

Released: February 2018

Next MECS will be fielded in 2019

**Table 10.13 Number of Establishments with Capability to Switch HGL (excluding natural gasoline) to Alternative Energy Sources, 2014;**

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)						
		Total Consumed(d)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other(f)
<b>Total United States</b>											
311	Food	3,941	482	2,805	215	329	Q	0	0	0	25
3112	Grain and Oilseed Milling	217	76	142	24	Q	Q	0	0	0	W
311221	Wet Corn Milling	26	W	21	W	0	W	0	0	0	0
31131	Sugar Manufacturing	15	0	15	0	0	0	0	0	0	0
3114	Fruit and Vegetable Preserving and Specialty Food	396	77	318	75	15	8	0	0	0	Q
3115	Dairy Product	207	43	98	8	18	Q	0	0	0	0
3116	Animal Slaughtering and Processing	260	35	169	W	16	8	0	0	0	W
312	Beverage and Tobacco Products	1,178	188	844	127	Q	W	0	0	0	0
3121	Beverages	1,141	W	810	W	W	W	0	0	0	0
3122	Tobacco	38	W	34	W	W	0	0	0	0	0
313	Textile Mills	482	Q	373	Q	19	0	W	0	0	0
314	Textile Product Mills	1,231	Q	831	Q	16	0	0	0	0	0
315	Apparel	Q	W	Q	W	0	0	0	0	0	0
316	Leather and Allied Products	135	11	104	W	W	0	0	0	0	0
321	Wood Products	4,018	268	2,781	Q	Q	22	W	W	0	W
321113	Sawmills	526	29	389	21	5	15	W	W	0	W
3212	Veneer, Plywood, and Engineered Woods	487	28	410	11	8	0	0	0	0	W
321219	Reconstituted Wood Products	130	8	122	6	W	0	0	0	0	0
3219	Other Wood Products	2,962	W	1,944	W	W	W	0	0	0	0
322	Paper	1,579	93	1,222	Q	57	W	0	0	0	0
322110	Pulp Mills	22	0	22	0	0	0	0	0	0	0
322121	Paper Mills, except Newsprint	104	6	98	5	4	W	0	0	0	0
322122	Newsprint Mills	13	0	13	0	0	0	0	0	0	0
322130	Paperboard Mills	115	W	108	W	0	0	0	0	0	0
323	Printing and Related Support	2,329	Q	1,773	W	W	W	0	0	0	0
324	Petroleum and Coal Products	614	125	441	Q	32	29	11	0	0	0
324110	Petroleum Refineries	103	Q	39	W	18	W	W	0	0	0
324121	Asphalt Paving Mixture and Block	246	33	181	W	7	22	W	0	0	0
324122	Asphalt Shingle and Coating Materials	134	12	118	W	7	W	0	0	0	0
324199	Other Petroleum and Coal Products	43	W	33	W	0	0	0	0	0	0
325	Chemicals	2,862	208	2,221	123	Q	29	4	0	0	Q
325110	Petrochemicals	19	W	18	0	W	0	0	0	0	0
325120	Industrial Gases	54	W	29	W	0	0	0	0	0	0
325180	Other Basic Inorganic Chemicals	205	31	183	W	Q	Q	0	0	0	0
325193	Ethyl Alcohol	42	W	40	W	W	0	0	0	0	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	20	W	18	0	0	0	0	0	0	W
325199	Other Basic Organic Chemicals	260	W	180	5	W	4	0	0	0	0
325211	Plastics Materials and Resins	382	Q	321	Q	5	W	W	0	0	0
325212	Synthetic Rubber	40	5	33	5	0	0	0	0	0	0
325220	Artificial and Synthetic Fibers and Filaments	40	6	34	5	W	W	0	0	0	0
325311	Nitrogenous Fertilizers	22	3	16	W	3	0	0	0	0	W
325312	Phosphatic Fertilizers	18	W	13	W	W	W	0	0	0	0
3254	Pharmaceuticals and Medicines	230	5	149	W	W	W	W	0	0	0
325412	Pharmaceutical Preparation	73	5	68	W	W	W	W	0	0	0
325992	Photographic Film, Paper, Plate, and Chemicals	29	W	27	W	W	0	0	0	0	0
326	Plastics and Rubber Products	4,657	593	3,396	425	Q	W	0	0	0	0
327	Nonmetallic Mineral Products	4,052	390	2,614	Q	113	Q	0	W	W	8
327120	Clay Building Material and Refractories	224	13	196	5	W	W	0	0	0	0
327211	Flat Glass	37	W	34	W	0	0	0	0	0	0
327212	Other Pressed and Blown Glass and Glassware	49	8	38	W	8	W	0	0	0	0
327213	Glass Containers	43	0	43	0	0	0	0	0	0	0
327215	Glass Products from Purchased Glass	325	W	200	Q	Q	Q	0	W	W	W
327310	Cements	49	5	40	W	W	W	0	0	0	0
327410	Lime	17	W	15	W	0	0	0	0	0	0
327420	Gypsum	82	0	81	0	0	0	0	0	0	0
327993	Mineral Wool	78	14	45	8	4	W	0	0	0	W
331	Primary Metals	1,768	156	1,432	82	49	49	W	0	0	13
331110	Iron and Steel Mills and Ferroalloys	164	10	146	4	4	W	0	0	0	0
3312	Steel Products from Purchased Steel	320	25	205	16	W	11	0	0	0	W
3313	Alumina and Aluminum	212	30	148	14	12	13	0	0	0	W
331314	Secondary Smelting and Alloying of Aluminum	46	W	28	0	W	W	0	0	0	W
331315	Aluminum Sheet, Plate and Foils	37	0	23	0	0	0	0	0	0	0
331318	Other Aluminum Rolling, Drawing and Extruding	111	18	84	W	W	W	0	0	0	0
3314	Nonferrous Metals, except Aluminum	341	32	285	25	W	W	0	0	0	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	79	6	74	W	0	W	0	0	0	0
3315	Foundries	731	59	649	24	26	19	W	0	0	W
331511	Iron Foundries	216	21	198	W	9	W	W	0	0	W
331523	Nonferrous Metal Die-Casting Foundries	135	9	120	6	5	W	0	0	0	W
331524	Aluminum Foundries, except Die-Casting	162	17	139	10	6	10	0	0	0	W
332	Fabricated Metal Products	15,593	955	11,938	588	Q	W	0	0	0	W
333	Machinery	6,384	588	4,821	314	W	W	W	0	0	W
334	Computer and Electronic Products	1,487	Q	1,196	Q	W	0	0	0	0	0
334413	Semiconductors and Related Devices	65	W	60	W	W	0	0	0	0	0
335	Electrical Equip., Appliances, and Components	1,090	91	811	Q	W	Q	0	0	0	W
336	Transportation Equipment	3,447	617	2,667	320	293	W	0	0	0	W
336111	Automobiles	23	W	21	0	W	0	0	0	0	0
336112	Light Trucks and Utility Vehicles	22	W	20	W	W	0	0	0	0	0
3364	Aerospace Product and Parts	458	82	344	67	W	0	0	0	0	0
336411	Aircraft	65	6	58	6	W	0	0	0	0	0
337	Furniture and Related Products	3,274	W	2,589	Q	W	Q	W	0	0	0
339	Miscellaneous	2,777	Q	1,655	W	Q	0	0	0	0	0
	<b>Total</b>	<b>63,212</b>	<b>5,573</b>	<b>46,644</b>	<b>3,159</b>	<b>1,947</b>	<b>1,022</b>	<b>Q</b>	<b>Q</b>	<b>W</b>	<b>534</b>

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

(b) These counts include only those establishments that reported this activity in 2014. 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 hydrocarbon gas liquids 'HGL' during 2014. The quantities are expressed in thousands of barrels, and therefore represent the quantity of hydrocarbon gas liquids that could have been displaced by the given alternative type of energy.

(d) 'Total Consumed' represents those quantities (Total Inputs) of hydrocarbon gas liquids that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

(e) 'Electricity Receipts' represents 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' has 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 hydrocarbon gas liquids.

\* 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.

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 10.13 Relative Standard Errors for Table 10.13;**

Unit: Percents.

NAICS Code(a)	Subsector and Industry	HGL (excluding natural gasoline)(b)				Alternative Energy Sources(c)					Coal and Breeze	Other(f)
		Total Consumed(d)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal			
<b>Total United States</b>												
311	Food	9.6	29.2	11.9	39.0	41.7	52.4	X	X	X	43.1	
3112	Grain and Oilseed Milling	14.8	34.9	18.8	37.4	59.2	50.2	X	X	X	61.8	
311221	Wet Corn Milling	0.0	0.0	0.0	0.0	X	0.0	X	X	X	X	
31131	Sugar Manufacturing	0.1	X	0.1	X	X	X	X	X	X	X	
3114	Fruit and Vegetable Preserving and Specialty Food	12.9	31.2	15.3	32.1	32.5	43.3	X	X	X	63.6	
3115	Dairy Product	17.4	27.9	15.2	18.5	19.6	57.8	X	X	X	X	
3116	Animal Slaughtering and Processing	13.1	28.1	15.1	49.6	22.1	28.6	X	X	X	62.0	
312	Beverage and Tobacco Products	9.5	33.6	12.6	41.4	51.2	60.4	X	X	X	X	
3121	Beverages	9.8	34.0	13.1	41.7	52.5	60.4	X	X	X	X	
3122	Tobacco	0.1	0.1	0.1	0.1	0.1	X	X	X	X	X	
313	Textile Mills	16.4	53.5	20.0	79.8	49.9	X	9.9	X	X	X	
314	Textile Product Mills	32.2	81.5	41.9	85.1	46.1	X	X	X	X	X	
315	Apparel	58.5	98.3	67.9	98.3	X	X	X	X	X	X	
316	Leather and Allied Products	22.9	50.0	26.1	63.3	53.5	X	X	X	X	X	
321	Wood Products	6.8	38.3	9.1	50.1	63.0	16.8	5.5	43.0	X	81.3	
321113	Sawmills	9.4	10.1	11.2	12.0	20.3	11.1	5.5	43.0	X	5.5	
3212	Veneer, Plywood, and Engineered Woods	11.2	36.2	12.1	20.6	31.7	X	X	X	X	92.4	
321219	Reconstituted Wood Products	4.1	27.3	5.4	33.3	17.7	X	X	X	X	X	
3219	Other Wood Products	8.8	49.1	12.5	64.8	71.8	57.0	X	X	X	X	
322	Paper	12.7	41.9	15.2	59.5	47.8	81.5	X	X	X	X	
322110	Pulp Mills	0.0	X	0.0	X	X	X	X	X	X	X	
322121	Paper Mills, except Newsprint	0.1	0.1	0.1	0.1	0.1	0.1	X	X	X	X	
322122	Newsprint Mills	0.0	X	0.0	X	X	X	X	X	X	X	
322130	Paperboard Mills	0.0	0.0	0.0	0.0	X	X	X	X	X	X	
323	Printing and Related Support	16.1	83.3	18.5	75.4	93.9	86.3	X	X	X	X	
324	Petroleum and Coal Products	8.1	32.1	10.0	70.6	22.9	11.0	16.5	X	X	X	
324110	Petroleum Refineries	25.4	59.7	36.2	97.4	36.2	36.2	36.2	X	X	X	
324121	Asphalt Paving Mixture and Block	13.9	10.8	19.5	49.9	35.2	13.9	17.9	X	X	X	
324122	Asphalt Shingle and Coating Materials	3.5	21.9	4.2	4.0	35.6	10.2	X	X	X	X	
324199	Other Petroleum and Coal Products	0.0	0.0	0.0	0.0	X	X	X	X	X	X	
325	Chemicals	9.3	28.8	10.9	36.3	54.4	32.9	27.9	X	X	81.2	
325110	Petrochemicals	36.4	26.6	40.0	X	26.6	X	X	X	X	X	
325120	Industrial Gases	39.7	91.7	39.1	91.7	X	X	X	X	X	X	
325180	Other Basic Inorganic Chemicals	18.3	40.8	20.1	79.1	60.8	61.1	X	X	X	X	
325193	Ethyl Alcohol	26.7	7.3	28.3	7.3	7.3	X	X	X	X	X	
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	0.0	X	X	X	X	X	X	0.0	
325199	Other Basic Organic Chemicals	14.2	80.6	21.7	12.4	94.4	12.4	X	X	X	X	
325211	Plastics Materials and Resins	12.1	64.2	13.6	67.0	23.1	24.0	39.2	X	X	X	
325212	Synthetic Rubber	0.0	0.0	0.0	0.0	X	X	X	X	X	X	
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	0.0	0.0	0.0	0.0	X	X	X	X	
325311	Nitrogenous Fertilizers	26.4	22.9	30.0	22.9	22.9	X	X	X	X	22.9	
325312	Phosphatic Fertilizers	0.0	0.0	0.0	0.0	0.0	0.0	X	X	X	X	
3254	Pharmaceuticals and Medicines	25.6	28.1	30.2	55.8	17.0	23.7	23.7	X	X	X	
325412	Pharmaceutical Preparation	22.9	28.1	24.0	55.8	17.0	23.7	23.7	X	X	X	
325992	Photographic Film, Paper, Plate, and Chemicals	35.7	25.5	37.9	25.5	25.5	X	X	X	X	X	
326	Plastics and Rubber Products	7.5	31.5	10.3	37.6	54.4	82.8	X	X	X	X	
327	Nonmetallic Mineral Products	10.7	39.2	13.7	63.4	46.6	70.9	X	70.9	96.5	41.1	
327120	Clay Building Material and Refractories	10.0	23.3	10.7	8.3	57.8	8.3	X	X	X	X	
327211	Flat Glass	0.0	0.0	0.0	0.0	X	X	X	X	X	X	
327212	Other Pressed and Blown Glass and Glassware	22.8	39.0	23.6	59.6	39.0	21.2	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	13.6	50.9	17.3	73.9	66.3	79.5	X	96.5	96.5	10.6	
327310	Cements	32.0	31.9	32.0	31.9	31.9	31.9	X	X	X	X	
327410	Lime	0.0	0.0	0.0	0.0	X	X	X	X	X	X	
327420	Gypsum	15.7	X	16.0	X	X	X	X	X	X	X	
327993	Mineral Wool	26.8	37.5	26.3	38.5	24.9	55.4	X	X	X	76.0	
331	Primary Metals	4.3	9.9	5.2	15.3	10.8	14.8	42.5	X	X	21.4	
331110	Iron and Steel Mills and Ferroalloys	3.7	3.3	4.5	3.3	3.3	3.3	X	X	X	X	
3312	Steel Products from Purchased Steel	8.1	30.4	14.9	32.4	77.8	47.7	X	X	X	77.8	
3313	Alumina and Aluminum	5.9	11.4	7.7	23.0	20.6	19.3	X	X	X	0.1	
331314	Secondary Smelting and Alloying of Aluminum	0.1	0.1	0.1	X	0.1	0.1	X	X	X	0.1	
331315	Aluminum Sheet, Plate and Foils	11.8	X	21.4	X	X	X	X	X	X	X	
331318	Other Aluminum Rolling, Drawing and Extruding	10.6	18.7	12.2	24.8	25.2	39.7	X	X	X	X	
3314	Nonferrous Metals, except Aluminum	10.9	33.5	12.0	41.6	10.4	37.4	X	X	X	X	
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	13.7	37.4	17.3	37.4	X	37.4	X	X	X	X	
3315	Foundries	8.0	12.8	8.7	15.1	15.8	21.8	42.5	X	X	21.6	
331511	Iron Foundries	16.6	31.2	17.6	54.6	33.4	80.6	42.5	X	X	55.6	
331523	Nonferrous Metal Die-Casting Foundries	12.1	21.2	12.8	21.8	29.1	9.6	X	X	X	9.6	
331524	Aluminum Foundries, except Die-Casting	6.5	13.6	8.7	21.3	31.6	19.8	X	X	X	7.9	
332	Fabricated Metal Products	7.6	38.3	9.3	47.5	67.2	82.2	X	X	X	74.4	
333	Machinery	7.8	33.3	9.8	45.9	70.4	69.9	99.1	X	X	69.9	
334	Computer and Electronic Products	18.9	74.2	21.6	75.1	86.3	X	X	X	X	X	
334413	Semiconductors and Related Devices	29.5	20.1	31.0	20.1	20.1	X	X	X	X	X	
335	Electrical Equip., Appliances, and Components	18.4	41.9	23.3	53.5	80.5	59.2	X	X	X	63.6	
336	Transportation Equipment	9.7	29.9	12.4	40.7	45.0	91.2	X	X	X	98.7	
336111	Automobiles	0.0	0.0	0.0	X	0.0	X	X	X	X	X	
336112	Light Trucks and Utility Vehicles	0.0	0.0	0.0	0.0	0.0	X	X	X	X	X	
3364	Aerospace Product and Parts	13.8	38.8	17.8	44.9	53.0	X	X	X	X	X	
336411	Aircraft	42.4	34.3	45.5	34.3	40.0	X	X	X	X	X	
337	Furniture and Related Products	11.5	60.3	13.8	60.1	97.0	88.0	75.9	X	X	X	
339	Miscellaneous	15.8	55.3	21.6	65.2	66.7	X	X	X	X	X	
	<b>Total</b>	<b>2.8</b>	<b>11.1</b>	<b>3.5</b>	<b>15.0</b>	<b>17.2</b>	<b>23.4</b>	<b>69.6</b>	<b>68.7</b>	<b>96.5</b>	<b>41.2</b>	

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

(b) These counts include only those establishments that reported this activity in 2014. 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 hydrocarbon gas liquids 'HGL' during 2014. The quantities are expressed in thousands of barrels, and therefore represent the quantity of hydrocarbon gas liquids that could have been displaced by the given alternative type of energy.

(d) 'Total Consumed' represents those quantities (Total Inputs) of hydrocarbon gas liquids that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

(e) 'Electricity Receipts' represents 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' has 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 hydrocarbon gas liquids.

\* 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.

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

-- Estimation is not applicable.

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

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, '2014 Manufacturing Energy Consumption Survey.'