

Released: December 2025

Next MECS will be fielded in 2027

Table 1.4 Number of establishments by first use of energy for all purposes (fuel and nonfuel), 2022

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	18,377	18,283	15	1,509	14,320	2,931	20	11	961	0
3112	Grain and Oilseed Milling	661	661	6	117	569	107	6	0	69	0
311221	Wet Corn Milling and Starch Manufacturing	55	55	0	30	48	31	0	0	31	0
31131	Sugar Manufacturing	64	64	0	15	58	19	14	11	22	0
3114	Fruit and Vegetable Preserving and Specialty Food	1,109	1,109	0	111	981	214	0	0	61	0
3115	Dairy Product Manufacturing	1,087	1,087	0	112	926	210	0	0	75	0
3116	Animal Slaughtering and Processing	2,020	2,022	0	226	1,523	503	0	0	142	0
312	Beverage and Tobacco Products	5,943	5,990	0	612	3,246	1,983	3	0	447	0
3121	Beverages	5,859	5,906	0	594	3,189	1,955	3	0	440	0
3122	Tobacco	84	84	0	18	56	28	0	0	7	0
313	Textile Mills	1,096	1,089	0	0	641	231	6	0	33	0
314	Textile Product Mills	3,638	3,638	0	5	1,929	0	0	0	0	0
315	Apparel	3,236	3,236	0	0	765	25	0	0	0	0
316	Leather and Allied Products	636	636	0	12	224	52	0	0	0	0
321	Wood Products	9,930	9,803	0	2,102	4,633	3,219	0	0	1,856	0
321113	Sawmills	1,949	1,925	0	963	367	402	0	0	425	0
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	1,173	1,173	0	328	650	502	0	0	222	0
321219	Reconstituted Wood Products	119	119	0	25	79	63	0	0	41	0
3219	Other Wood Products	6,531	6,428	0	676	3,501	2,197	0	0	1,143	0
322	Paper	3,057	3,057	39	219	2,693	1,275	23	0	215	0
322110	Pulp Mills	33	33	3	10	31	9	0	0	23	0
322120	Paper Mills	138	138	9	40	128	50	8	0	42	0
322130	Paperboard Mills	164	164	17	72	153	83	10	0	75	0
323	Printing and Related Support	12,389	12,389	0	0	7,177	1,165	0	0	0	0
324	Petroleum and Coal Products	1,813	1,810	131	583	1,328	362	9	0	1,241	15
324110	Petroleum Refineries	131	131	0	69	129	52	0	0	128	0
324121	Asphalt Paving Mixture and Block	1,276	1,273	0	435	873	115	0	0	986	6
324122	Asphalt Shingle and Coating Materials	142	142	0	25	139	100	0	0	97	0
324191	Petroleum Lubricating Oil and Grease Manufacturing	214	214	0	25	142	80	0	0	19	0
324199	All Other Petroleum and Coal Products Manufacturing	50	50	0	29	45	15	9	0	11	9
325	Chemicals	10,044	10,043	8	1,426	7,886	3,833	78	0	1,049	62
325110	Petrochemicals	60	60	0	28	31	51	0	0	26	11
325120	Industrial Gases	612	612	0	8	225	64	0	0	0	4
325180	Other Basic Inorganic Chemical Manufacturing	587	586	0	178	439	276	5	0	134	0
325193	Ethyl Alcohol	207	207	0	85	203	44	0	0	47	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	62	62	0	25	46	37	14	0	27	0
325199	All Other Basic Organic Chemical Manufacturing	590	590	0	135	544	260	0	0	184	14
325211	Plastics Materials and Resins	1,037	1,037	0	210	919	655	0	0	191	5
325212	Synthetic Rubber	98	98	0	11	90	30	0	0	14	0
325220	Artificial and Synthetic Fibers and Filaments	88	88	0	11	77	43	0	0	6	0
325311	Nitrogenous Fertilizers	161	161	0	43	92	76	0	0	37	0
325312	Phosphatic Fertilizers	79	79	0	26	31	28	3	0	11	0
3254	Pharmaceuticals and Medicines	1,471	1,471	0	179	1,209	162	0	0	61	0
325412	Pharmaceutical Preparation	687	687	0	82	583	78	0	0	17	0
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	69	69	0	16	51	21	0	0	10	0

326	Plastics and Rubber Products	8,490	8,490	Q	251	5,404	2,560	0	0	442	0
327	Nonmetallic Mineral Products	12,292	12,288	D	2,417	6,166	3,784	157	D	1,171	Q
327120	Clay Building Material and Refractories	364	364	0	104	313	132	D	0	75	0
327211	Flat Glass	93	93	0	7	76	28	0	0	D	0
327212	Other Pressed and Blown Glass and Glassware	156	156	0	6	132	41	0	0	11	0
327213	Glass Containers	54	54	0	13	53	13	0	0	6	0
327215	Glass Products from Purchased Glass	599	599	0	19	423	112	0	0	D	0
327310	Cements	159	159	0	61	94	26	62	8	66	0
327410	Lime	95	95	0	57	59	20	47	4	31	0
327420	Gypsum	126	126	D	55	123	69	0	0	11	0
327993	Mineral Wool	185	185	0	21	149	144	D	D	14	0
331	Primary Metals	2,677	2,671	D	466	2,479	1,718	58	75	387	9
331110	Iron and Steel Mills and Ferroalloys	165	162	D	93	151	89	D	19	84	6
3312	Steel Products from Purchased Steel	564	564	0	92	510	363	0	3	88	D
3313	Alumina and Aluminum Production and Processing	353	351	0	80	336	207	0	0	45	D
331314	Secondary Smelting and Alloying of Aluminum	90	88	0	40	90	38	0	0	10	0
331315	Aluminum Sheet, Plate and Foils	67	67	0	24	66	55	0	0	13	D
331318	Other Aluminum Rolling, Drawing and Extruding	182	182	0	11	173	107	0	0	17	0
3314	Nonferrous Metal (except Aluminum) Production and Processing	517	517	0	68	474	292	D	15	52	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	74	74	0	9	66	55	D	D	8	0
3315	Foundries	1,078	1,077	0	133	1,007	766	Q	39	117	D
331511	Iron Foundries	259	258	0	64	236	191	Q	D	27	D
331523	Nonferrous Metal Die-Casting Foundries	217	217	0	9	207	137	0	0	35	0
331524	Aluminum Foundries, except Die-Casting	247	247	0	12	225	171	0	0	Q	0
332	Fabricated Metal Products	38,253	38,096	Q	2,226	21,344	13,505	0	0	3,992	0
333	Machinery	14,061	14,061	0	775	8,952	4,563	0	0	1,589	0
334	Computer and Electronic Products	6,625	6,625	9	215	3,978	614	0	0	220	0
334413	Semiconductors and Related Devices	375	375	9	82	231	38	0	0	48	0
335	Electrical Equipment, Appliances, and Components	3,301	3,301	0	299	2,022	807	0	D	368	0
336	Transportation Equipment	7,600	7,600	Q	695	4,927	2,699	0	0	1,359	0
336110	Automobile and Light Duty Motor Vehicle Manufacturing	210	210	0	Q	165	Q	0	0	91	0
3364	Aerospace Product and Parts	1,227	1,227	0	125	858	515	0	0	191	0
336411	Aircraft	286	286	0	44	Q	51	0	0	30	0
337	Furniture and Related Products	8,523	8,259	0	439	4,810	2,536	Q	0	633	0
339	Miscellaneous	13,055	13,055	0	Q	5,927	1,886	0	0	682	0
	Total	185,036	184,421	589	14,644	110,851	50,420	473	104	16,931	94

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*

Note: 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 feedstock 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.

^a The Bureau of the Census classifies establishments using the 2022 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 2022.

^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 suppliers, such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

^f Hydrocarbon gas liquids (HGLs) 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 (NGLs).

^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

D=Withheld to avoid disclosing data for individual establishments

Q=Withheld because relative standard error (RSE) is greater than 50%

NA=Not available

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 1.4 Relative standard errors for Table 1.4

Unit: Percentage

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	5.1	5.1	23.9	15.1	6.1	14.3	0.0	0.0	22.4	X
3112	Grain and Oilseed Milling	7.7	7.7	34.0	12.4	9.0	13.5	0.0	X	5.9	X
311221	Wet Corn Milling and Starch Manufacturing	0.0	0.0	X	0.0	0.0	0.0	D	X	0.0	X
31131	Sugar Manufacturing	0.0	0.0	D	0.0	0.0	0.0	0.0	0.0	0.0	X
3114	Fruit and Vegetable Preserving and Specialty Food	12.9	12.9	D	15.1	13.9	12.6	X	X	39.9	X
3115	Dairy Product Manufacturing	11.7	11.7	54.2	10.9	10.2	41.2	X	X	21.4	X
3116	Animal Slaughtering and Processing	7.3	7.3	D	23.9	8.0	19.5	X	X	40.3	X
312	Beverage and Tobacco Products	6.2	6.2	X	23.2	9.2	12.2	0.0	X	28.4	X
3121	Beverages	6.3	6.2	X	23.9	9.3	12.4	0.0	X	28.8	X
3122	Tobacco	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
313	Textile Mills	16.5	16.6	X	50.9	16.4	22.4	33.4	X	40.2	X
314	Textile Product Mills	20.9	20.9	X	36.4	31.6	51.4	X	X	91.0	X
315	Apparel	18.3	18.3	X	91.9	39.1	34.4	X	X	D	X
316	Leather and Allied Products	23.0	23.0	X	30.0	30.0	30.8	X	X	D	X
321	Wood Products	5.7	5.8	63.6	10.0	9.2	11.4	99.0	X	12.6	X
321113	Sawmills	7.4	7.5	70.6	10.4	11.4	12.3	X	X	12.0	X
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	9.5	9.5	0.0	21.6	12.8	17.1	X	X	12.7	X
321219	Reconstituted Wood Products	18.2	18.2	D	0.0	8.5	35.6	X	X	1.2	X
3219	Other Wood Products	8.3	8.5	X	23.8	11.9	16.0	99.0	X	19.8	X
322	Paper	10.3	10.3	8.1	18.4	10.9	15.5	2.5	X	17.9	X
322110	Pulp Mills	0.0	0.0	0.0	0.0	0.0	0.0	D	X	0.0	X
322120	Paper Mills	0.0	0.0	0.0	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	7.1	7.1	99.0	81.7	10.3	26.2	X	X	83.5	X
324	Petroleum and Coal Products	2.7	2.7	16.4	4.5	3.2	6.8	0.0	D	2.9	10.7
324110	Petroleum Refineries	0.0	0.0	D	0.0	0.0	0.0	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	3.4	3.4	D	6.0	4.0	10.1	X	X	3.6	28.1
324122	Asphalt Shingle and Coating Materials	13.0	13.0	X	0.0	13.3	16.2	X	X	3.0	X
324191	Petroleum Lubricating Oil and Grease Manufacturing	7.4	7.4	X	6.7	11.2	18.2	X	X	8.8	X
324199	All Other Petroleum and Coal Products Manufacturing	0.0	0.0	X	0.0	0.0	0.0	0.0	D	0.0	0.0
325	Chemicals	5.7	5.7	0.0	12.5	6.7	11.2	37.3	X	12.3	39.1
325110	Petrochemicals	0.0	0.0	X	0.0	0.0	0.0	D	X	0.0	0.0
325120	Industrial Gases	20.7	20.7	X	6.9	43.3	44.3	X	X	66.9	0.0
325180	Other Basic Inorganic Chemical Manufacturing	22.8	22.9	D	29.4	17.1	24.4	0.0	X	17.1	X
325193	Ethyl Alcohol	3.9	3.9	X	5.9	4.0	5.5	D	X	7.1	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325199	All Other Basic Organic Chemical Manufacturing	13.8	13.8	D	14.8	15.0	23.9	67.2	X	29.5	1.7
325211	Plastics Materials and Resins	16.7	16.7	X	24.7	18.4	24.3	X	X	21.9	0.0
325212	Synthetic Rubber	29.8	29.8	X	0.0	32.4	0.0	D	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	6.6	6.6	X	0.0	7.6	0.0	X	X	0.0	X
325311	Nitrogenous Fertilizers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325312	Phosphatic Fertilizers	0.0	0.0	D	0.0	0.0	0.0	0.0	X	0.0	D
3254	Pharmaceuticals and Medicines	10.4	10.4	X	11.6	10.6	22.7	96.1	X	39.5	D
325412	Pharmaceutical Preparation	14.6	14.6	X	19.5	17.0	34.4	X	X	9.7	X
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
326	Plastics and Rubber Products	6.0	6.0	87.0	40.5	8.7	14.0	X	X	33.0	X
327	Nonmetallic Mineral Products	6.9	6.9	D	18.0	10.4	14.4	21.5	D	24.0	88.8
327120	Clay Building Material and Refractories	12.5	12.5	X	13.7	11.3	12.3	D	X	12.9	X

327211	Flat Glass	4.1	4.1	X	0.0	4.6	0.0	X	X	D	X
327212	Other Pressed and Blown Glass and Glassware	23.7	23.7	X	0.0	26.1	28.5	X	X	31.4	X
327213	Glass Containers	1.0	1.0	X	0.0	1.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	10.7	10.7	X	31.5	12.6	24.0	X	X	D	X
327310	Cements	18.3	18.3	X	19.1	10.6	3.4	4.3	29.9	4.0	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	10.4	10.4	D	8.1	10.7	6.4	X	X	0.0	X
327993	Mineral Wool	25.7	25.7	X	0.0	29.5	32.9	D	D	0.0	X
331	Primary Metals	3.0	3.0	D	4.3	3.3	4.2	12.1	10.3	6.1	0.0
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	D	0.0	0.0	0.0	D	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	6.8	6.8	X	12.6	7.5	9.3	X	0.0	11.3	D
3313	Alumina and Aluminum Production and Processing	5.3	5.4	X	0.0	5.6	7.8	X	X	3.3	D
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331315	Aluminum Sheet, Plate and Foils	23.5	23.5	X	0.0	23.9	28.8	X	X	0.0	D
331318	Other Aluminum Rolling, Drawing and Extruding	5.7	5.7	X	0.0	6.1	3.8	X	X	8.5	X
3314	Nonferrous Metal (except Aluminum) Production and Processing	9.1	9.1	X	15.4	9.9	11.9	D	22.5	10.4	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	19.7	19.7	X	0.0	22.0	26.5	D	D	0.0	X
3315	Foundries	4.8	4.8	X	9.6	5.1	6.6	51.3	17.9	17.8	D
331511	Iron Foundries	9.1	9.2	X	14.0	9.9	12.0	51.3	D	8.8	D
331523	Nonferrous Metal Die-Casting Foundries	5.7	5.7	X	19.8	6.0	4.8	X	X	10.6	X
331524	Aluminum Foundries, except Die-Casting	7.8	7.8	X	24.4	8.1	10.6	X	X	54.7	X
332	Fabricated Metal Products	4.2	4.2	99.5	24.5	6.8	9.2	X	X	17.9	X
333	Machinery	5.7	5.7	X	27.4	7.8	12.2	X	X	23.5	X
334	Computer and Electronic Products	8.1	8.1	0.0	22.9	11.6	30.7	X	X	44.3	X
334413	Semiconductors and Related Devices	16.2	16.2	0.0	13.5	20.1	25.6	X	X	23.6	X
335	Electrical Equipment, Appliances, and Components	12.8	12.8	X	37.4	17.1	27.2	X	D	41.1	X
336	Transportation Equipment	7.9	7.9	96.5	26.9	10.5	14.3	X	X	21.1	X
336110	Automobile and Light Duty Motor Vehicle Manufacturing	31.1	31.1	X	57.7	40.3	62.1	X	X	49.2	X
3364	Aerospace Product and Parts	12.4	12.4	X	19.6	14.8	13.6	X	X	19.9	X
336411	Aircraft	42.6	42.6	X	24.5	56.9	23.1	X	X	34.9	X
337	Furniture and Related Products	7.9	8.0	X	40.6	11.7	16.6	84.0	X	34.2	X
339	Miscellaneous	6.7	6.7	X	50.5	11.3	20.7	X	X	35.6	X
	Total	1.6	1.6	33.3	6.1	2.3	3.8	25.9	7.8	6.3	26.9

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*

Note: 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 feedstock 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.

^a The Bureau of the Census classifies establishments using the 2022 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 2022.

^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 suppliers, such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

^f Hydrocarbon gas liquids (HGLs) 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 (NGLs).

^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

D=Withheld to avoid disclosing data for individual establishments

Q=Withheld because relative standard error (RSE) is greater than 50%

NA=Not available

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

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).

