

Released: December 2025

Next MECS will be fielded in 2027

Table 10.13 Number of establishments with capability to switch HGL (excluding natural gasoline) to alternative energy sources, 2022

Level: National data

Row: NAICS codes

Column: Energy sources

Unit: Establishment counts

NAICS code ^a	Subsector and industry	HGL (excluding natural gasoline) ^b			Alternative energy sources ^c						Coal coke and breeze	Other ^f
		Total consumed ^d	Switchable	Not switchable	Electricity receipts ^e	Natural gas	Distillate fuel oil	Residual fuel oil	Coal			
Total United States												
311	Food	2,670	Q	2,527	Q	9	4	0	0	0	0	0
3112	Grain and Oilseed Milling	107	4	105	4	0	0	0	0	0	0	0
311221	Wet Corn Milling and Starch Manufacturing	31	0	31	0	0	0	0	0	0	0	0
31131	Sugar Manufacturing	19	D	18	D	D	0	0	0	0	0	0
3114	Fruit and Vegetable Preserving and Specialty Food	214	D	190	D	0	D	0	0	0	0	0
3115	Dairy Product Manufacturing	210	4	207	3	3	D	0	0	0	0	0
3116	Animal Slaughtering and Processing	503	Q	499	0	D	0	0	0	0	0	0
312	Beverage and Tobacco Products	1,971	Q	1,910	Q	Q	D	0	0	0	0	0
3121	Beverages	1,944	D	1,882	Q	Q	D	0	0	0	0	0
3122	Tobacco	27	D	28	0	0	0	0	0	0	0	0
313	Textile Mills	231	Q	200	Q	D	0	0	0	0	0	0
314	Textile Product Mills	Q	0	Q	0	0	0	0	0	0	0	0
315	Apparel	25	D	24	D	0	0	0	0	0	0	0
316	Leather and Allied Products	52	D	51	D	0	D	0	0	0	0	0
321	Wood Products	3,152	155	3,054	126	6	Q	D	0	0	0	Q
321113	Sawmills	399	Q	353	Q	6	4	D	0	0	0	0
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	502	Q	473	Q	0	Q	0	0	0	0	Q
321219	Reconstituted Wood Products	63	D	62	D	0	D	0	0	0	0	0
3219	Other Wood Products	2,133	Q	2,110	Q	0	Q	0	0	0	0	Q
322	Paper	1,216	D	1,121	Q	0	D	0	0	0	0	0
322110	Pulp Mills	9	0	9	0	0	0	0	0	0	0	0
322120	Paper Mills	50	3	48	3	0	0	0	0	0	0	0
322130	Paperboard Mills	83	D	80	D	0	D	0	0	0	0	0
323	Printing and Related Support	1,165	Q	1,138	Q	4	0	0	0	0	0	0
324	Petroleum and Coal Products	358	46	316	5	16	18	D	0	0	0	D
324110	Petroleum Refineries	52	17	40	D	D	D	0	0	0	0	0
324121	Asphalt Paving Mixture and Block	111	24	88	0	D	15	10	0	0	0	D
324122	Asphalt Shingle and Coating Materials	100	D	97	0	0	0	D	0	0	0	0
324191	Petroleum Lubricating Oil and Grease Manufacturing	80	D	76	D	0	D	0	0	0	0	0
324199	All Other Petroleum and Coal Products Manufacturing	15	0	15	0	0	0	0	0	0	0	0
325	Chemicals	3,739	433	3,326	398	37	9	0	0	0	0	Q
325110	Petrochemicals	40	12	28	0	12	0	0	0	0	0	0
325120	Industrial Gases	62	Q	Q	Q	0	0	0	0	0	0	0
325180	Other Basic Inorganic Chemical Manufacturing	274	16	258	16	Q	D	0	0	0	0	D
325193	Ethyl Alcohol	43	Q	40	0	0	0	0	0	0	0	Q
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	37	0	37	0	0	0	0	0	0	0	0
325199	All Other Basic Organic Chemical Manufacturing	219	6	215	4	D	D	0	0	0	0	0
325211	Plastics Materials and Resins	636	Q	591	D	Q	0	0	0	0	0	0
325212	Synthetic Rubber	30	4	29	4	3	D	0	0	0	0	0
325220	Artificial and Synthetic Fibers and Filaments	43	D	42	D	0	0	0	0	0	0	0
325311	Nitrogenous Fertilizers	73	7	70	6	D	4	0	0	0	0	0
325312	Phosphatic Fertilizers	28	D	26	0	D	0	0	0	0	0	0
3254	Pharmaceuticals and Medicines	150	9	141	6	3	D	0	0	0	0	0
325412	Pharmaceutical Preparation	76	D	73	D	D	0	0	0	0	0	0
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	19	0	19	0	0	0	0	0	0	0	0
326	Plastics and Rubber Products	2,542	Q	2,452	Q	0	0	0	0	0	0	0

327	Nonmetallic Mineral Products	3,783	D	3,632	Q	Q	D	0	0	0	0
327120	Clay Building Material and Refractories	132	10	125	4	5	D	0	0	0	0
327211	Flat Glass	28	D	26	0	D	0	0	0	0	0
327212	Other Pressed and Blown Glass and Glassware	39	4	37	3	D	0	0	0	0	0
327213	Glass Containers	13	0	13	0	0	0	0	0	0	0
327215	Glass Products from Purchased Glass	112	5	107	5	0	0	0	0	0	0
327310	Cements	26	D	25	D	0	0	0	0	0	0
327410	Lime	20	0	20	0	0	0	0	0	0	0
327420	Gypsum	69	D	68	D	0	0	0	0	0	0
327993	Mineral Wool	144	0	144	0	0	0	0	0	0	0
331	Primary Metals	1,715	108	1,617	82	32	11	0	0	0	11
331110	Iron and Steel Mills and Ferroalloys	89	5	84	3	D	D	0	0	0	D
3312	Steel Products from Purchased Steel	363	12	351	11	D	D	0	0	0	D
3313	Alumina and Aluminum Production and Processing	207	17	193	16	D	4	0	0	0	D
331314	Secondary Smelting and Alloying of Aluminum	38	3	D	3	0	0	0	0	0	0
331315	Aluminum Sheet, Plate and Foils	55	3	53	D	0	D	0	0	0	D
331318	Other Aluminum Rolling, Drawing and Extruding	107	6	103	6	D	D	0	0	0	0
3314	Nonferrous Metal (except Aluminum) Production and Processing	292	25	272	14	8	0	0	0	0	6
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	55	D	54	0	D	0	0	0	0	D
3315	Foundries	763	48	717	38	18	3	0	0	0	D
331511	Iron Foundries	190	14	176	11	5	0	0	0	0	0
331523	Nonferrous Metal Die-Casting Foundries	135	9	126	5	Q	0	0	0	0	0
331524	Aluminum Foundries, except Die-Casting	171	6	165	6	4	0	0	0	0	0
332	Fabricated Metal Products	13,352	469	12,883	Q	Q	Q	0	0	0	0
333	Machinery	4,643	Q	4,521	Q	0	Q	0	0	0	0
334	Computer and Electronic Products	614	6	609	D	5	0	0	0	0	0
334413	Semiconductors and Related Devices	38	6	33	D	5	0	0	0	0	0
335	Electrical Equipment, Appliances, and Components	807	Q	706	Q	0	0	0	0	0	0
336	Transportation Equipment	2,674	138	2,549	Q	D	Q	0	0	0	Q
336110	Automobile and Light Duty Motor Vehicle Manufacturing	Q	D	Q	D	D	D	0	0	0	0
3364	Aerospace Product and Parts	489	Q	427	Q	3	D	0	0	0	Q
336411	Aircraft	51	0	51	0	0	0	0	0	0	0
337	Furniture and Related Products	2,536	Q	2,529	Q	D	0	0	0	0	0
339	Miscellaneous	1,896	Q	1,687	Q	Q	Q	0	0	0	0
	Total	49,812	2,658	47,521	1,881	750	654	14	0	0	Q

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

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

^a The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

^b These counts include only those establishments that reported this activity in 2022. Establishments for which only a portion of the total consumed fuel was reported as switchable contribute to the establishment counts in both the *switchable* and *not switchable* columns. Therefore, the sum of these establishment counts may be greater than the corresponding establishment count of the total number of establishments consuming the fuel.

^c *Alternative energy sources* consist of those energy sources that could have been substituted for HGL (excluding natural gasoline) during 2022. The quantities are expressed in thousands of barrels and therefore represent the quantity of HGL (excluding natural gasoline) that could have been displaced by the given alternative type of energy.

^d *Total consumed* represents those quantities (total inputs) of HGL (excluding natural gasoline) that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^e *Electricity receipts* represent those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in kind. It does not include electricity generated onsite. *Electricity receipts* have not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

^f *Other* includes all other types of energy not already identified that respondents indicated could have been consumed in place of HGL (excluding natural gasoline).

* 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 10.13 Relative standard errors for Table 10.13

Unit: Percentage

NAICS code ^a	Subsector and industry	HGL (excluding natural gasoline) ^b			Alternative energy sources ^c					Coal coke and breeze	
		Total consumed ^d	Switchable	Not switchable	Electricity receipts ^e	Natural gas	Distillate fuel oil	Residual fuel oil	Coal	Other ^f	
Total United States											
311	Food	14.1	59.8	14.6	63.8	37.7	0.0	X	X	X	X
3112	Grain and Oilseed Milling	13.5	0.0	13.8	0.0	X	X	X	X	X	X
311221	Wet Corn Milling and Starch Manufacturing	0.0	X	0.0	X	X	X	X	X	X	X
31131	Sugar Manufacturing	0.0	D	0.0	D	D	X	X	X	X	X
3114	Fruit and Vegetable Preserving and Specialty Food	12.6	D	12.3	D	X	D	X	X	X	X
3115	Dairy Product Manufacturing	41.2	4.2	41.7	0.0	6.0	D	X	X	X	X
3116	Animal Slaughtering and Processing	19.5	52.5	19.6	X	D	X	X	X	X	X
312	Beverage and Tobacco Products	12.3	72.9	12.5	74.1	59.4	D	X	X	X	X
3121	Beverages	12.5	D	12.7	74.1	59.4	D	X	X	X	X
3122	Tobacco	0.0	D	0.0	X	X	X	X	X	X	X
313	Textile Mills	22.4	56.0	24.2	57.4	D	X	X	X	X	X
314	Textile Product Mills	51.4	X	51.4	X	X	X	X	X	X	X
315	Apparel	34.4	D	36.0	D	X	X	X	X	X	X
316	Leather and Allied Products	30.8	D	31.6	D	X	D	X	X	X	X
321	Wood Products	11.6	36.5	11.9	43.6	36.1	64.6	D	X	X	70.6
321113	Sawmills	12.4	66.8	11.2	79.7	36.1	0.0	D	X	X	X
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	17.1	62.0	17.7	72.3	X	64.9	X	X	X	79.0
321219	Reconstituted Wood Products	35.6	D	36.3	D	X	D	X	X	X	X
3219	Other Wood Products	16.4	57.3	16.6	69.6	X	88.6	X	X	X	93.4
322	Paper	16.1	D	16.1	80.0	X	D	X	X	X	X
322110	Pulp Mills	0.0	X	0.0	X	X	X	X	X	X	X
322120	Paper Mills	0.0	0.0	0.0	0.0	X	X	X	X	X	X
322130	Paperboard Mills	0.0	D	0.0	D	X	D	X	X	X	X
323	Printing and Related Support	26.2	82.3	26.8	95.6	46.6	X	X	X	X	X
324	Petroleum and Coal Products	6.9	10.1	7.7	0.0	0.0	21.2	D	X	X	D
324110	Petroleum Refineries	0.0	0.0	0.0	D	D	D	X	X	X	X
324121	Asphalt Paving Mixture and Block	10.5	19.6	12.2	X	D	26.3	36.4	X	X	D
324122	Asphalt Shingle and Coating Materials	16.2	D	16.6	X	X	X	D	X	X	X
324191	Petroleum Lubricating Oil and Grease Manufacturing	18.2	D	19.1	D	X	D	X	X	X	X
324199	All Other Petroleum and Coal Products Manufacturing	0.0	X	0.0	X	X	X	X	X	X	X
325	Chemicals	11.5	36.2	12.3	39.3	31.7	4.7	X	X	X	50.3
325110	Petrochemicals	0.0	0.0	0.0	X	0.0	X	X	X	X	X
325120	Industrial Gases	46.2	94.4	52.3	94.4	X	X	X	X	X	X
325180	Other Basic Inorganic Chemical Manufacturing	24.6	30.7	26.1	30.7	65.6	D	X	X	X	D
325193	Ethyl Alcohol	5.7	68.8	3.0	X	X	X	X	X	X	68.8
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	X	0.0	X	X	X	X	X	X	X
325199	All Other Basic Organic Chemical Manufacturing	27.6	7.7	28.2	10.0	D	D	X	X	X	X
325211	Plastics Materials and Resins	25.0	67.9	26.3	D	91.6	X	X	X	X	X
325212	Synthetic Rubber	0.0	0.0	0.0	0.0	0.0	D	X	X	X	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	D	0.0	D	X	X	X	X	X	X
325311	Nitrogenous Fertilizers	0.0	0.0	0.0	0.0	D	0.0	X	X	X	X
325312	Phosphatic Fertilizers	0.0	D	0.0	X	D	X	X	X	X	X
3254	Pharmaceuticals and Medicines	24.1	0.0	25.7	0.0	0.0	D	X	X	X	X
325412	Pharmaceutical Preparation	35.1	D	36.6	D	D	X	X	X	X	X
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	0.0	X	0.0	X	X	X	X	X	X	X
326	Plastics and Rubber Products	14.1	74.7	14.4	74.7	X	X	X	X	X	X
327	Nonmetallic Mineral Products	14.4	D	14.7	79.0	93.1	D	X	X	X	X
327120	Clay Building Material and Refractories	12.3	6.0	13.0	14.4	0.0	D	X	X	X	X
327211	Flat Glass	0.0	D	0.0	X	D	X	X	X	X	X

327212	Other Pressed and Blown Glass and Glassware	29.2	0.0	31.2	0.0	D	X	X	X	X	X
327213	Glass Containers	0.0	X	0.0	X	X	X	X	X	X	X
327215	Glass Products from Purchased Glass	24.0	18.4	25.0	18.4	X	X	X	X	X	X
327310	Cements	3.4	D	3.5	D	X	X	X	X	X	X
327410	Lime	0.0	X	0.0	X	X	X	X	X	X	X
327420	Gypsum	6.4	D	6.4	D	X	X	X	X	X	X
327993	Mineral Wool	32.9	X	32.9	X	X	X	X	X	X	X
331	Primary Metals	4.2	10.0	4.4	12.1	16.0	0.0	X	X	X	10.3
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	0.0	0.0	D	D	X	X	X	D
3312	Steel Products from Purchased Steel	9.3	31.2	9.7	34.3	D	D	X	X	X	D
3313	Alumina and Aluminum Production and Processing	7.8	10.6	8.4	11.5	D	0.0	X	X	X	D
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.0	D	0.0	X	X	X	X	X	X
331315	Aluminum Sheet, Plate and Foils	28.8	0.0	29.5	D	X	D	X	X	X	D
331318	Other Aluminum Rolling, Drawing and Extruding	3.8	32.5	3.7	32.5	D	D	X	X	X	X
3314	Nonferrous Metal (except Aluminum) Production and Processing	11.9	18.4	12.8	28.5	31.1	X	X	X	X	15.4
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	26.5	D	27.2	X	D	X	X	X	X	D
3315	Foundries	6.6	18.1	7.1	21.4	24.4	0.0	X	X	X	D
331511	Iron Foundries	12.1	36.1	13.0	43.1	29.9	X	X	X	X	X
331523	Nonferrous Metal Die-Casting Foundries	4.8	41.6	4.4	37.2	77.7	X	X	X	X	X
331524	Aluminum Foundries, except Die-Casting	10.6	16.2	11.0	16.2	0.0	X	X	X	X	X
332	Fabricated Metal Products	9.2	49.7	9.5	77.9	80.7	54.3	X	X	X	X
333	Machinery	12.1	65.8	12.3	65.8	X	57.3	X	X	X	X
334	Computer and Electronic Products	30.7	0.0	31.0	D	0.0	X	X	X	X	X
334413	Semiconductors and Related Devices	25.6	0.0	30.1	D	0.0	X	X	X	X	X
335	Electrical Equipment, Appliances, and Components	27.2	98.9	28.1	98.9	X	X	X	X	X	X
336	Transportation Equipment	14.5	45.4	15.1	53.5	D	57.6	X	X	X	96.7
336110	Automobile and Light Duty Motor Vehicle Manufacturing	62.1	D	62.9	D	D	D	X	X	X	X
3364	Aerospace Product and Parts	13.9	56.7	14.0	58.8	31.8	D	X	X	X	96.7
336411	Aircraft	23.1	X	23.1	X	X	X	X	X	X	X
337	Furniture and Related Products	16.6	92.1	16.6	92.1	D	X	X	X	X	X
339	Miscellaneous	20.6	56.0	21.7	87.5	57.3	99.0	X	X	X	X
	Total	3.8	16.0	3.9	18.3	35.2	39.5	25.7	X	X	51.1

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

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^f *Other* includes all other types of energy not already identified that respondents indicated could have been consumed in place of HGL (excluding natural gasoline).

* 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).