



ENERGY SITUATION ANALYSIS REPORT



November 21, 2001

Energy Information Administration
U.S. Department of Energy
Washington, DC 20585
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Petroleum Natural Gas Coal Electricity

Latest Energy Market Developments

Oil prices rebounded somewhat yesterday, with the spot price for West Texas Intermediate (WTI) reaching \$18.71 per barrel, up 97 cents per barrel from the day before. This increase follows the steep price declines of last week, which brought oil prices below 2-year lows. In an effort to prop up world oil prices without losing market share, OPEC continues to seek output restraint from major non-OPEC oil exporters such as Russia, Mexico, and Norway. Yesterday, OPEC Secretary-General Ali Rodriguez stated that "[Russia and Norway] have signaled that if there is a sharp fall in prices they would be ready [to cooperate]." So far, Mexico (the fourth largest non-OPEC oil producer) has agreed to cut production by 100,000 barrels per day, effective January 1, and Oman has offered to cut oil output by 50,000 barrels per day. Russia (the largest non-OPEC oil producer) had offered to cut only a nominal 30,000 barrels per day, but yesterday, Russia's Deputy Prime Minister Viktor Khristenko said that "the situation on the oil market remains worrying for the Russian leadership" and that "further decisions will be understood and set out soon." Norway (the fifth largest non-OPEC oil producer) had stated repeatedly that it did not plan to cut production in cooperation with OPEC, but today its oil minister said it might be willing to act "together with other countries." Norway's oil minister also said that Norway would participate in cutting oil output before oil prices went "out of control," assuming that all countries -- OPEC and non-OPEC -- worked together.

Oil prices fell dramatically on November 14 and 15, following the decision by the Organization of Petroleum Exporting Countries (OPEC) at its meeting in Vienna, Austria, to cut oil production quotas by 1.5 million barrels per day (6%) as of January 1, 2002, but only "subject to a firm commitment from non-OPEC oil producers to agree to cut their production by...500,000 bbl/d simultaneously." In response to this, plus continued oil demand weakness due to economic difficulties and reduced jet fuel demand since September 11, as well as growing levels of oil inventories, the crude oil December spot price fell to \$17.50 per barrel on November 15, a \$4.13 per barrel drop from November 13. As of November 19, the December spot price had recovered only slightly, to \$17.74 per barrel, and was hovering around 35% lower than the price on September 10 (\$27.66 per barrel). Meanwhile, the OPEC "basket price" increased to \$17.06 per barrel yesterday, around \$2 per barrel below the basket price two weeks ago, and below the cartel's price band (\$22-\$28 per barrel) for the 41st straight trading day.

U.S. petroleum product (e.g., motor gasoline, jet fuel, heating oil) prices are significantly below levels at the same time last year, while demand for some products is stronger than anticipated. After trending down most days during the previous 3 weeks (and hitting a 2-1/2 year lows posted on Friday, November 16), the price of the NYMEX natural gas futures contract for December delivery at the Henry Hub gained an additional \$0.061 per MMBtu in Tuesday, November 20 trading, adding to the more than 15-cent gain on Monday. Meanwhile, mild weather across the United States continues to help stabilize electricity demand and electricity prices. Coal supplies are ample, with production above last year's levels.

World Oil Market Highlights

International Oil Supply and Demand

World oil demand has fallen since September 11, in part due to sharply lower jet fuel demand. Increased jet fuel requirements as a result of military action against targets in [Afghanistan](#) are not expected to offset the decline in commercial jet fuel demand. World oil demand growth of 400,000 barrels per day now is expected in 2001, less than half of early September's growth projections.

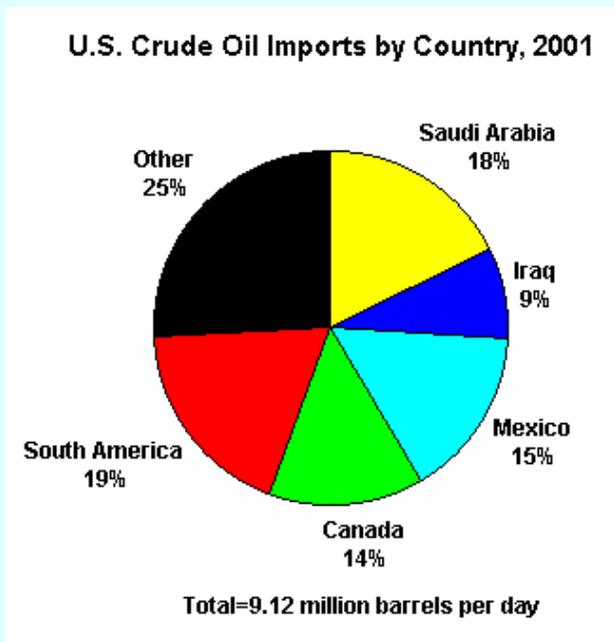
To date, no oil supply shortages have materialized in connection with terrorist attacks or ongoing military operations. Decreased world oil demand as a result of reduced economic growth, combined with OPEC overproduction, have resulted in building inventories and sharply lower oil prices in world markets.

World Excess Oil Production Capacity

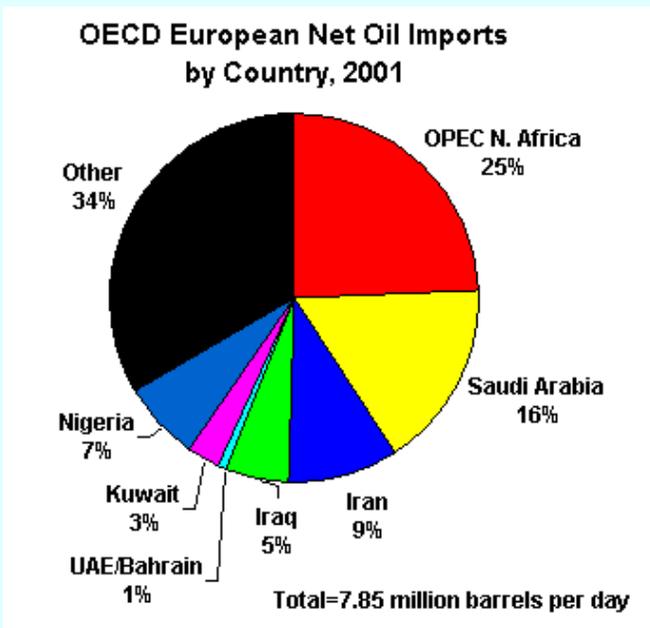
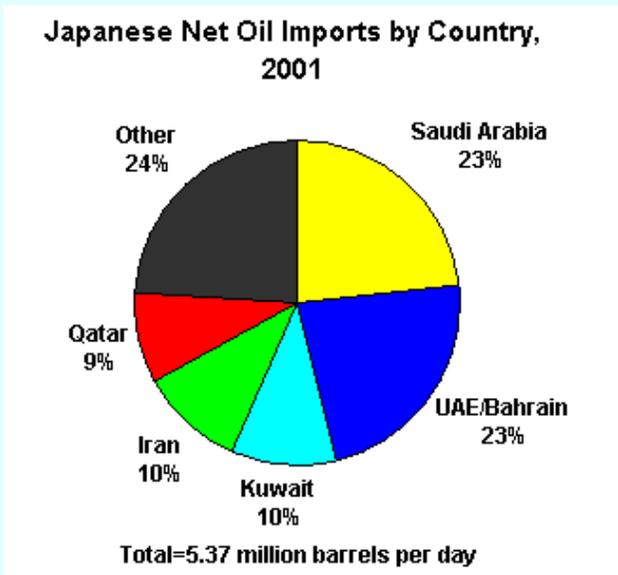
The world holds over 5 million barrels per day of excess oil production capacity, about 90% of which lies in OPEC countries. Around two-fifths of the world total is in [Saudi Arabia](#) alone.

U.S. and other OECD Oil Import Sources

During the first eight months (January-August) of 2001, the United States imported around 9.2 million barrels per day of crude oil. Of this, 47% came from within North and South America (15% from Venezuela, 14% from Canada, 14% from Mexico, 3% from Colombia), while 28% came from the Persian Gulf region (19% from Saudi Arabia, 7% from Iraq, 3% from Kuwait), and the remainder mainly from three other countries -- Nigeria (9%), Norway (3%) and the United Kingdom (2%). All in all, 89% of U.S. crude oil imports during January-August 2001 came from the 10 countries cited above.



In general, OECD Europe depends far more heavily on the Persian Gulf and North Africa for its oil imports than does the United States. During the first six months of 2001, approximately 40% of OECD Europe's net oil imports came from the Persian Gulf (mainly Saudi Arabia, Iran, Iraq, and Kuwait), 35% from Africa (mainly Libya, Algeria, and Nigeria), and much of the remainder from Russia. Japan receives around 80% of its oil supplies from the Persian Gulf (mainly the UAE, Saudi Arabia, Kuwait, Iran, and Qatar) with the remainder coming from Indonesia, China, and other sources.



Latest U.S. Weekly Petroleum Information

U.S. Oil Markets

The average world crude oil price on November 16, 2001 was \$17.35 per barrel, down \$0.65 per barrel from the previous week and \$14.23 per barrel less than last year at the same time. WTI fell to \$18.09 per barrel, down \$4.14 per barrel from last week and \$17.53 per barrel less than a year ago.

The spot price for conventional gasoline in the New York Harbor was 48.05 cents per gallon, down 10.45 cents per gallon from last week and 49.65 cents lower than a year ago. The spot price for heating oil in the New York Harbor on November 16, 2001 was 51.10 cents per gallon, dropping 10.33 cents per gallon from a week ago and 57.66 cents per gallon less than a year ago.

Falling to the lowest level since July 12, 1999, the national average retail regular gasoline price was 116.7 cents per gallon on November 19, 2001, down 1.5 cents per gallon from last week and 34.3 cents per gallon lower than a year ago. The national average retail diesel fuel price fell for the ninth consecutive week to 125.2 cents per gallon on November 19, 2001, lower by 1.7 cents per gallon from last week and 37.5 cents less per gallon than a year ago.

Although U.S. crude oil refinery inputs increased by nearly 200,000 barrels per day last week, the moving 4-week average was slightly lower than last year's comparable 4-week average. Crude oil inputs at Midwest (PADD II) refineries last week were below 3 million barrels per day for the second week in a row, the first time this has happened since March 1999. U.S. jet fuel refinery production fell for the second week in a row, with the most recent 4-week average at 89% of the 4-week average ending September 7, the week just prior to the September 11 attacks. Motor gasoline and distillate fuel refinery production were both a little higher last week.

Motor gasoline demand remained strong, with the 4-week moving average at 8.7 million barrels per day last week, or 3.8% above the same period last year. Jet fuel demand last week (defined as how much was supplied into the jet fuel market) fell to just 1.3 million barrels per day, with the most recent 4-week average nearly 12% below the comparable period last year. Distillate fuel oil demand averaged over 3.9 million barrels per day over the most recent 4 weeks (3.6% above the comparable period last year), while demand for other oils over the same time span averaged 4.1% above last year's level.

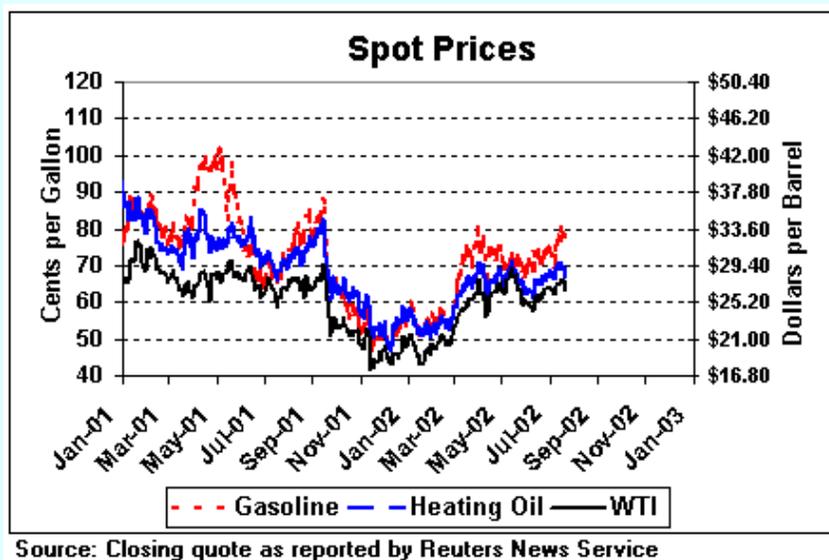
U.S. Oil Imports

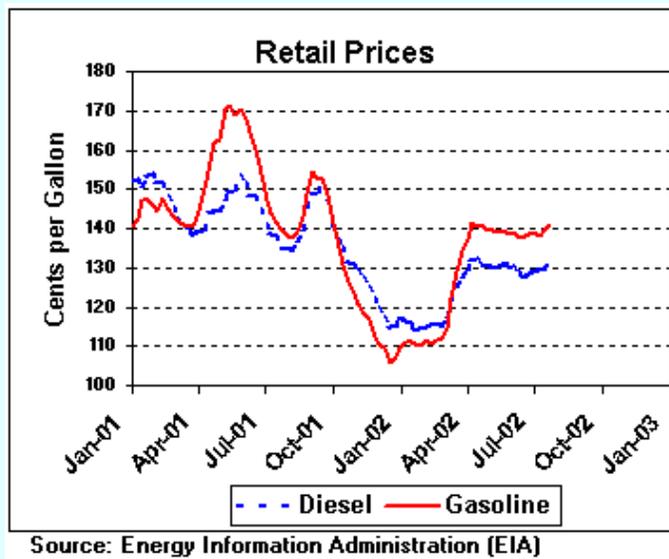
U.S. crude oil imports (excluding imports into the Strategic Petroleum Reserve) last week fell over 900,000 barrels per day from the high levels imported in the previous week. Crude oil imports dropped in all regions except for the Midwest (PADD II). However, the most recent 4-week average was only 151,000 barrels per day lower than the previous 4-week average. Total product imports increased last week to 2.3 million barrels per day, with motor gasoline imports reaching above 800,000 barrels per day for the first time since the week ending September 28. Distillate fuel imports declined last week for the second week in a row.

U.S. Oil Inventories

With crude oil refinery inputs increasing last week while imports decreased, crude oil inventories dropped by 1.3 million barrels. Motor gasoline inventories increased by 1.4 million barrels, the first such weekly increase after 3 consecutive weeks of declining inventories. Distillate fuel oil stocks remained relatively flat, with an increase in low-sulfur distillate fuel inventories nearly offsetting a decline in high-sulfur inventories.

U.S. Petroleum Prices





Crude Oil and Oil Products Price Table

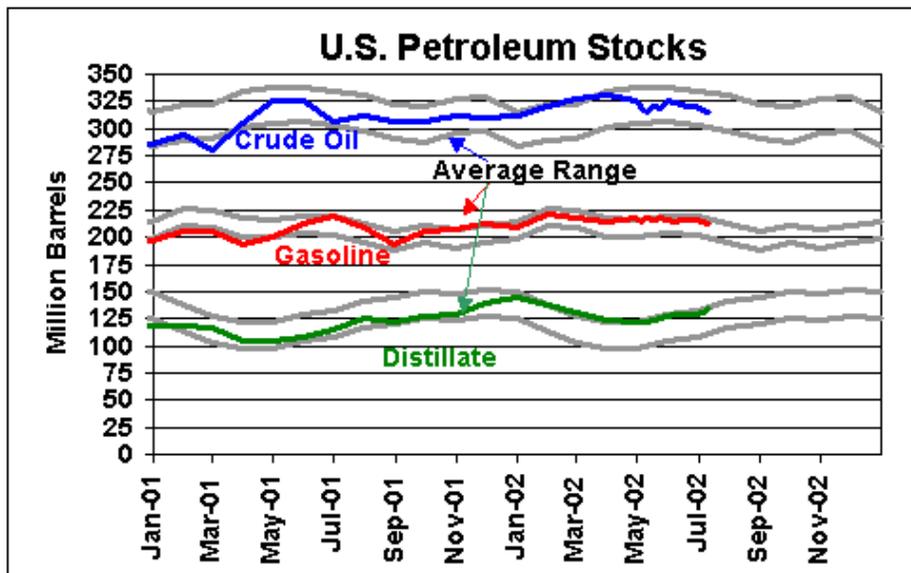
Date	WTI Crude Oil		Gasoline		Heating Oil		Kerojet	Propane		EIA Weekly Retail US Average	
	Spot	Futures	Spot	Futures	Spot	Futures	Spot	Spot	Spot	Gasoline	Diesel
	Cushing		NYH		NYH		NYH	Mt. Belvieu	Conway	cents per gallon	
	\$/bbl	\$/bbl	cents per gallon		cents per gallon		c/gal	cents per gallon		cents per gallon	
6/4/2002	\$25.32	\$25.33	70.50	75.34	63.25	64.28	66.15	38.01	35.00		
6/5/2002	\$25.02	\$24.89	71.57	75.13	63.03	63.60	65.58	37.26	34.32		
6/6/2002	\$24.89	\$24.79	71.40	75.70	62.70	63.48	65.43	36.94	34.32		
6/7/2002	\$24.72	\$24.75	70.82	75.09	62.65	63.17	65.38	37.07	34.25		
6/10/2002	\$24.24	\$24.29	68.78	73.79	61.65	62.33	64.15	36.38	33.57	137.5	128.6
6/11/2002	\$24.21	\$24.12	68.36	73.29	61.70	61.86	65.07	34.76	33.25		
6/12/2002	\$24.79	\$24.64	69.20	75.10	62.93	63.07	66.33	36.75	33.63		
6/13/2002	\$25.54	\$25.64	72.43	77.85	65.40	66.03	68.80	37.82	35.19		
6/14/2002	\$25.90	\$25.94	73.65	78.70	65.80	66.40	69.63	37.82	35.19		
6/17/2002	\$25.98	\$26.09	73.90	79.10	66.05	66.49	69.77	38.50	36.50	137.8	127.5
6/18/2002	\$25.36	\$25.43	73.15	77.66	65.18	65.49	68.50	37.57	36.50		
6/19/2002	\$25.57	\$25.31	72.05	76.84	65.03	65.24	68.23	37.75	36.13		
6/20/2002	\$25.62	\$25.53	71.60	76.96	65.75	66.03	69.48	37.44	35.63		
6/21/2002	\$25.51	\$25.82	70.30	75.57	64.80	64.89	68.53	37.38	35.94		
6/24/2002	\$26.31	\$26.47	73.50	77.77	66.75	66.64	70.80	37.88	36.00	138.4	128.1
6/25/2002	\$26.06	\$26.32	72.13	77.32	65.68	65.89	69.28	38.25	36.13		
6/26/2002	\$26.67	\$26.76	73.57	78.51	66.33	66.63	70.82	38.00	35.50		
6/27/2002	\$26.77	\$26.86	74.04	79.37	67.00	67.29	70.38	37.88	35.63		
6/28/2002	\$26.79	\$26.86	73.82	79.38	67.50	67.96	70.88	37.63	35.50		
7/1/2002	\$26.79	\$26.81	74.82	79.19	67.60	68.02	70.93	37.38	35.76	139.2	128.9
7/2/2002	\$26.83	\$26.77	74.07	78.98	67.98	68.71	71.28	37.13	35.75		
7/3/2002	\$26.82	\$26.80	73.63	78.60	68.38	68.77	71.82	37.01	35.19		
7/4/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA		
7/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA		
7/8/2002	\$26.14	\$26.07	69.60	76.14	66.15	66.80	69.65	36.19	34.38	138.2	129.4
7/9/2002	\$26.16	\$26.09	71.63	76.96	66.40	67.05	69.50	36.25	34.44		
7/10/2002	\$26.73	\$26.77	74.30	78.99	67.70	68.67	70.70	36.94	34.88		
7/11/2002	\$27.01	\$26.83	75.53	79.83	68.90	69.01	71.85	36.50	34.63		
7/12/2002	\$27.48	\$27.48	78.20	82.44	69.72	70.54	72.92	37.19	35.07		
7/15/2002	\$27.23	\$27.07	76.68	80.85	69.20	69.55	72.25	37.07	34.88	139.4	130.0
7/16/2002	\$27.68	\$27.75	79.95	84.53	69.99	71.09	73.04	37.19	34.88		
7/17/2002	\$27.88	\$27.88	80.43	84.84	70.08	70.98	73.13	36.75	34.88		
7/18/2002	\$27.50	\$27.57	78.25	83.35	69.43	70.18	72.81	37.44	34.88		
7/19/2002	\$27.83	\$27.83	78.85	83.86	69.45	70.14	73.10	37.13	35.25		
7/22/2002	\$26.61	\$26.60	76.13	81.14	66.60	67.11	70.38	37.13	35.13	141.0	131.1

Source: Spot and futures closing quotes as reported by Reuters News Service, retail prices reported by EIA

Energy Situation Analysis Report

U.S. Petroleum Supply

(Thousand Barrels per Day)	Four Weeks Ending		vs. Year Ago	
	7/12/2002	7/12/2001	Diff.	% Diff.
Refinery Activity				
Crude Oil Input	15,470	15,540	-70	-0.5%
Operable Capacity	16,800	16,641	159	1.0%
Operable Capacity Utilization (%)	93.3%	94.9%	-1.6%	
Production				
Motor Gasoline	8,520	8,576	-56	-0.6%
Jet Fuel	1,528	1,635	-107	-6.6%
Distillate Fuel Oil	3,713	3,755	-42	-1.1%
Imports				
Crude Oil (incl. SPR)	9,050	9,281	-231	-2.5%
Motor Gasoline	862	796	66	8.3%
Jet Fuel	93	148	-55	-37.3%
Distillate Fuel Oil	227	265	-38	-14.5%
Total	11,323	11,743	-420	-3.6%
Exports				
Crude Oil	30	13	17	123.4%
Products	940	924	16	1.7%
Total	970	938	32	3.4%
Products Supplied				
Motor Gasoline	8,978	8,821	157	1.8%
Jet Fuel	1,626	1,756	-130	-7.4%
Distillate Fuel Oil	3,642	3,624	18	0.5%
Total	19,686	19,702	-16	-0.1%
Stocks (Million Barrels)				
	7/12/2002	7/12/2001	vs. Year Ago	
			Diff.	% Diff.
Crude Oil (excl. SPR)	315.0	309.9	5.1	1.6%
Motor Gasoline	213.2	216.4	-3.2	-1.5%
Jet Fuel	40.3	42.8	-2.5	-5.8%
Distillate Fuel Oil	133.5	117.9	15.6	13.2%
Total (excl. SPR)	1,032.6	1,021.5	11.1	1.1%



Source: Energy Information Administration, Weekly Petroleum Status Report, Petroleum Supply Monthly.

Latest U.S. Weekly Natural Gas Information

Industry/Market Developments

EIA issued its early release of the reference case of the Annual Energy Outlook 2002 (AEO2002) on Wednesday, November 14. The report projects that natural gas consumption will increase by a little under 1% per year through 2020. The AEO also projects that the use of natural gas in electricity generation will grow approximately 4.5% per year through 2020. As demand for natural gas increases in the forecast, production is expected to increase from 19.1 to 28.5 trillion cubic feet between 2000 and 2020, an average annual rate of 2.0%. The average wellhead natural gas price is expected to reach \$3.26 per thousand cubic feet in 2020, slightly higher than the projection of \$3.20 per thousand cubic feet in AEO2001. Although projected natural gas demand in 2020 is 1.0 trillion cubic feet lower than was projected in AEO2001, the price is expected to be higher due to a less optimistic assessment of natural gas reserves discovered by exploratory drilling. The complete report will be available on December 21, 2001.

Natural Gas Storage

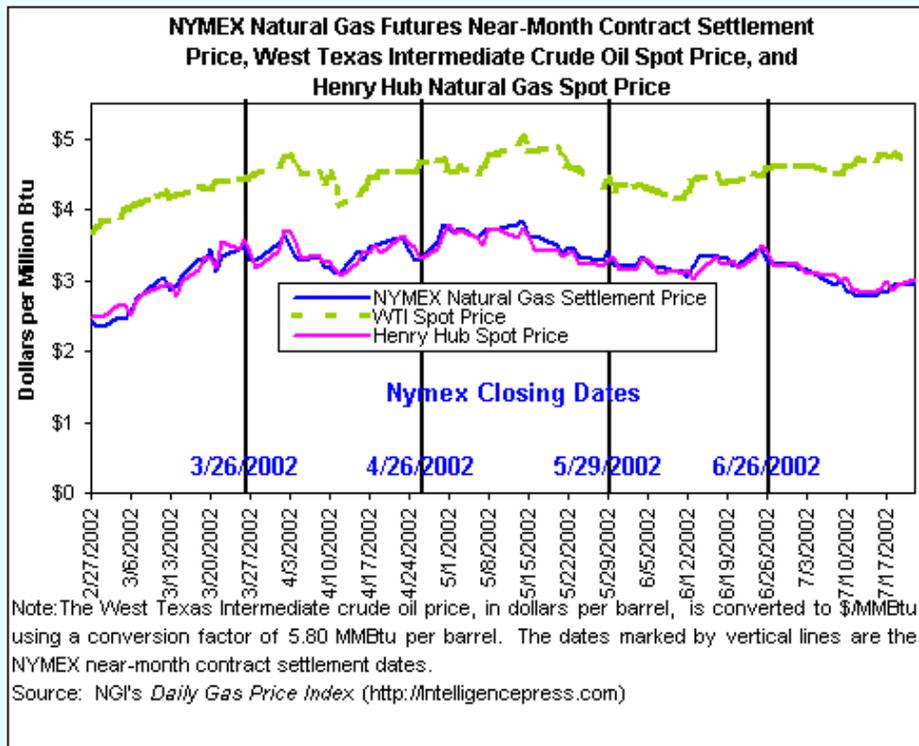
Net injections of natural gas into working gas storage were 7 billion cubic feet (Bcf) during the week ended Friday, November 9, according to the most recent American Gas Association (AGA) estimates. This marks the fifth time in the past 8 years in which storage operators posted positive net injections of natural gas during the report week. At 3,111 Bcf, total working gas in storage was the second highest volume reported since 1994 and only 20 Bcf less than the level of gas in storage for the same week in 1998.

All Volumes in Bcf	Current Stocks 7/12/2002	Estimated Prior 5-year (1997-2001) Average	Percent Difference from 5-Year Average	Implied Net Change from Last Week	One- Week Prior Stocks 7/5/2002
East Region	1,296	1,169	10.9%	53	1,243
West Region	338	284	19.0%	9	329
Producing Region	788	603	30.7%	7	781
Total Lower 48	2,422	2,056	17.8%	69	2,353

Source: Energy Information Administration: Form EIA-912, "Weekly Underground Natural Gas Storage Report," and the Historical Weekly Storage Estimates Database.

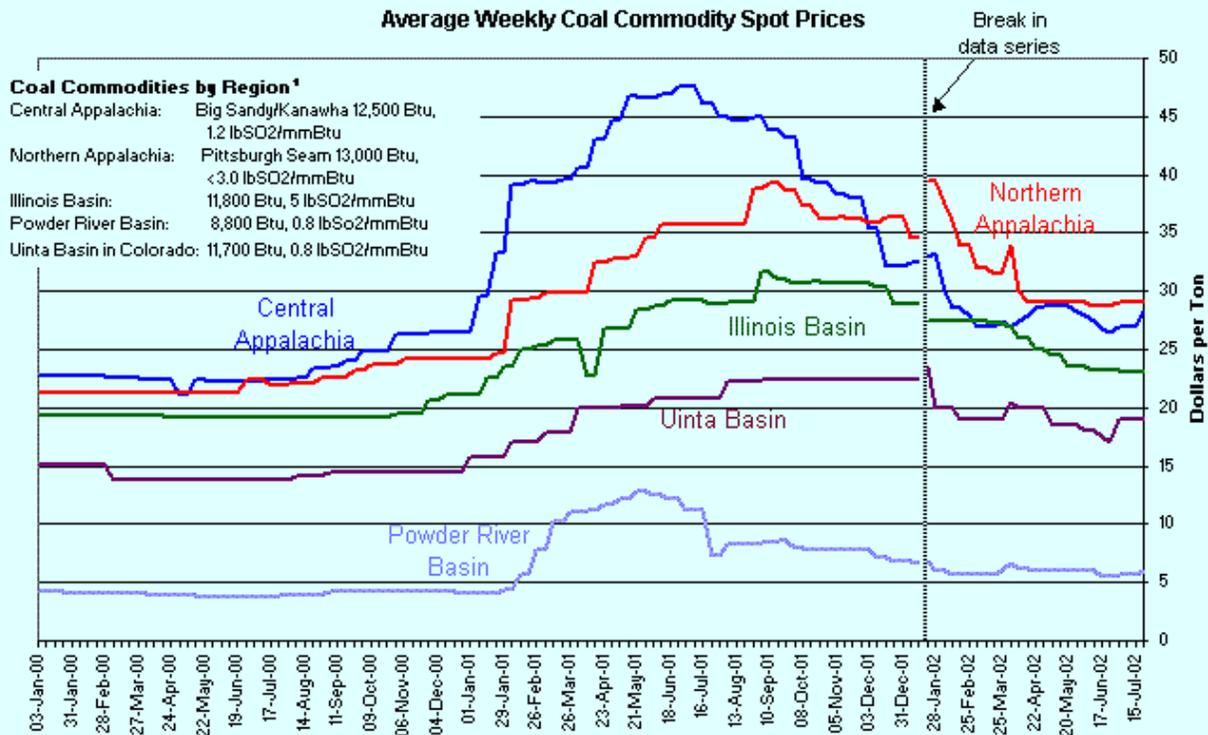
Prices

After trending down most days during the previous 3 weeks, the price of the NYMEX futures contract for December delivery at the Henry Hub gained an additional \$0.061 per MMBtu in Tuesday, November 20 trading, adding to the more than 15-cent gain on Monday. The December contract settled on Tuesday at \$2.852 per MMBtu. Likewise, futures contracts for delivery in the remaining winter months gained about 4 cents per MMBtu, with prices for delivery in January through March remaining slightly above \$3 per MMBtu. The spot price rally that began on Monday accelerated in early trading on Tuesday, as most locations gained \$0.50 per MMBtu or more, with cumulative gains through Tuesday equaling or exceeding the cumulative declines of the previous week. The Henry Hub spot price increased 47 cents to \$2.55 per MMBtu on Tuesday. While the Henry Hub spot price has gained \$0.86 per MMBtu since Friday, November 16, cash prices remain at relatively low levels.



Latest U.S. Coal Information

For the week ending November 10, EIA estimates [U.S. coal production](#) at 22.3 million short tons, about the same as in the previous week. Production for all of 2001 is running about 4.7% above last year's production. From their highs in June, there has been a steady erosion of spot prices for Central Appalachia and Powder River Basin coal, although prices for the latest weeks are still 50% above year-ago spot prices. The other major coal basins--Northern Appalachia, Illinois Basin, and Uinta Basin--have seen an almost steady increase in their spot prices starting in January 2001. The overall increase for all basins to the latest date has been about a 50% increase over last year's spot prices. With the exception of coal from the Powder River Basin, much of the coal produced in each major coal basin is consumed at sites that are in or close to those coal basins. The same relative change in spot prices everywhere of about 50% expands the area within which Powder River Basin coal is cost competitive because a 50% increase in fob price of the Powder River Basin's low price (on an equal calorific value basis) produces a smaller increase in delivered price than does a 50% fob price increase elsewhere. Market prices may be out of balance and further adjustment may occur as producers adjust to maintain market share. Declining oil and natural gas prices continue to put downward pressure on coal prices. The current trend seems to be towards lower prices [on the NYMEX](#).



¹ Prior to January 14, 2002, EIA averaged 12-month "forward" spot prices for several coal specifications; after that date, coal prices shown are for a relatively high-Btu coal selected in each region, for delivery in the "prompt" quarter. The "prompt quarter" is the next calendar quarter, with quarters shifting forward after the 15th of the month preceding each quarter's end.
 Source: with permission, selected from listed prices in Platts Coal Outlook, "Weekly Price Survey"

In the long term, EIA expects domestic coal supplies to be more than adequate for projected consumption. Most coal is still sold under multi-year contracts, and average prices for all coal supply contracts, incorporating spot and long-term, are projected to stabilize at well below current spot prices. EIA's projections of average coal prices decline slightly in inflation-adjusted dollars because nominal prices rise more slowly than the rate of inflation between 2001 and 2020. Customers choose coal because of its abundance and dependable availability, its relatively high Btu content, its [low prices relative to other fossil fuels](#), and, compared with natural gas, much less price volatility.

Latest U.S. Electricity Information

Brought on by mild weather and reduced demand for electricity, spot wholesale electricity prices decreased throughout most of the Western US. For example, power flowing on California's north-path 15 (NP 15) decreased from \$26.18 per megawatthour (MWh) on November 14 to \$17.77 per MWh on November 20, 2001. Similarly, power flowing south on SP 15 went from \$25.47 per MWh on November 14 to \$17.57 per MWh on November 20. Milder weather on the east coast also contributed to lower electricity prices. Prices at the New York ISO went from \$31.92 per MWh on November 14 to \$27.99 per MWh on November 20. Nationally, the combined average price at major trading centers over the past seven days decreased from \$24.40 per MWh on November 14 to \$19.16 per MWh on November 20, 2001, representing a 21% drop in the average price.

U.S. Regional Electricity Prices at Major Trading Centers (Dollars per megawatthour)

Trading Centers	Date							Price Range		
	7/12/02	7/15/02	7/16/02	7/17/02	7/18/02	7/19/02	7/22/02	Max	Min	Average
COB	22.83	15.33	13.63	26.75	17.75	22.50	21.70	26.75	13.63	20.07
Palo Verde	46.95	37.14	35.81	39.55	34.99	43.57	37.72	46.95	34.99	39.39
Mid-Columbia	8.93	5.90	5.31	5.25	5.94	14.49	17.75	17.75	5.25	9.08
Mead/Marketplace	53.40	42.05	39.46	45.46	41.32	48.86	40.50	53.40	39.46	44.44
4 Corners	46.50	37.14	37.25	42.63	37.47	43.00	40.42	46.50	37.14	40.63
NP 15	36.00	30.25	28.13	33.42	29.43	33.23	31.35	36.00	28.13	31.69
SP 15	38.87	32.52	32.42	36.97	33.31	40.21	36.00	40.21	32.42	35.76
PJM West	45.60	47.23	57.72	57.79	43.25	49.60	61.33	61.33	43.25	51.79
NEPOOL	43.65	42.25	46.64	45.50	34.45	45.67	52.60	52.60	34.45	44.39
New York Zone J	70.50	65.33	78.50	82.70	60.00	73.38	80.00	82.70	60.00	72.92
Cinergy	35.40	38.18	40.25	34.41	30.38	41.89	38.48	41.89	30.38	37.00
Average Price	40.78	35.76	37.74	40.95	33.48	41.49	41.62	41.62	33.48	38.83

Sources: COB, Palo Verde, Mid-Columbia, Mead/Market Place, Four Corners, NP-15, SP-15, PJM-West, NEPOOL, New York Zone J, and Cinergy trading centers. Used with permission from Bloomberg L.P. (www.bloomberg.com).

Notes:

n.q. - No quotes available for the day.

- COB:** Average price of electricity traded at the California-Oregon and Nevada-Oregon Borders.
- Palo Verde:** Average price of electricity traded at Palo Verde and the West Wing, Arizona.
- Mid-Columbia:** Average price of electricity traded at Mid-Columbia.
- Mead/Market Place:** Average price of electricity traded at Mead Market Place, McCullough and Eldorado.
- Four Corners:** Average price of electricity traded at Four Corners, Shiprock, and San Juan, New Mexico.
- NP-15:** Average price of electricity traded at NP-15.
- SP-15:** Average price of electricity traded at SP-15.
- PJM-West:** Average price of electricity traded at PJM Western hub.
- NEPOOL:** Average price of electricity traded at Nepool.
- New York Zone J:** Average price of electricity traded at the New York Zone J - New York City.
- Cinergy:** Average price of electricity traded into the Cinergy control area.

Special Topic -- Strategic Petroleum Reserve

The [U.S. Strategic Petroleum Reserve \(SPR\)](#) contains 544.7 million barrels of oil, equal to 51 days of oil imports. The SPR has a maximum drawdown capability of 4.18 million barrels per day for 90 days, with oil beginning to arrive in the marketplace 15 days after a presidential decision to initiate a drawdown. On November 13, 2001, President Bush ordered that the SPR be filled to its current physical capacity of 700 million barrels. Oil shipments into the SPR are expected to begin in April 2002 and to be completed by 2005.

