

Table 26. Total delivered industrial energy consumption, projected versus actual

Projected* (quadrillion Btu)	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																													
	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	25.4	25.9	26.3	26.7	27.0	27.1	26.8	26.6	26.9	27.2	27.7	28.1	28.3	28.7	29.1	29.4	29.7	30.0												
AEO1995		26.2	26.3	26.5	27.0	27.3	26.9	26.6	26.8	27.1	27.5	27.9	28.2	28.4	28.7	29.0	29.3	29.6												
AEO1996			26.5	26.6	27.3	27.5	26.9	26.5	26.7	26.9	27.2	27.6	27.9	28.2	28.3	28.5	28.7	28.9	29.2	29.4	29.6	29.9	30.0							
AEO1997				26.2	26.5	26.9	26.7	26.6	26.8	27.1	27.4	27.8	28.0	28.4	28.7	28.9	29.0	29.2	29.4	29.5	29.7	29.9	30.1							
AEO1998					27.2	27.5	27.2	26.9	27.1	27.5	27.7	27.9	28.3	28.7	29.0	29.3	29.7	29.9	30.1	30.4	30.5	30.5	30.6	30.7	30.8	30.8	31.0	30.9		
AEO1999						26.7	26.4	26.4	26.8	27.1	27.3	27.5	27.9	28.3	28.6	28.9	29.2	29.5	29.7	30.0	30.2	30.5	30.9	31.1	31.4	31.7	31.9	32.1		
AEO2000							25.8	25.5	25.7	26.0	26.5	26.9	27.4	27.8	28.1	28.3	28.5	28.8	29.0	29.2	29.6	29.9	30.3	30.5	30.7	30.9	31.2	31.5		
AEO2001								25.8	26.2	26.6	27.0	27.3	27.7	28.1	28.5	28.8	29.1	29.4	29.7	30.0	30.4	30.7	31.2	31.5	31.9	32.2	32.6	33.0		
AEO2002									24.5	25.8	26.6	27.0	27.5	28.0	28.5	28.8	29.2	29.7	30.2	30.6	30.9	31.2	31.5	31.8	32.1	32.4	32.7	33.0		
AEO2003										25.5	25.9	26.2	26.4	26.7	27.2	27.6	28.1	28.8	29.3	29.8	30.2	30.5	30.8	31.1	31.4	31.8	32.2	32.6	33.0	
AEO2004											24.5	24.9	25.7	26.1	26.5	26.9	27.1	27.5	27.9	28.3	28.7	29.0	29.3	29.7	30.1	30.6	31.0	31.4	31.6	
AEO2005												25.5	25.9	26.2	26.4	26.9	27.2	27.3	27.6	27.8	27.9	28.2	28.3	28.5	28.8	29.2	29.4	29.7	29.9	
AEO2006													25.2	25.4	26.1	26.3	26.5	26.7	27.0	27.2	27.3	27.5	27.7	28.0	28.2	28.4	28.6	28.9	29.2	
AEO2007														25.3	25.5	25.8	26.1	26.3	26.5	26.6	26.7	26.9	27.0	27.1	27.2	27.3	27.6	27.8	28.0	
AEO2008															25.2	25.8	25.3	25.8	26.2	26.2	26.2	26.2	26.3	26.4	26.4	26.5	26.5	26.7	27.1	
AEO2009																25.1	23.3	22.8	23.5	23.9	24.3	24.2	23.9	23.9	23.9	23.9	24.0	24.2	24.4	
AEO2010																	22.2	22.3	23.0	23.8	24.2	24.6	24.8	24.9	25.0	25.1	25.3	25.4	25.5	
AEO2011																		23.1	24.2	25.0	26.0	26.2	26.7	26.8	26.9	27.0	27.1	27.3	27.5	
AEO2012																			23.8	23.8	23.1	23.7	24.0	24.2	24.2	24.3	24.4	24.6	24.9	
AEO2013																				24.3	23.8	24.0	24.9	25.5	26.0	26.4	26.7	26.9	27.0	
AEO2014																					23.8	24.2	25.3	26.0	26.5	27.0	27.3	27.7	28.0	
AEO2015																						24.7	25.2	25.9	26.2	26.6	27.1	27.4	27.6	
AEO2016																							24.5	24.3	24.7	25.1	25.8	26.5	27.1	
AEO2017																								24.6	25.0	25.8	26.4	26.7	27.1	
AEO2018																									24.8	25.6	26.4	27.3	27.6	
AEO2019																										26.0	26.4	26.9	27.5	
AEO2020																											26.3	26.7	27.2	
AEO2021																												25.5	25.8	
AEO2022																													26.2	
Actual	25.1	25.8	26.2	26.9	27.2	26.8	26.6	26.5	25.2	25.2	25.0	25.9	24.9	25.0	24.9	24.0	21.9	23.6	23.8	24.1	24.6	24.6	24.5	25.0	25.2	26.2	26.4	25.3	25.9	
Average absolute difference	0.3	0.2	0.2	0.4	0.3	0.4	0.4	0.3	1.3	1.5	2.0	1.4	2.4	2.5	2.8	3.8	5.7	4.2	3.8	3.5	3.3	3.2	3.4	2.9	2.9	2.4	2.3	3.2	2.0	

Table 26. Total delivered industrial energy consumption, projected versus actual (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	1.4	0.3	0.5	-1.0	-0.9	1.1	0.7	0.5	6.8	8.1	10.7	8.4	13.9	14.8	16.9	22.6	35.7	27.2											
AEO1995		1.3	0.5	-1.6	-0.7	1.8	1.1	0.5	6.4	7.6	9.9	7.7	13.1	13.9	15.5	21.1	33.9	25.5											
AEO1996			1.4	-1.2	0.3	2.7	1.3	0.1	5.9	7.0	9.0	6.6	12.1	12.7	13.8	19.0	31.3	22.6	22.5	22.1	20.4	21.2	22.5						
AEO1997				-2.7	-2.8	0.5	0.4	0.4	6.3	7.5	9.8	7.2	12.6	13.7	15.4	20.4	32.6	23.8	23.4	22.6	20.8	21.6	22.7						
AEO1998					0.1	2.6	2.6	1.7	7.7	9.1	10.7	7.9	13.7	14.9	16.7	22.4	35.5	26.8	26.6	26.0	23.7	23.8	24.9	22.6	22.3	17.6	17.3	22.3	
AEO1999						-0.1	-0.6	0.0	6.5	7.8	9.3	6.3	12.0	13.1	15.0	20.5	33.4	25.1	24.8	24.5	22.8	24.0	26.1	24.4	24.7	20.7	20.7	26.7	
AEO2000							-2.8	-3.5	2.0	3.3	6.0	4.0	10.1	11.2	12.9	18.2	30.3	22.1	21.6	21.3	20.1	21.5	23.7	21.8	22.1	18.0	18.4	24.6	
AEO2001								-2.5	3.9	5.6	8.2	5.5	11.1	12.4	14.5	20.1	32.9	24.8	24.7	24.4	23.4	24.8	27.2	26.1	26.7	22.8	23.4	30.2	
AEO2002									-2.6	2.6	6.5	4.4	10.5	11.9	14.4	20.0	33.4	25.8	27.0	26.9	25.5	26.7	28.7	27.3	27.7	23.7	24.1	30.4	
AEO2003									1.1	3.8	1.4	5.9	7.0	9.4	15.3	28.6	21.9	23.2	23.7	22.5	24.0	25.9	24.3	24.9	21.3	22.2	28.8	27.5	
AEO2004										-1.9	-3.7	3.3	4.7	6.7	12.1	23.9	16.7	17.3	17.3	16.6	17.8	19.7	18.6	19.6	16.5	17.4	23.9	22.2	
AEO2005											-1.5	4.1	5.1	6.3	12.0	24.2	15.9	15.9	15.3	13.4	14.3	15.4	13.8	14.6	11.2	11.5	17.2	15.3	
AEO2006													1.1	1.5	4.9	9.7	21.0	13.1	13.2	12.7	11.0	11.6	13.2	11.8	11.9	8.2	8.3	14.2	12.9
AEO2007														1.4	2.7	7.7	19.2	11.6	11.3	10.5	8.6	9.2	10.1	8.4	8.1	4.2	4.5	10.0	8.3
AEO2008															1.4	7.7	15.7	9.4	10.0	8.8	6.3	6.3	7.4	5.4	5.1	1.1	0.6	5.5	4.5
AEO2009																4.7	6.6	-3.4	-1.4	-0.8	-1.5	-1.9	-2.3	-4.6	-5.1	-8.8	-9.1	-4.2	-5.9
AEO2010																	1.7	-5.5	-3.4	-1.2	-1.6	-0.2	1.1	-0.6	-0.7	-4.3	-4.2	0.5	-1.6
AEO2011																		-2.1	1.6	3.9	5.8	6.4	9.2	7.3	7.1	3.0	2.8	8.0	6.1
AEO2012																			-0.2	-1.3	-6.0	-3.7	-2.2	-3.2	-3.8	-7.4	-7.4	-2.7	-4.0
AEO2013																				0.7	-3.4	-2.6	1.7	1.9	3.2	0.6	1.2	6.2	4.2
AEO2014																					-3.1	-1.7	3.2	3.8	5.5	2.8	3.6	9.5	8.2
AEO2015																						0.4	3.0	3.5	4.0	1.5	2.6	8.3	6.7
AEO2016																							0.0	-2.7	-1.8	-4.2	-2.2	4.9	4.6
AEO2017																								-1.8	-0.8	-1.6	0.2	5.5	4.7
AEO2018																									-1.5	-2.3	0.1	7.7	6.7
AEO2019																										-0.9	0.1	6.3	6.1
AEO2020																											-0.2	5.3	5.0
AEO2021																												0.6	-0.5
AEO2022																													1.2
Average absolute percentage difference	1.4	0.8	0.8	1.6	1.0	1.5	1.4	1.2	5.3	6.0	7.8	5.4	9.5	9.9	11.1	15.9	25.9	18.0	15.8	14.7	13.5	13.2	13.8	11.7	11.5	9.2	8.8	12.6	7.8

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

Notes: shading indicates overestimation (blue) or underestimation (green). Comparisons through AEO 2002 have been adjusted for the AER 2001 revision to industrial energy consumption that was not incorporated in the earlier projections.

*Projections exclude electricity-related losses.