

**Table 16. Total electricity sales excluding direct use, projected versus actual**

Projected		(billion kilowatthours)																											
	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	2,843	2,891	2,928	2,962	3,004	3,039	3,071	3,112	3,148	3,185	3,228	3,263	3,298	3,332	3,371	3,406	3,433	3,469											
AEO1995		2,951	2,967	2,983	3,026	3,058	3,085	3,108	3,134	3,166	3,204	3,248	3,285	3,321	3,357	3,396	3,433	3,475											
AEO1996			2,973	2,998	3,039	3,074	3,106	3,137	3,173	3,215	3,262	3,317	3,363	3,409	3,454	3,505	3,553	3,604	3,660	3,722	3,775	3,833	3,889						
AEO1997				3,075	3,115	3,168	3,229	3,290	3,328	3,379	3,437	3,497	3,545	3,596	3,649	3,697	3,736	3,784	3,838	3,899	3,948	4,003	4,044						
AEO1998					3,106	3,204	3,255	3,318	3,388	3,438	3,488	3,546	3,601	3,658	3,716	3,775	3,825	3,877	3,939	3,996	4,035	4,075	4,115	4,158	4,195	4,232	4,271	4,308	
AEO1999						3,205	3,262	3,333	3,402	3,454	3,492	3,534	3,585	3,639	3,691	3,745	3,793	3,843	3,900	3,958	4,005	4,059	4,113	4,163	4,208	4,253	4,298	4,345	
AEO2000							3,288	3,360	3,402	3,461	3,523	3,585	3,647	3,699	3,753	3,812	3,861	3,909	3,958	4,012	4,059	4,109	4,155	4,196	4,230	4,266	4,307	4,350	
AEO2001								3,364	3,440	3,530	3,608	3,681	3,761	3,838	3,918	3,998	4,068	4,147	4,212	4,286	4,352	4,417	4,484	4,552	4,610	4,671	4,737	4,804	
AEO2002									3,443	3,502	3,619	3,711	3,793	3,869	3,948	4,022	4,090	4,170	4,252	4,332	4,404	4,481	4,556	4,630	4,696	4,769	4,842	4,916	
AEO2003										3,414	3,527	3,617	3,684	3,762	3,848	3,940	4,014	4,101	4,183	4,266	4,336	4,411	4,481	4,551	4,619	4,692	4,772	4,850	4,921
AEO2004											3,495	3,582	3,669	3,750	3,830	3,909	3,977	4,055	4,133	4,212	4,285	4,357	4,429	4,502	4,576	4,653	4,730	4,811	4,879
AEO2005												3,547	3,649	3,722	3,813	3,912	3,997	4,070	4,145	4,220	4,285	4,360	4,430	4,501	4,577	4,657	4,732	4,811	4,880
AEO2006													3,675	3,700	3,767	3,847	3,911	3,978	4,047	4,116	4,173	4,234	4,300	4,370	4,433	4,501	4,564	4,629	4,688
AEO2007														3,694	3,757	3,836	3,891	3,953	4,014	4,082	4,138	4,194	4,251	4,312	4,358	4,408	4,466	4,528	4,580
AEO2008															3,744	3,773	3,807	3,869	3,927	3,978	3,979	4,016	4,059	4,108	4,146	4,188	4,225	4,261	4,298
AEO2009																3,725	3,658	3,737	3,796	3,847	3,869	3,894	3,921	3,957	3,998	4,043	4,085	4,127	4,160
AEO2010																	3,589	3,617	3,728	3,800	3,809	3,836	3,870	3,908	3,944	3,989	4,040	4,083	4,116
AEO2011																		3,749	3,692	3,734	3,770	3,777	3,811	3,843	3,872	3,906	3,941	3,976	4,008
AEO2012																			3,763	3,729	3,710	3,735	3,753	3,773	3,799	3,833	3,874	3,907	3,945
AEO2013																				3,712	3,665	3,704	3,757	3,797	3,846	3,888	3,940	3,969	4,003
AEO2014																					3,686	3,702	3,772	3,828	3,888	3,933	3,964	3,986	4,021
AEO2015																						3,739	3,750	3,796	3,831	3,884	3,926	3,941	3,958
AEO2016																							3,729	3,740	3,766	3,797	3,834	3,841	3,863
AEO2017																								3,727	3,719	3,774	3,804	3,806	3,822
AEO2018																									3,681	3,730	3,806	3,824	3,836
AEO2019																										3,796	3,776	3,832	3,863
AEO2020																											3,762	3,729	3,806
AEO2021																												3,661	3,680
AEO2022																													3,803
<b>Actual</b>	<b>2861</b>	<b>2,935</b>	<b>3,013</b>	<b>3,101</b>	<b>3,146</b>	<b>3,264</b>	<b>3,312</b>	<b>3,421</b>	<b>3,394</b>	<b>3,465</b>	<b>3,494</b>	<b>3,547</b>	<b>3,661</b>	<b>3,670</b>	<b>3,765</b>	<b>3,734</b>	<b>3,597</b>	<b>3,755</b>	<b>3,750</b>	<b>3,695</b>	<b>3,725</b>	<b>3,724</b>	<b>3,725</b>	<b>3,762</b>	<b>3,682</b>	<b>3,859</b>	<b>3,750</b>	<b>3,718</b>	<b>3,795</b>
Average absolute difference	18	30	57	97	88	140	127	169	101	111	105	110	122	124	128	152	250	199	222	300	302	327	355	364	461	350	455	508	374

**Table 16. Total electricity sales excluding direct use, 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	-0.6	-1.5	-2.8	-4.5	-4.5	-6.9	-7.3	-9.0	-7.3	-8.1	-7.6	-8.0	-9.9	-9.2	-10.5	-8.8	-4.6	-7.6												
AEO1995		0.6	-1.5	-3.8	-3.8	-6.3	-6.9	-9.2	-7.7	-8.6	-8.3	-8.4	-10.3	-9.5	-10.8	-9.1	-4.6	-7.5												
AEO1996			-1.3	-3.3	-3.4	-5.8	-6.2	-8.3	-6.5	-7.2	-6.6	-6.5	-8.1	-7.1	-8.2	-6.1	-1.2	-4.0	-2.4	0.7	1.3	2.9	4.4							
AEO1997				-0.8	-1.0	-2.9	-2.5	-3.8	-2.0	-2.5	-1.6	-1.4	-3.2	-2.0	-3.1	-1.0	3.9	0.8	2.4	5.5	6.0	7.5	8.6							
AEO1998					-1.3	-1.8	-1.7	-3.0	-0.2	-0.8	-0.2	0.0	-1.6	-0.3	-1.3	1.1	6.4	3.3	5.0	8.1	8.3	9.4	10.5	10.5	10.5	13.9	9.7	13.9	15.9	
AEO1999						-1.8	-1.5	-2.6	0.2	-0.3	-0.1	-0.4	-2.1	-0.8	-2.0	0.3	5.5	2.3	4.0	7.1	7.5	9.0	10.4	10.6	14.3	10.2	14.6	16.9		
AEO2000							-0.7	-1.8	0.2	-0.1	0.8	1.1	-0.4	0.8	-0.3	2.1	7.3	4.1	5.5	8.6	9.0	10.3	11.6	11.5	14.9	10.5	14.9	17.0		
AEO2001								-1.7	1.3	1.9	3.3	3.8	2.7	4.6	4.1	7.1	13.1	10.5	12.3	16.0	16.8	18.6	20.4	21.0	25.2	21.0	26.3	29.2		
AEO2002									1.4	1.1	3.6	4.6	3.6	5.4	4.9	7.7	13.7	11.1	13.4	17.2	18.2	20.3	22.3	23.1	27.5	23.6	29.1	32.2		
AEO2003											-1.5	1.0	2.0	0.6	2.5	2.2	5.5	11.6	9.2	11.5	15.5	16.4	18.5	20.3	21.0	25.4	21.6	27.3	30.5	29.7
AEO2004											0.0	1.0	0.2	2.2	1.7	4.7	10.6	8.0	10.2	14.0	15.0	17.0	18.9	19.7	24.3	20.6	26.2	29.4	28.6	
AEO2005											0.0	-0.3	1.4	1.3	4.8	11.1	8.4	10.5	14.2	15.0	17.1	18.9	19.6	24.3	20.7	26.2	29.4	28.6		
AEO2006												0.4	0.8	0.1	3.0	8.7	5.9	7.9	11.4	12.0	13.7	15.4	16.1	20.4	16.6	21.7	24.5	23.5		
AEO2007													0.6	-0.2	2.7	8.2	5.3	7.1	10.5	11.1	12.6	14.1	14.6	18.4	14.2	19.1	21.8	20.7		
AEO2008														-0.6	1.0	5.8	3.0	4.7	7.7	6.8	7.8	9.0	9.2	12.6	8.5	12.7	14.6	13.3		
AEO2009															-0.3	1.7	-0.5	1.2	4.1	3.9	4.6	5.3	5.2	8.6	4.8	9.0	11.0	9.6		
AEO2010																-0.2	-3.7	-0.6	2.8	2.3	3.0	3.9	3.9	7.1	3.4	7.7	9.8	8.5		
AEO2011																	-0.2	-1.5	1.1	1.2	1.4	2.3	2.1	5.2	1.2	5.1	7.0	5.6		
AEO2012																		0.4	0.9	-0.4	0.3	0.8	0.3	3.2	-0.7	3.3	5.1	4.0		
AEO2013																			0.5	-1.6	-0.5	0.9	4.4	0.8	5.1	6.8	5.5			
AEO2014																				-1.0	-0.6	1.3	1.7	5.6	1.9	5.7	7.2	6.0		
AEO2015																					0.4	0.7	0.9	4.1	0.6	4.7	6.0	4.3		
AEO2016																						0.1	-0.6	2.3	-1.6	2.2	3.3	1.8		
AEO2017																							-0.9	1.0	-2.2	1.5	2.4	0.7		
AEO2018																								0.0	-3.3	1.5	2.9	1.1		
AEO2019																									-1.6	0.7	3.1	1.8		
AEO2020																										0.3	0.3	0.3		
AEO2021																											0.3	0.3	0.3	
AEO2022																												-1.5	-3.0	
Average absolute percentage difference	0.6	1.0	1.9	3.1	2.8	4.3	3.8	4.9	3.0	3.2	3.0	3.1	3.3	3.4	3.4	4.1	6.9	5.3	5.9	8.1	8.1	8.8	9.5	9.7	12.5	9.1	12.1	13.7	9.8	

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.ESTCPUS.A; projections: Annual Energy Outlook, Reference case projections from various editions

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