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Next MECS will be fielded in 2019

Table 5.8 End Uses of Fuel Consumption, 2014;

Level: National and Regional Data;

Row: End Uses;

Column: Energy Sources, including Net Demand for Electricity;

Unit: Trillion Btu.

End Use	Net Demand for Electricity(a)	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel(b)	Natural Gas(c)	HGL (excluding natural gasoline)(d)	Coal (excluding Coal Coke and Breeze)
Total United States						
TOTAL FUEL CONSUMPTION	3,050	30	99	5,858	84	776
Indirect Uses-Boiler Fuel	52	21	12	2,305	8	393
Conventional Boiler Use	52	11	4	756	4	48
CHP and/or Cogeneration Process	--	10	9	1,549	3	344
Direct Uses-Total Process	2,399	8	26	2,953	43	298
Process Heating	362	7	5	2,590	37	280
Process Cooling and Refrigeration	215	*	*	27	*	0
Machine Drive	1,523	*	13	162	3	1
Electro-Chemical Processes	230	--	--	--	--	--
Other Process Use	68	*	8	173	3	17
Direct Uses-Total Nonprocess	550	1	58	433	27	4
Facility HVAC (e)	278	*	4	369	7	3
Facility Lighting	189	--	--	--	--	--
Other Facility Support	57	*	2	41	*	*
Onsite Transportation	14	--	39	2	20	--
Conventional Electricity Generation	--	*	3	12	*	2
Other Nonprocess Use	12	*	11	8	*	*
End Use Not Reported	50	*	3	168	5	81
Northeast Census Region						
TOTAL FUEL CONSUMPTION	293	11	15	423	8	47
Indirect Uses-Boiler Fuel	6	8	2	144	1	25
Conventional Boiler Use	6	6	1	54	*	4
CHP and/or Cogeneration Process	--	2	1	90	*	22
Direct Uses-Total Process	219	2	5	206	3	18
Process Heating	36	2	2	179	2	18
Process Cooling and Refrigeration	18	*	*	3	*	0
Machine Drive	140	*	3	17	*	0
Electro-Chemical Processes	17	--	--	--	--	--
Other Process Use	7	*	Q	7	*	*
Direct Uses-Total Nonprocess	63	1	7	57	4	*
Facility HVAC (e)	32	*	2	51	2	*
Facility Lighting	22	--	--	--	--	--
Other Facility Support	6	*	*	2	*	0
Onsite Transportation	1	--	4	*	2	--
Conventional Electricity Generation	--	*	*	Q	*	0
Other Nonprocess Use	1	*	Q	1	*	0
End Use Not Reported	6	*	1	16	1	3
Midwest Census Region						

TOTAL FUEL CONSUMPTION	884	1	20	1,760	33	323
Indirect Uses-Boiler Fuel	12	1	1	588	2	146
Conventional Boiler Use	12	*	*	286	1	24
CHP and/or Cogeneration Process	--	*	1	302	1	122
Direct Uses-Total Process	695	1	7	917	21	95
Process Heating	114	*	1	813	19	87
Process Cooling and Refrigeration	64	0	*	8	*	0
Machine Drive	453	*	2	18	Q	*
Electro-Chemical Processes	47	--	--	--	--	--
Other Process Use	16	*	4	78	*	8
Direct Uses-Total Nonprocess	160	*	12	215	9	3
Facility HVAC (e)	76	*	*	188	2	2
Facility Lighting	61	--	--	--	--	--
Other Facility Support	14	0	Q	22	*	*
Onsite Transportation	4	--	8	*	7	--
Conventional Electricity Generation	--	0	1	*	*	1
Other Nonprocess Use	4	0	2	Q	*	0
End Use Not Reported	16	0	*	40	1	78

South Census Region

TOTAL FUEL CONSUMPTION	1,456	13	45	2,988	27	277
Indirect Uses-Boiler Fuel	29	10	7	1,278	4	161
Conventional Boiler Use	29	3	1	319	3	15
CHP and/or Cogeneration Process	--	7	6	959	1	146
Direct Uses-Total Process	1,169	3	9	1,494	11	115
Process Heating	164	3	2	1,298	9	113
Process Cooling and Refrigeration	101	0	*	16	*	0
Machine Drive	742	*	6	114	1	1
Electro-Chemical Processes	135	--	--	--	--	--
Other Process Use	28	*	1	67	1	1
Direct Uses-Total Nonprocess	237	*	27	117	10	1
Facility HVAC (e)	125	*	1	96	2	1
Facility Lighting	76	--	--	--	--	--
Other Facility Support	26	*	*	11	*	0
Onsite Transportation	6	--	19	1	8	--
Conventional Electricity Generation	--	*	*	7	*	*
Other Nonprocess Use	4	*	6	3	*	0
End Use Not Reported	21	*	2	98	3	0

West Census Region

TOTAL FUEL CONSUMPTION	417	4	19	688	15	129
Indirect Uses-Boiler Fuel	5	2	1	295	1	60
Conventional Boiler Use	5	1	1	97	*	5
CHP and/or Cogeneration Process	--	1	Q	198	1	55
Direct Uses-Total Process	317	2	5	335	8	69
Process Heating	49	2	*	300	7	62
Process Cooling and Refrigeration	32	0	*	1	*	0
Machine Drive	188	0	2	14	1	0
Electro-Chemical Processes	32	--	--	--	--	--
Other Process Use	17	*	Q	21	1	7
Direct Uses-Total Nonprocess	89	0	12	44	5	*
Facility HVAC (e)	45	0	1	34	1	0
Facility Lighting	29	--	--	--	--	--
Other Facility Support	11	0	1	6	*	0

Onsite Transportation	2	--	8	*	4	--
Conventional Electricity Generation	--	0	Q	3	*	0
Other Nonprocess Use	2	0	1	1	*	*
End Use Not Reported	6	0	*	14	1	0

(a) 'Net Demand for Electricity' is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. 'Net Demand for Electricity' is not directly comparable with 'Net Electricity,' which specifically excludes electricity generated onsite by combustible energy sources.

(b) 'Distillate Fuel Oil' includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

(c) 'Natural Gas' includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

(d) Hydrocarbon Gas Liquids '(HGL)' 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 (NGL).

(e) Facility Heating, Ventilation, and Air Conditioning '(Facility HVAC)' excludes steam and hot water.

* 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.

-- Estimation is not applicable.

S=Negative value.

Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

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 5.8 Relative Standard Errors for Table 5.8;

Unit: Percents.

End Use	Net Demand for Electricity(a)	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel(b)	Natural Gas(c)	HGL (excluding natural gasoline)(d)	Coal (excluding Coal Coke and Breeze)
Total United States						
TOTAL FUEL CONSUMPTION	1.1	2.2	5.4	0.8	2.8	1.1
Indirect Uses-Boiler Fuel	2.7	2.9	7.3	1.0	3.7	1.3
Conventional Boiler Use	2.7	0.4	6.3	2.1	4.7	1.6
CHP and/or Cogeneration Process	--	6.1	10.0	1.1	5.9	1.5
Direct Uses-Total Process	1.0	2.7	10.6	1.0	3.0	1.8
Process Heating	2.1	1.6	7.5	1.1	2.2	2.0
Process Cooling and Refrigeration	1.7	73.1	10.3	5.7	27.2	X
Machine Drive	1.2	0.1	13.7	3.8	26.2	23.0
Electro-Chemical Processes	1.1	--	--	--	--	--
Other Process Use	4.5	42.3	25.7	3.3	17.0	0.1
Direct Uses-Total Nonprocess	2.1	2.3	6.7	2.5	6.0	12.2
Facility HVAC (e)	2.3	4.0	16.4	2.7	17.0	20.2
Facility Lighting	2.4	--	--	--	--	--
Other Facility Support	3.7	40.2	44.8	3.0	14.7	0.1
Onsite Transportation	4.6	--	4.5	9.0	5.3	--
Conventional Electricity Generation	--	0.1	38.1	17.4	14.5	0.1
Other Nonprocess Use	14.2	63.0	28.4	27.9	30.0	0.1
End Use Not Reported	10.5	0.1	23.2	7.3	13.0	4.2
Northeast Census Region						
TOTAL FUEL CONSUMPTION	3.6	5.3	11.4	3.0	13.2	7.3
Indirect Uses-Boiler Fuel	14.6	7.3	6.7	3.2	20.8	13.6
Conventional Boiler Use	14.6	0.2	10.0	5.5	42.2	0.1
CHP and/or Cogeneration Process	--	28.9	8.0	3.8	9.3	16.0
Direct Uses-Total Process	3.7	2.6	18.2	4.7	17.9	0.1
Process Heating	4.2	2.6	15.3	4.5	19.6	0.1
Process Cooling and Refrigeration	6.2	73.1	0.1	11.0	59.8	X
Machine Drive	5.1	0.1	26.5	30.4	29.0	X
Electro-Chemical Processes	1.2	--	--	--	--	--
Other Process Use	12.6	0.1	63.8	11.2	68.7	0.1
Direct Uses-Total Nonprocess	5.9	2.3	17.5	6.5	16.2	29.2
Facility HVAC (e)	7.5	3.8	32.2	6.2	29.1	29.2
Facility Lighting	5.9	--	--	--	--	--
Other Facility Support	6.4	46.5	38.5	12.0	34.5	X
Onsite Transportation	9.6	--	12.5	33.8	9.9	--
Conventional Electricity Generation	--	0.1	8.9	66.5	56.1	X
Other Nonprocess Use	22.0	0.1	57.7	17.9	19.8	X
End Use Not Reported	25.6	0.1	36.2	1.2	40.3	0.1
Midwest Census Region						
TOTAL FUEL CONSUMPTION	2.0	7.2	10.1	1.8	4.6	2.3
Indirect Uses-Boiler Fuel	4.7	1.3	20.0	3.0	6.8	2.1
Conventional Boiler Use	4.7	0.5	13.5	4.8	6.5	2.4
CHP and/or Cogeneration Process	--	2.1	26.4	4.2	10.6	2.4
Direct Uses-Total Process	1.9	18.1	20.3	2.1	3.9	5.3
Process Heating	3.7	24.8	15.0	2.3	1.4	5.8
Process Cooling and Refrigeration	3.2	X	42.6	2.9	2.7	X
Machine Drive	2.3	0.1	20.7	11.9	50.3	12.9
Electro-Chemical Processes	4.4	--	--	--	--	--
Other Process Use	12.5	0.1	35.1	5.2	25.9	0.1
Direct Uses-Total Nonprocess	3.7	34.7	11.3	4.2	12.4	16.1
Facility HVAC (e)	4.1	34.7	39.3	4.5	39.2	26.7
Facility Lighting	3.9	--	--	--	--	--
Other Facility Support	4.6	X	96.8	4.6	22.8	0.1
Onsite Transportation	7.4	--	4.2	17.0	10.3	--
Conventional Electricity Generation	--	X	44.2	7.3	10.3	0.1
Other Nonprocess Use	37.5	X	34.3	52.2	75.7	X
End Use Not Reported	8.3	X	18.2	9.0	29.3	4.3
South Census Region						

TOTAL FUEL CONSUMPTION	1.5	1.4	8.7	0.9	4.4	1.2
Indirect Uses-Boiler Fuel	3.1	1.8	10.0	1.0	4.0	1.5
Conventional Boiler Use	3.1	1.1	10.0	2.1	3.7	3.4
CHP and/or Cogeneration Process	--	2.6	11.8	1.1	11.9	1.6
Direct Uses-Total Process	1.4	1.4	13.3	1.1	6.0	1.8
Process Heating	3.3	1.4	6.1	1.3	6.0	1.9
Process Cooling and Refrigeration	2.8	X	7.2	9.6	58.6	X
Machine Drive	1.8	0.1	20.6	2.3	27.1	30.3
Electro-Chemical Processes	1.1	--	--	--	--	--
Other Process Use	7.5	89.5	9.6	5.8	21.2	0.1
Direct Uses-Total Nonprocess	3.0	26.5	11.9	4.4	8.1	9.3
Facility HVAC (e)	3.5	39.2	36.9	5.1	23.2	14.6
Facility Lighting	3.8	--	--	--	--	--
Other Facility Support	6.0	19.2	8.1	4.7	30.6	X
Onsite Transportation	7.1	--	7.5	9.1	8.0	--
Conventional Electricity Generation	--	0.1	14.6	2.4	17.4	0.1
Other Nonprocess Use	10.4	99.0	45.5	24.9	30.3	X
End Use Not Reported	22.2	0.1	37.4	11.7	15.4	X

West Census Region

TOTAL FUEL CONSUMPTION	4.0	4.5	13.9	1.9	6.3	0.1
Indirect Uses-Boiler Fuel	5.9	0.1	28.9	1.8	7.2	0.1
Conventional Boiler Use	5.9	0.1	16.3	3.6	5.2	0.1
CHP and/or Cogeneration Process	--	0.1	54.3	2.0	11.7	0.1
Direct Uses-Total Process	3.3	7.9	39.2	3.0	6.3	0.1
Process Heating	7.0	0.1	54.7	3.4	3.6	0.1
Process Cooling and Refrigeration	3.7	X	9.6	7.9	64.5	X
Machine Drive	3.9	X	46.4	3.0	41.4	X
Electro-Chemical Processes	1.5	--	--	--	--	--
Other Process Use	3.1	61.5	75.3	2.1	44.0	0.1
Direct Uses-Total Nonprocess	7.5	X	11.0	4.8	14.8	0.1
Facility HVAC (e)	7.0	X	1.5	4.0	33.6	X
Facility Lighting	8.3	--	--	--	--	--
Other Facility Support	11.7	X	0.1	7.0	23.3	X
Onsite Transportation	16.4	--	10.6	19.7	14.0	--
Conventional Electricity Generation	--	X	61.7	47.1	49.7	X
Other Nonprocess Use	9.8	X	23.5	27.7	10.7	0.1
End Use Not Reported	14.3	X	28.9	17.0	40.9	X

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(b) 'Distillate Fuel Oil' includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

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(d) Hydrocarbon Gas Liquids '(HGL)' 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 (NGL).

(e) Facility Heating, Ventilation, and Air Conditioning '(Facility HVAC)' excludes steam and hot water.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

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Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

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