

Table 21. Total Energy Related Carbon Dioxide Emissions, Projected vs. Actual

Projected (million metric tons)																							
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AEO 1994	5060	5130	5185	5240	5287	5335	5379	5438	5482	5529	5599	5658	5694	5738	5797	5874	5925	5984					
AEO 1995		5137	5174	5188	5262	5309	5361	5394	5441	5489	5551	5621	5680	5727	5775	5841	5889	5944					
AEO 1996			5182	5224	5295	5355	5417	5464	5525	5589	5660	5735	5812	5879	5925	5981	6030	6087	6142	6203	6258	6322	6362
AEO 1997				5295	5381	5491	5586	5658	5715	5781	5863	5934	6009	6106	6184	6236	6268	6316	6365	6417	6467	6542	6597
AEO 1998					5474	5621	5711	5784	5893	5957	6026	6098	6192	6292	6379	6465	6542	6612	6683	6752	6801	6862	6924
AEO 1999						5522	5689	5810	5913	5976	6036	6084	6152	6244	6325	6418	6493	6563	6641	6703	6771	6846	6930
AEO 2000							5573	5692	5777	5865	5971	6078	6172	6262	6345	6420	6480	6551	6610	6678	6755	6841	6942
AEO 2001								5630	5781	5909	6023	6114	6197	6281	6387	6470	6541	6633	6709	6788	6881	6970	7070
AEO 2002									5723	5808	5981	6095	6210	6323	6438	6530	6624	6727	6839	6937	7032	7117	7206
AEO 2003										5633	5749	5856	5954	6095	6232	6360	6475	6602	6719	6828	6927	7024	7129
AEO 2004											5743	5826	5986	6124	6251	6357	6453	6559	6657	6763	6857	6944	7028
AEO 2005												5905	6023	6138	6274	6415	6533	6627	6721	6812	6889	6979	7052
AEO 2006													5967	5978	6080	6182	6281	6365	6440	6536	6595	6654	6718
AEO 2007														5940	5999	6059	6124	6214	6296	6369	6442	6527	6589
AEO 2008															5977	5983	5978	6011	6087	6144	6154	6187	6226
AEO 2009																5849	5699	5746	5803	5842	5858	5852	5830
AEO 2010																	5507	5521	5643	5706	5707	5741	5731
AEO 2011																		5643	5601	5622	5659	5651	5680
AEO 2012																			5632	5570	5453	5438	5407
AEO 2013																				5361	5368	5361	5381
AEO 2014																					5421	5426	5418
AEO 2015																						5488	5428
AEO 2016																							5273
Actual	5185	5261	5323	5510	5584	5635	5688	5868	5761	5804	5853	5970	5993	5910	6001	5809	5386	5576	5439	5227	5355	5406	5257
Average Absolute Difference	125	128	143	273	244	197	164	259	138	149	159	156	144	226	228	406	840	691	889	1108	976	937	1072

Projected vs. Actual (percent difference)																							
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AEO 1994	-2.4	-2.5	-2.6	-4.9	-5.3	-5.3	-5.4	-7.3	-4.9	-4.7	-4.3	-5.2	-5.0	-2.9	-3.4	1.1	10.0	7.3					
AEO 1995		-2.4	-2.8	-5.8	-5.8	-5.8	-5.8	-8.1	-5.6	-5.4	-5.2	-5.8	-5.2	-3.1	-3.8	0.6	9.3	6.6					
AEO 1996			-2.6	-5.2	-5.2	-5.0	-4.8	-6.9	-4.1	-3.7	-3.3	-3.9	-3.0	-0.5	-1.3	3.0	12.0	9.2	12.9	18.7	16.9	17.0	21.0
AEO 1997				-3.9	-3.6	-2.6	-1.8	-3.6	-0.8	-0.4	0.2	-0.6	0.3	3.3	3.1	7.3	16.4	13.3	17.0	22.8	20.8	21.0	25.5
AEO 1998					-2.0	-0.3	0.4	-1.4	2.3	2.6	3.0	2.1	3.3	6.5	6.3	11.3	21.5	18.6	22.9	29.2	27.0	26.9	31.7
AEO 1999						-2.0	0.0	-1.0	2.6	3.0	3.1	1.9	2.6	5.7	5.4	10.5	20.6	17.7	22.1	28.2	26.4	26.7	31.8
AEO 2000							-2.0	-3.0	0.3	1.0	2.0	1.8	3.0	6.0	5.7	10.5	20.3	17.5	21.5	27.8	26.1	26.6	32.0
AEO 2001								-4.1	0.3	1.8	2.9	2.4	3.4	6.3	6.4	11.4	21.5	19.0	23.3	29.9	28.5	28.9	34.5
AEO 2002									-0.7	0.1	2.2	2.1	3.6	7.0	7.3	12.4	23.0	20.6	25.7	32.7	31.3	31.7	37.1
AEO 2003										-3.0	-1.8	-1.9	-0.7	3.1	3.9	9.5	20.2	18.4	23.5	30.6	29.3	29.9	35.6
AEO 2004											-1.9	-2.4	-0.1	3.6	4.2	9.4	19.8	17.6	22.4	29.4	28.0	28.5	33.7
AEO 2005												-1.1	0.5	3.9	4.6	10.4	21.3	18.8	23.6	30.3	28.6	29.1	34.1
AEO 2006													-0.4	1.1	1.3	6.4	16.6	14.1	18.4	25.0	23.1	23.1	27.8
AEO 2007														0.5	0.0	4.3	13.7	11.4	15.7	21.9	20.3	20.7	25.3
AEO 2008															-0.4	3.0	11.0	7.8	11.9	17.6	14.9	14.5	18.4
AEO 2009																0.7	5.8	3.0	6.7	11.8	9.4	8.3	10.9
AEO 2010																	2.3	-1.0	3.7	9.2	6.6	6.2	9.0
AEO 2011																		1.2	3.0	7.6	5.7	4.5	8.0
AEO 2012																			3.5	6.6	1.8	0.6	2.9
AEO 2013																				2.6	0.2	-0.8	2.3
AEO 2014																					1.2	0.4	3.1
AEO 2015																						1.5	3.2
AEO 2016																							0.3
Average Absolute Percent Difference	2.4	2.4	2.7	5.0	4.4	3.5	2.9	4.4	2.4	2.6	2.7	2.6	2.4	3.8	3.8	7.0	15.6	12.4	16.3	21.2	18.2	17.3	20.4

Sources: Projections: *Annual Energy Outlook*, Reference Case Projections, Various Editions.
 Historical Data: U.S. Energy Information Administration open data API (<http://www.eia.gov/opa/>) (Washington, DC). Retrieved June 15, 2016. Series: TOTAL.TETCEUS.A. Shading indicates overestimation (blue) or underestimation (green).