

Table 10.5 Number of Establishments with Capability to Switch Residual Fuel Oil to Alternative Energy Sources, 2010;

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

NAICS Code(a)	Selected Subsectors and Industry	Residual Fuel Oil(b)				Alternative Energy Sources(c)					Coal Coke and Breeze	Other(f)
		Total Establishments onsuming Residual Fuel Oil(c)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Coal	LPG			
Total United States												
311	Food	144	48	69	W	39	31	0	0	0	0	W
3112	Grain and Oilseed Milling	9	W	W	0	W	W	0	0	0	0	W
311221	Wet Corn Milling	W	0	W	0	0	0	0	0	0	0	0
31131	Sugar Manufacturing	W	W	W	0	W	W	0	0	0	0	0
3114	Fruit and Vegetable Preserving and Specialty Foods	17	8	9	0	8	W	0	0	0	0	0
3115	Dairy Products	12	W	7	0	W	0	0	0	0	0	0
3116	Animal Slaughtering and Processing	72	34	14	W	26	24	0	0	0	0	W
312	Beverage and Tobacco Products	7	W	W	0	4	0	W	0	0	0	0
3121	Beverages	W	W	W	0	W	0	W	0	0	0	0
3122	Tobacco	W	W	W	0	W	0	0	0	0	0	0
313	Textile Mills	49	Q	35	0	W	W	W	W	0	0	0
314	Textile Product Mills	W	W	0	0	0	W	0	0	0	0	0
315	Apparel	0	0	0	0	0	0	0	0	0	0	0
316	Leather and Allied Products	W	0	W	0	0	0	0	0	0	0	0
321	Wood Products	31	3	26	0	0	W	0	0	0	0	0
321113	Sawmills	13	W	W	0	0	W	0	0	0	0	0
3212	Veneer, Plywood, and Engineered Woods	3	W	W	0	0	W	0	0	0	0	0
321219	Reconstituted Wood Products	3	W	W	0	0	W	0	0	0	0	0
3219	Other Wood Products	W	0	W	0	0	0	0	0	0	0	0
322	Paper	125	62	76	5	52	9	8	0	0	0	W
322110	Pulp Mills	17	W	W	0	8	W	0	0	0	0	0
322121	Paper Mills, except Newsprint	46	20	31	W	17	W	W	0	0	0	W
322122	Newsprint Mills	4	0	W	0	0	0	0	0	0	0	0
322130	Paperboard Mills	48	24	27	W	20	5	W	0	0	0	W
323	Printing and Related Support	W	0	0	0	0	0	0	0	0	0	0
324	Petroleum and Coal Products	157	96	54	W	66	56	W	22	0	3	0
324110	Petroleum Refineries	W	W	18	W	W	W	0	W	0	3	0
324121	Asphalt Paving Mixture and Block	122	80	32	W	53	W	0	W	0	0	0
324199	Other Petroleum and Coal Products	W	W	0	0	W	0	W	0	0	0	0
325	Chemicals	42	21	21	0	17	13	W	W	0	0	0
325110	Petrochemicals	3	W	W	0	W	W	0	0	0	0	0
325120	Industrial Gases	0	0	0	0	0	0	0	0	0	0	0
325181	Alkalies and Chlorine	0	0	0	0	0	0	0	0	0	0	0
325182	Carbon Black	W	0	W	0	0	0	0	0	0	0	0
325188	Other Basic Inorganic Chemicals	W	W	W	0	W	0	0	0	0	0	0
325192	Cyclic Crudes and Intermediates	4	W	W	0	W	W	0	0	0	0	0
325193	Ethyl Alcohol	0	0	0	0	0	0	0	0	0	0	0
325199	Other Basic Organic Chemicals	W	0	W	0	0	0	0	0	0	0	0
325211	Plastics Materials and Resins	3	W	W	0	W	W	0	W	0	0	0
325212	Synthetic Rubber	0	0	0	0	0	0	0	0	0	0	0
325222	Noncellulosic Organic Fibers	5	W	W	0	W	W	W	0	0	0	0
325311	Nitrogenous Fertilizers	W	0	W	0	0	0	0	0	0	0	0
325312	Phosphatic Fertilizers	W	W	W	0	0	W	0	0	0	0	0
3254	Pharmaceuticals and Medicines	9	W	7	0	W	0	0	0	0	0	0
325412	Pharmaceutical Preparation	W	W	W	0	W	0	0	0	0	0	0
325992	Photographic Film, Paper, Plate, and Chemicals	W	W	W	0	W	W	0	0	0	0	0
326	Plastics and Rubber Products	W	W	W	0	W	0	0	0	0	0	0
327	Nonmetallic Mineral Products	Q	9	Q	W	Q	W	0	0	0	0	0
327121	Brick and Structural Clay Tile	W	0	Q	0	0	0	0	0	0	0	0
327211	Flat Glass	0	0	0	0	0	0	0	0	0	0	0
327212	Other Pressed and Blown Glass and Glassware	0	0	0	0	0	0	0	0	0	0	0
327213	Glass Containers	0	0	0	0	0	0	0	0	0	0	0
327215	Glass Products from Purchased Glass	0	0	0	0	0	0	0	0	0	0	0
327310	Cements	4	W	W	0	W	0	0	0	0	0	0
327410	Lime	W	0	W	0	0	0	0	0	0	0	0
327420	Gypsum	W	W	0	W	0	0	0	0	0	0	0
327993	Mineral Wool	0	0	0	0	0	0	0	0	0	0	0
331	Primary Metals	13	5	W	0	5	W	0	0	0	0	0
331111	Iron and Steel Mills	4	W	W	0	W	W	0	0	0	0	0
331112	Electrometallurgical Ferroalloy Products	0	0	0	0	0	0	0	0	0	0	0
3312	Steel Products from Purchased Steel	W	0	Q	0	0	0	0	0	0	0	0
3313	Alumina and Aluminum	4	W	0	0	W	0	0	0	0	0	0

Table 10.5 Number of Establishments with Capability to Switch Residual Fuel Oil to Alternative Energy Sources, 2010;

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

NAICS Code(a)	Selected Subsectors and Industry	Residual Fuel Oil(b)				Alternative Energy Sources(c)					Coal Coke and Breeze	Other(f)	
		Total Establishments consuming Residual Fuel Oil(c)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Coal	LPG				
331314	Secondary Smelting and Alloying of Aluminum	W	0	0	0	0	0	0	0	0	0	0	0
331315	Aluminum Sheet, Plate and Foils	W	W	0	0	W	0	0	0	0	0	0	0
331316	Aluminum Extruded Products	0	0	0	0	0	0	0	0	0	0	0	0
3314	Nonferrous Metals, except Aluminum	W	0	W	0	0	0	0	0	0	0	0	0
331419	Primary Smelting and Refining of Nonferrous Metals, except Copper and Al	0	0	0	0	0	0	0	0	0	0	0	0
3315	Foundries	0	0	0	0	0	0	0	0	0	0	0	0
331511	Iron Foundries	0	0	0	0	0	0	0	0	0	0	0	0
331521	Aluminum Die-Casting Foundries	0	0	0	0	0	0	0	0	0	0	0	0
331524	Aluminum Foundries, except Die-Casting	0	0	0	0	0	0	0	0	0	0	0	0
332	Fabricated Metal Products	W	0	Q	0	0	0	0	0	0	0	0	0
333	Machinery	W	0	W	0	0	0	0	0	0	0	0	0
334	Computer and Electronic Products	5	W	W	0	W	W	0	W	0	0	0	0
334413	Semiconductors and Related Devices	W	0	W	0	0	0	0	0	0	0	0	0
335	Electrical Equip., Appliances, and Components	W	W	Q	0	W	W	0	0	0	0	0	0
336	Transportation Equipment	25	Q	11	0	Q	W	0	0	0	0	0	0
336111	Automobiles	0	0	0	0	0	0	0	0	0	0	0	0
336112	Light Trucks and Utility Vehicles	0	0	0	0	0	0	0	0	0	0	0	0
3364	Aerospace Product and Parts	14	6	W	0	6	W	0	0	0	0	0	0
336411	Aircraft	10	W	W	0	W	W	0	0	0	0	0	0
337	Furniture and Related Products	0	0	0	0	0	0	0	0	0	0	0	0
339	Miscellaneous	W	0	Q	0	0	0	0	0	0	0	0	0
	Total	1,018	290	695	11	216	136	15	29	0	0	34	

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

(b) These counts include only those establishments that reported this activity in 2010.

(c) 'Alternative Energy Sources' consist of those energy sources that could have been substituted for residual fuel oil during 2010. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.

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

NF=No applicable RSE row/column factor.

* 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, '2010 Manufacturing Energy Consumption Survey.'

RSE Table 10.5 Relative Standard Errors for Table 10.5;**Unit: Percents.**

NAICS Code(a)	Selected Subsectors and Industry	Residual Fuel Oil(b)				Alternative Energy Sources(c)				Coal Coke and Breeze	Other(f)
		Total Establishments Consuming Residual Fuel Oil(c)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Coal	LPG		
Total United States											
311	Food	24.0	18.3	40.8	41.7	15.2	26.9	X	X	X	33.4
3112	Grain and Oilseed Milling	31.5	18.9	43.2	X	18.9	8.6	X	X	X	41.6
311221	Wet Corn Milling	0.0	X	0.0	X	X	X	X	X	X	X
31131	Sugar Manufacturing	0.0	0.0	0.0	X	0.0	0.0	X	X	X	X
3114	Fruit and Vegetable Preserving and Specialty Foods	25.1	27.8	39.2	X	27.8	38.9	X	X	X	X
3115	Dairy Products	12.0	6.7	12.0	X	6.7	X	X	X	X	X
3116	Animal Slaughtering and Processing	28.0	24.8	22.8	41.7	21.2	33.3	X	X	X	34.9
312	Beverage and Tobacco Products	4.8	5.4	3.6	X	4.8	X	7.1	X	X	X
3121	Beverages	7.1	7.1	7.1	X	7.1	X	7.1	X	X	X
3122	Tobacco	0.0	0.0	0.0	X	0.0	X	X	X	X	X
313	Textile Mills	32.3	59.3	37.9	X	67.2	92.2	78.0	67.2	X	X
314	Textile Product Mills	69.8	69.8	X	X	X	69.8	X	X	X	X
315	Apparel	X	X	X	X	X	X	X	X	X	X
316	Leather and Allied Products	17.6	X	17.6	X	X	X	X	X	X	X
321	Wood Products	34.5	6.5	39.9	X	X	6.5	X	X	X	X
321113	Sawmills	37.3	6.4	49.4	X	X	6.4	X	X	X	X
3212	Veneer, Plywood, and Engineered Woods	13.5	13.5	13.5	X	X	13.5	X	X	X	X
321219	Reconstituted Wood Products	13.5	13.5	13.5	X	X	13.5	X	X	X	X
3219	Other Wood Products	67.7	X	67.7	X	X	X	X	X	X	X
322	Paper	3.9	7.9	0.1	0.0	7.4	0.0	0.0	X	X	40.6
322110	Pulp Mills	0.0	0.0	0.0	X	0.0	0.0	X	X	X	X
322121	Paper Mills, except Newsprint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0
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	0.0	0.0	0.0	X	X	0.0
323	Printing and Related Support	92.6	X	X	X	X	X	X	X	X	X
324	Petroleum and Coal Products	9.6	13.2	10.0	2.8	18.3	9.3	0.0	14.0	X	0.0
324110	Petroleum Refineries	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X	0.0
324121	Asphalt Paving Mixture and Block	12.4	15.7	16.4	5.3	22.8	9.8	X	14.9	X	X
324199	Other Petroleum and Coal Products	0.0	0.0	X	X	0.0	X	0.0	X	X	X
325	Chemicals	11.5	16.0	16.2	X	19.5	21.8	0.0	78.7	X	X
325110	Petrochemicals	0.0	0.0	0.0	X	0.0	0.0	X	X	X	X
325120	Industrial Gases	X	X	X	X	X	X	X	X	X	X
325181	Alkalies and Chlorine	X	X	X	X	X	X	X	X	X	X
325182	Carbon Black	0.0	X	0.0	X	X	X	X	X	X	X
325188	Other Basic Inorganic Chemicals	41.2	62.9	11.6	X	62.9	X	X	X	X	X
325192	Cyclic Crudes and Intermediates	0.0	0.0	0.0	X	0.0	0.0	X	X	X	X
325193	Ethyl Alcohol	X	X	X	X	X	X	X	X	X	X
325199	Other Basic Organic Chemicals	10.6	X	10.6	X	X	X	X	X	X	X
325211	Plastics Materials and Resins	30.5	63.4	7.9	X	63.4	56.0	X	78.7	X	X
325212	Synthetic Rubber	X	X	X	X	X	X	X	X	X	X
325222	Noncellulosic Organic Fibers	0.0	0.0	0.0	X	0.0	0.0	0.0	X	X	X
325311	Nitrogenous Fertilizers	0.0	X	0.0	X	X	X	X	X	X	X
325312	Phosphatic Fertilizers	0.0	0.0	0.0	X	X	0.0	X	X	X	X
3254	Pharmaceuticals and Medicines	40.1	10.2	47.7	X	10.2	X	X	X	X	X
325412	Pharmaceutical Preparation	47.1	10.2	58.2	X	10.2	X	X	X	X	X
325992	Photographic Film, Paper, Plate, and Chemicals	14.1	14.1	14.1	X	14.1	14.1	X	X	X	X
326	Plastics and Rubber Products	85.1	62.1	96.1	X	62.1	X	X	X	X	X
327	Nonmetallic Mineral Products	61.0	47.8	68.4	13.9	55.4	85.1	X	X	X	X
327121	Brick and Structural Clay Tile	70.2	X	70.2	X	X	X	X	X	X	X
327211	Flat Glass	X	X	X	X	X	X	X	X	X	X
327212	Other Pressed and Blown Glass and Glassware	X	X	X	X	X	X	X	X	X	X
327213	Glass Containers	X	X	X	X	X	X	X	X	X	X
327215	Glass Products from Purchased Glass	X	X	X	X	X	X	X	X	X	X
327310	Cements	13.2	13.2	13.2	X	13.2	X	X	X	X	X
327410	Lime	0.0	X	0.0	X	X	X	X	X	X	X
327420	Gypsum	13.9	13.9	X	13.9	X	X	X	X	X	X
327993	Mineral Wool	X	X	X	X	X	X	X	X	X	X
331	Primary Metals	24.6	0.0	48.9	X	0.0	0.0	X	X	X	X
331111	Iron and Steel Mills	0.0	0.0	0.0	X	0.0	0.0	X	X	X	X
331112	Electrometallurgical Ferroalloy Products	X	X	X	X	X	X	X	X	X	X
3312	Steel Products from Purchased Steel	80.7	X	80.7	X	X	X	X	X	X	X
3313	Alumina and Aluminum	0.0	0.0	X	X	0.0	X	X	X	X	X
331314	Secondary Smelting and Alloying of Aluminum	0.0	X	X	X	X	X	X	X	X	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	X	0.0	X	X	X	X	X

RSE Table 10.5 Relative Standard Errors for Table 10.5;**Unit: Percents.**

NAICS Code(a)	Selected Subsectors and Industry	Residual Fuel Oil(b)			Alternative Energy Sources(c)					Coal Coke and Breeze	Other(f)	
		Total Establishments Consuming Residual Fuel Oil(c)	Switchable	Not Switchable	Electricity Receipts(e)	Natural Gas	Distillate Fuel Oil	Coal	LPG			
331316	Aluminum Extruded Products	X	X	X	X	X	X	X	X	X	X	X
3314	Nonferrous Metals, except Aluminum	11.1	X	11.1	X	X	X	X	X	X	X	X
331419	Primary Smelting and Refining of Nonferrous Metals, except Copper and A	X	X	X	X	X	X	X	X	X	X	X
3315	Foundries	X	X	X	X	X	X	X	X	X	X	X
331511	Iron Foundries	X	X	X	X	X	X	X	X	X	X	X
331521	Aluminum Die-Casting Foundries	X	X	X	X	X	X	X	X	X	X	X
331524	Aluminum Foundries, except Die-Casting	X	X	X	X	X	X	X	X	X	X	X
332	Fabricated Metal Products	99.4	X	99.4	X	X	X	X	X	X	X	X
333	Machinery	98.9	X	98.9	X	X	X	X	X	X	X	X
334	Computer and Electronic Products	6.4	7.0	7.0	X	7.0	7.0	X	7.0	X	X	X
334413	Semiconductors and Related Devices	14.9	X	14.9	X	X	X	X	X	X	X	X
335	Electrical Equip., Appliances, and Components	65.3	87.1	91.6	X	87.1	87.1	X	X	X	X	X
336	Transportation Equipment	34.4	55.2	10.5	X	55.2	16.8	X	X	X	X	X
336111	Automobiles	X	X	X	X	X	X	X	X	X	X	X
336112	Light Trucks and Utility Vehicles	X	X	X	X	X	X	X	X	X	X	X
3364	Aerospace Product and Parts	12.7	11.1	12.5	X	11.1	16.8	X	X	X	X	X
336411	Aircraft	16.8	16.8	16.8	X	16.8	16.8	X	X	X	X	X
337	Furniture and Related Products	X	X	X	X	X	X	X	X	X	X	X
339	Miscellaneous	98.8	X	98.8	X	X	X	X	X	X	X	X
	Total	18.9	7.3	27.4	6.2	8.2	10.3	16.2	14.0	X	25.1	

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

(b) These counts include only those establishments that reported this activity in 2010.

(c) 'Alternative Energy Sources' consist of those energy sources that could have been substituted for residual fuel oil during 2010. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.

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

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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 residual fuel oil.

NF=No applicable RSE row/column factor.

* 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.

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, '2010 Manufacturing Energy Consumption Survey.'