

Released: February 2018

Next MECS will be fielded in 2019

Table 1.4 Number of Establishments by First Use of Energy for All Purposes (Fuel and Nonfuel), 2014;

Level: National Data;

Row: NAICS Codes; Column: Energy Sources and Shipments;

Unit: Establishment Counts.

NAICS Code(a)	Subsector and Industry	Any Energy Source(b)	Net Electricity(c)	Residual Fuel Oil	Distillate Fuel Oil(d)	Natural Gas(e)	HGL (excluding natural gasoline)(f)	Coal	Coke and Breeze	Other(g)	Shipments of Energy Sources Produced Onsite(h)
Total United States											
311	Food	13,690	13,653	91	2,373	10,270	3,941	51	12	1,522	W
3112	Grain and Oilseed Milling	600	600	W	224	513	217	23	0	155	W
311221	Wet Corn Milling	49	49	0	30	44	26	14	0	30	W
31131	Sugar Manufacturing	71	71	5	28	60	15	23	12	36	0
3114	Fruit and Vegetable Preserving and Specialty Food	985	985	8	267	794	396	W	0	123	0
3115	Dairy Product	992	992	16	161	803	207	W	0	63	0
3116	Animal Slaughtering and Processing	1,603	1,603	24	282	1,349	260	W	0	135	0
312	Beverage and Tobacco Products	2,443	2,443	W	401	1,224	1,178	12	0	256	0
3121	Beverages	2,369	2,369	0	373	1,164	1,141	W	0	240	0
3122	Tobacco	74	74	W	28	60	38	W	0	16	0
313	Textile Mills	1,355	1,355	Q	156	928	482	W	0	144	0
314	Textile Product Mills	4,277	4,277	W	53	2,626	1,231	7	0	W	0
315	Apparel	3,874	3,874	0	Q	1,174	Q	0	0	W	0
316	Leather and Allied Products	466	466	W	16	283	135	0	0	16	0
321	Wood Products	8,398	8,316	8	2,218	3,529	4,018	W	0	1,856	0
321113	Sawmills	1,619	1,609	W	755	253	526	W	0	567	0
3212	Veneer, Plywood, and Engineered Woods	973	973	W	323	499	487	W	0	271	0
321219	Reconstituted Wood Products	154	154	W	75	129	130	W	0	82	0
3219	Other Wood Products	5,558	5,486	W	991	2,646	2,962	0	0	966	0
322	Paper	3,220	3,220	83	403	2,762	1,580	71	0	306	0
322110	Pulp Mills	28	28	W	23	23	22	W	0	25	0
322121	Paper Mills, except Newsprint	165	165	36	87	159	104	37	0	83	0
322122	Newsprint Mills	18	18	0	14	14	13	W	0	18	0
322130	Paperboard Mills	147	147	33	92	139	116	26	0	82	0
323	Printing and Related Support	14,005	14,005	W	334	9,056	2,329	0	0	513	0
324	Petroleum and Coal Products	1,918	1,904	105	837	1,420	618	26	W	1,402	37
324110	Petroleum Refineries	174	174	W	67	168	103	W	0	109	0
324121	Asphalt Paving Mixture and Block	1,285	1,275	96	583	875	248	0	0	1,094	W
324122	Asphalt Shingle and Coating Materials	162	158	W	59	144	135	W	0	138	W
324199	Other Petroleum and Coal Products	86	86	0	48	73	43	20	W	43	30
325	Chemicals	8,530	8,530	60	1,611	6,759	3,035	65	W	1,352	45
325110	Petrochemicals	44	44	W	20	33	33	0	0	22	9
325120	Industrial Gases	427	427	0	59	203	54	0	0	49	W
325180	Other Basic Inorganic Chemicals	511	511	9	201	412	206	8	W	153	0
325193	Ethyl Alcohol	211	211	0	69	200	44	10	0	52	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	69	69	0	22	44	20	0	0	13	0
325199	Other Basic Organic Chemicals	518	518	W	218	457	293	10	0	207	10
325211	Plastics Materials and Resins	844	844	Q	164	687	403	Q	0	158	8
325212	Synthetic Rubber	85	85	0	22	73	40	W	0	20	0
325220	Artificial and Synthetic Fibers and Filaments	89	89	3	16	73	40	5	0	12	0
325311	Nitrogenous Fertilizers	133	133	W	30	120	22	0	0	25	W
325312	Phosphatic Fertilizers	57	57	W	28	34	18	W	0	19	0
3254	Pharmaceuticals and Medicines	1,199	1,199	0	182	952	231	W	0	75	0
325412	Pharmaceutical Preparation	601	601	0	119	516	73	W	0	51	0
32592	Photographic Film, Paper, Plate, and Chemicals	121	121	W	10	106	29	0	0	11	0
326	Plastics and Rubber Products	8,217	8,217	0	661	6,276	4,657	W	0	1,234	0
327	Nonmetallic Mineral Products	12,184	12,174	Q	4,217	7,450	4,062	177	14	1,882	0
327120	Clay Building Material and Refractories	446	446	W	190	407	226	17	0	148	0
327211	Flat Glass	50	50	0	35	47	37	W	0	32	0
327212	Other Pressed and Blown Glass and Glassware	194	194	0	24	174	49	0	0	38	0
327213	Glass Containers	59	59	0	42	59	43	0	0	23	0
327215	Glass Products from Purchased Glass	683	683	W	54	513	326	W	0	112	0
327310	Cements	189	189	4	135	81	49	85	8	85	0
327410	Lime	83	83	0	50	45	17	44	W	32	0
327420	Gypsum	122	122	0	61	72	82	0	0	22	0
327993	Mineral Wool	186	186	W	35	139	86	0	W	28	0
331	Primary Metals	3,138	3,129	10	915	2,723	1,769	69	95	906	W
331110	Iron and Steel Mills and Ferroalloys	345	345	W	165	314	164	38	20	167	10
3312	Steel Products from Purchased Steel	470	470	0	145	348	321	Q	0	173	0
3313	Alumina and Aluminum	383	374	4	118	357	212	0	0	108	W
331314	Secondary Smelting and Alloying of Aluminum	96	96	0	34	85	46	0	0	17	0
331315	Aluminum Sheet, Plate and Foils	57	57	0	21	55	37	0	0	20	W
331318	Other Aluminum Rolling, Drawing and Extruding	191	182	W	32	181	111	0	0	51	0
3314	Nonferrous Metals, except Aluminum	662	662	0	126	517	341	8	17	161	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	108	108	0	30	96	79	W	3	35	0
3315	Foundries	1,278	1,278	W	362	1,187	731	12	58	296	5
331511	Iron Foundries	320	320	W	196	305	216	12	58	107	5
331523	Nonferrous Metal Die-Casting Foundries	254	254	0	29	230	135	0	0	75	0
331524	Aluminum Foundries, except Die-Casting	268	268	W	40	246	162	0	0	64	0
332	Fabricated Metal Products	36,439	36,439	0	3,697	24,831	15,762	W	0	5,740	0
333	Machinery	15,307	15,307	Q	1,027	11,626	6,466	W	0	2,026	0
334	Computer and Electronic Products	6,831	6,831	W	504	4,591	1,487	0	0	677	0
334413	Semiconductors and Related Devices	388	388	W	95	293	65	0	0	44	0
335	Electrical Equip., Appliances, and Components	3,298	3,298	0	244	2,332	1,090	0	W	431	0
336	Transportation Equipment	6,603	6,603	6	1,042	5,193	3,449	6	W	1,245	0
336111	Automobiles	44	44	0	30	43	23	W	0	22	0
336112	Light Trucks and Utility Vehicles	37	37	0	28	33	22	W	0	26	0
3364	Aerospace Product and Parts	1,063	1,063	W	139	839	461	0	0	191	0
336411	Aircraft	293	293	W	Q	247	65	0	0	Q	0
337	Furniture and Related Products	7,913	7,913	0	Q	4,511	3,274	W	0	539	0

339	Miscellaneous	13,001	12,906	W	552	8,289	2,777	0	0	480	0
	Total	175,107	174,860	743	21,774	117,852	63,655	549	129	22,572	100

(a) The Bureau of the Census classifies establishments using the 2012 North American Industry Classification System (NAICS).

(b) 'Any Energy Source' represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 2014.

(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) Hydrocarbon Gas Liquids (HGL) include 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.

(h) '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.

* 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: Totals may not equal sum of components because of independent rounding. 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; wood chips, bark, and wood waste 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: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, '2014 Manufacturing Energy Consumption Survey.'

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RSE Table 1.4 Relative Standard Errors for Table 1.4;

Unit: Percents.

NAICS Code(a)	Subsector and Industry	Any Energy Source(b)	Net Electricity(c)	Residual Fuel Oil	Distillate Fuel Oil(d)	Natural Gas(e)	HGL (excluding natural gasoline)(f)	Shipments of Energy Sources Produced			
								Coal	Coke and Breeze	Other(g)	Onsite(h)
Total United States											
311	Food	0.0	0.2	30.8	11.9	3.7	9.6	2.2	0.1	15.7	4.2
3112	Grain and Oilseed Milling	0.0	0.1	31.6	11.6	4.2	14.8	4.5	X	12.6	4.2
311221	Wet Corn Milling	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	0.0
31131	Sugar Manufacturing	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	X
3114	Fruit and Vegetable Preserving and Specialty Food	0.0	0.1	14.1	19.0	6.7	12.9	9.2	X	21.9	X
3115	Dairy Product	0.0	0.1	23.7	18.7	4.9	17.4	7.1	X	18.6	X
3116	Animal Slaughtering and Processing	0.0	0.1	18.2	11.5	4.0	13.1	27.8	X	17.4	X
312	Beverage and Tobacco Products	0.0	0.1	0.1	18.3	9.0	9.5	5.0	X	25.7	X
3121	Beverages	0.0	0.1	X	19.7	9.4	9.8	7.0	X	27.5	X
3122	Tobacco	0.0	0.1	0.1	0.1	0.1	0.1	0.1	X	0.1	X
313	Textile Mills	0.0	0.1	54.0	28.8	8.7	16.4	52.6	X	34.5	X
314	Textile Product Mills	0.0	0.1	16.9	42.4	16.9	32.2	30.5	X	51.3	X
315	Apparel	0.0	0.1	X	74.0	41.4	58.5	X	X	41.8	X
316	Leather and Allied Products	0.0	0.1	70.4	21.3	13.3	22.9	X	X	24.1	X
321	Wood Products	0.0	0.9	7.7	8.1	7.6	6.8	8.3	X	10.1	X
321113	Sawmills	0.0	0.4	5.5	6.7	10.2	9.4	5.5	X	8.3	X
3212	Veneer, Plywood, and Engineered Woods	0.0	0.1	17.7	14.9	10.6	11.2	17.7	X	14.0	X
321219	Reconstituted Wood Products	0.0	0.1	17.7	19.0	6.2	4.1	17.7	X	18.7	X
3219	Other Wood Products	0.0	1.3	7.6	16.4	9.9	8.8	X	X	18.3	X
322	Paper	0.0	0.1	0.7	14.5	5.5	12.7	0.8	X	12.2	X
322110	Pulp Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322121	Paper Mills, except Newsprint	0.0	0.1	0.1	0.1	0.1	0.1	0.1	X	0.1	X
322122	Newsprint Mills	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
323	Printing and Related Support	0.0	0.1	52.1	38.7	5.6	16.1	X	X	35.4	X
324	Petroleum and Coal Products	0.0	0.3	13.0	5.6	2.4	8.1	9.3	0.0	3.4	3.8
324110	Petroleum Refineries	0.0	0.1	36.2	36.2	1.4	25.4	36.2	X	36.2	X
324121	Asphalt Paving Mixture and Block	0.0	0.3	13.9	5.1	3.2	13.7	X	X	2.3	58.0
324122	Asphalt Shingle and Coating Materials	0.0	1.8	4.0	8.0	3.6	3.4	56.5	X	3.7	18.5
324199	Other Petroleum and Coal Products	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	Chemicals	0.0	0.1	33.6	10.6	3.5	8.8	13.7	12.7	13.2	14.1
325110	Petrochemicals	0.0	0.1	26.6	26.6	26.6	9.1	X	X	26.6	26.6
325120	Industrial Gases	0.0	0.1	X	40.2	18.0	39.7	X	X	43.6	43.8
325180	Other Basic Inorganic Chemicals	0.0	0.1	12.7	18.9	8.7	18.2	22.6	12.7	20.5	X
325193	Ethyl Alcohol	0.0	0.1	X	15.1	1.0	25.1	15.5	X	20.9	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325199	Other Basic Organic Chemicals	0.0	0.1	12.4	17.1	6.3	11.4	21.8	X	17.5	12.4
325211	Plastics Materials and Resins	0.0	0.1	59.3	14.0	5.6	11.4	53.7	X	17.9	8.1
325212	Synthetic Rubber	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
325311	Nitrogenous Fertilizers	0.0	0.1	22.9	24.5	2.6	26.4	X	X	25.4	22.9
325312	Phosphatic Fertilizers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
3254	Pharmaceuticals and Medicines	0.0	0.1	X	16.2	6.7	25.4	13.9	X	17.3	X
325412	Pharmaceutical Preparation	0.0	0.1	X	22.8	5.7	22.9	13.9	X	23.5	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.0	0.1	25.5	25.5	6.3	35.7	X	X	25.5	X
326	Plastics and Rubber Products	0.0	0.1	X	27.7	4.8	7.5	90.4	X	19.8	X
327	Nonmetallic Mineral Products	0.0	0.1	85.6	10.6	6.3	10.6	18.7	20.3	16.5	X
327120	Clay Building Material and Refractories	0.0	0.1	42.1	10.9	2.3	10.0	9.4	X	11.3	X
327211	Flat Glass	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
327212	Other Pressed and Blown Glass and Glassware	0.0	0.1	X	23.5	5.3	22.8	X	X	41.9	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	0.0	0.1	80.6	11.4	8.0	13.6	82.3	X	26.6	X
327310	Cements	0.0	0.1	31.9	14.2	32.2	32.0	31.9	33.3	32.2	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	0.0	0.1	X	17.3	17.6	15.7	X	X	17.3	X
327993	Mineral Wool	0.0	0.1	62.8	25.6	14.6	27.8	X	24.9	28.8	X
331	Primary Metals	0.0	0.2	4.4	6.3	2.0	4.2	12.0	17.8	5.2	6.1
331110	Iron and Steel Mills and Ferroalloys	0.0	0.1	3.3	3.6	0.3	3.7	3.3	3.3	3.5	3.3
3312	Steel Products from Purchased Steel	0.0	0.1	X	22.4	10.9	8.0	68.6	X	15.9	X
3313	Alumina and Aluminum	0.0	2.0	7.4	5.0	0.3	5.9	X	X	8.9	21.4
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.1	X	0.1	0.1	0.1	X	X	0.1	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.1	X	21.4	0.7	11.8	X	X	21.4	21.4
331318	Other Aluminum Rolling, Drawing and Extruding	0.0	4.1	10.0	11.7	0.6	10.6	X	X	16.8	X
3314	Nonferrous Metals, except Aluminum	0.0	0.1	X	14.8	6.7	10.9	34.5	20.1	14.5	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	0.0	0.1	X	37.4	4.8	13.7	37.4	37.4	37.4	X
3315	Foundries	0.0	0.1	9.4	11.9	1.4	8.0	18.5	28.6	9.4	18.5
331511	Iron Foundries	0.0	0.1	18.5	17.7	1.5	16.6	18.5	28.6	20.8	18.5
331523	Nonferrous Metal Die-Casting Foundries	0.0	0.1	X	18.5	2.3	12.1	X	X	14.3	X
331524	Aluminum Foundries, except Die-Casting	0.0	0.1	7.9	28.7	1.4	6.5	X	X	11.1	X
332	Fabricated Metal Products	0.0	0.1	X	19.0	4.5	7.5	4.5	X	14.8	X
333	Machinery	0.0	0.1	56.9	23.5	3.8	7.8	87.7	X	16.4	X
334	Computer and Electronic Products	0.0	0.1	11.6	28.7	7.1	18.9	X	X	27.7	X
334413	Semiconductors and Related Devices	0.0	0.1	20.1	24.7	10.9	29.5	X	X	20.1	X
335	Electrical Equip., Appliances, and Components	0.0	0.1	X	37.3	8.8	18.4	X	9.9	30.3	X
336	Transportation Equipment	0.0	0.1	8.2	21.8	5.6	9.7	15.2	19.6	19.4	X
336111	Automobiles	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
3364	Aerospace Product and Parts	0.0	0.1	11.4	30.9	6.8	13.8	X	X	25.5	X
336411	Aircraft	0.0	0.1	25.8	60.0	13.6	42.4	X	X	50.6	X
337	Furniture and Related Products	0.0	0.1	X	50.3	8.6	11.5	59.6	X	33.4	X
339	Miscellaneous	0.0	0.7	6.0	35.5	6.2	15.8	X	X	40.5	X
	Total	0.0	0.1	22.0	4.9	1.6	2.8	8.6	13.3	5.1	6.5

(a) The Bureau of the Census classifies establishments using the 2012 North American Industry Classification System (NAICS).

(b) 'Any Energy Source' represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 2014.

(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) Hydrocarbon Gas Liquids '(HGL)' include 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.

(h) '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.

* Estimate less than 0.5.

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

NA=Not available.

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

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

Notes: Totals may not equal sum of components because of independent rounding. 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; wood chips, bark, and wood waste 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: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, '2014 Manufacturing Energy Consumption Survey.'