

**Table 8a. Natural gas price, electric power sector, actual versus projected**

**Projected price in constant dollars**

(constant dollars per million British thermal units *irdollar* year specific to each AEO)

AEO dollar																														
year*	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
AEO1994	1992	2.44	2.48	2.57	2.66	2.70	2.79	2.84	2.92	3.04	3.16	3.25	3.36	3.51	3.60	3.77	3.91	3.97	4.08											
AEO1995	1993		2.39	2.48	2.42	2.45	2.45	2.53	2.59	2.78	2.91	3.10	3.24	3.38	3.47	3.53	3.61	3.68	3.73											
AEO1996	1994			2.04	2.10	2.05	2.18	2.19	2.19	2.21	2.22	2.23	2.24	2.26	2.26	2.30	2.33	2.40	2.44	2.53	2.63	2.71	2.83	2.95						
AEO1997	1995				2.42	2.18	2.18	2.19	2.19	2.19	2.22	2.25	2.27	2.28	2.29	2.31	2.33	2.34	2.32	2.34	2.36	2.37	2.42	2.47						
AEO1998	1996					2.67	2.43	2.43	2.48	2.53	2.55	2.55	2.60	2.63	2.68	2.73	2.77	2.81	2.84	2.89	2.90	2.93	2.95	2.98	3.00	3.03	3.07	3.10		
AEO1999	1997						2.42	2.60	2.62	2.67	2.74	2.80	2.87	2.94	3.00	3.03	3.04	3.06	3.08	3.10	3.11	3.12	3.14	3.17	3.20	3.21	3.23	3.24	3.24	3.15
AEO2000	1998							2.48	2.59	2.59	2.62	2.65	2.72	2.79	2.88	2.95	3.01	3.05	3.08	3.11	3.14	3.16	3.18	3.21	3.23	3.25	3.26	3.29	3.33	
AEO2001	1999								3.90	3.79	3.27	2.99	2.88	2.88	2.91	2.93	2.96	2.99	3.03	3.06	3.09	3.14	3.19	3.24	3.30	3.37	3.43	3.50	3.59	
AEO2002	2000									4.39	2.59	2.92	3.12	3.19	3.22	3.26	3.31	3.34	3.38	3.46	3.52	3.57	3.61	3.65	3.69	3.73	3.78	3.82	3.87	
AEO2003	2001										3.07	3.42	3.29	3.27	3.24	3.32	3.48	3.62	3.79	3.88	3.98	4.04	4.11	4.14	4.18	4.17	4.16	4.18	4.30	4.30
AEO2004	2002											5.62	4.50	4.18	4.10	4.14	4.23	4.11	4.04	4.19	4.36	4.54	4.64	4.78	4.82	4.82	4.79	4.75	4.85	5.00
AEO2005	2003												5.98	5.92	5.27	4.83	4.50	4.39	4.27	4.31	4.41	4.54	4.70	4.81	4.77	4.80	4.93	5.10	5.20	5.29
AEO2006	2004													8.09	7.24	6.54	6.22	5.77	5.46	5.26	5.24	5.36	5.28	5.08	5.06	5.10	5.26	5.41	5.40	5.52
AEO2007	2005														6.97	7.12	7.07	6.53	6.22	5.83	5.69	5.50	5.54	5.50	5.60	5.79	5.72	5.67	5.76	5.73
AEO2008	2006															6.90	7.24	7.40	6.96	6.65	6.49	6.25	6.06	5.93	5.88	5.93	5.98	6.04	5.95	5.81
AEO2009	2007																8.87	4.56	5.13	5.45	5.52	5.54	5.68	5.89	6.08	6.27	6.48	6.74	7.03	7.25
AEO2010	2008																	4.14	4.85	5.82	6.17	5.94	5.90	6.08	6.16	6.17	6.22	6.29	6.42	6.52
AEO2011	2009																		5.07	4.72	4.65	4.64	4.60	4.67	4.71	4.75	4.80	4.87	5.01	5.15
AEO2012	2010																			4.66	4.35	4.42	4.39	4.55	4.49	4.48	4.52	4.61	4.72	4.93
AEO2013	2011																				3.32	3.72	3.76	3.84	4.28	4.45	4.70	4.82	4.90	5.01
AEO2014	2012																					4.32	4.47	4.43	4.47	4.69	5.06	5.18	5.07	5.24
AEO2015	2013																						5.25	4.65	4.78	4.85	5.08	5.66	6.26	6.68
AEO2016	2014																							3.35	3.57	4.00	4.24	4.51	4.83	4.82
AEO2017	2016																								3.02	3.53	3.81	4.18	4.54	4.57
AEO2018	2017																									3.47	3.57	3.92	4.16	4.10
AEO2019	2018																										3.42	3.28	3.41	3.35
AEO2020	2019																											2.86	2.65	2.82
AEO2021	2020																												2.45	3.50
AEO2022	2021																													5.15
<b>Actual in nominal dollars</b>		2.54	2.22	1.97	2.62	2.71	2.32	2.55	4.27	4.48	3.59	5.41	5.96	8.24	6.92	7.12	9.02	4.81	5.15	4.78	3.45	4.37	5.03	3.27	2.88	3.39	3.55	2.88	2.40	4.98
<b>Average absolute difference</b>		0.04	0.29	0.48	0.22	0.25	0.23	0.19	1.26	1.18	0.56	1.85	2.03	3.50	2.21	2.03	3.18	0.88	0.78	0.74	1.48	1.02	1.16	1.87	2.27	1.94	1.90	2.44	2.80	1.96

**Table 8a. Natural gas price, electric power sector, actual versus projected (continued)**

**Projected versus actual**  
(percentage difference)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
AEO1994	-1.6	17.0	39.5	10.4	10.3	34.3	25.4	-20.7	-10.5	6.0	-26.3	-28.9	-44.6	-30.2	-27.1	-39.1	16.6	13.2												
AEO1995		10.2	31.5	-1.9	-2.2	15.2	10.0	-31.3	-28.1	-4.7	-31.3	-33.0	-47.9	-34.3	-33.3	-45.1	5.6	1.1												
AEO1996			6.0	-16.8	-19.8	0.5	-6.9	-43.1	-44.1	-28.8	-51.7	-54.6	-65.9	-58.0	-57.4	-65.3	-32.7	-35.2	-26.1	8.2	-10.4	-17.2	34.5							
AEO1997				-5.9	-16.5	-1.7	-8.9	-44.3	-45.8	-30.4	-52.2	-54.9	-66.2	-58.4	-58.1	-66.1	-35.6	-39.6	-33.1	-4.7	-23.1	-30.4	10.1							
AEO1998					0.3	7.7	-0.4	-38.0	-38.3	-21.2	-46.7	-49.4	-61.8	-52.3	-51.4	-60.3	-24.0	-27.4	-19.1	15.0	-6.8	-16.8	30.5	50.5	31.5	30.4	65.4	104.5		
AEO1999						5.3	4.8	-35.5	-36.0	-16.8	-42.5	-45.1	-58.0	-47.5	-47.0	-57.2	-18.8	-22.7	-14.6	20.9	-2.4	-12.9	36.4	57.6	37.0	35.0	69.7	106.4		
AEO2000							-1.2	-37.0	-38.8	-21.5	-46.3	-48.5	-60.6	-50.0	-48.9	-58.1	-20.0	-23.7	-15.3	20.7	-2.2	-12.8	36.7	57.5	37.1	35.0	70.6	110.0		
AEO2001								-6.5	-11.5	-3.2	-40.2	-46.3	-59.9	-50.2	-50.1	-59.3	-22.5	-25.9	-17.8	17.4	-4.2	-13.8	36.2	58.8	40.1	39.9	79.0	123.1		
AEO2002									0.2	-25.1	-42.8	-43.0	-56.5	-46.1	-45.7	-55.5	-15.4	-19.1	-9.0	30.8	6.6	-4.6	50.1	73.2	51.7	50.6	91.0	135.2		
AEO2003										-13.1	-34.6	-41.3	-56.5	-47.1	-45.9	-54.3	-10.4	-11.3	-0.3	44.4	17.9	6.1	66.2	92.2	66.0	62.3	104.4	155.4	28.3	
AEO2004											5.9	-20.8	-45.2	-34.0	-33.5	-45.3	0.3	-6.8	6.1	55.9	30.6	18.1	89.2	118.0	88.9	84.1	129.0	184.0	46.8	
AEO2005												3.2	-23.9	-16.9	-23.9	-43.0	4.9	-3.4	7.0	54.7	27.9	17.2	86.5	111.8	84.3	85.8	140.6	198.6	52.4	
AEO2006													1.2	11.4	0.4	-23.2	34.5	20.2	27.3	79.0	47.1	28.3	91.9	118.8	91.0	93.1	148.7	201.8	54.8	
AEO2007														3.9	5.8	-15.4	47.4	32.7	36.7	88.4	46.4	30.5	101.5	134.6	110.0	103.5	152.9	212.4	55.7	
AEO2008																-0.4	-15.9	62.1	44.1	51.3	108.3	61.3	38.4	110.9	139.1	108.8	106.4	161.4	212.6	53.1
AEO2009																	0.3	-2.8	3.4	20.8	72.5	39.3	26.4	103.9	140.8	114.8	117.6	183.7	259.7	86.3
AEO2010																		-13.5	-4.2	26.5	89.2	46.6	28.8	106.4	139.4	107.5	105.0	159.7	222.4	64.2
AEO2011																			-0.4	1.9	41.6	13.7	-0.3	57.6	81.8	58.7	57.3	99.9	149.9	28.9
AEO2012																				-0.5	31.1	7.2	-5.9	51.6	71.2	47.8	46.1	87.2	132.8	21.9
AEO2013																					-2.0	-11.8	-21.1	25.5	60.0	43.9	49.1	91.7	136.6	21.3
AEO2014																						0.7	-7.9	42.0	64.1	48.9	57.5	102.1	140.6	24.7
AEO2015																							6.3	46.6	72.4	51.2	55.3	117.1	191.8	56.2
AEO2016																								3.7	26.3	22.6	27.4	69.9	120.9	10.6
AEO2017																									4.6	6.0	12.0	54.2	103.4	2.9
AEO2018																										2.1	3.2	42.0	83.0	-9.5
AEO2019																											-3.5	16.1	46.5	-27.7
AEO2020																												-0.7	12.0	-40.3
AEO2021																													2.1	-26.7
AEO2022																														3.5
Average absolute percentage difference	1.6	13.6	25.7	8.7	9.8	10.8	8.4	32.0	29.2	17.1	38.2	39.1	49.9	38.6	35.3	44.0	21.6	18.6	18.4	43.6	21.4	17.2	58.0	83.6	59.5	57.3	97.3	139.4	35.8	

Data source: Historical data are from the U.S. Energy Information Administration open data API (accessed April 2022), <http://www.eia.gov/opendata/>; series: TOTAL\_NGEIUS.A; projections: Annual Energy Outlook, Reference case projections from various editions

GDP data from the U.S. Bureau of Economic Analysis (accessed February 2022), <https://apps.bea.gov/national/xls/gdplev.xlsx>

Notes: shading indicates overestimation (blue) or underestimation (green).

\*Dollar year refers to the year that GDP is reported in constant dollars in a respective AEO.