

**Table 14. Natural Gas Wellhead Prices, Actual vs. Reference Case Projections**

	(current dollars per thousand cubic feet)																			
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AEO 1982	4.32	5.47	6.67	7.51	8.04	8.57														
AEO 1983	2.93	3.11	3.46	3.93	4.56	5.26					12.74									
AEO 1984	2.77	2.90	3.21	3.63	4.13	4.79					9.33									
AEO 1985	2.60		2.66	2.71	2.94	3.35	3.85	4.46	5.10	5.83	6.67									
AEO 1986		1.73	1.96	2.29	2.54	2.81	3.15	3.73	4.34	5.06	5.90	6.79	7.70	8.62	9.68	10.80				
AEO 1987			1.83	1.95	2.11	2.28	2.49	2.72	3.08	3.51	4.07					7.54				
AEO 1989*				1.62	1.70	1.91	2.13	2.58	3.04	3.48	3.93	4.76	5.23	5.80	6.43	6.98				
AEO 1990					1.78	1.88					2.93					5.36				
AEO 1991						1.77	1.90	2.11	2.30	2.42	2.51	2.60	2.74	2.91	3.29	3.75	4.31	5.07	5.77	6.45
AEO 1992							1.69	1.85	2.03	2.15	2.35	2.51	2.74	3.01	3.40	3.81	4.24	4.74	5.25	5.78
AEO 1993								1.85	1.94	2.09	2.30	2.44	2.60	2.85	3.12	3.47	3.84	4.31	4.81	5.28
AEO 1994									1.98	2.12	2.27	2.41	2.59	2.73	2.85	2.98	3.14	3.35	3.59	3.85
AEO 1995										1.89	2.00	1.95	2.06	2.15	2.40	2.57	2.90	3.16	3.56	3.87
AEO 1996											1.63	1.74	1.86	1.99	2.10	2.19	2.29	2.38	2.48	2.59
AEO 1997												2.03	1.82	1.90	1.99	2.06	2.13	2.21	2.32	2.43
AEO 1998													2.30	2.20	2.26	2.31	2.38	2.44	2.52	2.60
AEO 1999														1.98	2.15	2.20	2.32	2.43	2.53	2.63
AEO 2000															2.15	2.23	2.27	2.32	2.40	2.51
AEO 2001																3.39	3.48	2.97	2.74	2.70
AEO 2002																	4.03	2.06	2.53	2.84
AEO 2003																		2.79	3.26	3.13
AEO 2004																			4.97	4.00
AEO 2005																				5.38
Actual	2.51	1.94	1.67	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.68	4.00	2.95	4.88	5.49
Average Absolute Difference (All AEOs)	0.6	1.3	1.6	1.7	1.8	1.9	0.9	1.0	1.0	1.3	3.0	1.0	1.1	1.3	1.4	1.7	1.0	0.8	1.6	1.9
	(percent difference)																			
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AEO 1982	72.0	182.1	299.6	344.6	375.6	401.0														
AEO 1983	16.7	60.1	107.4	132.5	169.8	207.4					721.7									
AEO 1984	10.4	49.3	92.3	114.6	144.6	180.1					501.7									
AEO 1985	3.6	34.4	59.0	60.2	74.2	95.9	135.0	156.3	150.1	215.4	330.3									
AEO 1986		-10.8	17.1	35.4	50.5	64.4	91.9	114.2	112.9	173.4	280.3	213.0	231.9	339.9	341.8	193.4				
AEO 1987			9.6	15.2	24.6	33.5	51.5	56.6	51.0	89.7	162.9					105.0				
AEO 1989*				-4.1	0.6	11.4	29.9	48.1	49.1	88.1	153.5	119.5	125.3	195.8	193.7	89.7				
AEO 1990					5.3	10.2					89.1					45.8				
AEO 1991						3.5	15.8	21.3	12.8	30.6	61.7	19.9	17.9	48.5	50.2	1.8	7.8	71.9	18.2	17.4
AEO 1992							2.8	6.2	-0.4	16.1	51.6	15.7	18.2	53.7	55.1	3.5	5.9	60.5	7.7	5.2
AEO 1993								6.1		13.0	48.5	12.4	12.0	45.2	42.7	-5.8	-3.9	45.9	-1.4	-3.9
AEO 1994									-2.8	14.9	46.2	11.0	11.5	39.2	30.4	-19.0	-21.5	13.4	-26.4	-29.9
AEO 1995										2.3	28.9	-10.0	-11.0	9.8	9.6	-30.2	-27.6	7.1	-27.1	-29.5
AEO 1996											5.2	-19.8	-19.7	1.6	-3.9	-40.4	-42.8	-19.4	-49.3	-52.8
AEO 1997												-6.3	-21.4	-2.8	-9.2	-43.9	-46.6	-25.0	-52.5	-55.8
AEO 1998													-1.0	12.1	3.0	-37.2	-40.5	-17.1	-48.4	-52.7
AEO 1999														0.9	-1.9	-40.1	-42.1	-17.8	-48.1	-52.1
AEO 2000															-2.0	-39.3	-43.3	-21.4	-50.9	-54.3
AEO 2001																-7.8	-12.9	0.8	-43.9	-50.8
AEO 2002																	0.6	-30.1	-48.1	-48.2
AEO 2003																		-5.6	-33.2	-43.1
AEO 2004																			1.9	-27.2
AEO 2005																				-1.9
Average Absolute Percent Difference (All AEOs)	25.7	67.3	97.5	100.9	105.7	111.9	54.5	58.4	48.0	71.5	190.9	47.5	47.0	68.1	62.0	46.9	24.6	25.8	32.7	35.0

\* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.  
 Sources: Projections: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.  
 Historical Data: Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), Table 6.7.

**Table 14. Natural Gas Wellhead Prices, Actual vs. Reference Case Projections**

	(absolute forecasting differences, current dollars per thousand cubic feet)																				Average Absolute difference (All Years)
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
AEO 1982	1.81	3.53	5.00	5.82	6.35	6.86															4.90
AEO 1983	0.42	1.17	1.79	2.24	2.87	3.55					11.19										3.32
AEO 1984	0.26	0.96	1.54	1.94	2.44	3.08					7.78										2.57
AEO 1985	0.09	0.67	0.99	1.02	1.25	1.64	2.21	2.72	3.06	3.98	5.12										2.07
AEO 1986		0.21	0.29	0.60	0.85	1.10	1.51	1.99	2.30	3.21	4.35	4.62	5.38	6.66	7.49	7.12					3.18
AEO 1987			0.16	0.26	0.42	0.57	0.85	0.98	1.04	1.66	2.52						3.86				1.23
AEO 1989*				0.07	0.01	0.20	0.49	0.84	1.00	1.63	2.38	2.59	2.91	3.84	4.24	3.30					1.81
AEO 1990					0.09	0.17					1.38					1.68					0.83
AEO 1991						0.06	0.26	0.37	0.26	0.57	0.96	0.43	0.42	0.95	1.10	0.07	0.31	2.12	0.89	0.96	0.65
AEO 1992							0.05	0.11	0.01	0.30	0.80	0.34	0.42	1.05	1.21	0.13	0.24	1.79	0.37	0.29	0.51
AEO 1993								0.11	0.10	0.24	0.75	0.27	0.28	0.89	0.93	0.21	0.16	1.36	0.07	0.21	0.43
AEO 1994									0.06	0.27	0.72	0.24	0.27	0.77	0.66	0.70	0.86	0.40	1.29	1.64	0.66
AEO 1995										0.04	0.45	0.22	0.26	0.19	0.21	1.11	1.10	0.21	1.32	1.62	0.61
AEO 1996											0.08	0.43	0.46	0.03	0.09	1.49	1.71	0.57	2.40	2.90	1.02
AEO 1997												0.14	0.50	0.06	0.20	1.62	1.87	0.74	2.56	3.06	1.19
AEO 1998													0.02	0.24	0.07	1.37	1.62	0.51	2.36	2.89	1.13
AEO 1999														0.02	0.04	1.48	1.68	0.52	2.35	2.86	1.28
AEO 2000															0.04	1.45	1.73	0.63	2.48	2.98	1.55
AEO 2001																0.29	0.52	0.02	2.14	2.79	1.15
AEO 2002																	0.03	0.89	2.35	2.65	1.48
AEO 2003																		0.16	1.62	2.36	1.38
AEO 2004																			0.09	1.49	0.79
AEO 2005																				0.11	0.11

Average Absolute difference (All AEOs) 1.47

	(absolute percent difference)																				Average Absolute Percent difference (All Years)	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004		
AEO 1982	72.0	182.1	299.6	344.6	375.6	401.0															279.2	
AEO 1983	16.7	60.1	107.4	132.5	169.8	207.4					721.7										202.2	
AEO 1984	10.4	49.3	92.3	114.6	144.6	180.1					501.7										156.1	
AEO 1985	3.6	34.4	59.0	60.2	74.2	95.9	135.0	156.3	150.1	215.4	330.3										119.5	
AEO 1986		10.8	17.1	35.4	50.5	64.4	91.9	114.2	112.9	173.4	280.3	213.0	231.9	339.9	341.8	193.4					151.4	
AEO 1987			9.6	15.2	24.6	33.5	51.5	56.6	51.0	89.7	162.9					105.0					60.0	
AEO 1989*				4.1	0.6	11.4	29.9	48.1	49.1	88.1	153.5	119.5	125.3	195.8	193.7	89.7					85.3	
AEO 1990					5.3	10.2					89.1					45.8					37.6	
AEO 1991						3.5	15.8	21.3	12.8	30.6	61.7	19.9	17.9	48.5	50.2	1.8	7.8	71.9	18.2	17.4	26.6	
AEO 1992							2.8	6.2	0.4	16.1	51.6	15.7	18.2	53.7	55.1	3.5	5.9	60.5	7.7	5.2	21.6	
AEO 1993								6.1	5.1	13.0	48.5	12.4	12.0	45.2	42.7	5.8	3.9	45.9	1.4	3.9	18.9	
AEO 1994									2.8	14.9	46.2	11.0	11.5	39.2	30.4	19.0	21.5	13.4	26.4	29.9	22.2	
AEO 1995										2.3	28.9	10.0	11.0	9.8	9.6	30.2	27.6	7.1	27.1	29.5	17.6	
AEO 1996											5.2	19.8	19.7	1.6	3.9	40.4	42.8	19.4	49.3	52.8	25.5	
AEO 1997												6.3	21.4	2.8	9.2	43.9	46.6	25.0	52.5	55.8	29.3	
AEO 1998													1.0	12.1	3.0	37.2	40.5	17.1	48.4	52.7	26.5	
AEO 1999														0.9	1.9	40.1	42.1	17.8	48.1	52.1	29.0	
AEO 2000																2.0	39.3	43.3	21.4	50.9	35.2	
AEO 2001																	7.8	12.9	0.8	43.9	50.8	23.2
AEO 2002																		0.6	30.1	48.1	31.8	
AEO 2003																			5.6	33.2	27.3	
AEO 2004																				1.9	14.6	
AEO 2005																					1.9	

Average Absolute Percent difference (All AEOs) 64.9

NEMS AEOs Only 25.1

\* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.