

**Table S1.1. First Use of Energy for All Purposes (Fuel and Nonfuel), 1998;
Level: National Data;
Row: Selected SIC Codes; Column: Energy Sources and Shipments;
Unit: Physical Units or Btu.**

SIC Code ^a	Major Group and Industry	Total ^b (trillion Btu)	Net ^c Electricity (million kWh)	Residual Fuel Oil (million bbl)	Distillate Fuel Oil ^d (million bbl)	Natural Gas ^e (billion cu ft)	LPG and NGL ^f (million bbl)	Coal (million short tons)	Coke and Breeze (million short tons)	Other ^g (trillion Btu)	Ship- ments ^h (trillion Btu)	RSE Row Factors
Total United States												
RSE Column Factors:		0.6	0.7	1.5	2.1	0.8	1.5	0.6	1.0	1.3	0.8	
20	Food and Kindred Products	1,118	67,474	2	3	587	2	6	*	100	0	1.6
21	Tobacco Products	26	1,452	*	*	5	*	1	0	*	0	9.2
22	Textile Mill Products	313	35,642	2	1	126	1	1	0	17	0	3.4
23	Apparel and Other Textile Products	45	5,153	*	*	23	*	*	0	*	0	11.6
24	Lumber and Wood Products	589	25,658	*	6	75	1	*	0	383	0	13.4
25	Furniture and Fixtures	79	7,743	*	*	25	*	*	0	24	0	15.5
26	Paper and Allied Products	2,761	73,527	24	2	574	1	12	0	1,478	0	2.8
2621	<i>Paper Mills</i>	1,227	36,412	15	1	227	*	6	0	629	0	3.5
2631	<i>Paperboard Mills</i>	945	14,859	6	*	219	*	4	0	535	0	2.8
27	Printing and Publishing	165	28,834	*	*	60	*	*	0	2	0	11.2
28	Chemicals and Allied Products	6,083	166,598	15	2	2,685	506	13	*	678	110	2.4
2819	<i>Industrial Inorganic Chemicals, nec.</i>	354	32,014	*	*	154	*	Q	*	23	0	6.3
2821	<i>Plastics Materials and Resins</i>	1,067	19,223	*	*	252	190	1	*	60	13	2.0
2869	<i>Industrial Organic Chemicals, nec.</i>	2,492	24,760	1	*	1,089	245	5	0	407	90	2.7
29	Petroleum and Coal Products	W	37,032	11	5	981	10	W	0	6,082	47	5.6
2911	<i>Petroleum Refining</i> ⁱ	7,130	34,725	11	1	923	8	*	0	5,957	0	5.1
30	Rubber and Miscellaneous Plastics Products	318	52,331	1	*	118	1	*	0	5	0	5.2
3089	<i>Miscellaneous Plastics Products, nec.</i>	102	21,058	*	*	26	1	0	0	*	0	8.0
31	Leather and Leather Products	9	796	*	*	5	*	0	0	*	0	8.1
32	Stone, Clay, and Glass Products	979	39,262	1	3	433	1	13	*	82	0	4.8
33	Primary Metal Industries	W	163,994	5	2	884	1	W	18	81	192	3.1
3312	<i>Blast Furnaces and Steel Mills</i>	1,589	45,772	5	1	W	*	W	16	21	192	2.5
3334	<i>Primary Aluminum</i>	254	57,355	*	*	W	*	W	0	41	0	1.0
34	Fabricated Metal Products	411	48,219	*	1	201	1	1	*	9	0	1.3
35	Industrial Machinery and Equipment	283	38,577	*	1	123	1	*	0	10	0	5.1
36	Electronic and Other Electric Equipment	284	43,420	*	*	95	*	*	*	31	0	6.3
37	Transportation Equipment	424	48,806	1	3	186	1	1	*	28	0	6.6
3714	<i>Motor Vehicle Parts and Accessories</i>	162	23,659	*	*	68	*	*	*	5	0	7.3
38	Instruments and Related Products	115	15,696	*	*	34	*	1	0	3	0	9.6
39	Miscellaneous Manufacturing Industries	50	5,491	*	*	24	*	*	0	3	0	15.3
	Total	23,921	905,706	65	28	7,242	528	77	19	9,016	349	1.9

See footnotes at end of table.

**Table S1.1.
(Continued)**

**First Use of Energy for All Purposes (Fuel and Nonfuel), 1998;
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Footnotes

^a The Standard Industrial Classification (SIC) system has been replaced by the North American Industry Classification System (NAICS). Since the Bureau of the Census has collected the information necessary to classify establishments on both an NAICS and an SIC basis, the same 1998 data can be shown on both the old and the new basis in bridge tables that allow comparisons between the two systems. These data are hereby produced for the last time on an SIC basis for 1998 at the national level only.

^b "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.

^c "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

^d "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

^e "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

^f Examples of Liquefied Petroleum Gases (LPG) are ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw Natural Gas Liquids (NGL)."

^g "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "i".

^h "Shipments" are shipments of energy sources produced onsite, which 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.

ⁱ For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

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

NA=Not available.

Notes: C To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. C Totals may not equal sum of components because of independent rounding. C The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy Consumption Division, Form EIA-846, "1998 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1998.