

Released: February 2021
 Next MECS will be fielded in 2022.

Table 1.5 First Use of Energy for All Purposes (Fuel and Nonfuel), 2018;

Level: National Data;

Row: Energy Sources and Shipments, including Further Classification of 'Other' Energy Sources;

Column: First Use per Energy Sources and Shipments;

Unit: Trillion Btu.

Energy Source	Total First Use
Total United States	
Coal	857
Natural Gas	7,320
Net Electricity	2,591
Purchases	2,656
Transfers In	24
Onsite Generation from Noncombustible Renewable Energy	4
Sales and Transfers Offsite	93
Coke and Breeze	262
Residual Fuel Oil	59
Distillate Fuel Oil	92
Hydrocarbon Gas Liquids (HGL) excluding natural gasoline	2,898
Other	6,224
Lubricants (a)	259
Special Naphthas (a)	60
Waxes (a)	12
Miscellaneous Nonfuel Products (a)	198
Naphtha	405
Bitumen	694
Kerosene	41
Motor Gasoline	8
Petroleum Coke	753
Still Gas/Waste Gas	1,492
Pulping Liquor or Black Liquor	857
Biomass Total	624
Agricultural Waste	50
Wood Harvested Directly from Trees	40
Wood Residues and Byproducts from Mill Processing	524
Wood-Related and Paper-Related Refuse	11
Net Steam/Hot Water	564
Miscellaneous	256
Shipments of Energy Sources Produced Onsite (b)	867
Total (c)	19,436

(a) Previously, the Manufacturing Energy Consumption Survey (MECS) had accounted for energy consumed in petroleum refineries by measuring their own fuel use, assuming shipments of fuel products would later be counted in the industries that use them, and assigning the heat equivalent of the nonfuel products to the petroleum refinery (for a more detailed explanation see, *Feedstock and Offsite-Produced Fuel at Petroleum Refineries*). Starting with the 2014 MECS, however, EIA began collecting asphalt and petrochemical feedstock data from establishments that use those nonfuel products. These data are included in the *Other* column. However, other *Miscellaneous Nonfuel Products* (i.e., lubricants, solvents, waxes, and special naphthas) from

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(b) *Shipments of Energy Sources Produced Onsite* are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

(c) *Total* is the sum of all of the listed energy sources, including *Other*, minus the *Shipments of Energy Sources Produced Onsite*. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

* Estimate less than 0.5.

D = Withheld to avoid disclosing data for individual establishments.

Q = Withheld because Relative Standard Error (RSE) is greater than 50 percent.

NA = Not available.

-- Estimation is not applicable. Energy source is not included in series.

Notes: Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2018 Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2018.

The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied (Approval ID: CBDRB-FY20-260).

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RSE Table 1.5 Relative Standard Errors for Table 1.5;

Unit: Percents.

Energy Source	Total First Use
Total United States	
Coal	1.7
Natural Gas	1.1
Net Electricity	1.8
Purchases	1.8
Transfers In	4.7
Onsite Generation from Noncombustible Renewable Energy	16.8
Sales and Transfers Offsite	0.4
Coke and Breeze	0.5
Residual Fuel Oil	0.6
Distillate Fuel Oil	8.0
Hydrocarbon Gas Liquids (HGL) excluding natural gasoline	1.5
Other	0.7
Lubricants (a)	0.0
Special Naphthas (a)	0.0
Waxes (a)	0.0
Miscellaneous Nonfuel Products (a)	0.0
Naphtha	0.7
Bitumen	3.6
Kerosene	0.5
Motor Gasoline	6.9
Petroleum Coke	0.4
Still Gas/Waste Gas	0.1
Pulping Liquor or Black Liquor	0.0
Biomass Total	2.6
Agricultural Waste	6.0
Wood Harvested Directly from Trees	27.3
Wood Residues and Byproducts from Mill Processing	2.3
Wood-Related and Paper-Related Refuse	4.5
Net Steam/Hot Water	3.6
Miscellaneous	7.8
Shipments of Energy Sources Produced Onsite (b)	0.2
Total (c)	0.7

(a) Previously, the Manufacturing Energy Consumption Survey (MECS) had accounted for energy consumed in petroleum refineries by measuring their own fuel use, assuming shipments of fuel products would later be counted in the industries that use them, and assigning the heat equivalent of the nonfuel products to the petroleum refinery (for a more detailed explanation see, *Feedstock and Offsite-Produced Fuel at Petroleum Refineries*). Starting with the 2014 MECS, however, EIA began collecting asphalt and petrochemical feedstock data from establishments that use those nonfuel products. These data are included in the *Other* column. However, other *Miscellaneous Nonfuel Products* (i.e. lubricants, solvents, waxes, and special naphthas) from refineries, and used elsewhere throughout the manufacturing sector as energy are not collected on the MECS. An estimate of the *Miscellaneous Nonfuel Products* used in manufacturing was derived using EIA's [U.S. Product Supplied for Crude Oil and Petroleum Products](#) data.

PETROLEUM PRODUCTS data.

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(c) *Total* is the sum of all of the listed energy sources, including *Other*, minus the *Shipments of Energy Sources Produced Onsite*. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

* Estimate less than 0.5.

D = Withheld to avoid disclosing data for individual establishments.

Q = Withheld because Relative Standard Error (RSE) is greater than 50 percent.

X=Not defined because RSE corresponds to a data table value of zero.

NA = Not available.

-- Estimation is not applicable. Energy source is not included in series.

Notes: Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, 2018 *Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2018.

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