

Released: February 2018

Next MECS will be filed in 2019

**Table 10.9 Number of Establishments with Capability to Switch Distillate Fuel Oil to Alternative Energy Sources, 2014;**

Level: National Data;  
 Row: NAICS Codes;  
 Column: Energy Sources;  
 Unit: Establishment Counts.

NAICS Code(a)	Subsector and Industry	Distillate Fuel Oil(b)			Alternative Energy Sources(c)						
		Total Consumed(d)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Residual Fuel Oil	Coal	HGL (excluding natural gasoline)	Coal Coke and Breeze	Other(f)
<b>Total United States</b>											
311	Food	2,372	88	1,952	8	61	11	W	16	0	Q
3112	Grain and Oilseed Milling	223	15	200	W	W	W	0	W	0	3
311221	Wet Corn Milling	30	W	26	W	0	0	0	W	0	0
31131	Sugar Manufacturing	28	W	27	0	0	W	W	0	0	0
3114	Fruit and Vegetable Preserving and Specialty Food	267	20	244	W	13	0	0	W	0	W
3115	Dairy Product	161	W	107	W	Q	W	0	0	0	0
3116	Animal Slaughtering and Processing	282	19	220	W	14	W	0	W	0	0
312	Beverage and Tobacco Products	369	9	300	0	7	W	0	W	0	W
3121	Beverages	340	W	274	0	W	W	0	W	0	W
3122	Tobacco	28	W	26	0	W	0	0	0	0	0
313	Textile Mills	156	Q	118	W	W	0	0	W	0	0
314	Textile Product Mills	53	21	Q	W	16	0	W	W	0	0
315	Apparel	Q	W	W	W	W	0	0	0	0	0
316	Leather and Allied Products	16	0	11	0	0	0	0	0	0	0
321	Wood Products	2,214	154	1,674	25	56	W	0	Q	W	W
321113	Sawmills	755	36	604	W	10	W	0	14	0	0
3212	Veneer, Plywood, and Engineered Woods	323	7	273	W	7	W	0	W	W	W
321219	Reconstituted Wood Products	75	W	75	0	W	0	0	0	0	0
3219	Other Wood Products	987	W	687	0	W	0	0	W	0	W
322	Paper	403	85	290	Q	53	5	0	W	0	W
322110	Pulp Mills	23	W	22	0	W	0	0	0	0	0
322121	Paper Mills, except Newsprint	87	11	77	W	10	W	0	W	0	0
322122	Newsprint Mills	14	W	13	0	0	0	0	0	0	W
322130	Paperboard Mills	92	11	77	0	9	W	0	0	0	W
323	Printing and Related Support	292	W	97	W	W	0	0	W	0	0
324	Petroleum and Coal Products	829	109	662	13	63	17	0	39	0	8
324110	Petroleum Refineries	67	4	64	W	W	0	0	W	0	W
324121	Asphalt Paving Mixture and Block	575	95	456	W	53	17	0	W	0	W
324122	Asphalt Shingle and Coating Materials	59	W	45	0	W	0	0	0	0	0
324199	Other Petroleum and Coal Products	48	W	45	0	0	0	0	0	0	0
325	Chemicals	1,609	150	1,252	13	127	6	W	5	W	10
325110	Petrochemicals	19	W	18	0	W	0	0	0	0	0
325120	Industrial Gases	59	0	36	0	0	0	0	0	0	0
325180	Other Basic Inorganic Chemicals	200	3	199	0	W	0	0	0	0	W
325193	Ethyl Alcohol	69	W	67	0	0	0	0	0	0	W
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	22	0	17	0	0	0	0	0	0	0
325199	Other Basic Organic Chemicals	218	20	198	W	13	0	0	0	W	W
325211	Plastics Materials and Resins	164	12	139	5	5	W	W	W	0	W
325212	Synthetic Rubber	22	0	22	0	0	0	0	0	0	0
325220	Artificial and Synthetic Fibers and Filaments	16	8	13	W	W	0	W	0	0	0
325311	Nitrogenous Fertilizers	30	0	28	0	0	0	0	0	0	0
325312	Phosphatic Fertilizers	28	0	28	0	0	0	0	0	0	0
3254	Pharmaceuticals and Medicines	182	24	159	4	20	W	0	W	0	W
325412	Pharmaceutical Preparation	119	17	101	W	15	W	0	W	0	W
32592	Photographic Film, Paper, Plate, and Chemicals	10	W	8	0	W	0	0	0	0	0
326	Plastics and Rubber Products	661	Q	616	0	Q	0	0	0	0	0
327	Nonmetallic Mineral Products	4,217	Q	3,389	Q	Q	W	W	9	0	7
327120	Clay Building Material and Refractories	190	6	169	W	W	W	0	4	0	0
327211	Flat Glass	35	W	31	0	0	0	0	W	0	W
327212	Other Pressed and Blown Glass and Glassware	24	W	22	W	W	0	0	0	0	0
327213	Glass Containers	42	0	42	0	0	0	0	0	0	0
327215	Glass Products from Purchased Glass	54	W	45	W	W	0	0	W	0	W
327310	Cements	135	5	78	W	W	W	W	W	0	W
327410	Lime	50	0	48	0	0	0	0	0	0	0
327420	Gypsum	61	0	57	0	0	0	0	0	0	0
327993	Mineral Wool	35	W	31	0	0	0	0	0	0	W
331	Primary Metals	915	58	757	Q	13	0	0	21	0	13
331110	Iron and Steel Mills and Ferroalloys	165	5	150	W	W	0	0	W	0	W
3312	Steel Products from Purchased Steel	145	W	100	W	W	0	0	0	0	0
3313	Alumina and Aluminum	118	5	97	W	0	0	0	W	0	W
331314	Secondary Smelting and Alloying of Aluminum	34	W	30	W	0	0	0	0	0	0
331315	Aluminum Sheet, Plate and Foils	21	0	20	0	0	0	0	0	0	0
331318	Other Aluminum Rolling, Drawing and Extruding	32	W	19	0	0	0	0	W	0	W
3314	Nonferrous Metals, except Aluminum	126	W	104	0	W	0	0	W	0	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	30	0	27	0	0	0	0	0	0	0
3315	Foundries	362	39	306	Q	9	0	0	15	0	7
331511	Iron Foundries	196	W	180	0	W	0	0	W	0	0
331523	Nonferrous Metal Die-Casting Foundries	29	W	24	0	0	0	0	W	0	W
331524	Aluminum Foundries, except Die-Casting	40	W	37	0	0	0	0	W	0	W
332	Fabricated Metal Products	3,697	W	2,447	0	W	0	0	W	0	0
333	Machinery	1,027	Q	840	W	W	0	0	W	0	0
334	Computer and Electronic Products	503	Q	288	W	5	W	0	0	0	0
334413	Semiconductors and Related Devices	94	5	84	0	5	0	0	0	0	0
335	Electrical Equip., Appliances, and Components	244	W	208	0	0	0	0	0	0	W
336	Transportation Equipment	1,042	Q	866	W	Q	0	0	Q	0	W
336111	Automobiles	30	W	26	0	W	0	0	0	0	0
336112	Light Trucks and Utility Vehicles	28	W	24	0	W	0	0	0	0	0
3364	Aerospace Product and Parts	139	Q	116	Q	W	0	0	0	0	0
336411	Aircraft	Q	0	Q	0	0	0	0	0	0	0
337	Furniture and Related Products	Q	0	W	0	0	0	0	0	0	0
339	Miscellaneous	552	W	276	0	W	0	0	0	0	0
	<b>Total</b>	<b>21,683</b>	<b>1,472</b>	<b>16,362</b>	<b>379</b>	<b>920</b>	<b>48</b>	<b>8</b>	<b>509</b>	<b>W</b>	<b>Q</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 distillate fuel oil during 2014. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.

(d) 'Total Consumed' represents those quantities (Total Inputs) of distillate fuel oil 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 distillate fuel oil.

\* 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 10.9 Relative Standard Errors for Table 10.9;**

Unit: Percents.

NAICS Code(a)	Subsector and Industry	Distillate Fuel Oil(b)				Alternative Energy Sources(c)					
		Total Consumed(d)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Residual Fuel Oil	Coal	HGL (excluding natural gasoline)	Coal Coke and Breeze	Other(f)
<b>Total United States</b>											
311	Food	11.9	16.6	13.4	8.7	23.5	32.0	0.1	26.5	X	87.4
3112	Grain and Oilseed Milling	11.7	23.0	12.6	0.0	34.9	55.0	X	61.5	X	9.1
311221	Wet Corn Milling	0.0	0.0	0.0	0.0	X	X	X	0.0	X	X
31131	Sugar Manufacturing	0.1	0.1	0.1	X	X	0.1	0.1	X	X	X
3114	Fruit and Vegetable Preserving and Specialty Food	19.0	21.0	20.9	9.2	29.5	X	X	38.4	X	9.2
3115	Dairy Product	18.7	52.0	18.0	7.1	66.8	66.6	X	X	X	X
3116	Animal Slaughtering and Processing	11.5	16.9	11.3	19.9	21.0	7.1	X	7.1	X	X
312	Beverage and Tobacco Products	18.4	10.6	20.3	X	12.2	7.0	X	50.0	X	7.0
3121	Beverages	19.9	14.5	22.2	X	18.2	7.0	X	50.0	X	7.0
3122	Tobacco	0.1	0.1	0.1	X	0.1	X	X	X	X	X
313	Textile Mills	28.8	66.4	33.7	87.2	78.6	X	X	96.9	X	X
314	Textile Product Mills	42.4	39.8	61.6	16.9	41.9	X	50.0	84.0	X	X
315	Apparel	74.0	52.9	26.4	72.8	57.3	X	X	X	X	X
316	Leather and Allied Products	21.3	X	26.6	X	X	X	X	X	X	X
321	Wood Products	8.1	49.1	8.4	31.7	43.4	44.2	X	65.3	76.8	52.7
321113	Sawmills	6.7	28.2	7.2	34.7	47.7	5.5	X	46.6	X	X
3212	Veneer, Plywood, and Engineered Woods	14.9	45.9	15.2	76.8	45.9	68.7	X	54.1	76.8	76.8
321219	Reconstituted Wood Products	19.0	17.7	19.0	X	17.7	X	X	X	X	X
3219	Other Wood Products	16.4	68.3	17.9	X	62.5	X	X	79.0	X	7.6
322	Paper	14.5	36.4	12.8	88.2	25.9	0.1	X	0.1	X	0.0
322110	Pulp Mills	0.0	0.0	0.0	X	0.0	X	X	X	X	X
322121	Paper Mills, except Newsprint	0.1	0.1	0.1	0.1	0.1	0.1	X	0.1	X	X
322122	Newsprint Mills	0.0	0.0	0.0	X	X	X	X	X	X	0.0
322130	Paperboard Mills	0.0	0.0	0.0	X	0.0	0.0	X	X	X	0.0
323	Printing and Related Support	41.9	77.5	31.7	93.9	72.2	X	X	93.9	X	X
324	Petroleum and Coal Products	5.7	11.6	6.0	22.3	14.0	16.3	X	22.8	X	32.1
324110	Petroleum Refineries	36.2	36.2	36.2	36.2	36.2	X	X	36.2	X	36.2
324121	Asphalt Paving Mixture and Block	5.2	11.8	5.8	27.0	12.6	16.3	X	23.4	X	71.0
324122	Asphalt Shingle and Coating Materials	8.0	4.0	7.6	X	4.0	X	X	X	X	X
324199	Other Petroleum and Coal Products	0.0	0.0	0.0	X	X	X	X	X	X	0.0
325	Chemicals	10.6	28.2	10.3	11.5	33.2	22.8	3.9	26.6	12.4	17.4
325110	Petrochemicals	26.6	26.6	26.6	X	26.6	X	X	X	X	X
325120	Industrial Gases	40.2	X	42.1	X	X	X	X	X	X	X
325180	Other Basic Inorganic Chemicals	19.0	12.7	19.1	X	12.7	X	X	X	X	12.7
325193	Ethyl Alcohol	15.1	7.3	15.7	X	X	X	X	X	X	7.3
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	X	0.0	X	X	X	X	X	X	X
325199	Other Basic Organic Chemicals	17.1	22.9	18.5	12.4	31.8	X	X	X	12.4	12.4
325211	Plastics Materials and Resins	14.0	20.0	14.8	30.7	23.6	39.9	8.1	37.9	X	74.4
325212	Synthetic Rubber	0.0	X	0.0	X	X	X	X	X	X	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	0.0	0.0	0.0	X	0.0	X	X	X
325311	Nitrogenous Fertilizers	24.5	X	24.8	X	X	X	X	X	X	X
325312	Phosphatic Fertilizers	0.0	X	0.0	X	X	X	X	X	X	X
3254	Pharmaceuticals and Medicines	16.2	11.2	18.0	11.4	11.1	17.0	X	13.9	X	16.7
325412	Pharmaceutical Preparation	22.8	14.2	26.2	14.9	14.0	17.0	X	13.9	X	27.0
325992	Photographic Film, Paper, Plate, and Chemicals	25.5	25.5	25.5	X	25.5	X	X	X	X	X
326	Plastics and Rubber Products	27.7	53.1	29.4	X	53.1	X	X	X	X	X
327	Nonmetallic Mineral Products	10.6	57.3	12.3	94.5	54.9	17.0	31.9	7.2	X	21.2
327120	Clay Building Material and Refractories	10.9	10.5	12.0	8.3	8.3	8.3	X	11.5	X	X
327211	Flat Glass	0.0	0.0	0.0	X	X	X	X	0.0	X	0.0
327212	Other Pressed and Blown Glass and Glassware	23.5	21.2	23.9	21.2	21.2	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	11.4	10.6	11.7	10.6	10.6	X	X	10.6	X	10.6
327310	Cements	14.2	41.2	32.2	31.9	31.9	31.9	31.9	31.9	X	78.7
327410	Lime	0.0	X	0.0	X	X	X	X	X	X	X
327420	Gypsum	17.3	X	17.3	X	X	X	X	X	X	X
327993	Mineral Wool	25.6	24.9	25.8	X	X	X	X	X	X	24.9
331	Primary Metals	6.3	24.6	6.1	58.1	25.1	X	X	19.0	X	15.0
331110	Iron and Steel Mills and Ferroalloys	3.6	3.3	4.3	3.3	3.3	X	X	3.3	X	3.3
3312	Steel Products from Purchased Steel	22.4	60.7	17.6	81.9	23.5	X	X	X	X	X
3313	Alumina and Aluminum	5.0	32.0	4.9	0.1	X	X	X	68.5	X	43.8
331314	Secondary Smelting and Alloying of Aluminum	0.1	0.1	0.1	0.1	X	X	X	X	X	X
331315	Aluminum Sheet, Plate and Foils	21.4	X	21.4	X	X	X	X	X	X	X
331318	Other Aluminum Rolling, Drawing and Extruding	11.7	43.8	10.0	X	X	X	X	68.5	X	43.8
3314	Nonferrous Metals, except Aluminum	14.8	43.9	15.1	X	10.4	X	X	66.3	X	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	37.4	X	37.4	X	X	X	X	X	X	X
3315	Foundries	11.9	35.1	12.7	76.2	36.8	X	X	21.8	X	17.7
331511	Iron Foundries	17.7	50.9	19.1	X	50.9	X	X	50.9	X	X
331523	Nonferrous Metal Die-Casting Foundries	18.5	36.8	20.1	X	X	X	X	9.6	X	59.5
331524	Aluminum Foundries, except Die-Casting	28.7	7.9	30.9	X	X	X	X	7.9	X	7.9
332	Fabricated Metal Products	19.0	95.7	23.2	X	95.7	X	X	95.7	X	X
333	Machinery	23.5	70.7	26.0	99.1	95.1	X	X	72.6	X	X
334	Computer and Electronic Products	28.7	52.6	31.4	66.8	20.1	52.1	X	X	X	X
334413	Semiconductors and Related Devices	24.8	20.1	26.2	X	20.1	X	X	X	X	X
335	Electrical Equip., Appliances, and Components	37.3	88.9	42.1	X	X	X	X	X	X	88.9
336	Transportation Equipment	21.8	61.1	24.1	48.9	94.6	X	X	75.2	X	99.4
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	X	0.0	X	X	X	X	X
3364	Aerospace Product and Parts	30.9	68.7	34.9	73.7	11.9	X	X	X	X	X
336411	Aircraft	60.0	X	61.1	X	X	X	X	X	X	X
337	Furniture and Related Products	50.3	X	50.7	X	X	X	X	X	X	X
339	Miscellaneous	35.5	60.8	49.0	X	60.8	X	X	X	X	X
	Total	4.9	15.3	5.4	33.7	19.5	10.5	23.4	29.8	56.1	52.0

(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 distillate fuel oil during 2014. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.

(d) 'Total Consumed' represents those quantities (Total Inputs) of distillate fuel oil 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 distillate fuel oil.

\* 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.'