas.....	536,425	46,646	583,070	991	0	583	581,496
Kentucky.....	62,915	0	62,915	0	0	0	62,915
Louisiana.....	4,769,930	755,367	5,525,297	46,576	0	22,671	5,456,050
Maryland.....	178	0	178	0	0	0	178
Michigan.....	246,992	56,748	303,740	2,140	0	3,040	298,560
Mississippi.....	120,588	8,628	129,216	9,830	8,520	2,798	108,069
Montana.....	48,713	8,535	57,249	69	0	2,120	55,059
Nebraska.....	1,094	604	1,698	0	0	0	1,698
Nevada.....	0	9	9	0	0	0	9
New Mexico.....	1,579,057	273,723	1,852,779	11,279	165,641	3,005	1,672,854
New York.....	14,924	586	15,510	0	0	5	15,506
North Dakota.....	17,807	39,551	57,357	0	57	4,466	52,834
Ohio.....	111,335	0	111,335	0	0	0	111,335
Oklahoma.....	1,430,463	212,879	1,643,342	0	0	0	1,643,342
Oregon.....	1,263	0	1,263	44	152	0	1,067
Pennsylvania.....	71,253	0	71,253	0	0	0	71,253
South Dakota.....	664	8,580	9,244	0	6,178	1,544	1,522
Tennessee.....	0	1,451	1,451	0	0	0	1,451
Texas.....	5,672,953	1,372,687	7,045,640	455,953	161,933	29,644	6,398,110
Utah.....	253,761	43,504	297,265	559	0	19,365	277,340
Virginia.....	52,960	0	52,960	0	0	0	52,960
West Virginia.....	168,662	0	168,662	0	0	0	168,662
Wyoming.....	1,168,453	63,129	1,231,582	149,218	161,543	161,754	759,069
Total.....	17,791,033	6,693,626	24,484,660	3,816,832	533,241	264,382	19,870,204

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

Source: Energy Information Administration (EIA), Form EIA-895, "Monthly Quantity and Value of Natural Gas Report."

SR3. Summary of U.S. Natural Gas Imports and Exports, 1994-1998

	1994	1995	1996	1997	1998
Imports					
Volume (million cubic feet)					
Pipeline					
Canada.....	2,566,049	2,816,408	2,883,277	2,899,152	3,040,775
Mexico.....	7,013	6,722	13,862	17,243	15,179
Total Pipeline Imports.....	2,573,061	2,823,130	2,897,138	2,916,394	3,055,954
LNG					
Algeria.....	50,778	17,918	35,325	65,675	68,546
Australia.....	0	0	0	9,686	11,634
United Arab Emirates.....	0	0	4,949	2,417	5,252
Total LNG Imports.....	50,778	17,918	40,274	77,778	85,432
Total Imports.....	2,623,839	2,841,048	2,937,413	2,994,173	3,141,386
Average Price (dollars per thousand cubic feet)					
Pipeline					
Canada.....	1.86	1.48	1.96	2.15	1.95
Mexico.....	1.99	1.53	2.25	2.31	2.02
Total Pipeline Imports.....	1.86	1.48	1.96	2.15	1.95
LNG					
Algeria.....	2.28	2.30	2.70	2.67	2.52
Australia.....	—	—	—	2.92	3.24
United Arab Emirates.....	—	—	3.46	3.74	2.58
Total LNG Imports.....	2.28	2.30	2.80	2.74	2.62
Total Imports.....	1.87	1.49	1.97	2.17	1.97
Exports					
Volume (million cubic feet)					
Pipeline					
Canada.....	52,556	27,554	51,905	56,447	45,240
Mexico.....	46,500	61,283	33,840	38,372	53,601
Total Pipeline Exports.....	99,057	88,836	85,745	94,818	98,841
LNG					
Japan.....	62,682	65,283	67,648	62,187	65,953
Mexico.....	0	0	0	0	34
Total LNG Exports.....	62,682	65,283	67,648	62,187	65,987
Total Exports.....	161,738	154,119	153,393	157,006	164,828
Average Price (dollars per thousand cubic feet)					
Pipeline					
Canada.....	2.42	1.96	2.67	2.52	2.20
Mexico.....	1.68	1.50	2.11	2.46	2.03
Total Pipeline Exports.....	2.08	1.64	2.45	2.49	2.11
LNG					
Japan.....	3.18	3.41	3.65	3.83	2.90
Mexico.....	—	—	—	—	6.22
Total LNG Exports.....	3.18	3.41	3.65	3.83	2.90
Total Exports.....	2.50	2.39	2.97	3.02	2.43

— = Not applicable.

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

Sources: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1994), and Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1998).

SR4. Additions to and Withdrawals from Gas Storage by State, 1998
 (Million Cubic Feet)

State	Underground Storage			Total		
	Injections	Withdrawals	Net	Number of Active Fields	Capacity (billion cubic feet)	Percent of U.S. Capacity
Alabama	2,220	1,774	-447	1	3	0.04
Arkansas	6,951	5,178	-1,774	2	24	0.30
California	172,540	128,534	-44,006	10	396	4.88
Colorado	39,901	35,016	-4,885	9	100	1.23
Illinois	231,429	219,884	-11,545	30	899	11.06
Indiana.....	19,257	20,681	1,424	28	113	1.39
Iowa.....	69,370	66,239	-3,131	7	271	3.34
Kansas.....	120,762	100,322	-20,440	20	304	3.74
Kentucky	65,724	53,582	-12,142	25	220	2.71
Louisiana.....	311,384	240,824	-70,560	13	559	6.88
Maryland	14,569	14,805	237	1	62	0.76
Michigan.....	391,469	314,425	-77,044	48	993	12.22
Minnesota.....	1,291	1,732	442	1	7	0.09
Mississippi.....	65,369	56,588	-8,781	7	134	1.65
Missouri.....	2,670	2,843	174	1	31	0.38
Montana	23,877	23,476	-401	5	343	4.22
Nebraska.....	5,799	6,097	298	1	39	0.49
New Mexico.....	16,456	10,209	-6,247	3	97	1.19
New York.....	62,791	52,216	-10,575	22	175	2.16
Ohio.....	190,718	164,176	-26,542	23	573	7.06
Oklahoma.....	161,781	127,777	-34,004	14	396	4.87
Oregon.....	4,138	4,967	829	3	12	0.14
Pennsylvania.....	319,310	288,395	-30,915	59	685	8.43
Tennessee.....	451	391	-60	1	1	0.01
Texas.....	342,716	233,979	-108,737	34	684	8.42
Utah.....	49,304	32,909	-16,395	3	122	1.50
Virginia	2,422	1,713	-709	2	5	0.06
Washington	23,106	22,597	-509	1	37	0.46
West Virginia.....	171,643	142,749	-28,894	36	734	9.03
Wyoming.....	15,180	12,343	-2,837	7	106	1.30
Total.....	2,904,597	2,386,419	-518,177	417	8,126	100.00

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

Source: Energy Information Administration, Form EIA-191, "Underground Gas Storage Report."

SR5. Natural Gas Delivered to Consumers by State, 1998
 (Million Cubic Feet)

State	Residential	Commercial	Industrial	Electric Utilities	Delivered to Consumers
Alabama	46,655	27,983	200,231	25,546	300,415
Alaska	15,617	23,455	NA	28,784	NA
Arizona	35,815	31,754	28,209	38,674	134,452
Arkansas	35,756	NA	142,774	40,576	NA
California	549,885	319,553	729,514	271,154	1,870,106
Colorado.....	NA	NA	NA	10,627	NA
Connecticut	35,704	42,471	32,455	10,719	121,350
Delaware	7,810	5,624	16,137	11,135	40,707
District of Columbia.....	13,189	17,184	0	0	30,373
Florida	15,252	38,240	138,914	281,346	473,751
Georgia	106,238	55,578	151,146	22,371	335,333
Hawaii	550	2,119	0	0	2,669
Idaho	15,975	11,718	34,263	0	61,955
Illinois	405,461	176,571	306,290	56,337	944,659
Indiana	NA	NA	NA	9,096	NA
Iowa.....	68,912	44,299	110,576	5,947	229,735
Kansas	84,208	50,545	NA	36,896	NA
Kentucky	55,894	33,883	91,604	5,760	187,141
Louisiana.....	NA	NA	NA	318,395	NA
Maine.....	928	NA	NA	0	NA
Maryland	NA	56,238	37,610	12,303	NA
Massachusetts	NA	NA	NA	18,427	NA
Michigan	317,329	164,836	301,398	48,321	831,885
Minnesota.....	110,578	84,104	99,663	7,738	302,084
Mississippi.....	NA	23,170	NA	76,362	NA
Missouri.....	110,375	61,869	67,138	16,035	255,416
Montana	NA	NA	17,548	522	NA
Nebraska.....	40,703	28,214	35,684	5,044	109,646
Nevada.....	30,023	23,049	28,532	60,937	142,541
New Hampshire.....	NA	NA	NA	149	NA
New Jersey	NA	NA	NA	30,996	NA
New Mexico.....	35,614	30,824	40,139	39,034	145,612
New York.....	NA	NA	NA	208,348	NA
North Carolina	50,318	37,774	115,082	12,418	215,593
North Dakota	10,290	10,290	20,912	0	41,491
Ohio.....	NA	NA	NA	7,663	NA
Oklahoma.....	65,403	45,044	191,012	174,577	476,035
Oregon	NA	NA	NA	28,883	NA
Pennsylvania.....	NA	NA	231,500	6,890	NA
Rhode Island	NA	NA	NA	15,589	NA
South Carolina	25,316	19,887	104,878	5,893	155,973
South Dakota	11,649	9,274	5,510	2,865	29,298
Tennessee	NA	NA	NA	6,213	NA
Texas.....	200,728	215,604	NA	1,242,574	NA
Utah.....	56,731	30,853	45,366	5,945	138,895
Vermont.....	2,454	2,979	2,105	188	7,726
Virginia.....	63,029	59,729	94,436	20,386	NA
Washington	NA	NA	NA	13,352	NA
West Virginia	NA	NA	NA	417	NA
Wisconsin.....	116,373	81,410	140,446	16,348	354,578
Wyoming	NA	NA	NA	271	NA
Total.....	4,481,500	3,052,880	8,561,122	3,258,054	19,353,555

NA = Not available.

Note: Totals may not equal sum of components due to independent rounding.**Source:** Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

SR6. Average Prices of Natural Gas by State, 1998
(Dollars per Thousand Cubic Feet)

State	City Gate	Residential	Commercial	Industrial	Electric Utilities
Alabama.....	3.26	8.15	6.65	3.24	2.55
Alaska.....	NA	3.67	2.41	NA	1.80
Arizona.....	2.55	8.56	5.95	3.39	2.43
Arkansas.....	2.94	7.31	NA	3.44	2.28
California.....	2.38	6.93	6.26	3.59	2.79
Colorado.....	NA	NA	NA	NA	2.91
Connecticut.....	5.06	10.59	6.85	4.32	2.42
Delaware.....	3.01	8.86	7.07	4.13	2.89
District of Columbia.....	—	8.97	7.37	—	—
Florida.....	3.36	11.54	6.59	4.30	2.27
Georgia.....	3.51	6.74	5.93	4.75	3.19
Hawaii.....	5.33	19.33	13.18	—	—
Idaho.....	1.96	5.34	4.62	3.09	—
Illinois.....	2.75	5.46	4.92	3.93	2.25
Indiana.....	NA	NA	NA	NA	2.88
Iowa.....	3.48	5.91	4.56	2.15	3.00
Kansas.....	3.05	6.08	5.14	NA	2.13
Kentucky.....	3.22	5.94	5.41	3.78	3.11
Louisiana.....	NA	NA	NA	NA	2.38
Maine.....	NA	7.93	NA	NA	—
Maryland.....	NA	NA	6.63	5.31	2.77
Massachusetts.....	NA	NA	NA	NA	2.78
Michigan.....	2.80	5.12	4.84	3.99	1.23
Minnesota.....	3.02	5.47	4.40	2.85	2.42
Mississippi.....	NA	NA	4.47	NA	2.32
Missouri.....	3.32	6.56	5.66	4.44	2.23
Montana.....	2.40	NA	NA	5.07	3.65
Nebraska.....	3.23	5.19	NA	3.20	2.38
Nevada.....	3.02	7.11	5.94	4.74	2.37
New Hampshire.....	NA	NA	NA	NA	—
New Jersey.....	NA	NA	NA	NA	2.74
New Mexico.....	2.07	5.20	3.95	3.15	2.22
New York.....	NA	NA	NA	NA	2.56
North Carolina.....	3.49	8.71	6.62	3.95	2.73
North Dakota.....	2.80	5.19	4.33	2.88	—
Ohio.....	4.66	NA	NA	NA	3.51
Oklahoma.....	2.55	6.10	5.23	3.71	2.47
Oregon.....	NA	NA	NA	NA	1.55
Pennsylvania.....	NA	NA	NA	4.27	3.30
Rhode Island.....	NA	NA	NA	NA	3.38
South Carolina.....	0.82	8.50	6.45	3.24	3.60
South Dakota.....	3.23	5.59	4.42	3.27	1.77
Tennessee.....	NA	NA	NA	NA	—
Texas.....	2.92	6.31	4.52	NA	2.30
Utah.....	3.22	5.61	4.35	3.09	2.11
Vermont.....	2.58	6.54	5.08	2.80	2.90
Virginia.....	3.69	8.66	6.08	4.10	3.04
Washington.....	NA	NA	NA	NA	2.79
West Virginia.....	NA	NA	NA	NA	3.53
Wisconsin.....	3.36	6.08	4.89	3.92	2.68
Wyoming.....	NA	NA	NA	NA	8.61
Total.....	3.02	6.82	5.47	3.07	2.37

NA = Not available.
— = Not applicable.

Source: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."