

Next MECS will be fielded in 2027

Table 3.3 Fuel consumption, 2022

Level: National and regional data

Row: Values of shipments and employment sizes

Column: Energy sources

Unit: Trillion British thermal units (Btu)

Characteristic ^a	Total	Net electricity ^b	Residual fuel oil	Distillate fuel oil ^c	Natural gas ^d	HGL (excluding natural gasoline) ^e	Coal	Coke and breeze	Other ^f
Total United States									
Value of shipments and receipts (million dollars)									
Under 20	986	336	2	19	407	21	16	2	184
20–49	895	237	*	7	444	8	37	5	157
50–99	1,442	370	*	13	700	7	90	6	256
100–249	2,102	556	3	13	1,041	11	101	13	364
250–499	2,042	345	3	7	989	3	46	4	646
500 and over	8,275	829	5	21	3,507	35	108	279	3,490
Total	15,742	2,674	13	79	7,087	85	398	308	5,097
Employment size									
Under 50	1,324	368	2	22	633	20	65	1	212
50–99	1,300	298	*	8	746	8	38	8	195
100–249	3,060	649	1	18	1,503	17	117	14	740
250–499	3,528	547	3	8	1,497	18	128	4	1,322
500–999	3,396	464	7	11	1,273	17	30	5	1,589
1,000 and over	3,134	347	*	11	1,435	5	21	276	1,039
Total	15,742	2,674	13	79	7,087	85	398	308	5,097
Northeast Census Region									
Value of shipments and receipts (million dollars)									
Under 20	232	35	*	4	62	4	5	0	Q
20–49	124	40	*	2	37	2	2	*	41
50–99	140	57	*	1	71	1	3	1	7
100–249	214	64	2	1	126	3	1	0	17
250–499	180	37	1	1	83	*	5	*	52
500 and over	383	46	1	1	152	2	0	30	152
Total	1,274	279	4	10	531	12	16	31	391
Employment size									
Under 50	235	34	D	5	65	D	6	0	Q
50–99	122	50	*	D	49	1	D	1	D
100–249	195	64	D	D	92	1	D	0	D
250–499	288	65	1	1	153	5	1	*	63
500–999	224	32	D	D	77	D	D	0	107
1,000 and over	210	34	0	1	95	*	0	30	50
Total	1,274	279	4	10	531	12	16	31	391
Midwest Census Region									
Value of shipments and receipts (million dollars)									
Under 20	293	103	*	4	159	6	6	2	14
20–49	334	87	*	1	172	2	16	2	Q
50–99	325	88	*	1	165	2	37	1	31
100–249	681	229	0	1	371	4	21	9	44
250–499	604	107	*	Q	410	1	23	3	58
500 and over	1,976	261	1	7	748	4	69	249	636
Total	4,213	873	1	17	2,027	20	172	265	838
Employment size									
Under 50	527	122	*	4	321	6	44	1	30
50–99	551	114	*	D	347	D	16	3	D
100–249	692	209	*	D	387	D	D	9	D
250–499	917	173	D	D	393	D	91	3	249
500–999	515	121	D	D	208	D	D	4	174
1,000 and over	1,011	135	*	6	370	3	*	246	251
Total	4,213	873	1	17	2,027	20	172	265	838
South Census Region									

Value of shipments and receipts

(million dollars)

Under 20	319	159	1	7	120	8	5	0	19
20–49	325	81	*	3	192	2	7	2	37
50–99	736	170	*	Q	390	3	22	3	142
100–249	901	192	*	9	426	3	20	2	250
250–499	1,081	158	1	3	415	1	14	1	487
500 and over	4,943	446	3	12	2,240	18	39	*	2,184
Total	8,306	1,205	7	39	3,784	37	108	8	3,119

Employment size

Under 50	396	168	D	6	178	D	5	0	29
50–99	502	99	*	4	299	D	D	4	80
100–249	1,710	282	0	12	869	D	D	D	500
250–499	1,777	244	D	5	745	2	16	D	763
500–999	2,298	268	4	7	853	14	18	1	1,134
1,000 and over	1,622	143	0	4	840	1	21	*	612
Total	8,306	1,205	7	39	3,784	37	108	8	3,119

West Census Region
Value of shipments and receipts

(million dollars)

Under 20	142	40	*	4	65	3	0	0	Q
20–49	112	30	*	2	42	1	13	1	24
50–99	240	57	*	Q	74	Q	28	1	Q
100–249	306	71	1	2	118	1	58	2	53
250–499	176	42	*	1	81	1	3	*	48
500 and over	972	76	0	1	366	10	*	0	518
Total	1,948	316	2	14	745	16	103	3	749

Employment size

Under 50	166	45	*	6	69	2	10	1	Q
50–99	125	35	0	2	49	D	9	*	D
100–249	462	95	D	D	155	D	64	D	D
250–499	546	64	D	D	206	D	19	D	247
500–999	357	43	*	D	136	D	2	*	175
1,000 and over	291	35	0	*	129	2	0	0	125
Total	1,948	316	2	14	745	16	103	3	749

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*, and the Bureau of the Census, data files for the *2022 Economic Census, Manufacturing – Industry Series*

Note: 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. During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the *fuel consumption* estimates will be inflated.

^a *Value of shipments and receipts* and *employment size* categories were supplied by the Bureau of the Census.

^b *Net electricity* is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

^c *Distillate fuel oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

^d *Natural gas* includes natural gas obtained from utilities, local distribution companies, and any other suppliers, such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

^e Hydrocarbon gas liquids (HGLs) 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 (NGLs).

^f *Other* includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

* 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).

Released: September 2025

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RSE Table 3.3 Relative standard errors for Table 3.3

Unit: Percentage

Economic characteristic ^a	Total	Net electricity ^b	Residual fuel oil	Distillate fuel oil ^c	Natural gas ^d	HGL (excluding natural gasoline) ^e	Coal	Coke and breeze	Other ^f
Total United States									
Value of shipments and receipts (million dollars)									
Under 20	10.1	17.2	17.2	15.8	7.5	13.9	14.0	44.0	38.7
20-49	9.9	7.7	56.5	15.8	16.1	15.0	1.8	16.5	28.0
50-99	10.6	8.2	22.7	33.3	15.9	21.1	12.6	8.1	23.6
100-249	3.4	8.0	8.0	9.0	4.5	14.1	16.4	0.0	0.6
250-499	1.5	2.8	6.2	21.2	2.2	11.2	0.0	0.0	1.3
500 and over	1.1	2.6	0.0	2.7	1.9	0.9	0.0	0.0	0.1
Total	1.5	3.1	3.5	7.0	2.2	4.5	5.1	0.4	2.0
Employment size									
Under 50	7.5	15.6	15.2	17.1	5.2	14.0	3.4	10.3	33.6
50-99	5.8	8.3	0.0	13.7	6.7	14.3	0.0	13.7	22.8
100-249	6.2	7.6	7.7	19.8	9.6	9.5	17.2	3.0	8.1
250-499	1.3	4.0	7.9	5.4	2.1	8.7	0.2	3.4	0.7
500-999	0.7	2.1	2.6	3.7	1.3	1.8	0.1	0.0	0.2
1,000 and over	0.7	3.4	0.0	12.8	0.8	6.2	0.0	0.0	0.3
Total	1.5	3.1	3.5	7.0	2.2	4.5	5.1	0.4	2.0
Northeast Census Region									
Value of shipments and receipts (million dollars)									
Under 20	30.7	9.4	28.9	29.7	26.6	6.0	0.2	X	56.6
20-49	11.4	34.1	0.0	40.5	6.9	32.2	0.0	0.0	1.3
50-99	11.6	23.0	57.7	19.2	9.7	27.5	0.0	0.0	3.8
100-249	7.6	10.4	16.3	11.5	9.0	42.1	0.0	X	0.8
250-499	8.7	11.2	0.0	3.2	12.8	8.1	0.0	0.0	9.3
500 and over	1.7	7.1	0.0	0.1	1.4	5.4	X	0.0	1.8
Total	6.1	6.7	8.5	15.9	4.5	11.8	0.1	0.0	17.6
Employment size									
Under 50	30.4	8.6	D	27.3	25.5	D	0.1	X	57.6
50-99	14.3	30.6	0.0	D	14.1	46.5	D	0.0	D
100-249	5.5	10.5	D	D	6.2	13.9	D	X	D
250-499	6.0	8.8	45.1	8.7	7.4	27.1	0.0	0.0	7.7
500-999	4.4	11.3	D	D	9.5	D	D	X	0.1
1,000 and over	5.3	13.2	X	1.8	6.5	44.6	X	0.0	5.6
Total	6.1	6.7	8.5	15.9	4.5	11.8	0.1	0.0	17.6
Midwest Census Region									
Value of shipments and receipts (million dollars)									
Under 20	8.9	11.0	99.0	31.5	11.2	43.9	0.1	44.0	20.4
20-49	21.8	10.7	79.2	12.4	32.2	31.9	0.0	47.2	80.2
50-99	10.0	9.4	0.0	12.6	16.3	38.3	0.0	25.9	27.2
100-249	7.2	18.8	X	9.9	5.0	19.9	1.3	0.0	2.2
250-499	2.9	4.6	1.5	53.2	3.4	16.9	0.0	0.0	10.0
500 and over	0.8	2.9	0.0	7.0	1.3	5.0	0.0	0.0	0.1
Total	2.3	5.3	9.7	11.4	3.3	15.4	0.2	0.4	5.4
Employment size									
Under 50	5.5	8.3	74.7	28.2	7.4	45.5	0.1	20.1	11.4
50-99	9.4	14.5	0.0	D	4.9	D	0.0	39.4	D
100-249	10.1	19.6	0.0	D	14.1	D	D	0.0	D
250-499	3.6	4.9	D	D	6.8	D	0.3	4.3	2.9
500-999	2.9	5.1	D	D	4.8	D	D	0.0	0.1
1,000 and over	1.3	5.9	0.0	23.2	1.8	9.6	0.0	0.0	0.2
Total	2.3	5.3	9.7	11.4	3.3	15.4	0.2	0.4	5.4
South Census Region									
Value of shipments and receipts (million dollars)									
Under 20	18.8	35.7	23.2	27.5	12.9	10.5	0.0	X	7.7
20-49	14.8	9.3	85.7	23.1	23.4	21.0	9.6	0.0	3.9
50-99	15.0	13.0	0.0	53.8	27.3	32.7	1.8	14.2	1.6
100-249	5.0	4.8	0.0	12.9	9.8	13.0	0.0	0.0	0.7
250-499	1.6	3.5	11.2	2.6	2.9	8.6	0.0	0.0	0.8
500 and over	1.8	4.5	0.0	2.4	3.0	0.9	0.0	0.0	0.2
Total	2.0	5.4	4.9	10.5	3.7	4.2	2.1	5.2	0.2
Employment size									
Under 50	14.7	33.7	D	28.3	6.3	D	0.0	X	6.6
50-99	10.2	9.3	0.0	22.2	15.6	D	D	0.0	3.6
100-249	8.4	8.3	X	28.4	15.2	D	D	D	0.4
250-499	1.6	7.8	D	8.8	1.8	12.1	0.3	D	0.6
500-999	0.7	2.0	4.2	1.6	1.3	1.3	0.1	0.0	0.2
1,000 and over	0.9	5.4	X	6.5	0.8	16.2	0.0	0.0	0.3
Total	2.0	5.4	4.9	10.5	3.7	4.2	2.1	5.2	0.2

West Census Region

Value of shipments and receipts (million dollars)									
Under 20	16.4	11.3	43.1	39.6	16.7	18.9	X	X	61.3
20-49	8.0	12.1	41.7	24.7	13.0	38.3	0.0	0.0	16.4
50-99	41.7	25.2	0.0	58.0	21.7	55.0	40.3	0.0	78.6
100-249	6.7	7.2	0.0	0.7	3.7	17.9	28.3	0.0	0.1
250-499	4.3	10.4	0.0	7.1	4.5	45.1	0.0	0.0	0.4
500 and over	0.4	3.2	X	0.2	0.3	0.9	0.0	X	0.1
Total	5.4	5.3	4.4	21.1	2.8	5.1	19.6	0.0	8.4
Employment size									
Under 50	13.9	9.5	23.7	45.1	15.3	19.0	0.0	0.0	55.0
50-99	5.8	11.9	X	24.9	6.2	D	0.0	0.0	D
100-249	22.1	15.7	D	D	10.9	D	31.6	D	D
250-499	1.4	6.4	D	D	2.1	D	0.0	D	0.1
500-999	1.8	8.9	0.0	D	2.2	D	0.0	0.0	0.1
1,000 and over	0.8	3.9	X	12.8	0.8	6.2	X	X	0.1
Total	5.4	5.3	4.4	21.1	2.8	5.1	19.6	0.0	8.4

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*, and the Bureau of the Census, data files for the *2022 Economic Census, Manufacturing – Industry Series*

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* Estimate less than 0.5

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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

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