

Assumptions to the Annual Energy Outlook 2007

Table 59. Petroleum Product Categories

Product Category	Specific Products
Motor Gasoline	Conventional Unleaded, Oxygenated, Reformulated
Jet Fuel	Kerosene-type
Distillates	Kerosene, Heating Oil, Low-Sulfur-Diesel, Ultra-Low-Sulfur-Diesel
Residual Fuels	Low Sulfur, High Sulfur
Liquefied Petroleum Gases	Propane, Liquefied Petroleum Gases Mixed
Petrochemical Feedstocks	Petrochemical Naptha, Petrochemical Gas Oil, Propylene, Aromatics
Others	Lubricating Products and Waxes, Asphalt/Road Oil, Still Gas Petroleum Coke, Special Naphthas, Aviation Gasoline

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting.

Table 60. Year Round Gasoline Specifications by Petroleum Administration for Defense Districts (PADD)

PADD	Reid Vapor Pressure (Max PSI)	Aromatics Volume Percent (Max)	Benzene Volume Percent (Max)	2007 Sulfur PPM (Max)	Olefin Volume Percent (Max)	Percent Evaporated at 200°	Percent Evaluated at 300°
Conventional							
PADD I	9.6	26.0	1.1	41.7	11.6	47.1	82.0
PADD II	10.2	26.1	1.1	32.2	11.6	47.1	81.9
PADD III	9.9	26.1	1.1	32.4	11.6	47.1	81.9
PADD IV	10.8	26.1	1.1	44.2	11.6	47.1	81.9
PADD V	9.2	26.7	1.1	33.7	11.6	45.7	81.4
Reformulated							
PADD I	8.5	20.7	0.6	30.0	11.9	50.2	84.6
PADD II	9.5	18.5	0.8	30.0	7.1	50.8	85.2
PADD III	8.6	19.8	0.6	30.0	11.2	51.6	83.9
PADD IV	8.6	19.8	0.6	30.0	11.2	51.6	83.9
PADD V							
Nonattainment	7.9	22.0	0.70	20.0	6.0	49.0	90.0
CARB (attainment)	7.9	22.0	0.70	20.0	6.0	49.0	90.0

Max = Maximum.

PADD = Petroleum Administration for Defense District.

PPM = Parts per Million by Weight.

PSI = Pounds per Square Inch.

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting. Derived using U.S. EPA's Complex Model, and updated with U.S. EPA's 2005 gasoline projection survey (<http://www.epa.gov/otag/regs/fuels/rfg/properf/rfgperf.htm>).

Table 61. Gasoline Sulfur Content Assumptions, by Region and Gasoline Type, Parts per Million (PPM)

	2004	2005	2006	2007	2008-2030
Conventional					
PADD I	143.4	90.0	43.4	41.7	30
PADD II	111.6	60.0	32.2	32.2	30
PADD III	114.5	60.0	32.4	32.4	30
PADD IV	140.0	90.0	44.2	44.2	30
PADD V	122.8	70.0	33.7	33.7	30
Reformulated					
PADD I-IV	30	30	30	30	30
PADD V	20	20	20	20	20

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting. Derived from Form EI-810 "Monthly Refinery Report" and U.S. Environmental Protection Agency, "Tier 2" Motor Vehicle Emissions Standards and Gasoline Sulfur Control requirements, February 2000, (Washington, DC).

Table 62. Market Share for Gasoline Types by Census Division

Gasoline Type/Year	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Conventional Gasoline	19	42	82	54	82	95	72	71	22
Oxygenated Gasoline (2.7% oxygen)	0	0	0	36	0	0	1	14	2
Reformulated Gasoline	81	58	18	10	18	5	27	15	76*

*Note: 61 percent is assumed to comply with the Federal RFG requirement, 15 percent is the result of State requirements.

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting. Derived from EIA-782C, "Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption," January-December 2005.

Table 63. Petroleum Product End-Use Markups by Sector and Census Division
(2005 dollars per gallon)

Sector/Product	Census Division								
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Residential Sector									
Distillate Fuel Oil	0.41	0.47	0.32	0.24	0.46	0.42	0.28	0.22	0.31
Kerosene	0.12	0.30	0.10	0.15	0.07	0.07	0.05	0.22	0.14
Liquefied Petroleum Gases	0.91	0.92	0.55	0.35	0.87	0.76	0.81	0.65	0.85
Commercial Sector									
Distillate Fuel Oil	0.14	0.14	0.06	0.03	0.07	0.04	0.07	0.00	0.10
Gasoline	0.10	0.14	0.13	0.10	0.07	0.12	0.11	0.14	0.15
Kerosene	0.12	0.28	0.09	0.16	0.09	0.07	0.00	0.21	0.13
Liquefied Petroleum Gases	0.47	0.57	0.41	0.41	0.50	0.48	0.52	0.51	0.46
Low-Sulfur Residual Fuel Oil	0.30	0.00	0.55	0.41	0.02	0.67	0.10	0.00	0.73
Utility Sector									
Distillate Fuel Oil	-0.23	0.06	-0.09	-0.09	0.00	-0.02	-0.15	0.01	-0.06
High-Sulfur Residual Fuel Oil ¹	-0.06	-0.09	0.00	-0.09	0.00	-0.06	0.63	0.62	0.71
Low-Sulfur Residual Fuel Oil ¹	-0.06	-0.09	0.00	-0.09	0.00	-0.06	0.63	0.62	0.71
Transportation Sector									
Distillate Fuel Oil	0.27	0.21	0.16	0.12	0.15	0.16	0.15	0.14	0.22
E85 ²	0.13	0.17	0.13	0.14	0.11	0.12	0.09	0.14	0.15
Gasoline	0.15	0.19	0.13	0.13	0.13	0.14	0.15	0.13	0.15
High-Sulfur Residual Fuel Oil ¹	-0.01	-0.03	0.14	0.10	0.00	0.21	0.18	0.00	0.26
Jet Fuel	0.03	0.00	-0.01	-0.01	0.07	0.00	-0.03	0.00	0.02
Liquefied Petroleum Gases	0.46	0.48	0.66	0.66	0.53	0.65	0.65	0.60	0.59
Industrial Sector									
Asphalt and Road Oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distillate Fuel Oil	0.14	0.11	0.20	0.14	0.12	0.13	0.14	0.03	0.14
Gasoline	0.13	0.15	0.13	0.13	0.11	0.13	0.10	0.14	0.15
Kerosene	-0.01	0.01	0.01	-0.01	0.00	0.05	0.20	0.07	0.00
Liquefied Petroleum Gases	0.46	0.34	0.34	0.34	0.41	0.30	0.10	0.48	0.51
Low-Sulfur Residual Fuel Oil	0.23	0.40	0.40	0.51	0.06	0.62	0.62	-0.18	0.73

¹Negative values indicate that average end-use sales prices were less than wholesale prices. This often occurs with residual fuel which is produced as a byproduct when crude oil is refined to make higher value products like gasoline and heating oil.

²74 percent ethanol and 26 percent gasoline.

Sources: Markups based on data from Energy Information Administration (EIA), Form EIA-782A, *Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report*; EIA, Form EIA-782B, *Resellers'/Retailers' Monthly Petroleum Report Product Sales Report*; EIA, Form FERC-423, *Monthly Report of Cost and Quality of Fuels for Electric Plants*; EIA, Form EIA-759 *Monthly Power Plant Report*; EIA, *State Energy Data Report 2003, Consumption (October 2006)*; EIA, *State Energy Data 2003: Prices and Expenditures (October 2006)*.

Table 64. State and Local Taxes on Petroleum Transportation Fuels by Census Division
(2005 dollars per gallon)

Year/Product	Census Division								
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Gasoline ¹	0.23	0.24	0.22	0.20	0.18	0.19	0.20	0.21	0.21
Diesel	0.24	0.28	0.23	0.21	0.20	0.18	0.19	0.23	0.21
Liquefied Petroleum Gases	0.12	0.12	0.17	0.19	0.18	0.17	0.13	0.14	0.06
E85 ²	0.23	0.24	0.23	0.20	0.18	0.19	0.20	0.21	0.21
Jet Fuel	0.05	0.05	0.00	0.04	0.05	0.05	0.02	0.04	0.03

¹Tax also applies to gasoline consumed in the commercial and industrial sectors.

²74 percent ethanol and 26 percent gasoline.

Source: "Compilation of United States Fuel Taxes, Inspection, Fees and Environmental Taxes and Fees," Defense energy support Center, Editions 2006-12, August 17, 2006. Gasoline, diesel and E85 aggregated from Petroleum Marketing Monthly DE/EIA-0380(2005/09), Table EN1, (Washington, DC, September 2005). LPG aggregated from Federal Highway Administration, Tax Rates on Motor Fuel, Jet fuel from EIA, Office of Oil and Gas.

Table 65. Federal Taxes
(Nominal dollars per gallon)

Product	Tax
Gasoline	0.18
Diesel	0.24
Jet Fuel	0.04
Liquefied Petroleum Gases ³	0.43
M85 ¹	0.09
E85 ²	0.19

¹85 percent methanol and 15 percent gasoline.

²74 percent ethanol and 26 percent gasoline.

³2010 data-based on EPACT05: excise tax is 4.3 cents/gal after 9-30-2011 and 18.3 cents/gal prior to that. A credit of 50 cents/gas is also applied between 10-1-06 and 9-30-09.

Sources: Omnibus Budget Reconciliation Act of 1993 (H.R. 2264); Tax Payer Relief Act of 1997 (PL 105-34), *Clean Fuels Report* (Washington, DC, April 1998) and Energy Policy Act of 2005 (PL 109-58).

Table 66. Crude Oil Specifications

Crude Oil Categories	Sulfur (percent)	Gravity (degrees API)
Low Sulfur Light	0 - 0.5	25 - 60
Medium Sulfur Heavy	0.35 - 1.1	26 - 40
High Sulfur Light	> 1.1	>32
High Sulfur Heavy	> 1.1	24 - 33
High Sulfur Very Heavy	> 0.9	< 23

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting. Derived from EI-810, "Monthly Refinery Report" data.