



U.S. Energy Information
Administration

Restrospective Review Annual Energy Outlook 2010

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Annual Energy Outlook Retrospective Review

The Energy Information Administration (EIA) produces projections of energy supply and demand each year in the *Annual Energy Outlook* (AEO). The projections in the AEO are not statements of what will happen but of what might happen, given the assumptions and methodologies. The Reference case projection assumes trends that are consistent with historical and current market behavior, technological and demographic changes, and current laws and regulations. The potential impacts of pending or proposed legislation, regulations, and standards—or of sections of legislation that have been enacted but that require implementing regulations or appropriation of funds that are not provided or specified in the legislation itself—are not reflected in the projections [1]. Thus, the AEO Reference case provides an impartial baseline that can be used to analyze potential new policies or legislative initiatives. The analysis in the AEO primarily focuses on a Reference case, lower and higher economic growth cases, and lower and higher oil price cases. However, approximately 30 alternative cases are generally included in the AEO. Readers are encouraged to review the full range of cases, which address many of the uncertainties inherent in long-term projections.

Each year since 1996, EIA has produced a comparison between realized energy outcomes and the Reference case projections included in previous editions of the AEO. Each year, the comparison adds the projections from the most recent AEO and updates the historical data to the most recently available. The comparison summarizes the variations of the AEO Reference case projections since 1982 to realized outcomes by calculating the average absolute percent differences for several of the major variables for AEO1982 through AEO2010 [2]. The average absolute percent difference is the simple mean of the absolute values of the percentage difference between the Reference case projection and the actual value. The historical data are typically taken from the *Annual Energy Review* (AER) [3]. The last column of Table 1 provides a summary of the most recent average absolute percent differences for 21 projection components. The detailed calculation of these differences is shown in Tables 3 through 23. These tables also provide the average absolute difference, which is the simple mean of the absolute value of the difference between the Reference case projection and the actual value. The calculated absolute average differences can change from one year's evaluation to the next due to prior year data revisions that often occur in the AER, the *Monthly Energy Review* (MER), and occasionally in gross domestic product (GDP).

The National Energy Modeling System (NEMS) has been used to prepare the Annual Energy Outlook since AEO1994. The annual projection process begins with the development of assumptions for two key drivers--the world oil price and the macroeconomic growth environment—that is determined outside of the NEMS.

While the integrated nature of NEMS may result in some feedback that slightly modifies the initial assumptions about world oil price and the macroeconomic growth environment, these feedbacks tend to be relatively small, so that the initial assumptions for world oil price and the macroeconomic growth environment largely determine the overall projection environment. To the extent that this general environment deviates from the initial assumptions, the NEMS projection results will also deviate.

Table 2 provides a summary of the percentage of years in which a particular data series is overestimated as well as the absolute percent projection differences. These concepts are summarized for the entire series of AEO Reference cases with additional columns isolating the NEMS-based AEOs (i.e., those beginning with AEO1994). The percentage of projected overestimates for each variable is calculated as the number of overestimates of that variable relative to the total number of projections made (i.e., for each AEO and each year projected). In an unbiased projection, we would expect the percentage of overestimates to be close to 50 percent when the sample size is large enough. Many of the sample sizes are relatively small, statistically speaking. The percentage of overestimates in the NEMS AEOs has improved (i.e., moved closer to 50 percent) relative to pre-NEMS AEOs for 12 of the 21 concepts shown in Tables 3 through 23. The average absolute percent differences are smaller in magnitude for the NEMS AEOs in only 9 of the 21 comparisons. For AEO2010, actual data for the year 2009 is included then the table results. 2009 was another year profoundly affected by the current recession contributing to the worsening of several of the average absolute percent differences for NEMS AEOs in comparison with earlier projections – AEOs before AEO1990 did not offer projections for the year 2009.

As a general matter, energy consumption quantities tend to be less volatile and thus projected with greater accuracy than the relatively more volatile energy prices. Energy consumption has a certain amount of inertia inherent from the energy-consuming capital stock, lead times for capital purchase decisions, locked-in contract periods, and myopic decision making. Across all AEOs the average absolute percent difference between Reference case projections of energy consumption, energy production, and carbon dioxide emissions and realized outcomes have typically been under 6 percent, with the exception of natural gas consumption and production, which are just over 6 percent. As expected, the corresponding absolute percent differences are much greater for energy prices – in the 20 to 57 percent range. Both Table 2 and the individual tables which follow generally show reductions (i.e., improved performance) in the absolute average differences for energy prices and net energy imports over time. This general trend has been disrupted somewhat by the recent world oil price volatility of the last several years.

Table 1. Comparison of absolute percent difference between AEO Reference case projections and related outcomes

Variable	Average Absolute Percent or Percentage Point Difference					
	AEO82 to AEO2005	AEO82 to AEO2006	AEO82 to AEO2007	AEO82 to AEO2008	AEO82 to AEO2009	AEO82 to AEO2010
Gross Domestic Product						
Real Gross Domestic Product (Growth Rate)*	1.1	1.1	1.1	1.0	1.1	1.3
Petroleum						
World Oil Prices	54.1	52.6	51.7	50.9	51.1	49.9
Total Petroleum Consumption	2.9	2.9	2.9	2.9	3.3	4.1
Crude Oil Production	4.7	4.9	5.1	6.5	5.8	5.8
Petroleum Net Imports	6.6	6.5	6.2	6.0	6.4	8.0
Natural Gas						
Natural Gas Wellhead Prices	64.9	63.1	61.1	59.1	57.6	56.6
Total Natural Gas Consumption	6.4	6.6	7.0	7.0	7.1	7.3
Natural Gas Production	5.0	5.7	6.0	6.2	6.2	6.2
Natural Gas Net Imports	14.9	14.7	14.6	14.3	15.6	19.9
Coal						
Coal Prices to Electric Generating Plants**	47.0	46.4	45.4	44.5	43.7	43.1
Total Coal Consumption	3.9	4.0	4.1	4.1	4.2	4.9
Coal Production	3.9	4.0	4.0	4.1	4.1	4.8
Electricity						
Average Electricity Prices	19.5	19.7	19.7	19.6	19.7	19.7
Total Electricity Sales	2.4	2.5	2.5	2.6	2.7	3.0
Total Energy, Carbon and Intensity						
Total Energy Consumption	2.17	2.2	2.2	2.5	2.8	3.5
Residential Energy Consumption	2.9	2.9	2.9	3.3	3.4	3.5
Commercial Energy Consumption	4.2	4.3	4.3	4.4	4.5	4.6
Industrial Energy Consumption	3.9	4.3	4.3	5.2	6.1	7.6
Transportation Energy Consumption	4.4	4.4	4.4	4.4	4.6	5.0
Total Carbon Dioxide Emissions	3.0	2.9	2.9	3.1	3.5	4.7
Energy Intensity	6.0	6.1	6.1	6.4	6.6	6.7

AEO - Annual Energy Outlook

Source: Statistics in Table 2 are a summary of the calculations in Tables 3 through 23. The data in Tables 3 through 23 are based on the 1982 through 2010 Annual Energy Outlook projections. Historical data are taken from the Annual Energy Review 2009, DOE/EIA-0384(2009) (Washington, DC, July 2010) and the Monthly Energy Review August 2010, DOE/EIA-0035(2010/08) (Washington, DC, August 21, 2010).

Note: Projections of carbon dioxide emissions began in AEO93 and were first evaluated in 2000 retrospective. Evaluation of energy intensity projections began in 2003. Revisions to historical data are reflected in this edition.

* The basis for GDP comparison is the projection differences in the growth rate of real GDP. Thus, the summary information for Table 3 is on a percentage point basis and is different from the other AEO concepts which are evaluated in levels.

** Coal prices to electric generating plants are from the Monthly Energy Review. Beginning in AEO2003, EIA electric generating projections incorporated combined heat and power (CHP) electricity generation in electricity generating plants. Prior to AEO2003, coal price projections reflected data collected, estimated, and reported to electric utilities and excluded CHP power generation.

Table 2. Summary of differences between AEO Reference case and realized outcomes

Actual vs. Projected	All AEOs		NEMS AEOs	
	Percent of Projections of Over-Estimated	Average Absolute Percent Difference	Percent of Projections Over-Estimated	Average Absolute Percent Difference
Table 3. Gross Domestic Product	41%	1.3%	54%	1.4%
Table 4. World Oil Prices	52%	49.9%	24%	31.4%
Table 5. Total Petroleum Consumption	44%	4.1%	61%	4.3%
Table 6. Domestic Crude Oil Production	59%	5.8%	65%	6.4%
Table 7. Petroleum Net Imports	56%	8.0%	61%	7.3%
Table 8. Natural Gas Wellhead Prices	54%	56.6%	23%	31.9%
Table 9. Total Natural Gas Consumption	49%	7.3%	70%	7.4%
Table 10. Natural Gas Production	56%	6.2%	71%	6.9%
Table 11. Natural Gas Net Imports	45%	17.9%	64%	17.1%
Table 12. Coal Prices to Electric Generating Plants	74%	43.1%	52%	19.5%
Table 13. Total Coal Consumption	48%	4.9%	52%	6.0%
Table 14. Coal Production	66%	4.8%	57%	4.5%
Table 15. Average Electricity Prices	71%	19.7%	48%	12.0%
Table 16. Total Electricity Sales	40%	3.0%	40%	3.8%
Table 17. Total Energy Consumption	57%	3.5%	69%	4.3%
Table 18. Residential Consumption	64%	3.5%	66%	4.0%
Table 19. Commercial Consumption	36%	4.6%	38%	6.0%
Table 20. Industrial Consumption	77%	7.6%	88%	9.6%
Table 21. Transportation Consumption	41%	5.0%	67%	4.5%
Table 22. Total Carbon Dioxide Emissions	51%	4.7%	56%	4.9%
Table 23. Energy Intensity	75%	6.7%	99%	7.3%

* Note: Since GDP is now evaluated as differences in the growth rate of real GDP (rather than most recent prior comparisons using nominal dollar levels of GDP), the differences here are percentage point differences, not percentage differences. For example if projected real GDP growth was 4%, but actual real GDP growth was 3%, this would be presented as a 1 percentage point difference, not a 33% difference.

The underlying reasons for deviations between the AEO Reference case projections and realized history have tended to be the same from one evaluation to the next. The most significant are:

- Because of the long term emphasis of the AEO, the projected growth rates in real GDP used in the AEO projections are trend projections rather than cyclic. That is, business cycles, which are more appropriate for short term projections, are not reflected in the AEO projections, except to the extent they influence the early projection years. Because of this, over-projections of the growth rate in real GDP tend to line up with economic slowdowns or recessions, whereas under-projections tend to occur during expansionary phases of the economy. Because GDP is a good indicator of economic activity and drives energy consumption, the differences between projected energy consumption and actual consumption are often similar to the differences between the GDP projections and actual GDP (Table 3).
- Overestimation of world oil prices, particularly in publications prior to AEO1997 (Table 4), resulted in underestimation of petroleum consumption. The crude oil price projections in the AEOs completed after 1997 tended to be underestimated, which led to overestimation of petroleum consumption. A prime example is the year 2008. All AEO projections for the year 2008, with the exception of AEO2009 (the 2008 figures in AEO2009 are part history and part projection), significantly underestimated the crude oil price (Table 4). These underestimated prices led to overestimates of petroleum consumption for all AEOs (again, other than AEO2009). (Table 5). Similar patterns in Tables 4 and 5 continue for the year 2009.

- The fuel with the largest difference between the projections and actual consumption has generally been natural gas. Regulatory reforms that increased the role of competitive markets were implemented in the mid-1980s making it difficult to project future developments based on historical data. The technological improvement expectations embedded in early AEOs proved conservative and advances that made petroleum and natural gas less costly to produce were missed. After natural gas curtailments that artificially constrained natural gas use were eased in the mid-1980s, natural gas became an increasingly attractive fuel source, particularly for electricity generation and industrial uses. Historically, natural gas price instability was strongly influenced by the changes in the world oil price. More recently, the AEO Reference case has overestimated natural gas consumption (Table 9) due to the significant underestimate of the natural gas wellhead price (Table 8).
- Coal prices to the electric power sector were almost always overestimated prior to *AEO1999* and underestimated thereafter (Table 12). In general, the AEO coal projections produced prior to the use of NEMS (*AEO1982* through *AEO1993*) did not explicitly model coal mining productivity. From 1985 through 2000, coal mining productivity improved by an average of 6.4 percent per year, reducing the cost of production, and resulting in lower coal prices. As a result, there was a tendency for pre-NEMS coal models to overestimate future coal prices. An additional factor, contributing to the overestimation of delivered coal prices in earlier AEOs was a sharp decline in coal transportation rates that began in the mid-1980s and continued through the 1990s. For the AEOs produced using NEMS (starting with *AEO1994*), coal mining labor productivity is explicitly modeled. However, the rather sudden switch from steadily increasing coal mining productivity during the 1980s and 1990s to a flat to declining productivity rate starting around 2000 and continuing through 2005 was not anticipated in most of the AEO Reference case projections generated using NEMS. As a result, there has been a recent tendency to underestimate coal prices especially post-2002.
- For projection years 2001 through 2009 earlier AEOs (*AEO1991* to *AEO1997*) tended to underestimate coal consumption while AEOs starting with *AEO1998* tended to overestimate coal consumption (Table 13). This is generally consistent with the pattern of total electricity sales (Table 16), which reflects the electric generation sector's dominant role in U.S. coal consumption. Underestimation of natural gas prices to electricity supported the underestimation of coal consumption in the early AEOs.
- From *AEO1998* through *AEO2006*, U.S. coal production (Table 14) is overestimated in most years. For *AEO1991* through *AEO2002*, there was also a tendency to overestimate coal exports and underestimate coal imports, both of which contributed to an overestimation of U.S. coal production. Virtually all AEOs overestimated coal production in 2009, a year where production dropped over 8 percent. A confounding factor regarding projections of coal production is the mostly unpredictable pattern of Annual coal stock withdrawals and builds. For example, a 38 million ton build-up of coal stockpiles in 2001 resulted in a higher production number, contributing to an underestimation of coal production for 2001 when the large stockpile was consumed in several AEOs. This result follows from the general AEO assumption that the supply and demand for all fuels will balance for all projection years other than their initial year that is calibrated to EIA's Short Term Energy Outlook projection. Historically, other notable changes in coal stockpiles include stock drawdowns of 44 million tons and 41 million tons in 1993 (a strike year) and 2000, respectively.
- Electricity prices were almost always overestimated in the AEO Reference case projections until the AEOs of the late 1990s, after which the pattern has reversed (Table 15). Electricity prices in the early AEOs assumed regulated, average cost pricing, where fuel costs make up roughly 40 to 50 percent of the total price. As discussed above, coal prices to electric generators were often overestimated in these AEOs, resulting in similar overestimation of electricity prices. In the more recent AEOs, electricity prices have been underestimated, again following the pattern in the coal and natural gas price projections and the partially deregulated generation market. In deregulated markets, natural gas tends to determine marginal electricity prices and follow the changes in the delivered natural gas prices. The recent underestimation of natural gas wellhead prices contributes to underestimates in more recent electricity price projections.
- The level of future electricity sales was underestimated for nearly all projection years for the *AEO1991* through *AEO1997* Reference cases (Table 16). Since about 90 percent of the demand for coal results from electricity generation, the underestimation of electricity sales contributed further to the underestimation of coal consumption (in addition to coal prices being overestimated and natural gas prices being underestimated) in those years (Table 13). The underestimation of electricity sales was particularly large in *AEO1994* through *AEO1996*.
- Over the last two decades, there have been changes in laws, policies, and regulations that were not anticipated in the projections prior to their implementation. Even if some of these could have been predicted, the definition of the Reference case generally limits consideration to current laws, policies and regulations. Many of these actions have had significant impacts on energy supply, demand, and prices. For example, the Powerplant and Industrial Fuel Act (FUA) of 1978 restricted the use of natural gas in power plants and industrial boilers. After FUA was repealed in 1987, use of natural gas for electric generation and industrial processing increased sharply. Consequently, those AEOs

completed prior to or immediately after repeal of the FUA, e.g., AEO1986, AEO1987, and AEO1989, underestimated natural gas consumption for year 2000 by considerably more than more recent AEOs.

- Technological improvements in both the production and use of energy have had significant impacts on the price, supply, and consumption of energy. Earlier AEOs typically assumed much slower technology development than actually occurred. This tendency was identified, in part, by this type of retrospective review. Beginning with the AEO1994, the projections were produced using the NEMS, which was designed to represent technology in a more detailed fashion. This has led to an improvement in the representation of technological change in the AEO. As NEMS has evolved, additional studies on technological improvement have led to more optimistic assumptions in the more recent projections. Further, the adoption of modeling innovations, such as learning-by-doing, have allowed the model to better reflect the impact on cost of experience with new technologies as they are adopted.
- External factors such as severe weather, economic cycles, and other supply and/or demand disruptions like hurricanes that strike the Gulf of Mexico rigs have also had an impact on the relationship between projections and realized outcomes, particularly in the short term. These types of events are not anticipated in a mid- to long-term projection like the AEO.
- Total energy consumption by sector was added to the comparison tables beginning with the retrospective for AEO2008 (Tables 18 to 21). Overall, the projection errors tend to be relatively small; however, some pattern of overestimation is evident. In the transportation sector, this tendency can generally be explained by the economic, fuel-specific, and external factors discussed above. A portion of the overestimation in the industrial sector results from underestimating the extent of structural shifts in the sector. The evolution of the U.S. economy away from energy intensive industries to less-energy intensive manufacturing and services has continued unabated for a few decades and has even accelerated in the many subcategories in the energy-intensive industries. Turning to weather, actual residential and commercial energy use have also been affected in the last 15 years by weather patterns that have been generally warmer than the 30-year average “normal” used in developing AEO projections. Finally, all sectors have been affected by the length and depth of the current recession, which also causes a tendency for overestimating recent consumption.
- Since AEO1994 (the NEMS-based AEOs) energy intensity has been the concept most often overestimated. Energy intensity for the retrospective comparisons is defined as the ratio of total energy consumption to nominal GDP. Nominal GDP is used for the comparisons because it has been revised less than real GDP and thus avoids additional comparison issues resulting from other changes to real GDP such as deflator revisions. As a ratio, the projection

differences are dependent upon relative differences in energy consumption and nominal GDP. The post-AEO1994 overestimates of energy intensity are the result of two “reinforcing” features of past projections. During the period through AEO2000, GDP tended to be underestimated, which imparts a tendency to overestimate energy intensity. Post-AEO2000, energy consumption has tended to be overestimated, once again imparting a tendency to overestimate intensity. The combination of these two occurrences has resulted in energy intensity being overestimated for most years for AEO1994 forward.

Notes

¹Each Annual Energy Outlook includes a variety of other cases with different assumptions – in AEO2010 see for example the Extended Policies and No Sunset cases for different policy treatments.

²Note the AEO2009 results are for the “Updated AEO2009 Reference Case Service Report” which reflect the impacts of the American Recovery and Reinvestment Act of 2009 (passed after the publication of the formal hardcopy AEO2009). This version is only available on the EIA Website at: [http://www.eia.doe.gov/oiarf/servicerpt/stimulus/pdf/sroiaf\(2009\)03.pdf](http://www.eia.doe.gov/oiarf/servicerpt/stimulus/pdf/sroiaf(2009)03.pdf). Note also the publication gap in the tables that follow, there was no publication of AEO1988.

³GDP and the GDP price deflators come from the Bureau of Economic Analysis, while coal prices to electric generating plants are from the Monthly Energy Review (MER).

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Table 3. Gross Domestic Product, Projected vs. Actual

(percent change in real GDP)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	4.34%	3.26%	3.13%	2.55%	2.66%	3.08%																			
AEO 1983	3.28%	3.40%	3.56%	3.15%	2.63%	2.56%					2.22%														
AEO 1984	2.68%	2.19%	3.94%	3.68%	3.07%	2.77%					2.31%														
AEO 1985	2.32%	2.15%	3.62%	2.99%	3.61%	3.22%	3.07%	2.78%	2.27%	2.17%	2.36%														
AEO 1986		2.65%	2.45%	3.00%	1.85%	2.81%	3.12%	2.48%	2.23%	2.28%	2.31%	2.33%	2.36%	2.43%	2.51%	2.51%									
AEO 1987			2.75%	1.83%	2.70%	2.71%	2.76%	2.87%	2.45%	1.94%	1.53%						2.08%								
AEO 1989*				4.00%	2.87%	2.45%	2.58%	2.50%	2.39%	2.38%	2.35%	2.48%	2.07%	2.39%	2.65%	2.64%									
AEO 1990					2.86%	1.81%					2.57%						2.43%					2.38%			
AEO 1991						0.85%	1.13%	3.29%	1.87%	1.86%	2.22%	2.56%	2.65%	2.44%	2.46%	2.50%	2.65%	2.34%	2.10%	1.99%	2.28%	2.16%	2.08%	1.91%	1.86%
AEO 1992							-0.07%	3.35%	2.89%	2.74%	2.49%	2.04%	2.02%	2.27%	2.48%	2.48%	2.52%	2.18%	2.09%	2.00%	2.33%	2.21%	2.16%	1.93%	1.78%
AEO 1993								2.10%	2.93%	2.85%	2.88%	2.47%	2.33%	2.58%	2.19%	2.09%	2.21%	1.99%	1.98%	2.05%	1.93%	1.84%	1.82%	1.70%	1.63%
AEO 1994									3.09%	3.21%	2.27%	2.56%	2.53%	2.24%	2.43%	2.46%	2.27%	2.23%	2.41%	2.15%	1.95%	1.94%	2.18%	1.87%	1.66%
AEO 1995										3.66%	1.90%	2.05%	3.25%	2.50%	2.34%	2.17%	2.02%	2.22%	2.41%	2.45%	2.22%	1.90%	1.83%	1.76%	1.63%
AEO 1996											2.61%	1.79%	2.98%	2.55%	2.37%	2.45%	2.16%	2.07%	2.20%	2.31%	2.09%	1.74%	1.66%	1.61%	
AEO 1997												2.14%	1.59%	2.34%	2.69%	2.65%	2.20%	2.01%	2.27%	2.15%	2.11%	2.29%	2.15%	1.48%	
AEO 1998													3.40%	2.35%	2.14%	2.18%	2.12%	2.02%	1.98%	2.23%	2.30%	2.24%	2.14%	2.17%	2.00%
AEO 1999														3.39%	1.59%	2.55%	2.11%	2.21%	2.31%	2.25%	2.57%	2.53%	2.53%	2.43%	2.36%
AEO 2000															3.79%	1.94%	2.50%	2.28%	2.61%	2.65%	2.63%	2.15%	2.14%	2.14%	1.96%
AEO 2001																5.21%	3.83%	3.51%	3.07%	2.87%	2.99%	2.86%	2.94%	2.98%	2.93%
AEO 2002																	1.03%	2.19%	3.18%	2.82%	3.12%	2.88%	3.06%	3.58%	3.72%
AEO 2003																		2.44%	3.22%	3.40%	2.85%	2.95%	3.29%	3.55%	3.53%
AEO 2004																			2.30%	3.75%	3.83%	3.48%	3.39%	3.30%	2.99%
AEO 2005																				4.36%	3.57%	3.00%	3.38%	2.91%	3.17%
AEO 2006																					3.64%	3.29%	3.15%	3.48%	3.11%
AEO 2007																						3.32%	2.46%	3.04%	3.05%
AEO 2008																							2.14%	1.60%	2.60%
AEO 2009																								1.28%	-2.90%
AEO 2010																									-2.83%
Growth Rate, Real GDP	4.14%	3.46%	3.20%	4.11%	3.57%	1.88%	-0.23%	3.39%	2.85%	4.07%	2.51%	3.74%	4.46%	4.36%	4.83%	4.14%	1.08%	1.81%	2.49%	3.57%	3.05%	2.67%	2.14%	0.44%	-2.44%
Average Absolute Difference (All AEOs)	1.1%	0.7%	0.5%	1.1%	0.8%	0.8%	2.3%	0.6%	0.4%	1.5%	0.3%	1.5%	1.9%	1.9%	2.4%	1.7%	1.3%	0.5%	0.4%	1.1%	0.6%	0.5%	0.5%	1.9%	4.4%

Table 3. Gross Domestic Product, Projected vs. Actual

(percentage point difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	0.2%	-0.2%	-0.1%	-1.6%	-0.9%	1.2%																			
AEO 1983	-0.9%	-0.1%	0.4%	-1.0%	-0.9%	0.7%					-0.3%														
AEO 1984	-1.5%	-1.3%	0.7%	-0.4%	-0.5%	0.9%					-0.2%														
AEO 1985	-1.8%	-1.3%	0.4%	-1.1%	0.0%	1.3%	3.3%	-0.6%	-0.6%	-1.9%	-0.2%														
AEO 1986		-0.8%	-0.8%	-1.1%	-1.7%	0.9%	3.4%	-0.9%	-0.6%	-1.8%	-0.2%	-1.4%	-2.1%	-1.9%	-2.3%	-1.6%									
AEO 1987			-0.5%	-2.3%	-0.9%	0.8%	3.0%	-0.5%	-0.4%	-2.1%	-1.0%														
AEO 1989*				-0.1%	-0.7%	0.6%	2.8%	-0.9%	-0.5%	-1.7%	-0.2%	-1.3%	-2.4%	-2.0%	-2.2%	-1.5%									
AEO 1990					-0.7%	-0.1%					0.1%										0.0%				
AEO 1991						-1.0%	1.4%	-0.1%	-1.0%	-2.2%	-0.3%	-1.2%	-1.8%	-1.9%	-2.4%	-1.6%	1.6%	0.5%	-0.4%	-1.6%	-0.8%	-0.5%	-0.1%	1.5%	4.3%
AEO 1992							0.2%	0.0%	0.0%	-1.3%	0.0%	-1.7%	-2.4%	-2.1%	-2.3%	-1.7%	1.4%	0.4%	-0.4%	-1.6%	-0.7%	-0.5%	0.0%	1.5%	4.2%
AEO 1993								-1.3%	0.1%	-1.2%	0.4%	-1.3%	-2.1%	-1.8%	-2.6%	-2.0%	1.1%	0.2%	-0.5%	-1.5%	-1.1%	-0.8%	-0.3%	1.3%	4.1%
AEO 1994									0.2%	-0.9%	-0.2%	-1.2%	-1.9%	-2.1%	-2.4%	-1.7%	1.2%	0.4%	-0.1%	-1.4%	-1.1%	-0.7%	0.0%	1.4%	4.1%
AEO 1995										-0.4%	-0.6%	-1.7%	-1.2%	-1.9%	-2.5%	-2.0%	0.9%	0.4%	-0.1%	-1.1%	-0.8%	-0.8%	-0.3%	1.3%	4.1%
AEO 1996											0.1%	-1.9%	-1.5%	-1.8%	-2.5%	-1.7%	1.3%	0.3%	-0.4%	-1.4%	-0.7%	-0.6%	-0.4%	1.2%	4.1%
AEO 1997												-1.6%	-2.9%	-2.0%	-2.1%	-1.5%	1.1%	0.2%	-0.2%	-1.4%	-0.9%	-0.4%	0.0%	1.2%	3.9%
AEO 1998													-1.1%	-2.0%	-2.7%	-2.0%	1.0%	0.2%	-0.5%	-1.3%	-0.8%	-0.4%	0.0%	1.7%	4.4%
AEO 1999														-1.0%	-3.2%	-1.6%	1.0%	0.4%	-0.2%	-1.3%	-0.5%	-0.1%	0.4%	2.0%	4.8%
AEO 2000															-1.0%	-2.2%	1.4%	0.5%	0.1%	-0.9%	-0.4%	-0.5%	0.0%	1.7%	4.4%
AEO 2001																1.1%	1.7%	0.6%	-0.7%	-0.1%	0.2%	0.8%	2.5%	5.4%	
AEO 2002																	0.0%	0.4%	0.7%	-0.8%	0.1%	0.2%	0.9%	3.1%	6.2%
AEO 2003																		0.6%	0.7%	-0.2%	-0.2%	0.3%	1.1%	3.1%	6.0%
AEO 2004																			-0.2%	0.2%	0.8%	0.8%	1.2%	2.9%	5.4%
AEO 2005																				0.8%	0.5%	0.3%	1.2%	2.5%	5.6%
AEO 2006																					0.6%	0.6%	1.0%	3.0%	5.6%
AEO 2007																						0.6%	0.3%	2.6%	5.5%
AEO 2008																							0.0%	1.2%	5.0%
AEO 2009																								0.8%	-0.5%
AEO 2010																									-0.4%

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

Note: For forecasts with 5-year intervals published, average annual compound growth rates are compared with average annual compound growth in real GDP.

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Table 4. World Oil Prices, Projected vs. Actual

(nominal \$billions per barrel)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	29.66	34.82	41.43	48.04	53.75	59.06																				
AEO 1983	28.99	29.39	32.67	39.32	46.07	53.22					101.59															
AEO 1984	29.07	29.39	30.97	33.96	37.23	40.82					73.87															
AEO 1985	27.00	25.86	24.83	26.05	29.69	33.75	36.96	40.54	42.89	46.92	49.65															
AEO 1986		14.57	15.87	17.30	18.86	20.64	22.25	25.37	29.75	34.85	39.91	44.86	49.71	54.30	58.99	64.42										
AEO 1987			18.11	17.30	18.91	19.93	20.90	21.77	23.99	27.50	32.03					57.72										
AEO 1989*				14.70	14.93	16.33	17.75	19.15	21.68	25.21	28.91	33.29	37.81	42.47	46.36	49.98										
AEO 1990					17.70	17.49					26.58					46.17						69.08				
AEO 1991						22.00	24.77	25.59	26.45	27.34	28.37	29.44	30.54	32.03	34.28	36.89	39.84	43.34	47.08	50.99	55.23	59.36	63.56	67.61	71.69	
AEO 1992							19.03	20.06	20.65	22.27	24.20	26.31	28.66	31.17	33.96	36.96	39.90	42.96	46.05	49.18	52.53	55.91	59.47	63.30	67.38	
AEO 1993								18.86	20.25	21.24	22.45	23.68	25.02	26.71	28.64	31.02	33.48	36.27	38.90	41.21	43.63	46.40	49.52	53.03	56.83	
AEO 1994									17.06	17.21	18.24	19.43	20.64	22.12	23.76	25.52	27.51	29.67	31.86	34.00	36.05	38.36	40.78	43.29	45.88	
AEO 1995										15.24	17.27	18.23	19.26	20.39	21.59	22.97	24.33	25.79	27.27	28.82	30.38	32.14	33.89	35.85	37.97	
AEO 1996											17.16	17.74	18.59	19.72	20.97	22.34	23.81	25.26	26.72	28.22	29.87	31.51	33.13	34.82	36.61	
AEO 1997												19.99	19.92	19.55	20.07	20.59	21.68	22.71	23.75	24.78	25.87	26.94	28.06	29.19	30.38	
AEO 1998													18.54	18.79	19.87	20.95	21.79	22.53	23.46	24.34	25.27	26.04	27.00	28.02	29.09	
AEO 1999														12.50	13.64	14.67	16.35	17.87	19.64	21.14	22.59	24.20	25.72	26.54	27.42	
AEO 2000															17.35	21.80	20.99	21.52	22.05	22.62	23.23	23.85	24.51	25.17	25.85	
AEO 2001																28.21	24.86	22.82	23.04	23.65	24.25	24.85	25.43	26.05		
AEO 2002																	22.99	21.99	24.00	24.86	25.66	26.50	27.36	28.18	29.03	
AEO 2003																		23.65	26.92	25.70	25.40	26.10	26.75	27.39	28.07	
AEO 2004																			27.65	24.54	24.45	25.14	25.87	26.65	27.50	
AEO 2005																					35.74	35.40	31.78	29.52	28.78	28.43
AEO 2006																						50.97	56.42	54.75	53.19	51.54
AEO 2007																							63.64	62.68	61.40	59.20
AEO 2008																								63.72	75.98	72.58
AEO 2009																									98.58	39.99
AEO 2010																										57.05
Actual	26.99	14.00	18.13	14.56	18.08	21.76	18.70	18.20	16.14	15.51	17.14	20.64	18.53	12.04	17.26	27.70	22.00	23.71	27.71	35.90	48.86	59.02	67.04	92.77	59.17	
Average Absolute Difference (All AEOs)	1.7	12.8	9.9	13.5	12.4	12.5	5.2	6.3	9.2	11.0	19.8	6.8	8.3	15.2	11.6	11.7	5.7	5.7	6.2	9.8	17.4	23.2	28.1	49.6	20.2	

Table 4. World Oil Prices, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	9.9	148.7	128.5	229.9	197.3	171.4																				
AEO 1983	7.4	110.0	80.2	170.0	154.8	144.6					492.7															
AEO 1984	7.7	110.0	70.8	133.2	105.9	87.6					331.0															
AEO 1985	0.0	84.7	36.9	78.9	64.2	55.1	97.7	122.7	165.8	202.5	189.6															
AEO 1986		4.1	-12.5	18.8	4.3	-5.2	19.0	39.4	84.3	124.7	132.9	117.3	168.3	351.0	241.7	132.5										
AEO 1987			-0.1	18.8	-4.6	-8.4	11.8	19.6	48.7	77.3	86.9					108.4										
AEO 1989*				1.0	-17.4	-24.9	-5.1	5.2	34.3	62.5	68.7	61.3	104.1	252.7	168.6	80.4										
AEO 1990					-2.1	-19.6					55.1					66.7						41.4				
AEO 1991						1.1	32.4	40.6	63.9	76.3	65.5	42.6	64.8	166.0	98.6	33.2	81.1	82.8	69.9	42.0	13.0	0.6	-5.2	-27.1	21.2	
AEO 1992							1.8	10.2	28.0	43.6	41.2	27.5	54.7	158.9	96.7	33.4	81.4	81.2	66.2	37.0	7.5	-5.3	-11.3	-31.8	13.9	
AEO 1993								3.6	25.5	36.9	31.0	14.7	35.0	121.8	65.9	12.0	52.2	53.0	40.4	14.8	-10.7	-21.4	-26.1	-42.8	-3.9	
AEO 1994									5.7	10.9	6.4	-5.9	11.4	83.7	37.7	-7.9	25.0	25.1	15.0	-5.3	-26.2	-35.0	-39.2	-53.3	-22.5	
AEO 1995										-1.8	0.8	-11.7	4.0	69.4	25.1	-17.1	10.6	8.8	-1.6	-19.7	-37.8	-45.5	-49.4	-61.4	-35.8	
AEO 1996											0.1	-14.0	0.3	63.8	21.5	-19.3	8.2	6.5	-3.6	-21.4	-38.9	-46.6	-50.6	-62.5	-38.1	
AEO 1997												-3.1	4.8	62.4	16.3	-25.7	-1.5	-4.2	-14.3	-31.0	-47.1	-54.3	-58.1	-68.5	-48.7	
AEO 1998													0.0	56.1	15.1	-24.4	-1.0	-5.0	-15.3	-32.2	-48.3	-55.9	-59.7	-69.8	-50.8	
AEO 1999														3.8	-21.0	-47.0	-25.7	-24.6	-29.1	-41.1	-53.8	-59.0	-61.6	-71.4	-53.7	
AEO 2000															0.5	-21.3	-4.6	-9.2	-20.4	-37.0	-52.5	-59.6	-63.4	-72.9	-56.3	
AEO 2001																1.8	13.0	-3.7	-19.3	-35.8	-51.6	-58.9	-62.9	-72.6	-56.0	
AEO 2002																	4.5	-7.3	-13.4	-30.8	-47.5	-55.1	-59.2	-69.6	-50.9	
AEO 2003																		-0.3	-2.9	-28.4	-48.0	-55.8	-60.1	-70.5	-52.6	
AEO 2004																			-0.2	-31.7	-50.0	-57.4	-61.4	-71.3	-53.5	
AEO 2005																				-0.4	-27.6	-46.2	-56.0	-69.0	-52.0	
AEO 2006																					4.3	-4.4	-18.3	-42.7	-12.9	
AEO 2007																						7.8	-6.5	-33.8	0.1	
AEO 2008																							-5.0	-18.1	22.7	
AEO 2009																								6.3	-32.4	
AEO 2010																									-3.6	

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions, "Imported Crude Oil Price" (which is average imported refiners' acquisition cost for crude oil -- "IRAC").
Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010) , Table 5.21.

Table 5. Total Petroleum Consumption, Projected vs. Actual

(million barrels per day)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	18.00	17.89	17.55	17.24	16.98	16.99																				
AEO 1983	15.82	16.13	16.37	16.50	16.56	16.63					17.37															
AEO 1984	15.77	15.76	16.01	16.27	16.48	16.74					18.00															
AEO 1985	15.72	15.74	15.97	16.01	16.06	16.08	16.18	16.23	16.32	16.36	16.53															
AEO 1986		16.07	16.29	16.05	16.07	16.15	16.31	16.37	16.42	16.44	16.46	16.50	16.64	16.80	17.21	17.38										
AEO 1987			16.52	16.66	16.96	17.06	17.29	17.56	17.73	17.76	17.72	17.82	18.05	18.12	18.19	18.40	18.61									
AEO 1989*				17.01	17.20	17.44	17.57	17.72	17.76	17.78	17.82	18.05	18.12	18.19	18.40	18.61										
AEO 1990				17.24	17.41	17.41					18.21											19.47				
AEO 1991					16.95	16.65	16.83	17.01	17.17	17.34	17.53	17.83	18.09	18.33	18.53	18.87	19.12	19.24	19.27	19.49	19.66	19.81	19.96	20.16		
AEO 1992						16.74	17.07	17.37	17.59	17.80	17.86	17.99	18.14	18.26	18.43	18.70	18.90	19.09	19.16	19.40	19.58	19.73	19.81	20.00		
AEO 1993							17.07	17.45	17.79	18.15	18.26	18.60	18.88	19.07	19.25	19.54	19.75	19.98	20.15	20.38	20.53	20.65	20.72	20.89		
AEO 1994								17.67	17.99	18.20	18.42	18.66	18.85	19.06	19.34	19.52	19.74	19.99	20.21	20.40	20.61	20.81	21.00	21.13		
AEO 1995									17.53	17.93	17.96	18.29	18.48	18.69	18.87	19.08	19.31	19.58	19.85	20.10	20.29	20.47	20.65	20.77		
AEO 1996										17.78	17.88	18.10	18.38	18.58	18.78	19.02	19.20	19.41	19.66	19.89	20.08	20.23	20.41	20.55		
AEO 1997											18.18	18.34	18.70	19.05	19.38	19.68	19.91	20.19	20.44	20.68	20.94	21.18	21.35	21.46		
AEO 1998												18.89	18.92	19.36	19.62	19.94	20.27	20.52	20.81	21.15	21.53	21.81	22.12	22.44		
AEO 1999													18.86	19.20	19.91	20.23	20.47	20.65	20.88	21.16	21.48	21.78	22.11	22.39		
AEO 2000															19.33	19.56	19.91	20.17	20.42	20.76	21.08	21.41	21.72	21.99	22.23	
AEO 2001																19.50	20.04	20.36	20.62	20.91	21.21	21.52	21.82	22.12	22.41	
AEO 2002																	19.64	19.84	20.51	20.90	21.27	21.59	21.95	22.34	22.77	
AEO 2003																		19.57	19.83	20.18	20.49	20.91	21.40	21.91	22.43	
AEO 2004																			19.89	20.16	20.84	21.29	21.69	22.09	22.38	
AEO 2005																				20.50	20.91	21.30	21.72	22.18	22.65	
AEO 2006																					20.82	21.16	21.21	21.49	21.80	
AEO 2007																						20.67	20.94	21.15	21.38	
AEO 2008																							20.66	20.90	20.71	
AEO 2009																								19.37	18.77	
AEO 2010																									18.71	
Actual	15.73	16.28	16.67	17.33	17.33	16.99	16.71	17.08	17.24	17.72	17.72	18.36	18.62	18.92	19.52	19.76	19.65	19.76	20.03	20.79	20.80	20.69	20.68	19.55	18.69	
Average Absolute Difference (All AEOs)	0.60	0.61	0.51	0.80	0.63	0.37	0.41	0.42	0.47	0.44	0.41	0.52	0.54	0.53	0.81	0.82	0.39	0.40	0.43	0.58	0.53	0.57	0.69	1.71	2.62	

Table 5. Total Petroleum Consumption, Projected vs. Actual

(percent difference)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	14.5	9.9	5.3	-0.5	-2.0	0.0																				
AEO 1983	0.6	-0.9	-1.8	-4.8	-4.4	-2.1					-2.0															
AEO 1984	0.3	-3.2	-3.9	-6.1	-4.9	-1.5					1.6															
AEO 1985	0.0	-3.3	-4.2	-7.6	-7.3	-5.3	-3.2	-5.0	-5.3	-7.7	-6.7															
AEO 1986		-1.3	-2.3	-7.4	-7.2	-4.9	-2.4	-4.2	-4.7	-7.2	-7.1	-10.1	-10.6	-11.2	-11.8	-12.0										
AEO 1987			-0.9	-3.9	-2.1	0.4	3.4	2.8	2.9	0.2	0.0															
AEO 1989*				-1.9	-0.7	2.7	5.1	3.7	3.0	0.3	0.5	-1.7	-2.7	-3.8	-5.7	-7.4										
AEO 1990					-0.5	2.5					2.7										-6.4					
AEO 1991						-0.2	-0.4	-1.5	-1.3	-3.1	-2.2	-4.5	-4.2	-4.4	-6.1	-6.2	-4.0	-3.2	-4.0	-7.3	-6.3	-5.0	-4.2	2.1	7.9	
AEO 1992							0.2	-0.1	0.8	-0.7	0.4	-2.7	-3.4	-4.1	-6.5	-6.7	-4.8	-4.4	-4.7	-7.8	-6.7	-5.4	-4.6	1.3	7.0	
AEO 1993								-0.1	1.2	0.4	2.4	-0.5	-0.1	-0.2	-2.3	-2.6	-0.6	-0.1	-0.3	-3.1	-2.0	-0.8	-0.1	6.0	11.8	
AEO 1994									2.5	1.5	2.7	0.3	0.2	-0.4	-2.4	-2.1	-0.7	-0.1	-0.2	-2.8	-1.9	-0.4	0.6	7.4	13.1	
AEO 1995										-1.1	1.2	-2.2	-1.8	-2.3	-4.2	-4.5	-2.9	-2.3	-2.3	-4.5	-3.4	-1.9	-1.0	5.6	11.2	
AEO 1996											0.3	-2.6	-2.8	-2.8	-4.8	-4.9	-3.2	-2.8	-3.1	-5.4	-4.4	-2.9	-2.2	4.4	10.0	
AEO 1997												-1.0	-1.5	-1.1	-2.4	-1.9	0.2	0.8	0.8	-1.7	-0.6	1.2	2.4	9.2	14.8	
AEO 1998													1.4	0.0	-0.8	-0.7	1.5	2.6	2.4	0.1	1.7	4.1	5.4	13.1	20.1	
AEO 1999														-0.3	-1.6	0.8	2.9	3.6	3.1	0.4	1.7	3.8	5.3	13.1	19.8	
AEO 2000																-1.0	1.3	2.1	1.9	-0.1	1.3	3.5	5.0	12.5	19.0	
AEO 2001																	-1.3	2.0	3.0	2.9	0.6	1.9	4.0	5.5	13.1	19.9
AEO 2002																		0.0	0.4	2.4	0.5	2.3	4.4	6.2	14.3	21.9
AEO 2003																			-1.0	-1.0	-2.9	-1.5	1.1	3.5	12.1	20.0
AEO 2004																				-0.7	-3.0					19.8
AEO 2005																					-1.4	0.2	2.9	4.9	13.0	21.2
AEO 2006																						0.1	2.3	2.6	9.9	16.7
AEO 2007																							-0.1	1.3	8.2	14.4
AEO 2008																								-0.1	6.9	10.8
AEO 2009																									-0.9	0.4
AEO 2010																										0.1

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010) , Table 5.1.

Table 6. Domestic Crude Oil Production, Projected vs. Actual

(million barrels per day)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
AEO 1982	8.79	8.85	8.84	8.80	8.66	8.21																					
AEO 1983	8.67	8.71	8.66	8.72	8.80	8.63					8.11																
AEO 1984	8.86	8.70	8.59	8.45	8.28	8.25					7.19																
AEO 1985	8.92	8.96	9.01	8.78	8.38	8.05	7.64	7.27	6.89	6.68	6.53																
AEO 1986		8.80	8.63	8.30	7.90	7.43	6.95	6.60	6.36	6.20	5.99	5.80	5.66	5.54	5.45	5.43											
AEO 1987			8.31	8.18	8.00	7.63	7.34	7.09	6.86	6.64	6.54																
AEO 1989*				8.18	7.97	7.64	7.25	6.87	6.59	6.37	6.17	6.05	6.00	5.94	5.90	5.89											
AEO 1990					7.67	7.37	7.04	6.71	6.40	6.17	6.00	5.94	5.90	5.89	5.86							5.35					
AEO 1991						7.23	6.98	7.10	7.11	7.01	6.79	6.48	6.22	5.92	5.64	5.36	5.11	4.90	4.73	4.62	4.59	4.58	4.53	4.46	4.42		
AEO 1992							7.37	7.17	6.99	6.89	6.68	6.45	6.28	6.16	6.06	5.91	5.79	5.71	5.66	5.64	5.62	5.63	5.62	5.55	5.52		
AEO 1993								7.20	6.94	6.79	6.52	6.22	6.00	5.84	5.72	5.60	5.54	5.50	5.50	5.51	5.50	5.50	5.54	5.57	5.59		
AEO 1994									6.87	6.50	6.18	5.92	5.72	5.54	5.35	5.18	5.07	5.00	4.93	4.88	4.84	4.82	4.87	4.90	4.95		
AEO 1995										6.58	6.18	5.74	5.58	5.39	5.35	5.27	5.25	5.22	5.19	5.16	5.17	5.17	5.26	5.34	5.40		
AEO 1996											6.54	6.33	6.16	5.95	5.79	5.65	5.51	5.42	5.35	5.31	5.25	5.26	5.28	5.34	5.40		
AEO 1997												6.47	6.32	6.15	6.02	5.87	5.73	5.63	5.57	5.52	5.49	5.47	5.45	5.43	5.41		
AEO 1998													6.41	6.39	6.28	6.17	6.08	6.01	5.94	5.88	5.82	5.77	5.72	5.67	5.62		
AEO 1999														6.41	6.33	6.29	6.21	6.05	5.95	5.87	5.82	5.79	5.73	5.68	5.64		
AEO 2000															6.01	5.98	5.81	5.65	5.52	5.43	5.36	5.31	5.26	5.22	5.19		
AEO 2001																5.89	5.92	6.04	6.01	5.78	5.65	5.46	5.36	5.30	5.21		
AEO 2002																	5.84	5.85	5.68	5.50	5.38	5.32	5.32	5.24	5.15		
AEO 2003																		5.89	5.81	5.66	5.58	6.01	6.06	5.95	5.81		
AEO 2004																			5.69	5.80	5.86	5.93	6.09	6.11	6.05		
AEO 2005																					5.64	5.82	6.03	6.09	6.15	6.18	
AEO 2006																						5.33	5.50	5.54	5.65	5.84	
AEO 2007																							5.10	5.48	5.64	5.68	
AEO 2008																								5.10	5.14	5.65	
AEO 2009																									4.96	5.36	
AEO 2010																										5.24	
Actual	8.97	8.68	8.35	8.16	7.61	7.36	7.42	7.19	6.85	6.66	6.56	6.48	6.45	6.25	5.88	5.84	5.80	5.75	5.68	5.43	5.18	5.10	5.06	4.96	5.31		
Average Absolute Difference (All AEOs)	0.2	0.1	0.3	0.3	0.6	0.5	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.3		

Table 6. Domestic Crude Oil Production, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009			
AEO 1982	-2.0	2.0	5.9	7.8	13.8	11.6																						
AEO 1983	-3.4	0.3	3.7	6.8	15.6	17.3					23.6																	
AEO 1984	-1.2	0.2	2.9	3.5	8.8	12.2					9.6																	
AEO 1985	-0.6	3.2	7.9	7.6	10.1	9.4	3.0	1.1	0.6	0.3	-0.5																	
AEO 1986		1.4	3.4	1.7	3.8	1.0	-6.3	-8.2	-7.1	-6.9	-8.7	-10.5	-12.3	-11.4	-7.3	-7.0												
AEO 1987			-0.5	0.2	5.1	3.7	-1.0	-1.4	0.2	-0.3	-0.3					3.3												
AEO 1989*				0.2	4.7	3.9	-2.2	-4.5	-3.7	-4.4	-5.9	-6.7	-7.0	-5.0	0.3	0.9												
AEO 1990					0.7	0.2					2.4					0.4						3.3						
AEO 1991						-1.7	-5.9	-1.3	3.8	5.2	3.5	0.0	-3.6	-5.3	-4.1	-8.2	-11.9	-14.7	-16.7	-15.0	-11.4	-10.2	-10.5	-10.2	-16.8			
AEO 1992							-0.6	-0.3	2.1	3.4	1.8	-0.5	-2.7	-1.5	3.0	1.2	-0.2	-0.6	-0.4	3.8	8.5	10.3	11.0	11.8	4.0			
AEO 1993								0.1	1.4	1.9	-0.6	-4.0	-7.0	-6.6	-2.7	-4.1	-4.5	-4.3	-3.2	1.4	6.2	7.8	9.4	12.2	5.3			
AEO 1994									0.3	-2.4	-5.8	-8.7	-11.3	-11.4	-9.0	-11.3	-12.6	-13.0	-13.2	-10.2	-6.5	-5.5	-3.8	-1.3	-6.8			
AEO 1995										-1.2	-3.7	-6.8	-11.0	-10.7	-8.4	-8.4	-9.2	-8.6	-8.1	-4.5	-0.4	1.3	2.1	6.0	0.4			
AEO 1996											-0.3	-2.3	-4.5	-4.8	-1.6	-3.2	-5.0	-5.7	-5.8	-2.3	1.4	3.1	4.3	7.6	1.7			
AEO 1997												-0.2	-2.0	-1.6	2.4	0.6	-1.2	-2.0	-1.9	1.6	6.0	7.2	7.6	9.4	1.9			
AEO 1998													-0.6	2.2	6.7	5.7	4.8	4.5	4.6	8.2	12.4	13.0	12.9	14.1	5.8			
AEO 1999															2.5	7.6	7.8	7.0	5.3	4.7	7.9	12.3	13.5	13.2	14.5	6.1		
AEO 2000																2.1	2.4	0.2	-1.6	-2.8	-0.1	3.5	4.1	3.9	5.1	-2.3		
AEO 2001																	1.0	2.1	5.1	5.8	6.4	9.1	7.1	5.9	6.7	-1.9		
AEO 2002																		0.7	1.8	0.0	1.3	3.8	4.4	5.1	5.6	-3.0		
AEO 2003																			2.5	2.3	4.1	7.8	17.8	19.6	19.8	9.4		
AEO 2004																				0.1	6.7	13.2	16.3	20.2	23.1	14.0		
AEO 2005																					3.8	12.4	18.1	20.2	23.8	16.5		
AEO 2006																						2.8	7.8	9.4	13.8	10.1		
AEO 2007																							-0.1	8.2	13.6	7.0		
AEO 2008																								0.7	3.5	6.5		
AEO 2009																										0.8		
AEO 2010																											-1.3	

* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.
 Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.
 Historical Data: Energy Information Administration, Annual Energy Review 2009, DOE/EIA-0384(2009) (Washington, DC, July 2010) , Table 5.1.

Table 7. Petroleum Net Imports, Projected vs. Actual

(million barrels per day)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	7.58	7.45	7.12	6.82	6.66	7.09																			
AEO 1983	5.15	5.44	5.73	5.79	5.72	5.95					6.96														
AEO 1984	4.85	5.11	5.53	5.95	6.31	6.59					8.65														
AEO 1985	4.17	4.38	4.73	4.93	5.36	5.72	6.23	6.66	7.14	7.39	7.74														
AEO 1986		5.15	5.38	5.46	5.92	6.46	7.09	7.50	7.78	7.96	8.20	8.47	8.74	9.04	9.57	9.76									
AEO 1987			5.81	6.04	6.81	7.28	7.82	8.34	8.71	8.94	8.98					10.01									
AEO 1989*				6.28	6.84	7.49	7.96	8.53	8.83	9.04	9.28	9.60	9.64	9.75	10.02	10.20									
AEO 1990				7.20	7.61	8.13	8.55	8.96	9.37	9.78	10.19	10.60	11.01	11.42	11.83	12.24					11.02				
AEO 1991				7.28	7.25	7.34	7.48	7.72	8.10	8.57	9.09	9.61	10.07	10.51	11.00	11.44	11.72	11.86	12.11	12.30	12.49	12.71	12.91		
AEO 1992					6.86	7.42	7.88	8.16	8.55	8.80	9.06	9.32	9.50	9.80	10.17	10.35	10.56	10.61	10.85	11.00	11.15	11.29	11.50		
AEO 1993						7.25	8.01	8.49	9.06	9.38	9.92	10.29	10.53	10.77	11.09	11.31	11.50	11.63	11.86	12.01	12.08	12.10	12.26		
AEO 1994							8.04	8.77	9.21	9.60	10.02	10.24	10.63	10.94	11.23	11.54	11.79	12.05	12.26	12.44	12.56	12.71	12.79		
AEO 1995								8.09	8.65	8.99	9.56	9.89	10.25	10.46	10.74	10.96	11.24	11.53	11.79	11.95	12.11	12.17	12.22		
AEO 1996									8.25	8.51	8.82	9.31	9.64	10.08	10.43	10.66	10.90	11.15	11.41	11.54	11.67	11.75	11.79		
AEO 1997										8.49	8.89	9.58	10.04	10.48	10.89	11.19	11.48	11.74	12.00	12.23	12.47	12.65	12.75		
AEO 1998												9.05	9.29	10.01	10.17	10.62	11.11	11.33	11.78	12.10	12.48	12.71	13.02	13.45	
AEO 1999													9.26	9.43	10.65	11.02	11.38	11.61	11.88	12.17	12.45	12.74	13.10	13.39	
AEO 2000														9.86	10.54	11.06	11.47	11.84	12.23	12.54	12.85	13.10	13.38	13.61	
AEO 2001															10.17	10.95	11.04	11.27	11.75	12.15	12.62	13.01	13.31	13.63	
AEO 2002																10.55	10.94	11.48	12.04	12.50	12.75	13.01	13.43	13.89	
AEO 2003																	10.35	11.10	11.11	11.49	11.47	11.88	12.42	13.06	
AEO 2004																		10.99	11.41	11.53	11.87	12.05	12.39	12.71	
AEO 2005																			11.66	11.91	11.80	12.11	12.48	12.86	
AEO 2006																				12.45	12.43	11.96	12.05	12.10	
AEO 2007																					12.47	11.77	11.57	11.59	
AEO 2008																						12.08	12.44	11.49	
AEO 2009																							11.04	9.94	
AEO 2010																								9.12	
Actual	4.29	5.44	5.91	6.60	7.20	7.16	6.63	6.96	7.62	8.05	7.89	8.52	9.16	9.76	9.91	10.45	10.90	10.55	11.24	12.13	12.55	12.39	12.04	11.14	9.70
Average Absolute Difference (All AEOs)	1.2	0.7	0.6	0.8	0.8	0.6	0.7	0.7	0.5	0.5	0.8	0.4	0.4	0.4	0.3	0.3	0.2	0.6	0.3	0.5	0.7	0.4	0.4	1.3	2.7

Table 7. Petroleum Net Imports, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	76.8	37.0	20.4	3.3	-7.5	-1.0																				
AEO 1983	20.2	0.0	-3.1	-12.3	-20.6	-16.9						-11.7														
AEO 1984	13.2	-6.0	-6.5	-9.9	-12.4	-8.0					9.7															
AEO 1985	-2.7	-19.5	-20.0	-25.4	-25.6	-20.1	-6.0	-4.3	-6.3	-8.2	-1.8															
AEO 1986		-5.3	-9.0	-17.3	-17.8	-9.8	7.0	7.8	2.1	-1.2	4.0	-0.6	-4.6	-7.4	-3.5	-6.6										
AEO 1987			-1.8	-8.5	-5.4	1.7	18.0	19.9	14.3	11.0	13.9															
AEO 1989*				-4.9	-5.0	4.6	20.1	22.6	15.9	12.2	17.7	12.7	5.3	-0.1	1.1	-2.4										
AEO 1990					0.0	6.3					15.8															
AEO 1991						1.7	9.4	5.5	-1.8	-4.1	2.7	0.6	-0.7	-1.6	1.6	0.6	0.9	8.5	4.3	-2.2	-3.5	-0.7	3.8	14.1	33.1	
AEO 1992							3.5	6.7	3.4	1.3	8.4	3.3	-1.1	-4.5	-4.2	-6.2	-6.7	-1.9	-6.0	-12.5	-13.5	-11.2	-7.4	1.3	18.6	
AEO 1993								4.2	5.1	5.4	14.9	10.1	8.3	5.4	6.2	3.1	1.7	7.2	2.3	-4.1	-5.5	-3.1	0.4	8.6	26.4	
AEO 1994									5.5	8.9	16.8	12.7	9.4	4.9	7.2	4.7	3.0	9.4	4.9	-0.7	-2.3	0.4	4.4	14.1	31.9	
AEO 1995										0.4	9.7	5.5	4.4	1.3	3.4	0.1	-1.5	3.9	0.0	-4.9	-6.0	-3.6	0.6	9.2	26.0	
AEO 1996											4.6	-0.1	-3.7	-4.6	-2.7	-3.5	-4.3	1.1	-3.0	-8.1	-9.1	-6.9	-3.0	5.4	21.5	
AEO 1997												-0.4	-2.9	-1.9	1.3	0.3	-0.1	6.1	2.2	-3.2	-4.4	-1.3	3.6	13.5	31.4	
AEO 1998													-1.2	-4.9	-2.6	-2.6	5.3	0.9	-2.9	-3.6	0.7	5.6	16.8	38.7		
AEO 1999															-5.2	-4.9	2.0	1.1	7.9	3.3	-2.1	-3.0	0.5	5.9	17.5	38.1
AEO 2000																-0.5	0.9	1.5	8.8	5.3	0.9	0.0	3.7	8.8	20.0	40.3
AEO 2001																	-2.7	0.4	4.6	0.3	-3.1	-3.2	1.9	8.1	19.4	40.5
AEO 2002																		-3.2	3.7	2.2	-0.7	-0.4	2.9	8.1	20.5	43.1
AEO 2003																			-1.9	-1.2	-8.4	-8.4	-7.4	-1.3	11.5	34.6
AEO 2004																				-2.2	-6.0	-8.1	-4.2	0.1	11.1	31.1
AEO 2005																					-3.9	-5.1	-4.8	0.6	12.0	32.5
AEO 2006																						-0.8	0.3	-0.6	8.1	24.7
AEO 2007																							0.7	-2.2	3.9	19.5
AEO 2008																								0.3	11.6	18.4
AEO 2009																									-0.9	2.5
AEO 2010																										-6.0

* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.
 Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.
 Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 5.1.

Table 8. Natural Gas Wellhead Prices, Projected vs. Actual

(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	2005	2006	2007	2008	2009
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	2.61	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														
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											9.15			
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	7.29	8.09	8.94	9.62	10.27
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	6.37	6.89	7.50	8.15	9.05
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	5.68	6.05	6.46	6.94	7.23
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	4.18	4.51	4.92	5.29	5.56
AEO 1995										1.89	2.00	1.95	2.06	2.15	2.40	2.57	2.90	3.16	3.56	3.87	4.27	4.56	4.85	5.16	5.41
AEO 1996											1.63	1.74	1.86	1.99	2.10	2.19	2.29	2.38	2.48	2.59	2.72	2.84	2.97	3.12	3.29
AEO 1997												2.03	2.12	2.21	2.29	2.36	2.43	2.53	2.63	2.74	2.84	2.97	3.12	3.28	3.00
AEO 1998													2.30	2.20	2.26	2.31	2.38	2.44	2.52	2.60	2.69	2.79	2.93	3.06	3.20
AEO 1999														1.98	2.15	2.20	2.32	2.43	2.53	2.63	2.76	2.90	3.02	3.12	3.23
AEO 2000															2.15	2.23	2.27	2.32	2.40	2.51	2.66	2.81	2.97	3.10	3.20
AEO 2001																3.39	3.48	2.97	2.74	2.70	2.83	2.95	3.06	3.17	3.25
AEO 2002																	4.03	2.06	2.53	2.84	3.01	3.13	3.23	3.40	3.52
AEO 2003																		2.79	3.26	3.13	3.15	3.15	3.30	3.51	3.70
AEO 2004																			4.97	4.00	3.72	3.73	3.86	4.07	3.97
AEO 2005																				5.38	5.52	4.95	4.57	4.23	4.21
AEO 2006																					7.81	7.16	6.53	6.27	5.92
AEO 2007																						6.87	7.00	7.07	6.61
AEO 2008																							6.37	6.87	7.17
AEO 2009																								8.06	4.12
AEO 2010																									3.36
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	5.46	7.33	6.39	6.25	7.96	3.71
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	3.1	2.3	2.1	3.1	1.6

Table 8. Natural Gas Wellhead Prices, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
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					24.9					
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	18.1	-0.6	26.7	43.1	20.9	176.7	
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	5.8	-13.1	7.8	20.1	2.4	144.0	
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	-3.4	-22.5	-5.3	3.4	-12.8	95.0	
AEO 1994									-2.8	14.9	46.2	11.0	11.5	39.2	30.4	-19.0	-21.5	13.4	-26.4	-29.5	-42.9	-29.4	-21.4	-33.5	49.9	
AEO 1995										2.3	28.9	-10.0	-11.0	9.8	9.6	-30.2	-27.6	7.1	-27.1	-29.1	-41.8	-28.6	-22.4	-35.2	45.9	
AEO 1996											5.2	-19.8	-19.7	1.6	-3.9	-40.4	-42.8	-19.4	-49.3	-52.6	-62.9	-55.6	-52.5	-60.8	-11.2	
AEO 1997												-6.3	-21.4	-2.8	-9.2	-43.9	-46.6	-25.0	-52.5	-55.5	-65.3	-58.5	-55.7	-63.8	-19.1	
AEO 1998													-1.0	12.1	3.0	-37.2	-40.5	-17.1	-48.4	-52.5	-63.3	-56.3	-53.2	-61.5	-13.7	
AEO 1999														0.9	-1.9	-40.1	-42.1	-17.8	-48.1	-51.8	-62.4	-54.6	-51.7	-60.8	-12.9	
AEO 2000															-2.0	-39.3	-43.3	-21.4	-50.9	-54.0	-63.7	-56.0	-52.5	-61.0	-13.9	
AEO 2001																-7.8	-12.9	0.8	-43.9	-50.5	-61.4	-53.9	-51.0	-60.2	-12.3	
AEO 2002																	0.6	-30.1	-48.1	-47.9	-59.0	-51.0	-48.3	-57.3	-5.3	
AEO 2003																		-5.6	-33.2	-42.8	-57.1	-50.8	-47.1	-56.0	-0.1	
AEO 2004																			1.9	-26.8	-49.3	-41.7	-38.2	-48.8	7.0	
AEO 2005																				-1.4	-24.7	-22.6	-26.9	-46.8	13.5	
AEO 2006																						6.5	12.1	4.4	-21.2	59.7
AEO 2007																							7.5	12.1	-11.2	78.2
AEO 2008																								1.9	-13.7	93.4
AEO 2009																									1.2	11.0
AEO 2010																										-9.4

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 6.7.

Table 9. Total Natural Gas Consumption, Projected vs. Actual

(trillion cubic feet)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	15.93	15.72	15.72	16.08	16.59	17.08																			
AEO 1983	17.75	17.63	17.57	17.75	17.76	17.77					16.95														
AEO 1984	18.22	18.07	18.33	18.61	18.73	18.76					18.81														
AEO 1985	17.79	17.80	17.89	18.30	18.58	18.71	18.79	18.88	18.82	18.82	18.81														
AEO 1986		16.52	16.83	17.35	17.27	17.50	17.77	17.77	17.90	18.01	18.04	18.03	18.26	18.34	18.04	17.92									
AEO 1987			16.85	16.93	17.24	17.27	17.34	17.43	17.66	18.02	18.31					19.65									
AEO 1989*				17.75	17.95	17.94	18.08	18.10	18.34	18.68	18.94	19.17	19.55	19.86	19.98	20.29									
AEO 1990				18.34	18.66						20.69					22.88						22.72			
AEO 1991					18.53	19.21	19.34	19.56	19.76	20.01	20.21	20.66	20.93	21.23	21.64	22.03	22.33	22.35	22.32	22.27	22.18	22.11	22.00	21.82	
AEO 1992						18.79	19.36	19.84	20.08	20.53	20.68	21.12	21.42	21.66	21.89	22.23	22.59	22.82	22.95	23.10	23.05	23.00	22.92	22.82	
AEO 1993							20.27	20.17	20.54	20.97	21.54	21.83	22.20	22.57	22.83	23.14	23.44	23.75	24.01	24.09	24.17	24.18	24.11	24.23	
AEO 1994								19.87	20.21	20.64	20.99	21.20	21.42	21.60	21.99	22.37	22.63	22.95	23.22	23.58	23.82	24.09	24.13	24.02	
AEO 1995									20.82	20.66	20.85	21.21	21.65	21.95	22.12	22.25	22.43	22.62	22.87	23.08	23.36	23.61	24.08	24.23	
AEO 1996										21.32	21.64	22.11	22.21	22.26	22.34	22.46	22.74	23.14	23.63	24.08	24.25	24.63	25.11	25.56	
AEO 1997											22.15	22.15	23.24	23.64	23.86	24.13	24.65	25.34	25.82	26.22	26.52	27.00	27.35	27.70	
AEO 1998												21.84	23.03	23.84	24.08	24.44	24.81	25.33	25.72	26.22	26.65	27.22	27.84	28.35	
AEO 1999													21.35	23.18	23.65	24.17	24.57	25.19	25.77	26.41	26.92	27.42			
AEO 2000														21.46	22.36	22.19	22.42	22.92	23.27	23.91	24.53	25.25	25.84	26.22	
AEO 2001															22.00	22.67	23.55	24.37	24.96	25.24	25.70	26.01	26.59	27.24	
AEO 2002																22.22	23.89	24.73	25.20	25.50	26.00	26.43	26.96	27.46	
AEO 2003																	23.20	24.00	24.48	24.60	24.98	25.21	25.98	26.52	
AEO 2004																		22.09	23.17	23.53	24.04	24.50	25.12	25.43	
AEO 2005																			22.14	22.32	22.64	23.07	23.95	24.64	
AEO 2006																				22.21	22.17	22.38	22.87	23.05	
AEO 2007																					21.72	22.68	23.40	23.77	
AEO 2008																						22.90	23.12	23.31	
AEO 2009																							23.04	22.55	
AEO 2010																								22.59	
Actual	17.28	16.22	17.21	18.03	19.12	19.17	19.56	20.23	20.79	21.25	22.21	22.61	22.74	22.25	22.41	23.33	22.24	23.01	22.28	22.39	22.01	21.68	23.10	23.23	22.83
Average Absolute Difference (All AEOs)	0.8	1.1	0.7	0.7	1.3	1.1	1.2	1.5	1.8	1.8	2.6	2.0	1.7	1.1	1.2	1.6	0.6	0.7	1.4	1.5	2.0	2.5	1.7	1.8	2.3

Table 9. Total Natural Gas Consumption, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	-7.8	-3.1	-8.7	-10.8	-13.2	-10.9																			
AEO 1983	2.7	8.7	2.1	-1.6	-7.1	-7.3					-23.7														
AEO 1984	5.4	11.4	6.5	3.2	-2.0	-2.2					-15.6														
AEO 1985	2.9	9.7	3.9	1.5	-2.8	-2.4	-3.9	-6.7	-9.5	-11.4	-15.3														
AEO 1986		1.8	-2.2	-3.8	-9.7	-8.7	-9.2	-12.2	-13.9	-15.2	-18.8	-20.3	-19.7	-17.6	-19.5	-23.2									
AEO 1987			-2.1	-6.1	-9.8	-9.9	-11.4	-13.8	-15.1	-15.2	-17.5					-15.8									
AEO 1989*				-1.6	-6.1	-6.4	-7.6	-10.5	-11.8	-12.1	-14.7	-15.2	-14.0	-10.7	-10.8	-13.0									
AEO 1990					-4.1	-2.7					-6.8					-1.9						3.2			
AEO 1991						-3.4	-1.8	-4.4	-5.9	-7.0	-9.9	-10.6	-9.1	-5.9	-5.2	-7.3	-0.9	-2.9	0.3	-0.3	1.2	2.3	-4.3	-5.3	-4.4
AEO 1992							-3.9	-4.3	-4.6	-5.5	-7.6	-8.5	-7.1	-3.7	-3.3	-6.2	0.0	-1.8	2.4	2.5	4.9	6.3	-0.4	-1.3	-0.1
AEO 1993								0.2	-3.0	-3.3	-5.6	-4.7	-4.0	-0.2	0.7	-2.2	4.1	1.9	6.6	7.2	9.4	11.5	4.7	3.8	6.1
AEO 1994									-4.4	-4.9	-7.1	-7.2	-6.8	-3.7	-3.6	-5.8	0.6	-1.6	3.0	3.7	7.1	9.8	4.3	3.9	5.2
AEO 1995										-2.0	-7.0	-7.8	-6.7	-2.7	-2.0	-5.2	0.1	-2.5	1.5	2.1	4.9	7.7	2.2	3.7	6.1
AEO 1996											-4.0	-4.3	-2.8	-0.2	-0.6	-4.3	1.0	-1.2	3.9	5.5	9.4	11.8	6.6	8.1	11.9
AEO 1997												-2.0	0.1	4.5	5.5	2.3	8.5	7.1	13.8	15.3	19.1	22.3	16.9	17.8	21.3
AEO 1998													-3.9	3.5	6.4	3.2	9.9	7.8	13.7	14.9	19.1	22.9	17.8	19.9	24.2
AEO 1999														-4.0	-0.2	-3.4	4.2	2.8	8.5	9.8	14.5	18.8	14.3	15.9	20.1
AEO 2000															-4.2	-0.2	-2.6	2.9	3.9	8.6	13.1	9.3	11.2	14.8	
AEO 2001																-5.7	1.9	2.4	9.4	11.5	14.7	18.5	12.6	14.5	19.3
AEO 2002																	-0.1	3.8	11.0	12.6	15.8	19.9	14.4	16.1	20.3
AEO 2003																		0.8	7.7	9.3	11.8	15.2	9.1	11.8	16.1
AEO 2004																			-0.8	3.5	6.9	10.9	6.1	8.2	11.4
AEO 2005																				-1.1	1.4	4.4	-0.1	3.1	7.9
AEO 2006																					0.9	2.2	-3.1	-1.5	0.9
AEO 2007																						0.2	-1.8	0.8	4.1
AEO 2008																							-0.8	-0.5	2.1
AEO 2009																								-0.8	-1.2
AEO 2010																									-1.1

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 6.1.

Table 10. Natural Gas Production, Projected vs. Actual

(trillion cubic feet)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	14.74	14.26	14.33	14.89	15.39	15.88																				
AEO 1983	16.48	16.27	16.20	16.31	16.27	16.29					14.89															
AEO 1984	17.48	17.10	17.44	17.58	17.52	17.32					16.39															
AEO 1985	16.95	17.08	17.11	17.29	17.40	17.33	17.32	17.27	17.05	16.80	16.50															
AEO 1986		16.30	16.27	17.15	16.68	16.90	16.97	16.87	16.93	16.86	16.62	16.40	16.33	16.57	16.23	16.12										
AEO 1987			16.21	16.09	16.38	16.32	16.30	16.30	16.44	16.62	16.81					17.39										
AEO 1989*				16.71	16.71	16.94	17.01	16.83	17.09	17.35	17.54	17.67	17.98	18.20	18.25	18.49										
AEO 1990					16.91	17.25					18.84					20.58						20.24				
AEO 1991						17.40	17.48	18.11	18.22	18.15	18.22	18.39	18.82	19.03	19.28	19.62	19.89	20.13	20.07	19.95	19.82	19.64	19.50	19.30	19.08	
AEO 1992							17.43	17.69	17.95	18.00	18.29	18.27	18.51	18.75	18.97	19.19	19.48	19.78	19.91	19.90	19.99	19.82	19.73	19.60	19.50	
AEO 1993								18.47	18.05	18.16	18.45	18.90	19.07	19.30	19.60	19.86	20.07	20.35	20.56	20.74	20.65	20.55	20.40	20.25	20.13	
AEO 1994									17.71	17.68	17.84	18.12	18.25	18.43	18.58	18.93	19.28	19.51	19.80	19.92	20.13	20.18	20.38	20.35	20.16	
AEO 1995										18.28	17.98	17.92	18.21	18.63	18.92	19.08	19.20	19.36	19.52	19.75	19.94	20.17	20.28	20.60	20.59	
AEO 1996											18.90	19.15	19.52	19.59	19.65	19.73	19.97	20.36	20.82	21.25	21.37	21.68	22.11	22.47		
AEO 1997												19.10	19.70	20.17	20.32	20.54	20.77	21.26	21.90	22.31	22.66	22.93	23.38	23.68	23.99	
AEO 1998													18.85	19.06	20.35	20.27	20.60	20.94	21.44	21.81	22.25	22.65	23.18	23.75	24.23	
AEO 1999														18.80	19.28	19.82	20.23	20.77	21.05	21.57	21.98	22.47	22.85	23.26		
AEO 2000															18.36	18.89	18.47	18.50	18.88	19.15	19.70	20.27	20.90	21.42	21.74	
AEO 2001																18.61	18.89	19.67	20.28	20.65	20.81	21.11	21.34	21.81	22.36	
AEO 2002																	19.28	19.54	20.20	20.52	20.73	21.25	21.70	22.29	22.80	
AEO 2003																		19.37	19.99	20.15	20.14	20.43	20.51	21.09	21.46	
AEO 2004																			19.57	19.51	19.58	19.66	19.95	20.21	20.25	
AEO 2005																					18.91	19.27	19.24	19.49	19.90	20.44
AEO 2006																						18.14	18.16	18.00	18.38	18.47
AEO 2007																							18.57	19.12	19.41	19.41
AEO 2008																								19.00	19.18	19.28
AEO 2009																									20.48	20.61
AEO 2010																										20.60
Actual	16.45	16.06	16.62	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	19.02	18.83	19.18	19.62	18.93	19.10	18.59	18.05	18.50	19.27	20.29	20.96	
Average Absolute Difference (All AEOs)	0.8	0.9	0.8	0.7	0.7	1.0	0.6	0.7	0.7	1.3	1.2	0.8	0.7	0.6	0.8	0.8	0.5	1.0	1.2	1.8	2.4	2.0	1.5	1.2	1.4	

Table 10. Natural Gas Production, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	-10.4	-11.2	-13.8	-12.9	-11.1	-10.8																				
AEO 1983	0.2	1.3	-2.5	-4.6	-6.0	-8.5					-19.9															
AEO 1984	6.2	6.5	4.9	2.8	1.2	-2.7					-11.9															
AEO 1985	3.0	6.4	2.9	1.1	0.5	-2.7	-2.1	-3.2	-5.8	-10.7	-11.3															
AEO 1986		1.5	-2.1	0.3	-3.6	-5.1	-4.1	-5.4	-6.4	-10.4	-10.6	-13.0	-13.6	-12.9	-13.8	-16.0										
AEO 1987			-2.5	-5.9	-5.4	-8.4	-7.9	-8.6	-9.1	-11.7	-9.6					-9.3										
AEO 1989*				-2.3	-3.5	-4.9	-3.9	-5.7	-5.6	-7.8	-5.7	-6.3	-4.9	-4.3	-3.1	-3.6										
AEO 1990					-2.3	-3.1					1.3					7.3					12.1					
AEO 1991						-2.3	-1.2	1.5	0.7	-3.6	-2.0	-2.5	-0.4	0.0	2.4	2.3	1.4	6.4	5.1	7.3	9.8	6.1	1.2	-4.9	-8.9	
AEO 1992							-1.5	-0.8	-0.8	-4.4	-1.7	-3.1	-2.1	-1.4	0.7	0.0	-0.7	4.5	4.2	7.0	10.7	7.1	2.4	-3.4	-6.9	
AEO 1993								3.5	-0.3	-3.5	-0.8	0.2	0.9	1.5	4.1	3.5	2.3	7.5	7.7	11.6	14.4	11.1	5.9	-0.2	-3.9	
AEO 1994									-2.1	-6.1	-4.1	-3.9	-3.5	-3.1	-1.3	-1.3	-1.7	3.1	3.7	7.1	11.5	9.1	5.8	0.3	-3.8	
AEO 1995										-2.9	-3.3	-5.0	-3.7	-2.1	0.5	-0.5	-2.1	2.3	2.2	6.2	10.5	9.0	5.3	1.5	-1.7	
AEO 1996											1.6	1.6	3.3	3.0	4.0	2.4	0.6	5.5	6.6	12.0	17.7	15.5	12.5	9.0	7.2	
AEO 1997												1.3	4.2	6.0	7.9	7.1	5.9	12.3	14.7	20.0	25.5	23.9	21.4	16.7	14.5	
AEO 1998													-0.3	0.2	8.1	5.7	5.0	10.7	12.3	17.3	23.3	22.4	20.3	17.1	15.6	
AEO 1999														-1.2	1.6	0.5	1.0	6.9	8.7	13.2	19.5	18.8	16.6	12.7	11.0	
AEO 2000															-2.5	-1.5	-5.9	-2.2	-1.1	3.0	9.1	9.5	8.5	5.6	3.7	
AEO 2001																-3.0	-3.7	3.9	6.2	11.1	15.3	14.1	10.8	7.5	6.7	
AEO 2002																	-1.7	3.2	5.7	10.4	14.8	14.9	12.6	9.9	8.8	
AEO 2003																		2.3	4.7	8.4	11.6	10.4	6.5	4.0	2.4	
AEO 2004																			2.4	4.9	8.5	6.3	3.6	-0.4	-3.4	
AEO 2005																				1.7	6.8	4.0	1.2	-1.9	-2.4	
AEO 2006																					0.5	-1.9	-6.6	-9.4	-11.8	
AEO 2007																						0.4	-0.7	-4.3	-7.4	
AEO 2008																							-1.4	-5.5	-8.0	
AEO 2009																								0.9	-1.7	
AEO 2010																										-1.7

* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.
Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.
Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 6.1.

Table 11. Natural Gas Net Imports, Projected vs. Actual

(trillion cubic feet)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	1.19	1.19	1.19	1.19	1.19	1.19																				
AEO 1983	1.08	1.16	1.23	1.23	1.23	1.23					1.23															
AEO 1984	0.99	1.05	1.16	1.27	1.43	1.57					2.11															
AEO 1985	0.94	1.00	1.19	1.45	1.58	1.86	1.94	2.06	2.17	2.32	2.44															
AEO 1986		0.74	0.88	0.62	1.03	1.05	1.27	1.39	1.47	1.66	1.79	1.96	2.17	2.38	2.42	2.43										
AEO 1987			0.84	0.89	1.07	1.16	1.26	1.36	1.46	1.65	1.75					2.50										
AEO 1989*				1.15	1.32	1.44	1.52	1.61	1.70	1.79	1.87	1.98	2.06	2.15	2.23	2.31										
AEO 1990					1.26	1.43					2.07					2.68						2.95				
AEO 1991						1.36	1.53	1.70	1.82	2.11	2.30	2.33	2.36	2.42	2.49	2.56	2.70	2.75	2.83	2.90	2.95	3.02	3.09	3.17	3.19	
AEO 1992							1.48	1.62	1.88	2.08	2.25	2.41	2.56	2.68	2.70	2.72	2.76	2.84	2.92	3.05	3.10	3.20	3.25	3.30	3.30	
AEO 1993								1.79	2.08	2.35	2.49	2.61	2.74	2.89	2.95	3.00	3.05	3.10	3.17	3.29	3.42	3.58	3.75	3.85	4.06	
AEO 1994									2.02	2.40	2.66	2.74	2.81	2.85	2.89	2.93	2.95	2.97	3.00	3.16	3.31	3.50	3.57	3.63	3.74	
AEO 1995										2.46	2.54	2.80	2.87	2.87	2.89	2.90	2.90	2.92	2.95	2.97	3.00	3.03	3.19	3.35	3.51	
AEO 1996											2.56	2.75	2.85	2.88	2.93	2.98	3.02	3.06	3.07	3.09	3.12	3.17	3.23	3.29	3.37	
AEO 1997												2.82	2.96	3.16	3.43	3.46	3.50	3.53	3.58	3.64	3.69	3.74	3.78	3.83	3.87	
AEO 1998													2.95	3.19	3.53	3.84	3.87	3.89	3.94	3.98	4.02	4.06	4.11	4.16	4.22	
AEO 1999														2.92	3.16	3.29	3.41	3.44	3.47	3.59	3.68	3.85	4.00	4.12	4.21	
AEO 2000															3.42	3.65	3.85	4.00	4.10	4.14	4.19	4.24	4.32	4.38	4.45	
AEO 2001																3.51	3.76	3.88	4.07	4.33	4.48	4.65	4.74	4.86	4.97	
AEO 2002																	3.68	3.74	4.04	4.31	4.50	4.58	4.68	4.72	4.80	
AEO 2003																		3.17	3.32	3.67	3.86	3.98	4.17	4.41	4.62	
AEO 2004																			3.51	3.60	3.87	4.28	4.43	4.78	5.04	
AEO 2005																				3.51	3.60	3.87	4.28	4.43	4.78	5.04
AEO 2006																					3.39	3.65	4.00	4.09	4.16	
AEO 2007																						3.29	3.43	3.87	4.24	
AEO 2008																							3.80	3.85	3.95	
AEO 2009																								3.03	2.73	
AEO 2010																									2.76	
Actual	0.89	0.69	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.60	3.50	3.26	3.40	3.61	3.46	3.79	2.98	2.68	
Average Absolute Difference (All AEOs)	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.5	0.6	0.4	0.4	0.4	0.4	0.4	0.5	0.4	1.0	1.3	

Table 11. Natural Gas Net Imports, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	33.0	72.7	26.8	-2.5	-6.6	-17.7																			
AEO 1983	20.7	68.3	31.1	0.8	-3.5	-15.0					-54.2														
AEO 1984	10.7	52.4	23.6	4.1	12.2	8.5					-21.5														
AEO 1985	5.1	45.1	26.8	18.8	24.0	28.6	18.0	7.2	-1.8	-5.8	-9.2														
AEO 1986		7.4	-6.2	-49.2	-19.2	-27.4	-22.8	-27.7	-33.5	-32.6	-33.4	-29.6	-23.5	-20.5	-29.3	-31.3									
AEO 1987			-10.5	-27.1	-16.1	-19.8	-23.4	-29.2	-33.9	-33.0	-34.9					-29.3									
AEO 1989*				-5.8	3.6	-0.5	-7.5	-16.2	-23.1	-27.3	-30.4	-28.9	-27.4	-28.2	-34.8	-34.7									
AEO 1990					-1.1	-1.2					-23.0					-24.2						-18.3			
AEO 1991						-6.0	-6.9	-11.5	-17.6	-14.3	-14.4	-16.3	-16.8	-19.1	-27.2	-27.6	-25.1	-21.4	-13.3	-14.8	-18.3	-12.8	-18.4	6.4	19.2
AEO 1992							-10.0	-15.7	-14.9	-15.5	-16.3	-13.4	-9.8	-10.5	-21.1	-23.1	-23.4	-18.8	-10.5	-10.4	-14.2	-7.6	-14.1	10.8	23.3
AEO 1993								-6.8	-5.9	-4.6	-7.3	-6.3	-3.4	-3.4	-13.8	-15.2	-15.4	-11.4	-2.9	-3.4	-5.3	3.4	-0.9	29.3	51.7
AEO 1994									-8.6	-2.5	-1.0	-1.6	-1.0	-4.8	-15.5	-17.2	-18.1	-15.1	-8.1	-7.2	-8.4	1.1	-5.7	21.9	39.7
AEO 1995										-0.1	-5.5	0.6	1.2	-4.1	-15.5	-18.0	-19.5	-16.6	-9.6	-12.8	-17.0	-12.5	-15.7	12.5	31.1
AEO 1996											-4.7	1.3	4.3	5.6	0.2	-2.2	-2.9	0.9	9.7	6.9	2.1	8.0	-0.1	28.6	44.6
AEO 1997												1.3	4.3	5.6	0.2	-2.2	-2.9	0.9	9.7	6.9	2.1	8.0	-0.1	28.6	44.6
AEO 1998													4.0	6.6	3.2	8.6	7.4	11.3	20.6	16.8	11.3	17.3	8.5	39.8	57.7
AEO 1999														-2.4	-7.5	-6.9	-5.3	-1.7	6.4	5.4	1.9	11.1	5.7	38.2	57.2
AEO 2000																3.0	6.7	14.4	25.5	21.6	16.0	22.5	14.0	47.2	66.2
AEO 2001																-0.6	4.4	10.8	24.6	27.3	23.9	34.3	25.2	63.1	85.5
AEO 2002																	2.2	7.0	23.7	26.7	24.6	32.3	23.6	58.4	79.5
AEO 2003																		-9.3	1.6	7.9	6.8	15.1	10.3	48.1	72.5
AEO 2004																			7.5	5.8	7.1	23.5	17.0	60.5	88.3
AEO 2005																				-3.7	-6.7	5.2	-1.0	38.7	56.9
AEO 2006																					-6.0	5.3	5.6	37.3	55.5
AEO 2007																						-5.0	-9.4	30.1	58.3
AEO 2008																							0.5	29.1	47.5
AEO 2009																								1.8	2.1
AEO 2010																									3.1

* There is no report titled *Annual Energy Outlook 1988* due to a change in the naming convention of the AEOs.
 Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.
 Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 6.1.

Table 12. Coal Prices to Electric Generating Plants, Projected vs. Actual

(nominal dollars per million Btu)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	2.03	2.17	2.33	2.52	2.73	2.99																			
AEO 1983	1.99	2.10	2.24	2.39	2.57	2.76					4.29														
AEO 1984	1.90	2.01	2.13	2.28	2.44	2.61					3.79														
AEO 1985	1.68	1.76	1.86	1.95	2.05	2.19	2.32	2.49	2.66	2.83	3.03														
AEO 1986		1.61	1.68	1.75	1.83	1.93	2.05	2.19	2.35	2.54	2.73	2.92	3.10	3.31	3.49	3.68									
AEO 1987			1.52	1.55	1.65	1.75	1.84	1.96	2.11	2.27	2.44														
AEO 1989*				1.50	1.51	1.68	1.77	1.88	2.00	2.13	2.26	2.40	2.55	2.70	2.86	3.00									
AEO 1990				1.46	1.53						2.07											3.70			
AEO 1991					1.51	1.58	1.66	1.77	1.88	1.96	2.06	2.16	2.28	2.41	2.57	2.70	2.85	3.04	3.26	3.46	3.65	3.87	4.08	4.33	
AEO 1992						1.54	1.61	1.66	1.75	1.85	1.97	2.03	2.14	2.26	2.44	2.55	2.69	2.83	3.00	3.20	3.40	3.58	3.78	4.01	
AEO 1993							1.92	1.54	1.61	1.70	1.77	1.87	1.96	2.07	2.22	2.35	2.46	2.60	2.74	2.89	3.09	3.26	3.46	3.68	
AEO 1994								1.50	1.55	1.64	1.73	1.78	1.82	1.92	2.01	2.13	2.22	2.30	2.41	2.46	2.64	2.78	2.90	3.12	
AEO 1995									1.42	1.46	1.49	1.55	1.59	1.62	1.67	1.76	1.80	1.89	1.97	2.05	2.13	2.21	2.28	2.38	
AEO 1996										1.35	1.35	1.37	1.39	1.42	1.46	1.50	1.56	1.62	1.67	1.75	1.80	1.87	1.92	2.01	
AEO 1997											1.36	1.38	1.40	1.44	1.46	1.51	1.54	1.55	1.58	1.62	1.70	1.74	1.77	1.81	
AEO 1998													1.28	1.28	1.30	1.32	1.34	1.36	1.37	1.39	1.42	1.45	1.47	1.51	1.55
AEO 1999														1.24	1.25	1.27	1.29	1.31	1.32	1.33	1.35	1.36	1.37	1.39	
AEO 2000															1.28	1.27	1.24	1.24	1.24	1.24	1.25	1.26	1.28	1.30	1.32
AEO 2001																1.22	1.24	1.25	1.26	1.28	1.29	1.30	1.30	1.30	1.30
AEO 2002																	1.22	1.21	1.23	1.27	1.27	1.28	1.29	1.31	1.33
AEO 2003																		1.23	1.27	1.30	1.34	1.35	1.36	1.37	1.39
AEO 2004																			1.26	1.27	1.29	1.31	1.34	1.37	1.41
AEO 2005																					1.31	1.34	1.37	1.38	1.41
AEO 2006																						1.53	1.60	1.61	1.63
AEO 2007																							1.72	1.78	1.86
AEO 2008																								1.78	1.85
AEO 2009																									1.93
AEO 2010																									2.05
Actual	1.65	1.58	1.51	1.47	1.45	1.46	1.45	1.41	1.39	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.25	1.28	1.36	1.54	1.69	1.77	2.07	2.21
Average Absolute Difference (All AEOs)	0.3	0.4	0.5	0.5	0.6	0.7	0.4	0.5	0.6	0.6	1.0	0.6	0.6	0.7	0.7	0.9	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8

Table 12. Coal Prices to Electric Generating Plants, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	22.9	37.4	54.4	72.0	88.7	105.7																				
AEO 1983	20.7	33.3	48.8	62.9	77.6	89.6					225.2															
AEO 1984	15.3	27.6	41.6	55.5	68.8	79.5					187.2															
AEO 1985	1.9	11.4	23.3	32.9	42.2	50.4	60.6	76.2	92.2	108.9	129.8															
AEO 1986		2.0	11.4	19.6	26.8	32.8	41.3	55.0	69.4	87.2	107.1	126.5	143.8	164.5	186.7	207.0										
AEO 1987			0.9	6.1	14.5	20.0	27.4	38.7	52.3	67.3	85.5															
AEO 1989*				2.3	4.8	15.3	22.6	33.1	44.6	57.5	71.5	85.9	100.4	115.3	135.0	149.9										
AEO 1990					1.0	5.2					57.2											140.0				
AEO 1991						3.8	9.1	17.8	28.1	38.7	48.8	59.9	69.9	81.8	98.1	114.1	118.8	127.8	137.5	139.5	124.4	115.8	118.5	97.2	95.8	
AEO 1992							6.5	14.3	19.9	29.5	40.4	52.6	59.3	71.2	86.2	103.0	106.9	114.9	121.3	120.8	108.0	101.0	102.4	82.7	81.6	
AEO 1993								35.9	11.3	18.8	29.3	37.6	47.2	56.2	70.2	85.1	90.4	97.0	103.0	101.6	87.8	82.7	84.1	67.1	66.3	
AEO 1994									8.5	14.4	24.6	34.0	40.1	45.5	58.2	67.3	73.3	77.4	80.0	77.0	59.8	56.0	56.8	40.2	41.2	
AEO 1995										4.9	11.0	15.5	21.4	26.7	33.2	39.1	42.7	44.3	47.7	44.8	33.0	26.3	24.6	10.2	7.5	
AEO 1996											2.1	4.8	7.5	11.2	16.9	21.6	21.5	24.9	26.6	23.1	13.6	6.6	5.7	-7.0	-9.2	
AEO 1997												5.4	8.4	12.1	18.6	21.9	22.7	22.9	21.0	16.2	5.2	0.6	-1.8	-14.6	-18.0	
AEO 1998													0.2	2.6	7.2	9.6	8.5	8.5	7.4	2.6	-7.6	-14.5	-16.7	-27.3	-30.1	
AEO 1999														-0.7	2.6	4.6	3.4	3.2	2.1	-3.1	-13.3	-20.3	-22.9	-33.7	-37.1	
AEO 2000															5.0	6.2	0.7	-0.9	-3.5	-8.4	-18.2	-24.4	-26.6	-36.3	-40.4	
AEO 2001																2.0	0.4	0.4	-1.2	-6.2	-16.3	-23.3	-26.8	-37.3	-41.2	
AEO 2002																	-0.8	-3.5	-3.7	-6.9	-17.3	-24.4	-26.8	-36.7	-40.0	
AEO 2003																		-1.3	-0.6	-4.5	-13.2	-20.2	-23.1	-33.7	-37.3	
AEO 2004																			-1.7	-6.6	-16.0	-22.2	-24.5	-33.7	-36.4	
AEO 2005																				-3.6	-12.8	-19.0	-21.9	-32.1	-35.6	
AEO 2006																					-0.4	-5.4	-9.0	-21.4	-26.2	
AEO 2007																						1.9	0.7	-11.7	-16.0	
AEO 2008																							0.4	-10.8	-12.7	
AEO 2009																									-4.7	-7.4
AEO 2010																										-1.7

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, August 2010 Monthly Energy Review, DOE/EIA-0035(2010/08) (Washington, DC, August 31, 2010), Table 9.10.

Table 13. Total Coal Consumption, Projected vs. Actual

(million short tons)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	805	825	843	868	896	936																				
AEO 1983	807	831	848	870	899	928					1061															
AEO 1984	843	848	866	889	919	958					1110															
AEO 1985	818	833	842	853	867	891	918	943	970	989	1008															
AEO 1986		813	831	860	870	888	919	945	972	995	1021	1038	1051	1069	1083	1105										
AEO 1987			837	837	854	879	896	912	932	954	975															
AEO 1989*				872	882	894	903	927	947	965	987	990	1006	1026	1045	1062										
AEO 1990					884	893					984											1207				
AEO 1991						893	902	918	932	943	948	962	973	984	991	1003	1003	1011	1030	1056	1078	1106	1136	1164	1198	
AEO 1992							905	934	919	925	934	944	953	961	971	993	1003	1011	1020	1037	1055	1087	1116	1148	1178	
AEO 1993								929	931	940	947	958	965	970	972	987	997	1004	1010	1018	1032	1056	1077	1099	1115	
AEO 1994									920	928	933	938	943	948	953	958	962	967	978	990	987	992	1006	1035	1061	
AEO 1995										935	940	941	947	948	951	954	958	963	971	984	992	996	1002	1013	1025	
AEO 1996											937	942	954	962	983	990	1004	1017	1027	1033	1046	1067	1070	1071	1074	
AEO 1997												948	970	987	1003	1017	1020	1025	1034	1041	1054	1075	1086	1092	1092	
AEO 1998													1009	1051	1044	1058	1087	1084	1090	1097	1112	1130	1142	1148	1160	
AEO 1999															1040	1075	1092	1109	1113	1118	1120	1120	1133	1139	1150	
AEO 2000																1053	1086	1103	1124	1142	1164	1175	1184	1189	1194	
AEO 2001																1078	1112	1135	1153	1165	1183	1191	1220	1228	1228	
AEO 2002																	1088	1092	1126	1147	1176	1199	1227	1235	1243	
AEO 2003																			1040	1059	1082	1106	1138	1172	1185	1200
AEO 2004																				1100	1098	1126	1156	1183	1193	1216
AEO 2005																					1102	1137	1159	1189	1210	1224
AEO 2006																						1144	1150	1172	1196	1224
AEO 2007																							1135	1147	1152	1169
AEO 2008																								1127	1126	1135
AEO 2009																									1109	1077
AEO 2010																										1015
Actual	818	804	837	884	895	904	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1066	1095	1107	1126	1112	1128	1121	1000	
Average Absolute Difference (All AEOs)	12.3	25.8	9.5	21.0	18.4	21.9	9.0	22.1	17.9	20.4	41.9	51.0	56.7	50.9	46.1	55.5	56.0	54.6	57.1	53.9	55.5	50.5	51.2	56.1	149.1	

Table 13. Total Coal Consumption, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
AEO 1982	-1.6	2.6	0.7	-1.8	0.1	3.5																					
AEO 1983	-1.4	3.3	1.3	-1.5	0.4	2.6					10.3																
AEO 1984	3.1	5.4	3.5	0.6	2.7	5.9					15.4																
AEO 1985	0.0	3.6	0.6	-3.5	-3.1	-1.5	2.1	3.9	2.7	4.0	4.8																
AEO 1986		1.1	-0.7	-2.7	-2.8	-1.8	2.2	4.1	3.0	4.6	6.1	3.1	2.1	3.1	4.3	1.9											
AEO 1987			0.0	-5.3	-4.6	-2.8	-0.4	0.5	-1.3	0.3	1.3																
AEO 1989*				-1.3	-1.5	-1.2	0.4	2.1	0.3	1.4	2.6	-1.6	-2.3	-1.1	0.6	-2.0											
AEO 1990					-1.2	-1.3					2.3											7.2					
AEO 1991						-1.3	0.3	1.1	-1.3	-0.9	-1.5	-4.4	-5.5	-5.1	-4.6	-7.5	-5.4	-5.2	-5.9	-4.6	-4.3	-0.6	0.7	3.9	19.7		
AEO 1992							0.6	2.9	-2.7	-2.8	-2.9	-6.2	-7.4	-7.3	-6.5	-8.4	-5.4	-5.2	-6.8	-6.3	-6.3	-2.3	-1.1	2.4	17.8		
AEO 1993								2.4	-1.4	-1.2	-1.6	-4.8	-6.3	-6.5	-6.4	-9.0	-6.0	-5.8	-7.8	-8.1	-8.3	-5.1	-4.5	-1.9	11.5		
AEO 1994									-2.6	-2.4	-3.0	-6.8	-8.4	-8.6	-8.2	-11.6	-9.3	-9.3	-10.7	-10.6	-12.3	-10.8	-10.8	-7.6	6.1		
AEO 1995										-1.7	-2.3	-6.5	-8.0	-8.6	-8.4	-12.0	-9.6	-9.7	-11.3	-11.1	-11.9	-10.5	-11.2	-9.6	2.5		
AEO 1996											-2.6	-6.4	-7.3	-7.2	-5.4	-8.7	-5.3	-4.6	-6.2	-6.7	-7.1	-4.1	-5.1	-4.4	7.4		
AEO 1997												-5.8	-5.8	-4.8	-3.4	-6.2	-3.8	-3.9	-5.6	-6.0	-6.4	-3.4	-3.7	-2.5	9.2		
AEO 1998													-2.0			1.3	0.5	-2.4	2.5	1.7	-0.5	-0.9	-1.3	1.6	1.3	2.5	15.9
AEO 1999																0.3	3.5	0.8	4.6	4.4	2.2	1.1	-0.5	1.9	1.0	2.6	15.5
AEO 2000																	1.4	0.2	4.1	5.4	4.3	5.2	4.4	6.5	5.4	6.5	19.8
AEO 2001																		4.9	6.4	5.3	5.2	5.0	7.1	8.2	9.6	22.8	
AEO 2002																		2.6	2.4	2.8	3.6	4.4	7.8	8.7	10.2	24.3	
AEO 2003																			-2.5	-3.2	-2.2	-1.8	2.3	3.9	5.8	19.9	
AEO 2004																				0.4	-0.9						
AEO 2005																					-0.5						
AEO 2006																						1.6	3.4	3.9	6.7	22.4	
AEO 2007																							2.0	1.7	2.8	16.9	
AEO 2008																								-0.1	0.5	13.5	
AEO 2009																									-1.0	7.6	
AEO 2010																										1.5	

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010) , Table 7.1.

Table 14. Coal Production, Projected vs. Actual

(million short tons)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	914	939	963	995	1031	1080																				
AEO 1983	900	926	947	974	1010	1045					1191															
AEO 1984	899	921	948	974	1010	1057					1221															
AEO 1985	886	909	930	940	958	985	1015	1041	1072	1094	1116															
AEO 1986		890	920	954	962	983	1017	1044	1073	1097	1126	1142	1156	1176	1191	1217										
AEO 1987			917	914	932	962	978	996	1020	1043	1068															
AEO 1989*				941	946	977	990	1018	1039	1058	1082	1084	1107	1130	1152	1171										
AEO 1990					973	987					1085											1379				
AEO 1991						1035	1002	1016	1031	1043	1054	1065	1079	1096	1111	1133	1142	1160	1193	1234	1272	1309	1349	1386	1433	
AEO 1992							1004	1040	1019	1034	1052	1064	1074	1087	1102	1133	1144	1156	1173	1201	1229	1272	1312	1355	1397	
AEO 1993								1039	1043	1054	1065	1076	1086	1094	1102	1125	1136	1148	1161	1178	1204	1237	1269	1302	1327	
AEO 1994									999	1021	1041	1051	1056	1066	1073	1081	1087	1098	1107	1122	1121	1128	1143	1173	1201	
AEO 1995										1006	1010	1011	1016	1017	1021	1027	1033	1040	1051	1066	1076	1083	1090	1108	1122	
AEO 1996											1037	1044	1041	1045	1061	1070	1086	1100	1112	1121	1135	1156	1161	1167	1173	
AEO 1997												1028	1052	1072	1088	1105	1110	1115	1123	1133	1146	1171	1182	1190	1193	
AEO 1998													1088	1122	1128	1145	1176	1176	1183	1191	1207	1229	1239	1249	1261	
AEO 1999														1125	1154	1168	1187	1193	1198	1199	1200	1213	1220	1232	1236	
AEO 2000															1120	1136	1153	1174	1190	1212	1221	1231	1236	1242	1246	
AEO 2001																1111	1136	1181	1198	1209	1226	1234	1262	1269	1268	
AEO 2002																	1168	1141	1162	1183	1211	1234	1262	1271	1279	
AEO 2003																		1085	1099	1102	1124	1156	1188	1200	1214	
AEO 2004																			1100	1121	1141	1168	1192	1199	1220	
AEO 2005																				1125	1179	1179	1207	1225	1237	
AEO 2006																					1145	1166	1204	1223	1252	
AEO 2007																						1149	1143	1145	1159	
AEO 2008																							1155	1152	1153	
AEO 2009																								1159	1109	
AEO 2010																									1082	
Actual	884	890	919	950	982	1032	1000	1004	954	1042	1042	1073	1098	1126	1109	1083	1138	1103	1082	1123	1145	1177	1161	1186	1085	
Average Absolute Difference (All AEOs)	16.1	26.8	19.3	21.7	30.5	39.5	11.7	26.1	83.4	22.5	52.4	28.5	35.9	42.3	34.0	56.6	31.8	46.5	69.1	47.8	59.3	46.2	63.5	59.9	143.2	

Table 14. Coal Production, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	3.4	5.5	4.8	4.7	5.0	4.6																				
AEO 1983	1.9	4.0	3.1	2.5	2.8	1.2					14.4															
AEO 1984	1.7	3.4	3.2	2.5	2.8	2.4					17.2															
AEO 1985	0.3	2.1	1.2	-1.1	-2.5	-4.6	1.5	3.7	12.4	5.0	7.1															
AEO 1986		0.0	0.1	0.4	-2.1	-4.8	1.7	4.0	12.5	5.3	8.1	6.5	5.3	4.4	7.4	12.4										
AEO 1987			-0.2	-3.8	-5.1	-6.8	-2.2	-0.8	7.0	0.1	2.5					6.1										
AEO 1989*				-1.0	-3.7	-5.4	-1.0	1.4	9.0	1.6	3.9	1.1	0.8	0.3	3.9	8.2										
AEO 1990					-0.9	-4.4					4.2					8.8						20.5				
AEO 1991						0.3	0.2	1.2	8.1	0.1	1.2	-0.7	-1.7	-2.7	0.2	4.6	0.4	5.1	10.3	9.8	11.1	11.2	16.2	16.9	32.1	
AEO 1992							0.4	3.6	6.9	-0.7	1.0	-0.8	-2.2	-3.5	-0.6	4.6	0.5	4.8	8.4	6.9	7.4	8.1	13.0	14.3	28.7	
AEO 1993								3.5	9.4	1.2	2.3	0.3	-1.1	-2.9	-0.6	3.9	-0.2	4.0	7.3	4.9	5.2	5.1	9.3	9.8	22.3	
AEO 1994									4.8	-2.0	-0.1	-2.0	-3.8	-5.3	-3.3	-0.2	-4.5	-0.5	2.3	-0.1	-2.1	-4.2	-1.5	-1.1	10.7	
AEO 1995										-3.4	-3.0	-5.7	-7.5	-9.7	-7.9	-5.1	-9.2	-5.7	-2.8	-5.1	-6.0	-8.0	-6.1	-6.6	3.4	
AEO 1996											-0.4	-2.7	-5.2	-7.2	-4.3	-1.2	-4.6	-0.3	2.8	-0.2	-0.9	-1.8	0.0	-1.6	8.1	
AEO 1997												-4.2	-4.2	-4.8	-1.9	2.1	-2.4	1.1	3.8	0.9	0.1	-0.5	1.8	0.3	9.9	
AEO 1998													-0.9	-0.4	1.7	5.7	3.3	6.6	9.3	6.0	5.4	4.4	6.7	5.3	16.2	
AEO 1999														-0.1	4.0	7.9	4.3	8.1	10.8	6.7	4.8	3.1	5.1	3.9	13.9	
AEO 2000															1.0	5.0	1.4	6.4	10.0	7.9	6.7	4.5	6.5	4.7	14.8	
AEO 2001																2.6	-0.2	7.0	10.8	7.6	7.1	4.8	8.7	7.0	16.9	
AEO 2002																	2.6	3.4	7.4	5.3	5.8	4.9	8.7	7.2	17.8	
AEO 2003																		-1.7	1.6	-1.9	-1.8	-1.8	2.3	1.2	11.9	
AEO 2004																			1.7	-0.2	-0.3	-0.8	2.7	1.1	12.4	
AEO 2005																				0.2	2.9	0.1	4.0	3.3	14.0	
AEO 2006																					0.0	-1.0	3.7	3.1	15.4	
AEO 2007																						-2.4	-1.5	-3.5	6.8	
AEO 2008																							-0.5	-2.8	6.3	
AEO 2009																								-2.3	2.2	
AEO 2010																									-0.3	

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 7.1.

Table 15. Average Electricity Prices, Projected vs. Actual

(nominal cents per kilowatt-hour)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	6.38	6.96	7.63	8.23	8.83	9.49																			
AEO 1983	6.85	7.28	7.74	8.22	8.68	9.18					13.12														
AEO 1984	6.67	7.05	7.48	7.89	8.25	8.65					11.53														
AEO 1985	6.62	6.94	7.32	7.63	7.89	8.15	8.46	8.85	9.20	9.61	10.04														
AEO 1986		6.67	6.88	7.05	7.18	7.35	7.52	7.65	7.87	8.31	8.83	9.41	10.01	10.61	11.33	12.02									
AEO 1987			6.63	6.65	6.92	7.12	7.38	7.62	7.94	8.36	8.86														
AEO 1989*				6.50	6.75	7.14	7.48	7.82	8.11	8.50	8.91	9.39	9.91	10.49	11.05	11.61									
AEO 1990					6.49	6.72					8.40											14.47			
AEO 1991						6.94	7.31	7.59	7.82	8.18	8.38	8.54	8.73	8.99	9.38	9.83	10.29	10.83	11.36	11.94	12.58	13.21	13.88	14.58	15.21
AEO 1992							6.97	7.16	7.32	7.56	7.78	8.04	8.29	8.57	8.93	9.38	9.82	10.26	10.73	11.25	11.83	12.37	12.96	13.58	14.23
AEO 1993								7.18	7.36	7.54	7.77	7.99	8.27	8.54	8.89	9.33	9.72	10.14	10.61	11.11	11.55	12.05	12.56	13.13	13.67
AEO 1994									6.95	7.12	7.41	7.59	7.79	8.01	8.36	8.62	9.02	9.32	9.76	10.08	10.42	10.94	11.32	11.87	12.45
AEO 1995										6.95	7.16	7.23	7.40	7.59	7.81	8.04	8.42	8.70	9.12	9.43	9.75	10.24	10.57	11.10	11.47
AEO 1996											7.23	7.30	7.42	7.60	7.84	8.07	8.33	8.60	8.90	9.19	9.54	9.84	10.18	10.52	10.92
AEO 1997												7.11	7.22	7.41	7.61	7.76	7.95	8.11	8.30	8.46	8.65	8.92	9.16	9.40	9.71
AEO 1998													6.94	6.89	7.03	7.08	7.16	7.27	7.42	7.53	7.66	7.79	7.97	8.16	8.36
AEO 1999														6.77	6.87	6.91	6.97	7.02	7.21	7.36	7.46	7.59	7.70	7.83	7.99
AEO 2000															6.68	6.76	6.75	6.73	6.79	6.87	6.91	7.06	7.19	7.30	7.35
AEO 2001																6.95	7.05	6.94	7.00	7.09	7.03	7.09	7.07	7.11	7.19
AEO 2002																	7.21	6.99	6.99	7.15	7.26	7.36	7.52	7.71	7.89
AEO 2003																		6.99	6.90	7.01	7.10	7.10	7.18	7.30	7.51
AEO 2004																			7.24	7.16	7.18	7.21	7.25	7.42	7.65
AEO 2005																					7.57	7.70	7.54	7.35	7.46
AEO 2006																						8.55	8.59	8.32	8.21
AEO 2007																							8.57	8.74	8.89
AEO 2008																								9.13	9.46
AEO 2009																									9.69
AEO 2010																									9.67
Actual	6.44	6.44	6.37	6.35	6.45	6.57	6.75	6.82	6.93	6.91	6.89	6.86	6.85	6.74	6.64	6.81	7.29	7.20	7.44	7.61	8.14	8.90	9.13	9.74	9.89
Average Absolute Difference (All AEOs)	0.2	0.5	0.9	1.1	1.2	1.3	0.8	0.9	0.9	1.1	2.0	1.2	1.3	1.6	1.8	2.2	1.2	1.3	1.4	1.4	1.8	1.7	1.8	2.0	2.0

Table 15. Average Electricity Prices, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	-0.9	8.0	19.7	29.6	37.0	44.4																				
AEO 1983	6.4	13.0	21.5	29.4	34.6	39.7					90.4															
AEO 1984	3.5	9.5	17.4	24.3	27.8	31.6					67.4															
AEO 1985	2.8	7.7	14.8	20.1	22.3	24.1	25.3	29.7	32.8	39.0	45.8															
AEO 1986		3.5	8.0	11.1	11.3	11.9	11.4	12.2	13.6	20.2	28.2	37.2	46.2	57.5	70.6	76.5										
AEO 1987			4.1	4.8	7.3	8.4	9.3	11.7	14.5	21.0	28.6															
AEO 1989*				2.3	4.6	8.7	10.9	14.7	17.0	23.0	29.3	36.9	44.7	55.6	66.5	70.5										
AEO 1990					0.6	2.2					22.0											77.7				
AEO 1991						5.6	8.2	11.3	12.9	18.4	21.6	24.5	27.4	33.3	41.2	44.4	41.1	50.4	52.7	56.9	54.5	48.4	52.0	49.7	53.8	
AEO 1992							3.3	4.9	5.7	9.4	13.0	17.2	21.0	27.2	34.5	37.7	34.6	42.5	44.2	47.9	45.4	39.0	42.0	39.4	43.9	
AEO 1993								5.3	6.2	9.2	12.8	16.5	20.7	26.7	33.9	37.1	33.3	40.9	42.6	46.0	41.9	35.4	37.6	34.9	38.2	
AEO 1994									0.3	3.1	7.5	10.7	13.7	18.8	25.9	26.6	23.8	29.4	31.1	32.4	28.1	22.9	24.0	21.8	25.9	
AEO 1995										0.6	3.9	5.4	8.0	12.6	17.6	18.1	15.5	20.8	22.6	24.0	19.8	15.0	15.8	13.9	16.0	
AEO 1996											5.0	6.4	8.4	12.8	18.1	18.4	14.2	19.5	19.6	20.8	17.2	10.6	11.5	8.1	10.4	
AEO 1997												3.6	5.4	9.9	14.7	13.9	9.1	12.6	11.5	11.2	6.3	0.2	0.3	-3.5	-1.8	
AEO 1998													1.3	2.3	5.9	4.0	-1.8	0.9	-0.2	-1.1	-5.9	-12.5	-12.7	-16.3	-15.5	
AEO 1999														0.5	3.4	1.4	-4.4	-2.6	-3.2	-3.2	-8.4	-14.7	-15.6	-19.6	-19.2	
AEO 2000															0.7	-0.8	-7.3	-6.5	-8.7	-9.7	-15.2	-20.7	-21.3	-25.1	-25.6	
AEO 2001																2.1	-3.3	-3.5	-5.9	-6.8	-13.6	-20.3	-22.6	-27.0	-27.3	
AEO 2002																	-1.0	-2.9	-6.1	-6.0	-10.9	-17.3	-17.6	-20.8	-20.2	
AEO 2003																		-2.9	-7.2	-7.9	-12.8	-20.3	-21.3	-25.1	-24.1	
AEO 2004																			-2.7	-5.9	-11.8	-19.0	-20.6	-23.9	-22.7	
AEO 2005																					-0.5	-5.5	-15.3	-19.5	-24.8	-24.5
AEO 2006																						5.1	-3.5	-8.9	-15.8	-16.8
AEO 2007																							-3.7	-4.3	-8.7	-9.5
AEO 2008																								0.0	-2.8	0.4
AEO 2009																									-0.5	-5.0
AEO 2010																										-2.2

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, Annual Energy Review 2009, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 8.6.

Table 16. Total Electricity Sales, Projected vs. Actual

(billion kilowatt-hours)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	2364	2454	2534	2626	2708	2811																			
AEO 1983	2318	2395	2476	2565	2650	2739					3153														
AEO 1984	2321	2376	2461	2551	2637	2738					3182														
AEO 1985	2317	2360	2427	2491	2570	2651	2730	2808	2879	2949	3026														
AEO 1986		2363	2416	2479	2533	2608	2706	2798	2883	2966	3048	3116	3185	3255	3324	3397									
AEO 1987			2460	2494	2555	2622	2683	2748	2823	2902	2977														
AEO 1989*				2556	2619	2689	2760	2835	2917	2994	3072	3156	3236	3313	3394	3473									
AEO 1990					2612	2689					3083											3870			
AEO 1991						2700	2762	2806	2855	2904	2959	3022	3088	3151	3214	3282	3355	3427	3496	3563	3632	3704	3776	3846	3916
AEO 1992							2746	2845	2858	2913	2975	3030	3087	3146	3209	3276	3345	3415	3483	3552	3625	3699	3774	3847	3921
AEO 1993								2803	2893	2946	2998	3052	3104	3157	3214	3271	3327	3383	3438	3491	3542	3592	3639	3686	
AEO 1994									2843	2891	2928	2962	3004	3039	3071	3112	3148	3185	3228	3263	3298	3332	3371	3406	3433
AEO 1995										2951	2983	3026	3058	3085	3108	3134	3166	3204	3248	3285	3321	3357	3396	3433	
AEO 1996											2973	2998	3039	3074	3106	3137	3173	3215	3262	3317	3363	3409	3454	3505	3553
AEO 1997												3075	3115	3168	3229	3290	3328	3379	3437	3497	3545	3596	3649	3697	3736
AEO 1998													3106	3204	3255	3318	3388	3438	3488	3546	3601	3658	3716	3775	3825
AEO 1999														3205	3262	3333	3402	3454	3492	3534	3585	3639	3691	3745	3793
AEO 2000															3288	3360	3402	3461	3523	3585	3647	3699	3753	3812	3861
AEO 2001																3364	3440	3530	3608	3681	3761	3838	3918	3998	4068
AEO 2002																	3443	3502	3619	3711	3793	3869	3948	4022	4090
AEO 2003																		3414	3527	3617	3684	3762	3848	3940	4014
AEO 2004																			3495	3582	3669	3750	3830	3909	3977
AEO 2005																				3547	3649	3722	3813	3912	3997
AEO 2006																					3675	3700	3767	3847	3911
AEO 2007																						3694	3757	3836	3891
AEO 2008																							3744	3773	3807
AEO 2009																								3725	3658
AEO 2010																									3589
Actual	2324	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3394	3465	3494	3547	3661	3670	3765	3733	3575
Average Absolute Difference (All AEOs)	14.0	26.6	28.9	54.3	52.4	51.9	30.8	47.2	22.9	32.4	65.6	78.8	77.8	117.0	111.6	136.1	93.6	103.0	91.4	96.6	119.7	113.5	117.7	145.5	263.2

Table 16. Total Electricity Sales, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
AEO 1982		1.7	3.6	3.1	1.9	2.3	3.6																				
AEO 1983		-0.3	1.1	0.8	-0.5	0.1	1.0				4.6																
AEO 1984		-0.1	0.3	0.2	-1.0	-0.4	0.9				5.6																
AEO 1985		-0.3									0.4																
AEO 1986			-0.4	-1.2	-3.4	-2.9	-2.3	-1.2	1.6	0.6	0.5	0.4															
AEO 1987			-0.2	-1.7	-3.8	-4.3	-3.9	-2.0	1.3	0.8	1.1	1.2	0.5	1.3	-0.3	0.4	-0.7										
AEO 1989*				0.1	-3.3	-3.5	-3.3	-2.9	-0.6	-1.3	-1.1	-1.2															
AEO 1990					-0.9	-1.1	-0.9	-0.1	2.6	1.9	2.0	1.9	1.8	2.9	1.5	2.5	1.5										
AEO 1991						-1.3	-0.9				2.3										5.7						
AEO 1992							-0.5															-0.8	0.9	0.3	3.0	9.5	
AEO 1993								0.0	1.5	-0.2	-1.0	-1.8	-2.6	-1.8	-3.5	-3.0	-4.1	-1.2	-1.1	0.1	0.4	-0.8	0.8	0.3	3.1	9.7	
AEO 1994									3.0	-0.1	-0.7	-1.3	-2.3	-1.9	-3.6	-3.1	-4.3	-1.5	-1.5	-0.3	0.1	-1.0	-3.5	-4.6	-2.5	3.1	
AEO 1995									1.4	-0.8	-1.4	-2.2	-3.3	-3.0	-4.9	-4.7	-6.1	-3.6	-4.0	-3.2	-3.1	-4.6	-9.2	-10.5	-8.8	-4.0	
AEO 1996										-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	-4.0	
AEO 1997											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	-9.0	-4.0	
AEO 1998												-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	-0.6	
AEO 1999													-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	4.5	
AEO 2000														-1.3	-1.8	-1.7	-3.0	-0.2	-0.8	-0.2	0.0	-1.6	-0.3	-1.3	1.1	7.0	
AEO 2001															-1.8	-1.5	-2.6	0.2	-0.3	-0.1	-0.4	-2.1	-0.8	-2.0	0.3	6.1	
AEO 2002																-1.8	0.2	-0.1	0.8	1.1	-0.4	0.8	-0.3	2.1	8.0		
AEO 2003																	1.3	1.9	3.3	3.8	2.7	4.6	4.1	7.1	13.8		
AEO 2004																		1.4	1.1	3.6	4.6	3.6	5.4	4.9	7.7	14.4	
AEO 2005																			-1.5	1.0	2.0	0.6	2.5	2.2	5.6	12.3	
AEO 2006																					0.0	1.0	0.2	2.2	1.7	4.7	11.2
AEO 2007																					0.0	-0.3	1.4	1.3	4.8	11.8	
AEO 2008																						0.4	0.8	0.1	3.1	9.4	
AEO 2009																							0.6	-0.2	2.8	8.8	
AEO 2010																								-0.6	1.1	6.5	
																									-0.2	2.3	
																										0.4	

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 8.1, Retail Sales.

Table 17. Total Energy Consumption, Projected vs. Actual

(quadrillion Btu)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	79.1	79.6	79.9	80.8	82.1	83.3																			
AEO 1983	78.0	79.5	81.0	82.4	83.9	84.6					89.0														
AEO 1984	78.5	79.4	81.2	83.1	85.1	86.4					93.0														
AEO 1985	77.6	78.5	79.8	81.2	82.7	83.3	84.2	85.0	85.7	86.3	87.2														
AEO 1986		77.0	78.8	79.8	80.7	81.5	82.9	83.8	84.6	85.3	86.0	86.6	87.4	88.3	89.4	90.2									
AEO 1987			78.9	80.0	82.0	82.8	83.9	85.1	86.2	87.1	87.9														
AEO 1989*				82.2	83.8	84.5	85.4	86.2	87.1	87.8	88.7	89.5	90.4	91.4	92.4	93.5									
AEO 1990					84.2	85.4					91.9											102.8			
AEO 1991						84.4	85.0	86.0	87.0	87.9	89.1	90.4	91.8	93.1	94.3	95.6	97.1	98.4	99.4	100.3	101.4	102.5	103.6	104.7	105.8
AEO 1992							84.7	87.0	88.0	89.2	90.5	91.4	92.4	93.4	94.5	95.6	96.9	98.0	99.0	100.0	101.2	102.2	103.2	104.3	105.2
AEO 1993								87.0	88.3	89.8	91.4	92.7	94.0	95.3	96.3	97.5	98.6	99.7	100.7	101.7	102.6	103.5	104.3	105.2	106.0
AEO 1994									88.0	89.5	90.7	91.7	92.7	93.6	94.6	95.7	96.7	97.7	98.9	100.0	100.8	101.7	102.7	103.6	104.3
AEO 1995										89.2	90.0	90.6	91.9	93.0	93.8	94.6	95.3	96.2	97.2	98.4	99.4	100.3	101.2	102.1	102.9
AEO 1996											90.6	91.3	92.5	93.5	94.3	95.1	95.9	96.9	98.0	99.2	100.4	101.4	102.1	103.1	103.8
AEO 1997												92.6	93.6	95.1	96.6	97.9	98.8	99.9	101.2	102.4	103.4	104.7	105.8	106.6	107.2
AEO 1998													94.7	96.7	98.6	99.8	101.3	102.4	103.4	104.5	105.8	107.3	108.6	109.9	111.1
AEO 1999														94.6	97.0	99.2	100.9	102.0	102.8	103.6	104.7	106.0	107.2	108.5	109.7
AEO 2000															96.4	98.1	99.4	100.9	102.4	103.8	105.3	106.6	107.9	109.2	110.2
AEO 2001																97.6	99.9	102.2	104.1	105.6	107.0	108.5	110.0	111.4	112.7
AEO 2002																	98.3	101.0	104.1	105.8	107.6	109.3	110.8	112.2	113.8
AEO 2003																		97.5	99.9	101.7	103.2	105.1	107.2	109.3	111.1
AEO 2004																			98.1	100.2	102.8	104.9	106.8	108.6	109.9
AEO 2005																				99.8	101.8	103.6	105.6	107.8	109.7
AEO 2006																					100.5	101.3	103.3	104.9	106.4
AEO 2007																						100.7	102.4	103.7	105.1
AEO 2008																							101.4	102.3	102.2
AEO 2009																								100.5	98.1
AEO 2010																									95.6
Actual	76.5	76.8	79.2	82.8	84.9	84.7	84.6	86.0	87.6	89.3	91.2	94.2	94.8	95.2	96.8	99.0	96.3	97.9	98.1	100.3	100.4	99.8	101.5	99.4	94.6
Average Absolute Difference (All AEOs)	1.8	2.1	1.0	1.5	1.9	1.2	0.7	0.9	1.1	1.4	1.9	3.4	2.6	2.0	2.3	3.1	2.2	2.1	2.7	2.1	2.7	4.3	3.7	6.8	12.0

Table 17. Total Energy Consumption, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	3.4	3.8	0.9	-2.4	-3.4	-1.6																			
AEO 1983	1.9	3.6	2.3	-0.5	-1.3	-0.1					-2.4														
AEO 1984	2.6	3.5	2.6	0.4	0.2	2.1					2.0														
AEO 1985	1.4	2.3	0.8	-1.9	-2.7	-1.6	-0.5	-1.1	-2.2	-3.3	-4.4														
AEO 1986		0.4	-0.5	-3.6	-5.0	-3.7	-2.0	-2.5	-3.4	-4.4	-5.7	-8.0	-7.8	-7.2	-7.7	-8.9									
AEO 1987				-0.3	-3.4	-3.5	-2.2	-0.8	-1.0	-1.6	-2.4	-3.6													
AEO 1989*					-0.7	-1.4	-0.2	0.9	-0.3	-0.6	-1.6	-2.7	-5.0	-4.6	-4.6	-5.5									
AEO 1990						-0.9	0.9				0.8										2.3				
AEO 1991							-0.3	0.4	0.1	-0.7	-1.5	-2.3	-4.0	-3.1	-2.2	-2.6	-3.4	0.8	0.5	1.3	0.0	1.0	2.7	2.0	5.3
AEO 1992								0.1	1.3	0.4	-0.1	-0.7	-2.9	-2.5	-1.8	-2.4	-3.4	0.6	0.2	0.9	-0.3	0.8	2.4	1.6	4.9
AEO 1993									1.3	0.8	0.6	0.2	-1.6	-0.8	0.1	-0.5	-1.5	2.4	1.9	2.6	1.4	2.2	3.7	2.7	5.8
AEO 1994										0.5	0.3	-0.5	-2.6	-2.2	-1.6	-2.3	-3.3	0.4	-0.2	0.8	-0.3	0.3	1.9	1.2	4.2
AEO 1995											-0.1	-1.3	-3.8	-3.0	-2.3	-3.1	-4.4	-1.1	-1.7	-1.0	-1.9	-1.1	0.5	-0.3	2.7
AEO 1996												-0.6	-3.1	-2.3	-1.8	-2.6	-3.9	-0.4	-1.0	-0.2	-1.1	-0.1	1.6	0.6	3.7
AEO 1997													-1.6	-1.2	-0.1	-0.2	-1.1	2.6	2.1	3.1	2.1	2.9	4.9	4.2	7.2
AEO 1998															1.6	1.9	0.9	5.1	4.6	5.4	4.1	5.3	7.5	7.0	10.5
AEO 1999																		4.7	4.2	4.8	3.3	4.2	6.2	5.6	9.1
AEO 2000																									
AEO 2001																									
AEO 2002																									
AEO 2003																									
AEO 2004																									
AEO 2005																									
AEO 2006																									
AEO 2007																									
AEO 2008																									
AEO 2009																									
AEO 2010																									

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions. Data for AEOs 1982 through 1989 adjusted for enhanced coverage of renewables in AER 1998. Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 1.3.

Table 18. Total Residential Energy Consumption, Projected vs. Actual

(quadrillion Btu)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	10.1	10.1	10.1	10.1	10.2	10.2																			
AEO 1983	9.8	9.9	10.0	10.1	10.2	10.1					10.0														
AEO 1984	9.9	9.9	10.0	10.2	10.3	10.3					10.5														
AEO 1985	9.8	10.0	10.1	10.3	10.6	10.6					10.9														
AEO 1986		9.6	9.8	10.0	10.3	10.4					10.8														
AEO 1987			9.9	10.2	10.3	10.3					10.5														
AEO 1989*				10.3	10.5	10.4					10.5														
AEO 1990					10.4	10.7					10.8														
AEO 1991						10.2					10.7														
AEO 1992											10.6														
AEO 1993																									
AEO 1994																									
AEO 1995																									
AEO 1996																									
AEO 1997																									
AEO 1998																									
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AEO 2004																									
AEO 2005																									
AEO 2006																									
AEO 2007																									
AEO 2008																									
AEO 2009																									
AEO 2010																									
Actual	9.8	9.7	9.8	10.4	10.6	9.7	10.0	10.1	10.5	10.4	10.5	11.1	10.7	10.2	10.7	11.2	10.9	11.2	11.5	11.4	11.5	10.8	11.4	11.5	11.3
Average Absolute Difference (All AEOs)	0.1	0.3	0.2	0.2	0.3	0.7	0.5	0.6	0.2	0.3	0.3	0.3	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.4	0.5	0.7

Table 18. Total Residential Energy Consumption, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	2.7	4.4	2.8	-2.5	-3.9	4.9																			
AEO 1983	-0.1	2.2	1.4	-3.2	-4.3	4.4					-4.7														
AEO 1984	0.3	2.5	2.0	-2.3	-3.0	6.5					-0.2														
AEO 1985	-0.8	3.3	3.3	-0.5	-0.8	9.4					4.4														
AEO 1986		-0.8	-0.2	-3.3	-3.1	7.1					2.8														
AEO 1987			1.3	-2.1	-3.0	6.5	4.1	3.2	-0.2	1.3	0.6														
AEO 1989*				-0.8	-1.2	7.5	4.8	3.3	-0.4	0.8	0.3														
AEO 1990					-2.6	10.1					2.7														
AEO 1991						5.7	7.0	5.9	2.2	3.7	3.2	-2.5	1.9	6.6	2.8	-1.8	0.9	-1.1	-3.3	-1.4	-1.9	5.5	0.6	0.2	2.9
AEO 1992							6.0	9.6	5.3	6.5	6.0	0.0	4.6	9.5	5.8	1.2	4.1	2.2	0.0	2.1	1.4	9.1	4.1	3.7	6.4
AEO 1993												-1.0	3.5	8.0	4.3	-0.5	2.0	-0.3	-2.8	-1.3	-2.1	5.1	0.0	-0.6	2.0
AEO 1994																									
AEO 1995																									
AEO 1996																									
AEO 1997																									
AEO 1998																									
AEO 1999																									
AEO 2000																									
AEO 2001																									
AEO 2002																									
AEO 2003																									
AEO 2004																									
AEO 2005																									
AEO 2006																									
AEO 2007																									
AEO 2008																									
AEO 2009																									
AEO 2010																									

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions. Data for AEOs 1982 through 1989 adjusted for enhanced coverage of renewables in AER 1998. Historical Data: Energy Information Administration, Annual Energy Review 2009, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 2.1b.

Table 19. Total Commercial Energy Consumption, Projected vs. Actual

(quadrillion Btu)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	6.6	6.7	6.8	6.8	6.8	6.9																			
AEO 1983	6.4	6.6	6.8	6.9	7.0	7.1					7.2														
AEO 1984	6.2	6.4	6.5	6.7	6.8	6.9					7.3														
AEO 1985	5.9	6.1	6.2	6.3	6.4	6.5					6.7														
AEO 1986		6.2	6.3	6.4	6.4	6.5					7.1					7.4									
AEO 1987			6.1	6.1	6.3	6.4	6.6	6.7	6.8	6.9	6.9					7.3									
AEO 1989*				6.6	6.7	6.9	7.0	7.0	7.1	7.2	7.3	7.3	7.4	7.5	7.6	7.7									
AEO 1990					6.6	6.8					7.1					7.4									
AEO 1991						6.7	6.9	7.0	7.1	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.6	8.7
AEO 1992							6.8	7.1	7.2	7.3	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7
AEO 1993								7.2	7.3	7.4	7.4	7.5	7.6	7.7	7.7	7.8	7.9	8.0	8.1	8.1	8.1	8.1	8.1	8.1	8.2
AEO 1994									6.8	6.9	6.9	7.0	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.4	7.4	7.5	7.5	7.5	7.5
AEO 1995										6.9	6.9	7.0	7.0	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.3
AEO 1996											7.1	7.2	7.2	7.3	7.3	7.4	7.4	7.5	7.6	7.6	7.7	7.7	7.7	7.8	7.9
AEO 1997												7.4	7.4	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.8	7.9	7.9	8.0	8.1
AEO 1998													7.5	7.6	7.7	7.8	7.9	8.0	8.0	8.1	8.2	8.3	8.4	8.4	8.5
AEO 1999														7.4	7.8	7.9	8.0	8.1	8.2	8.2	8.3	8.4	8.5	8.6	8.7
AEO 2000															7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.5	8.7
AEO 2001																7.8	8.1	8.3	8.6	8.7	8.9	9.0	9.2	9.3	9.5
AEO 2002																	8.2	8.4	8.7	8.9	9.0	9.2	9.4	9.6	9.7
AEO 2003																		8.4	8.6	8.8	9.0	9.1	9.3	9.4	9.5
AEO 2004																			8.4	8.5	8.8	9.0	9.2	9.4	9.5
AEO 2005																				8.3	8.4	8.6	8.9	9.1	9.3
AEO 2006																					8.4	8.6	8.9	9.1	9.3
AEO 2007																						8.3	8.5	8.7	8.9
AEO 2008																							8.3	8.5	8.7
AEO 2009																								8.6	8.7
AEO 2010																									8.4
Actual	6.1	6.1	6.3	6.7	6.8	6.8	6.9	6.9	7.0	7.1	7.3	7.6	7.8	7.7	7.8	8.2	8.1	8.2	8.4	8.4	8.4	8.2	8.5	8.6	8.5
Average Absolute Difference (All AEOs)	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.5	0.3	0.3	0.7	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.5

Table 19. Total Commercial Energy Consumption, Projected vs. Actual

(percent difference)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	8.6	9.5	7.1	1.5	0.2	1.7																				
AEO 1983	6.0	8.1	7.3	3.2	2.6	4.6					-2.1															
AEO 1984	2.7	4.0	3.4	-0.1	-0.1	2.7					-0.6															
AEO 1985	-3.1	-0.6	-1.7	-5.6	-6.0	-4.3					-8.9															
AEO 1986		0.4	-0.4	-4.3	-5.4	-3.3					-3.8															
AEO 1987			-3.3	-7.9	-8.0	-5.3	-4.3	-3.4	-3.2	-3.9	-5.7					-10.1										
AEO 1989*				-1.7	-1.0	1.5	1.5	2.3	2.1	0.9	-0.9	-3.9	-5.0	-2.6	-3.3	-6.9										
AEO 1990					-2.7	0.3					-3.4					-10.1						-7.6				
AEO 1991						-0.7	0.3	1.5	1.2	0.2	-1.7	-4.1	-5.3	-2.7	-3.2	-6.9	-4.8	-4.7	-4.8	-4.2	-2.4	1.7	-0.7	-0.6	2.1	
AEO 1992							-0.7	3.1	2.6	1.7	-0.1	-2.4	-3.4	-0.6	-1.0	-4.8	-2.6	-3.0	-3.2	-2.6	-1.1	2.8	0.3	0.1	2.6	
AEO 1993								4.0	3.8	3.1	1.0	-1.4	-2.7	-0.3	-1.0	-5.2	-3.4	-4.1	-4.7	-4.9	-4.0	-0.9	-4.0	-4.9	-3.0	
AEO 1994									-2.4	-3.6	-5.5	-8.0	-9.4	-7.1	-8.3	-12.2	-10.7	-11.2	-12.0	-12.4	-11.7	-8.9	-11.9	-12.8	-11.5	
AEO 1995										-2.6	-6.1	-8.7	-10.3	-8.5	-9.7	-13.9	-12.9	-13.8	-14.8	-15.1	-14.6	-12.0	-14.9	-15.6	-14.0	
AEO 1996											-3.9	-5.7	-7.2	-5.1	-6.1	-10.2	-8.5	-9.0	-9.6	-9.5	-8.5	-5.2	-7.9	-8.3	-6.3	
AEO 1997												-2.7	-7.2	-5.1	-6.1	-10.2	-8.5	-9.0	-9.6	-9.5	-8.5	-5.2	-7.9	-8.3	-6.3	
AEO 1998													-4.1	-0.6	-1.1	-5.1	-3.2	-3.5	-3.9	-3.5	-2.2	1.4	-1.4	-1.9	0.4	
AEO 1999														-3.0	0.1	-3.7	-1.6	-1.8	-2.3	-2.1	-0.9	2.7	0.0	-0.2	2.2	
AEO 2000																-1.3	-5.0	-2.6	-2.7	-3.1	-2.8	-1.3	2.3	-0.4	-0.6	1.9
AEO 2001																	-0.9	1.2	2.3	3.5	5.6	10.3	8.1	8.3	11.4	
AEO 2002																	0.5	1.7	3.6	5.5	7.8	12.8	10.8	11.2	14.7	
AEO 2003																		1.4	2.3	4.3	6.7	11.6	9.3	9.4	12.5	
AEO 2004																			0.9	1.2	4.3	9.8	8.1	8.7	12.4	
AEO 2005																				-1.1	0.0	5.3	4.3	5.8	9.8	
AEO 2006																					0.5	1.7	-0.1	0.6	4.0	
AEO 2007																						2.0	0.3	1.6	4.9	
AEO 2008																							1.0	0.7	0.7	
AEO 2009																								-0.6	4.4	
AEO 2010																									-0.9	

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 2.1.c.

Table 20. Total Industrial Energy Consumption, Projected vs. Actual

(quadrillion Btu)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	24.0	24.1	24.4	24.9	25.5	26.1																				
AEO 1983	23.2	23.6	23.9	24.4	24.9	25.0					25.4															
AEO 1984	24.1	24.5	25.4	25.5	27.1	27.4					28.7															
AEO 1985	23.2	23.6	23.9	24.4	24.8	24.8					24.4															
AEO 1986		22.2	22.8	23.1	23.4	23.4					23.6						22.8									
AEO 1987			22.4	22.8	23.7	24.0	24.3	24.6	24.6	24.7	24.9					22.6										
AEO 1989*				23.6	24.0	24.1	24.3	24.5	24.3	24.3	24.5	24.6	24.8	24.9	24.4	24.1										
AEO 1990					25.0	25.4	27.1				27.1					27.3						28.6				
AEO 1991					24.6	24.5	24.8	25.0	25.3	25.7	26.2	26.5	26.1	25.9	26.2	26.4	26.6	26.7	27.0	27.2	27.4	27.7	28.0			
AEO 1992						24.6	25.3	25.4	25.6	26.1	26.3	26.5	26.5	26.0	25.6	25.8	26.0	26.1	26.2	26.4	26.7	26.9	27.2	27.3		
AEO 1993							25.5	25.9	26.2	26.8	27.1	27.5	27.8	27.4	27.1	27.4	27.6	27.8	28.0	28.2	28.4	28.7	28.9	29.1		
AEO 1994								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		
AEO 1995									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		
AEO 1996										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		
AEO 1997											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		
AEO 1998												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		
AEO 1999													26.7	26.4	26.8	27.1	27.3	27.5	27.9	28.3	28.6	28.9	29.2	29.6		
AEO 2000															25.8	25.5	25.7	26.0	26.5	26.9	27.4	27.8	28.1	28.3	28.5	
AEO 2001																25.8	26.2	26.6	27.0	27.3	27.7	28.1	28.5	28.8	29.1	
AEO 2002																	24.5	25.8	26.6	27.0	27.5	28.0	28.5	28.8	29.2	
AEO 2003																		25.5	25.9	26.2	26.4	26.7	27.2	27.6	28.1	
AEO 2004																			24.5	24.9	25.7	26.1	26.5	26.9	27.1	
AEO 2005																				25.5	25.9	26.2	26.4	26.9	27.2	
AEO 2006																					25.2	25.4	26.1	26.3	26.5	
AEO 2007																						25.3	25.5	25.8	26.1	
AEO 2008																							28.5	28.5	28.7	
AEO 2009																								25.1	23.3	
AEO 2010																									22.2	
Actual	22.3	21.9	22.9	23.9	24.1	24.4	24.1	25.1	25.1	25.9	26.2	27.0	27.3	26.8	26.6	26.5	25.2	25.2	25.0	25.9	24.9	25.0	24.9	23.9	21.8	
Average Absolute Difference (All AEOs)	1.3	1.6	1.1	0.8	1.0	1.0	0.3	0.4	0.5	0.6	1.1	0.8	0.7	0.6	0.6	1.0	1.3	1.4	1.9	1.3	2.4	2.4	2.9	4.0	6.0	

Table 20. Total Industrial Energy Consumption, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	7.7	9.7	6.4	3.9	6.2	6.9																				
AEO 1983	3.9	7.4	4.4	1.8	3.3	2.1					-3.1															
AEO 1984	7.8	11.8	11.0	6.5	12.5	12.1					9.5															
AEO 1985	3.8	7.4	4.3	2.0	3.2	1.4					-6.8															
AEO 1986		1.0	-0.6	-3.5	-2.8	-4.0					-10.1															
AEO 1987			-2.1	-4.7	-1.5	-2.0	0.8	-2.2	-2.0	-4.3	-4.9															
AEO 1989*				-1.5	-0.4	-1.6	0.9	-2.5	-3.1	-5.8	-6.6	-8.7	-8.9	-7.1	-8.2											
AEO 1990					3.9	4.0					3.6											14.8				
AEO 1991						0.8	1.8	-1.2	-1.3	-3.4	-3.3	-4.7	-3.8	-1.2	-1.7	-2.2	3.8	4.7	6.4	3.2	8.2	8.6	10.0	15.8	28.5	
AEO 1992							2.3	0.8	1.2	-0.8	-0.4	-2.6	-2.9	-1.0	-2.3	-3.3	2.2	2.9	4.5	1.3	6.1	6.6	7.9	13.4	25.4	
AEO 1993								1.7	2.9	1.3	2.1	0.5	1.0	3.6	3.0	2.4	8.5	9.3	11.1	7.9	13.1	13.6	15.0	20.7	33.7	
AEO 1994									1.2	0.2	0.4	-1.2	-1.1	1.0	0.6	0.4	6.6	7.9	10.7	8.3	13.7	14.6	16.6	22.8	36.4	
AEO 1995										1.2	0.4	-1.7	-0.8	1.7	1.0	0.3	6.2	7.4	9.9	7.6	13.0	13.8	15.2	21.3	34.6	
AEO 1996											1.3			0.2	2.5	1.1	-0.1	5.7	6.7	9.0	6.5	12.0	12.6	13.5	19.1	32.1
AEO 1997												-2.8		0.2	2.5	1.1	-0.1	5.7	6.7	9.0	6.5	12.0	12.6	13.5	19.1	32.1
AEO 1998													0.0			1.5	7.5	8.8	10.6	7.8	13.5	14.7	16.4	22.5	36.3	
AEO 1999														-0.2	-0.7	-0.2	6.3	7.6	9.3	6.2	11.8	13.0	14.7	20.7	34.2	
AEO 2000																-3.0	1.8	3.1	6.0	3.9	9.9	11.0	12.6	18.4	31.1	
AEO 2001																	-2.7	3.7	5.4	8.2	5.4	10.9	12.2	14.2	20.2	33.7
AEO 2002																		2.4	6.5	4.3	10.3	11.8	14.1	20.1	34.2	
AEO 2003																			0.9	3.8	1.3	5.8	6.9	9.1	15.4	29.3
AEO 2004																				-1.9	-3.8	3.1	4.6	6.4	12.2	24.7
AEO 2005																					-1.6	3.9	4.9	6.0	12.2	24.9
AEO 2006																						0.9	1.4	4.6	9.8	21.7
AEO 2007																							1.3	2.4	7.8	19.9
AEO 2008																								14.4	19.0	31.7
AEO 2009																									4.8	7.2
AEO 2010																										2.2

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions. Data for AEOs 1982 through 2000 adjusted for enhanced coverage of renewables in AER 2001. 1998 and the move of independent power producers from industrial to electricity generation in AER 2001.
Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 2.1d.

Table 21. Total Transportation Energy Consumption, Projected vs. Actual

(quadrillion Btu)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
AEO 1982	18.6	18.2	17.7	17.3	17.0	16.9																				
AEO 1983	19.8	20.1	20.4	20.4	20.5	20.5					20.7															
AEO 1984	19.2	19.0	19.0	19.0	19.1	19.2					20.1															
AEO 1985	20.0	19.8	20.0	20.0	20.0	20.1					20.3															
AEO 1986		20.5	20.8	20.8	20.6	20.7					20.3															
AEO 1987			21.3	21.5	21.6	21.7	21.8	22.0	22.0	22.0	21.9															
AEO 1989*				21.8	22.2	22.4	22.4	22.5	22.5	22.5	22.5	22.6	22.7	22.8	23.0	23.2						25.5				
AEO 1990					22.0	22.4	22.4	22.4	22.4	22.4	23.2					24.3										
AEO 1991						22.1	21.6	21.9	22.1	22.3	22.5	22.8	23.1	23.4	23.8	24.1	24.5	24.8	25.1	25.4	25.7	25.7	26.0	26.3	26.6	26.9
AEO 1992							21.7	22.0	22.5	22.9	23.2	23.4	23.6	23.9	24.1	24.4	24.8	25.1	25.4	25.7	26.0	26.3	26.6	26.9	27.1	
AEO 1993								22.5	22.8	23.4	23.9	24.3	24.7	25.1	25.4	25.7	26.1	26.5	26.8	27.2	27.6	27.9	28.1	28.4	28.7	
AEO 1994									23.6	24.1	24.5	24.7	25.1	25.4	25.7	26.2	26.5	26.9	27.2	27.6	27.9	28.3	28.6	28.9	29.2	
AEO 1995										23.3	24.0	24.2	24.7	25.1	25.5	25.9	26.2	26.5	26.9	27.3	27.7	28.0	28.3	28.5	28.8	
AEO 1996											23.9	24.1	24.5	24.8	25.3	25.7	26.0	26.4	26.7	27.1	27.5	27.8	28.1	28.4	28.6	
AEO 1997												24.7	25.3	25.9	26.4	27.0	27.5	28.0	28.5	28.9	29.4	29.8	30.3	30.6	30.9	
AEO 1998													25.3	25.9	26.7	27.1	27.7	28.3	28.8	29.4	30.0	30.6	31.2	31.7	32.3	
AEO 1999														25.4	26.0	27.0	27.6	28.2	28.8	29.4	30.0	30.6	31.2	31.7	32.2	
AEO 2000															26.2	26.8	27.4	28.0	28.5	29.1	29.7	30.3	30.9	31.4	31.9	
AEO 2001																26.8	27.5	28.3	28.8	29.4	30.0	30.6	31.2	31.8	32.3	
AEO 2002																	27.5	28.0	28.9	29.5	30.2	30.7	31.3	31.8	32.3	
AEO 2003																		27.2	27.7	28.3	28.9	29.7	30.5	31.4	32.3	
AEO 2004																			27.2	28.1	28.9	29.6	30.2	30.9	31.5	
AEO 2005																				27.8	28.4	29.0	29.7	30.4	31.2	
AEO 2006																					28.1	28.4	29.0	29.5	30.1	
AEO 2007																						28.4	28.7	29.0	29.4	
AEO 2008																							28.5	28.5	28.7	
AEO 2009																								27.9	27.5	
AEO 2010																									27.0	
Actual	20.1	20.8	21.4	22.3	22.4	22.4	22.1	22.4	22.7	23.3	23.8	24.4	24.7	25.2	25.9	26.5	26.2	26.8	26.9	27.8	28.3	28.8	29.1	28.0	27.0	
Average Absolute Difference (All AEOs)	0.7	1.2	1.6	2.2	2.1	1.7	0.4	0.3	0.5	0.6	1.6	0.7	0.7	0.8	0.9	1.6	1.0	0.9	1.0	1.1	1.2	1.2	1.3	2.0	3.0	

Table 21. Total Transportation Energy Consumption, Projected vs. Actual

(percent difference)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	-7.2	-12.4	-17.4	-22.5	-24.1	-24.3																			
AEO 1983	-1.5	-3.1	-4.9	-8.3	-8.9	-8.6					-13.1														
AEO 1984	-4.4	-8.6	-11.5	-14.7	-14.9	-14.0					-15.7														
AEO 1985	-0.3	-4.8	-6.8	-10.2	-10.7	-10.4					-14.7														
AEO 1986		-1.2	-3.0	-6.6	-8.0	-7.5					-14.6														
AEO 1987			-0.9	-3.6	-3.8	-3.1	-1.2	-1.9	-3.0	-5.6	-7.8														
AEO 1989*				-2.1	-0.9	0.0	1.4	0.4	-1.2	-3.7	-5.5	-7.4	-8.3	-9.7	-11.3	-12.5									
AEO 1990					-1.9	-0.1					-2.4											-9.9			
AEO 1991						-1.4	-2.2	-2.1	-2.7	-4.5	-5.5	-6.6	-6.4	-7.0	-8.3	-9.2	-6.7	-7.4	-6.8	-8.9	-9.3	-9.7	-9.5	-5.0	-0.4
AEO 1992							-1.6	-1.9	-1.1	-1.9	-2.5	-4.1	-4.5	-5.4	-6.9	-7.9	-5.5	-6.3	-5.7	-7.7	-8.1	-8.5	-8.5	-4.0	0.5
AEO 1993								0.5	0.1	0.1	0.4	-0.5	-0.2	-0.5	-1.9	-2.9	-0.4	-1.2	-0.5	-2.3	-2.6	-3.1	-3.2	1.5	6.3
AEO 1994									3.9	3.2	2.7	1.3	1.4	0.6	-0.6	-1.3	1.0	0.2	1.1	-1.0	-1.4	-1.8	-1.5	3.4	8.2
AEO 1995										-0.3	0.9	-0.9	-0.1	-0.4	-1.6	-2.4	-0.3	-1.1	-0.2	-2.0	-2.2	-2.7	-2.8	1.9	6.5
AEO 1996											0.4	-1.3	-1.0	-1.5	-2.5	-3.2	-0.7	-1.6	-0.8	-2.7	-2.9	-3.4	-3.2	1.5	6.1
AEO 1997												1.2	-1.0	-1.5	-2.5	-3.2	-0.7	-1.6	-0.8	-2.7	-2.9	-3.4	-3.2	1.5	6.1
AEO 1998													2.6	2.5	2.9	2.4	5.7	5.6	7.1	5.6	5.9	6.4	7.2	13.4	19.6
AEO 1999														0.8	0.2	1.9	5.4	5.3	6.9	5.5	5.9	6.3	7.2	13.4	19.5
AEO 2000															1.3	1.2	4.4	4.3	5.8	4.6	5.0	5.4	6.3	12.3	18.3
AEO 2001																1.2	5.0	5.4	7.0	5.6	6.0	6.4	7.4	13.6	19.9
AEO 2002																	4.8	4.6	7.3	6.1	6.7	6.8	7.9	14.5	21.5
AEO 2003																		1.3	3.0	1.6	2.2	3.3	5.1	12.2	19.6
AEO 2004																			0.9	0.8	2.2	3.0	4.1	10.4	16.8
AEO 2005																				-0.2	0.5	0.9	2.3	8.9	15.5
AEO 2006																					-0.8	-1.2	-0.1	5.6	11.6
AEO 2007																						-1.2	-0.1	5.6	11.6
AEO 2008																							-1.4	3.5	8.9
AEO 2009																								1.9	6.2
AEO 2010																									-0.1

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 2.1e.

Table 22. Total Carbon Dioxide Emissions, Projected vs. Actual

(million metric tons)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982																									
AEO 1983																									
AEO 1984																									
AEO 1985																									
AEO 1986																									
AEO 1987																									
AEO 1989*																									
AEO 1990																									
AEO 1991																									
AEO 1992																									
AEO 1993								5009	5053	5130	5207	5269	5335	5401	5449	5504	5562	5621	5672	5724	5771	5819	5867	5918	5969
AEO 1994									5060	5130	5185	5240	5287	5335	5379	5438	5482	5529	5599	5658	5694	5738	5797	5874	5925
AEO 1995										5137	5174	5188	5262	5309	5361	5394	5441	5489	5551	5621	5680	5727	5775	5841	5889
AEO 1996											5182	5224	5295	5355	5417	5464	5525	5589	5660	5735	5812	5879	5925	5981	6030
AEO 1997												5295	5381	5491	5586	5658	5715	5781	5863	5934	6009	6106	6184	6236	6268
AEO 1998													5474	5621	5711	5784	5893	5957	6026	6098	6192	6292	6379	6465	6542
AEO 1999														5522	5689	5810	5913	5976	6036	6084	6152	6244	6325	6418	6493
AEO 2000															5573	5692	5777	5865	5971	6078	6172	6262	6345	6420	6480
AEO 2001																5630	5781	5909	6023	6114	6197	6281	6387	6470	6541
AEO 2002																	5723	5808	5981	6095	6210	6323	6438	6530	6624
AEO 2003																		5633	5749	5856	5954	6095	6232	6360	6475
AEO 2004																			5743	5826	5986	6124	6251	6357	6453
AEO 2005																				5905	6023	6138	6274	6415	6533
AEO 2006																					5967	5978	6080	6182	6281
AEO 2007																						5940	5999	6059	6124
AEO 2008																							5977	5983	5978
AEO 2009																								5849	5699
AEO 2010																									5507
Actual	4638	4643	4800	5013	5106	5020	4975	5069	5172	5251	5302	5488	5562	5605	5665	5850	5745	5790	5835	5952	5973	5894	5990	5810	5411
Average Absolute Difference (All AEOs)								60.3	115.7	118.9	115.3	244.8	223.1	176.2	162.0	253.1	140.5	151.2	160.5	158.9	151.2	224.1	225.9	387.6	801.1

Table 22. Total Carbon Dioxide Emissions, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982																									
AEO 1983																									
AEO 1984																									
AEO 1985																									
AEO 1986																									
AEO 1987																									
AEO 1989*																									
AEO 1990																									
AEO 1991																									
AEO 1992																									
AEO 1993								-1.2	-2.3	-2.3	-1.8	-4.0	-4.1	-3.6	-3.8	-5.9	-3.2	-2.9	-2.8	-3.8	-3.4	-1.3	-2.1	1.9	10.3
AEO 1994									-2.2	-2.3	-2.2	-4.5	-4.9	-4.8	-5.0	-7.0	-4.6	-4.5	-4.0	-4.9	-4.7	-2.6	-3.2	1.1	9.5
AEO 1995										-2.2	-2.4	-5.5	-5.4	-5.3	-5.4	-7.8	-5.3	-5.2	-4.9	-5.6	-4.9	-2.8	-3.6	0.5	8.8
AEO 1996											-2.3	-4.8	-4.8	-4.5	-4.4	-6.6	-3.8	-3.5	-3.0	-3.6	-2.7	-0.2	-1.1	2.9	11.4
AEO 1997												-3.5	-3.3	-2.0	-1.4	-3.3	-0.5	-0.2	0.5	-0.3	0.6	3.6	3.2	7.3	15.8
AEO 1998													-1.6	0.3	0.8	-1.1	2.6	2.9	3.3	2.5	3.7	6.8	6.5	11.3	20.9
AEO 1999														-1.5	0.4	-0.7	2.9	3.2	3.4	2.2	3.0	5.9	5.6	10.5	20.0
AEO 2000															-1.6	-2.7	0.6	1.3	2.3	2.1	3.3	6.2	5.9	10.5	19.8
AEO 2001																-3.8	0.6	2.0	3.2	2.7	3.8	6.6	6.6	11.4	20.9
AEO 2002																	-0.4	0.3	2.5	2.4	4.0	7.3	7.5	12.4	22.4
AEO 2003																		-2.7	-1.5	-1.6	-0.3	3.4	4.0	9.5	19.7
AEO 2004																			-1.6	-2.1	0.2	3.9	4.3	9.4	19.3
AEO 2005																				-0.8	0.8	4.1	4.7	10.4	20.7
AEO 2006																					-0.1	1.4	1.5	6.4	16.1
AEO 2007																						0.8	0.2	4.3	13.2
AEO 2008																							-0.2	3.0	10.5
AEO 2009																								0.7	5.3
AEO 2010																									1.8

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010), Table 12.1, and Energy Information Administration, *August 2010 Monthly Energy Review*, DOE/EIA-0035(2010/08) (Washington, DC, August 31, 2010), Table 12.1.

Table 23. Energy Intensity, Projected vs. Actual

(quadrillion Btu / \$Billion Nominal GDP)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	20.1	18.5	16.9	15.5	14.4	13.2																			
AEO 1983	19.9	18.7	17.4	16.2	15.1	14.0					9.5														
AEO 1984	20.1	19.0	17.7	16.5	15.5	14.5					10.2														
AEO 1985	20.0	19.1	18.0	16.9	15.9	14.7	13.7	12.7	11.8	11.0	10.3														
AEO 1986		18.3	17.8	16.8	16.1	15.2	14.3	13.4	12.6	11.7	10.9	10.2	9.5	8.9	8.3	7.8									
AEO 1987			17.6	17.0	16.3	15.4	14.5	13.7	12.9	12.1	11.4														
AEO 1989*				16.9	16.2	15.2	14.2	13.3	12.5	11.7	10.9	10.2	9.6	9.0	8.5	8.0									
AEO 1990					16.1	15.4	14.4	13.4	12.5	11.7	10.9	10.2	9.6	9.0	8.5	8.0						6.4			
AEO 1991						15.5	14.9	14.2	13.6	13.0	12.5	11.9	11.3	10.8	10.3	9.7	9.2	8.7	8.3	7.9	7.4	7.0	6.7	6.3	6.0
AEO 1992							15.0	14.5	13.9	13.3	12.7	12.1	11.6	11.0	10.5	10.0	9.5	9.0	8.6	8.1	7.7	7.3	6.9	6.6	6.2
AEO 1993								14.7	13.9	13.4	12.8	12.3	11.8	11.2	10.7	10.2	9.6	9.2	8.7	8.3	7.8	7.4	7.1	6.7	6.4
AEO 1994									14.1	13.5	13.1	12.6	12.1	11.6	11.1	10.6	10.2	9.8	9.3	9.0	8.6	8.2	7.8	7.5	7.2
AEO 1995										13.2	12.7	12.2	11.7	11.3	10.8	10.4	9.9	9.5	9.0	8.6	8.3	7.9	7.6	7.3	7.0
AEO 1996											12.8	12.4	11.9	11.5	11.0	10.5	10.1	9.6	9.2	8.8	8.4	8.1	7.7	7.4	7.1
AEO 1997												12.2	11.9	11.5	11.1	10.7	10.2	9.9	9.5	9.1	8.7	8.4	8.0	7.7	7.4
AEO 1998													11.7	11.5	11.2	10.8	10.4	10.1	9.7	9.4	9.0	8.7	8.4	8.0	7.7
AEO 1999														11.2	11.1	10.8	10.5	10.2	9.8	9.4	9.1	8.8	8.5	8.2	7.9
AEO 2000															10.8	10.6	10.3	10.0	9.7	9.4	9.1	8.8	8.6	8.3	8.0
AEO 2001																9.8	9.4	9.2	8.9	8.5	8.2	8.0	7.7	7.4	7.2
AEO 2002																	9.6	9.5	9.2	8.9	8.5	8.2	7.9	7.5	7.2
AEO 2003																		9.3	9.0	8.6	8.3	8.1	7.8	7.6	7.3
AEO 2004																			9.0	8.8	8.5	8.2	7.9	7.6	7.3
AEO 2005																				8.5	8.2	8.0	7.7	7.5	7.3
AEO 2006																					8.1	7.7	7.5	7.2	6.9
AEO 2007																						7.6	7.4	7.1	6.9
AEO 2008																							7.3	7.2	6.8
AEO 2009																								7.0	7.0
AEO 2010																									6.8
Actual	18.1	17.2	16.7	16.2	15.5	14.6	14.1	13.6	13.1	12.6	12.3	12.0	11.4	10.8	10.4	9.9	9.4	9.2	8.8	8.5	7.9	7.4	7.2	6.9	6.6
Average Absolute Difference (All AEOs)	1.9	1.5	0.8	0.5	0.6	0.6	0.5	0.6	0.7	0.8	1.1	0.6	0.7	0.7	0.8	0.8	0.6	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6

Table 23. Energy Intensity, Projected vs. Actual

(percent difference)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AEO 1982	10.7	7.5	1.0	-4.3	-7.3	-9.2																			
AEO 1983	9.7	8.4	4.2	-0.2	-2.4	-4.2					-22.7														
AEO 1984	10.6	10.1	5.9	1.7	0.0	-1.0					-16.9														
AEO 1985	10.2	11.2	7.6	4.4	2.5	0.9	-3.2	-6.4	-10.1	-12.6	-16.4														
AEO 1986		6.5	6.3	3.7	3.8	4.0	1.3	-1.0	-4.3	-6.9	-11.2	-15.4	-16.7	-18.2	-19.8	-21.8									
AEO 1987			5.3	4.8	5.1	5.3	2.9	1.4	-1.6	-3.6	-7.4					-17.1									
AEO 1989*				4.2	4.3	3.9	0.6	-1.9	-5.1	-7.4	-11.0	-14.9	-15.4	-16.4	-17.8	-19.2									
AEO 1990					3.8	5.4					-5.2					-13.5						-19.7			
AEO 1991						6.0	5.6	4.4	3.5	3.5	1.4	-1.1	-0.3	-0.3	-1.0	-2.2	-1.5	-5.0	-6.0	-7.1	-6.5	-5.5	-7.5	-8.0	-9.3
AEO 1992							6.2	7.2	5.5	5.5	3.4	1.1	2.0	2.1	1.5	0.4	1.4	-1.9	-2.9	-3.9	-3.1	-2.1	-4.3	-4.8	-6.3
AEO 1993								8.1	6.0	6.2	4.4	2.3	3.4	3.4	3.1	2.2	3.0	-0.4	-1.2	-2.3	-1.4	-0.1	-2.2	-2.6	-4.2
AEO 1994									6.9	7.3	6.3	4.6	6.2	7.2	7.4	7.1	8.9	6.1	6.0	5.9	7.6	9.9	8.3	8.7	7.9
AEO 1995										4.7	3.2	1.6	3.1	4.2	4.5	4.2	5.9	3.0	2.7	2.3	4.0	6.2	5.2	5.6	5.1
AEO 1996											4.4	3.3	4.9	5.9	6.2	5.8	7.4	4.8	4.9	4.7	6.2	8.2	6.9	7.5	6.8
AEO 1997												1.7	4.4	6.3	7.2	7.2	9.4	7.4	7.8	7.8	9.9	12.4	11.0	11.5	10.9
AEO 1998													3.3	5.9	7.9	8.5	11.6	9.7	10.5	10.8	13.5	16.7	16.0	16.9	16.6
AEO 1999														3.1	6.8	8.7	12.3	10.5	11.3	11.8	14.7	18.0	17.4	18.6	18.4
AEO 2000															4.1	6.5	9.8	8.9	10.4	11.3	14.5	18.5	18.7	20.5	21.1
AEO 2001																-1.6	0.9	-0.4	0.6	1.1	3.6	6.8	6.6	7.8	7.9
AEO 2002																	2.9	3.5	4.8	5.2	7.5	10.3	9.1	9.2	8.1
AEO 2003																		1.3	2.1	2.1	4.9	8.6	8.7	10.1	10.1
AEO 2004																			2.7	3.8	7.0	10.3	9.9	10.8	10.3
AEO 2005																				0.7	3.5	7.2	7.1	9.2	9.4
AEO 2006																					1.4	3.5	4.0	4.7	4.6
AEO 2007																						2.0	2.2	3.4	3.6
AEO 2008																							1.7	4.0	3.2
AEO 2009																								2.2	5.5
AEO 2010																									2.4

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

Sources: Forecasts: *Annual Energy Outlook*, Mid-Price or Reference Case Projections, Various Editions.

Historical Data: Energy Information Administration, *Annual Energy Review 2009*, DOE/EIA-0384(2009) (Washington, DC, July 2010) , Table 1.3, and Bureau of Economic Analysis, US Dept. of Commerce, <http://www.bea.gov/national/xls/gdplev.xls>, July 2010.