

Released: August 2025
Next MECS will be fielded in 2027

Table 1.5 First use of energy for all purposes (fuel and nonfuel), 2022

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 British thermal units

Energy source	Total first use
Total United States	
Coal	899
Natural gas	7,866
Net electricity	2,674
Purchases	2,754
Transfers in	15
Onsite generation from noncombustible renewable energy	8
Sales and transfers offsite	103
Coke and breeze	240
Residual fuel oil	33
Distillate fuel oil	83
Hydrocarbon gas liquids (HGL) excluding natural gasoline	3,150
Hydrogen	238
Other	6,251
Lubricants ^a	245
Special naphthas ^a	58
Waxes ^a	13
Miscellaneous nonfuel products ^a	183
Naphtha	328
Bitumen	859
Kerosene	6
Motor gasoline	6
Petroleum coke	699
Still gas or waste gas	1,499
Pulping liquor or Black liquor	846
Biomass total	669
Agricultural waste	100
Wood harvested directly from trees	24
Wood residues and byproducts from mill processing	535
Wood-related and paper-related refuse	10
Net steam or hot water	493
Miscellaneous	585
Shipments of energy sources produced onsite ^b	747
Total ^c	20,687

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2022

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

^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 refineries (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 under *other*. However, *miscellaneous nonfuel products* (that is, 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.

^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. 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 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%.

NA = Not available.

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

The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure protection of the confidential source data (Project No. 7504703, Disclosure Review Board (DRB) approval number: CBDRB-FY25-0054).

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RSE Table 1.5 Relative standard errors for table 1.5

Unit: Percentage

Energy source	Total first use
Total United States	
Coal	2.3
Natural gas	2.0
Net electricity	3.1
Purchases	3.0
Transfers in	3.7
Onsite generation from noncombustible renewable energy	8.8
Sales and transfers offsite	1.3
Coke and breeze	0.5
Residual fuel oil	1.4
Distillate fuel oil	6.7
Hydrocarbon gas liquids (HGL) excluding natural gasoline	0.1
Hydrogen	18.7
Other	2.1
Lubricants ^a	0.0
Special naphthas ^a	0.0
Waxes ^a	0.0
Miscellaneous nonfuel products ^a	0.0
Naphtha	0.1
Bitumen	3.3
Kerosene	9.0
Motor gasoline	6.9
Petroleum coke	5.0
Still gas or waste gas	0.2
Pulping liquor or Black liquor	0.0
Biomass total	0.9
Agricultural waste	1.0
Wood harvested directly from trees	15.6
Wood residues and byproducts from mill processing	0.9
Wood-related and paper-related refuse	1.5
Net steam or hot water	1.7
Miscellaneous	19.0
Shipments of energy sources produced onsite ^b	0.2
Total ^c	1.2

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2022

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