

Data release date: June 2023
Revised data release date: March 2024

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

	Total site electricity consumption ^a (trillion Btu)													
	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	351.8	258.8	71.7	80.0	79.6	43.2	32.8	258.1	85.9	31.0	12.6	65.9	10.3	22.2
Census region and division														
Northeast	55.2	41.6	10.3	10.1	11.1	7.0	5.3	42.4	13.7	4.9	2.1	9.7	1.4	3.0
New England	14.1	10.9	2.4	2.3	3.8	2.0	1.6	10.6	3.4	1.2	0.5	2.4	0.3	0.7
Middle Atlantic	41.1	30.7	7.9	7.7	7.3	5.0	3.7	31.8	10.2	3.7	1.6	7.3	1.1	2.3
Midwest	76.7	55.9	15.8	21.9	16.6	9.6	7.1	55.4	19.0	6.5	2.6	8.1	2.1	5.4
East North Central	51.7	38.3	10.4	13.5	10.1	6.5	4.7	38.5	13.2	4.5	1.9	6.1	1.5	4.0
West North Central	25.0	17.7	5.5	8.4	6.5	3.1	2.4	16.9	5.8	2.0	0.7	2.0	0.6	1.3
South	140.7	102.6	29.9	33.2	37.2	16.7	12.7	106.3	35.5	13.6	5.7	36.0	3.3	6.6
South Atlantic	74.6	54.9	15.6	15.2	20.0	8.8	6.9	54.4	17.6	6.9	2.9	21.7	1.7	3.8
East South Central	21.8	15.8	4.7	6.7	6.7	2.6	1.9	16.9	5.9	2.2	0.9	5.0	0.4	1.1
West South Central	44.3	31.9	9.6	11.4	10.5	5.3	3.8	35.0	12.0	4.4	1.9	9.3	1.2	1.7
West	79.2	58.6	15.7	14.8	14.7	10.0	7.6	54.1	17.7	6.0	2.2	12.2	3.5	7.3
Mountain	27.6	20.1	5.7	6.2	6.1	3.4	2.9	18.8	6.2	2.1	0.8	5.8	1.1	2.6
Mountain North	13.5	9.8	2.6	3.7	3.5	1.7	1.7	8.9	2.8	1.0	0.4	0.8	0.6	1.5
Mountain South	14.1	10.3	3.0	2.5	2.6	1.7	1.2	9.8	3.4	1.2	0.5	5.0	0.5	1.0
Pacific	51.6	38.5	10.0	8.6	8.7	6.6	4.7	35.3	11.5	3.8	1.4	6.5	2.3	4.7
Census urban/rural classification^d														
Urban	277.2	208.2	54.0	51.6	60.8	34.5	26.2	207.5	68.8	25.3	10.3	49.7	6.8	13.8
Urbanized area	247.4	185.4	48.2	43.0	52.9	30.6	23.6	185.0	60.5	22.7	9.2	45.7	6.0	11.7
Urban cluster	29.8	22.8	5.9	8.6	7.9	3.9	2.6	22.5	8.3	2.6	1.1	4.0	0.8	2.1
Rural	74.5	50.5	17.6	28.4	18.8	8.7	6.5	50.6	17.0	5.7	2.3	16.2	3.5	8.4
Climate region^e														
Very cold and Cold	116.0	85.8	22.9	30.6	26.1	15.1	11.6	84.9	28.3	9.6	4.0	13.8	3.9	9.9
Mixed-humid	104.2	76.9	21.0	24.0	26.1	12.5	10.0	78.9	26.1	9.9	3.9	17.0	2.0	4.4
Mixed-dry and Hot-dry	44.5	32.8	9.2	6.6	6.1	5.3	3.3	31.6	10.4	3.8	1.5	10.3	1.5	2.4
Hot-humid	69.1	49.6	15.3	15.3	17.1	7.9	5.7	50.7	17.1	6.5	2.8	23.6	1.8	3.1
Marine	18.0	13.6	3.3	3.4	4.2	2.5	2.2	12.1	4.0	1.2	0.4	1.2	1.1	2.4
Housing unit type														
Single-family detached	255.9	174.6	62.3	66.1	55.7	29.4	24.5	182.2	55.6	21.0	9.3	63.5	9.1	19.7
Single-family attached	19.1	15.2	3.1	2.6	4.3	2.5	1.8	14.4	5.0	1.8	0.7	0.8	0.2	0.5
Apartments in buildings with 2–4 units	18.0	16.0	1.5	1.9	4.6	2.6	1.1	14.4	5.9	2.3	0.7	N	0.2	Q

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

Total site electricity consumption ^a (trillion Btu)														
	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	351.8	258.8	71.7	80.0	79.6	43.2	32.8	258.1	85.9	31.0	12.6	65.9	10.3	22.2
Apartments in buildings with 5 or more units	41.9	39.5	1.8	3.6	11.2	6.5	4.3	32.1	13.9	3.9	1.1	N	0.5	0.9
Mobile homes	16.9	13.5	2.9	5.7	3.8	2.3	1.1	15.0	5.6	2.1	0.8	1.6	0.3	0.9
Ownership of housing unit														
Owned	270.1	186.8	64.2	69.1	56.5	31.3	25.9	189.9	58.6	21.5	9.1	63.7	9.4	20.6
Single-family	246.4	167.2	60.7	63.1	52.0	28.2	23.9	171.7	51.9	19.2	8.3	62.2	8.9	19.5
Apartments	9.8	8.7	0.8	1.0	1.6	1.3	1.0	6.2	2.3	0.7	0.2	N	0.1	Q
Mobile homes	13.9	10.9	2.6	5.0	2.8	1.8	1.0	12.0	4.4	1.6	0.6	1.5	0.3	0.8
Rented ^d	81.7	71.9	7.5	10.9	23.2	12.0	6.9	68.3	27.3	9.5	3.5	2.2	0.9	1.7
Single-family	28.6	22.5	4.7	5.6	8.1	3.8	2.3	24.9	8.6	3.6	1.7	2.1	0.3	0.7
Apartments	50.2	46.8	2.5	4.5	14.2	7.7	4.4	40.3	17.5	5.4	1.6	N	0.6	1.0
Mobile homes	2.9	2.6	0.3	0.7	0.9	0.5	0.2	3.1	1.2	0.4	0.2	Q	Q	Q
Year of construction														
Before 1950	52.1	39.6	9.7	12.1	10.3	6.6	4.5	35.2	12.4	4.2	1.7	4.8	0.8	2.1
1950 to 1959	33.6	25.3	6.9	8.0	6.8	4.1	2.5	24.9	8.7	3.2	1.2	4.1	0.8	1.8
1960 to 1969	35.2	25.7	7.5	8.1	7.9	4.4	2.8	27.1	9.1	3.4	1.5	4.8	0.6	1.5
1970 to 1979	49.6	37.5	9.5	12.7	12.3	6.5	4.3	37.5	13.1	4.7	1.7	10.2	1.4	3.3
1980 to 1989	45.5	33.6	9.0	10.2	12.0	5.6	3.9	33.4	11.4	4.1	1.5	10.1	1.4	2.9
1990 to 1999	55.1	38.7	12.7	13.1	12.2	6.5	5.5	39.5	12.6	4.4	1.9	15.5	2.4	5.4
2000 to 2009	52.0	36.8	11.0	10.8	11.5	6.0	5.6	38.2	11.4	4.3	1.9	11.8	2.0	3.9
2010 to 2015	16.7	12.0	3.4	3.0	3.7	1.9	1.9	12.4	3.9	1.5	0.6	2.9	0.5	0.8
2016 to 2020	12.0	9.4	2.0	2.0	2.8	1.5	1.8	9.9	3.2	1.2	0.5	1.8	0.4	0.6
Total square footage^e														
Less than 1,000	58.4	52.5	4.9	8.2	14.8	8.3	3.9	45.4	19.5	5.9	1.8	1.1	0.5	0.8
1,000 to 1,499	69.7	56.5	10.9	14.8	16.5	9.2	6.2	54.8	19.9	7.3	2.9	6.7	1.2	3.0
1,500 to 1,999	66.8	48.8	14.9	16.7	14.4	8.2	6.2	49.9	16.5	6.2	2.6	11.1	1.5	3.6
2,000 to 2,499	49.8	35.3	11.7	12.9	11.5	6.0	5.3	35.5	10.7	4.0	1.8	10.9	1.8	3.7
2,500 to 2,999	36.7	24.1	9.6	9.4	7.9	4.1	3.9	25.2	7.3	2.8	1.3	12.2	1.1	2.4
3,000 or more	70.4	41.5	19.6	18.0	14.5	7.4	7.3	47.2	12.0	4.8	2.3	24.0	4.2	8.7
Number of household members														
1 member	75.8	65.2	8.8	13.1	15.1	9.2	4.3	44.4	19.5	4.3	0.8	6.3	1.0	2.1
2 members	135.2	97.2	30.1	34.0	31.3	16.5	12.4	95.6	32.9	10.9	3.6	26.8	4.8	10.6
3 members	55.2	38.9	12.2	12.9	13.1	6.8	5.9	45.0	13.1	6.0	2.9	13.1	2.2	4.8
4 members	49.5	34.1	11.3	10.9	11.4	6.2	6.0	40.1	11.3	5.2	2.7	11.1	1.4	3.0

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

Total site electricity consumption^a
(trillion Btu)

	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	351.8	258.8	71.7	80.0	79.6	43.2	32.8	258.1	85.9	31.0	12.6	65.9	10.3	22.2
5 members	21.3	13.9	5.5	4.8	5.2	2.8	2.5	19.2	5.3	2.6	1.5	6.0	0.5	1.2
6 or more members	14.7	9.4	3.8	4.3	3.5	1.8	1.6	13.9	3.7	2.0	1.1	2.6	0.4	0.7
2020 annual household income														
Less than \$5,000	9.1	7.8	1.1	1.8	2.8	1.3	0.5	7.5	3.2	1.2	0.5	Q	0.1	0.2
\$5,000 to \$9,999	8.1	6.8	1.0	1.8	2.1	1.2	0.4	7.1	2.9	1.2	0.4	Q	0.2	Q
\$10,000 to \$19,999	22.9	19.1	3.0	5.7	5.6	3.2	1.0	17.2	7.4	2.5	0.8	1.9	0.2	0.4
\$20,000 to \$39,999	60.3	48.2	10.0	15.2	15.2	8.1	4.0	46.8	17.9	6.5	2.5	5.8	0.9	2.0
\$40,000 to \$59,999	53.1	40.4	10.1	12.7	12.6	6.7	4.4	40.3	14.2	5.1	2.1	7.5	1.1	2.7
\$60,000 to \$99,999	82.3	59.8	17.9	19.0	18.7	9.9	8.4	58.5	18.7	6.6	2.6	13.6	1.9	4.3
\$100,000 to \$149,999	54.0	37.4	12.8	12.5	10.9	6.2	6.5	37.8	10.9	4.0	1.7	13.1	2.1	5.2
\$150,000 or more	62.0	39.2	15.8	11.3	11.7	6.7	7.7	42.9	10.7	4.0	1.9	23.9	3.8	7.2
Payment method for energy bills														
All paid by household	331.1	240.3	70.1	77.1	75.3	40.3	31.1	242.7	79.5	28.9	12.0	65.7	9.9	21.6
Some paid by household, some included in rent or condo fee	11.8	10.8	0.8	1.6	2.1	1.7	1.0	8.7	3.5	1.1	0.3	Q	0.2	0.3
All included in rent or condo fee	8.4	7.4	0.7	1.2	2.1	1.3	0.6	6.5	2.8	0.9	0.3	Q	0.2	Q
Some other method	0.4	0.3	Q	0.1	Q	*	*	0.3	0.1	Q	Q	Q	Q	Q

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

	Total site electricity consumption ^a (trillion Btu)													
	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	351.8	258.8	71.7	80.0	79.6	43.2	32.8	258.1	85.9	31.0	12.6	65.9	10.3	22.2

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the *2020 Residential Energy Consumption Survey*

Notes: Because of rounding, data may not sum to totals. See RECS Terminology for definition of terms used in these tables.

Btu = British thermal units

^a Electricity consumption from on-site solar photovoltaic generation (that is, solar panels) is included. Small amounts of standby power for devices that some households have but do not use (for example, dishwashers) are not included.

^b *Cooking* includes ranges (units with both a cooktop and an oven), separate cooktops, and separate ovens. Microwaves, small kitchen appliances, and outdoor cooking are excluded.

^c *All TVs and related* includes TVs and peripherals such as cable and satellite boxes, DVRs, internet streaming devices, video game consoles, DVD or Blu-ray players, VCRs, and home theater or audio systems.

^d Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

^e The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^f *Rented* includes households that occupy their primary housing units without paying rent.

^g *Total square footage* includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.

Q = Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households in reporting sample.

N = No households in reporting sample.

* = Estimate is less than 0.05 and rounds to zero.

Data release date: June 2023
Revised data release date: March 2024

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

	Total site electricity consumption ^a (billion kWh)													
	All refrigerators	Most used refrigerators	Second refrigerators	Separate freezers	Cooking ^b	Micro-waves	Dish-washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	103.1	75.8	21.0	23.4	23.3	12.7	9.6	75.7	25.2	9.1	3.7	19.3	3.0	6.5
Census region and division														
Northeast	16.2	12.2	3.0	3.0	3.2	2.0	1.6	12.4	4.0	1.4	0.6	2.8	0.4	0.9
New England	4.1	3.2	0.7	0.7	1.1	0.6	0.5	3.1	1.0	0.4	0.1	0.7	0.1	0.2
Middle Atlantic	12.0	9.0	2.3	2.3	2.1	1.5	1.1	9.3	3.0	1.1	0.5	2.1	0.3	0.7
Midwest	22.5	16.4	4.6	6.4	4.9	2.8	2.1	16.2	5.6	1.9	0.8	2.4	0.6	1.6
East North Central	15.2	11.2	3.0	4.0	3.0	1.9	1.4	11.3	3.9	1.3	0.6	1.8	0.5	1.2
West North Central	7.3	5.2	1.6	2.5	1.9	0.9	0.7	5.0	1.7	0.6	0.2	0.6	0.2	0.4
South	41.2	30.1	8.8	9.7	10.9	4.9	3.7	31.2	10.4	4.0	1.7	10.5	1.0	1.9
South Atlantic	21.9	16.1	4.6	4.4	5.9	2.6	2.0	16.0	5.1	2.0	0.9	6.4	0.5	1.1
East South Central	6.4	4.6	1.4	2.0	2.0	0.8	0.6	4.9	1.7	0.7	0.3	1.5	0.1	0.3
West South Central	13.0	9.4	2.8	3.3	3.1	1.5	1.1	10.3	3.5	1.3	0.6	2.7	0.3	0.5
West	23.2	17.2	4.6	4.3	4.3	2.9	2.2	15.8	5.2	1.8	0.6	3.6	1.0	2.1
Mountain	8.1	5.9	1.7	1.8	1.8	1.0	0.8	5.5	1.8	0.6	0.2	1.7	0.3	0.8
Mountain North	4.0	2.9	0.8	1.1	1.0	0.5	0.5	2.6	0.8	0.3	0.1	0.2	0.2	0.5
Mountain South	4.1	3.0	0.9	0.7	0.8	0.5	0.4	2.9	1.0	0.3	0.1	1.5	0.2	0.3
Pacific	15.1	11.3	2.9	2.5	2.5	1.9	1.4	10.3	3.4	1.1	0.4	1.9	0.7	1.4
Census urban/rural classification^d														
Urban	81.3	61.0	15.8	15.1	17.8	10.1	7.7	60.8	20.2	7.4	3.0	14.6	2.0	4.0
Urbanized area	72.5	54.3	14.1	12.6	15.5	9.0	6.9	54.2	17.7	6.7	2.7	13.4	1.8	3.4
Urban cluster	8.7	6.7	1.7	2.5	2.3	1.1	0.8	6.6	2.4	0.8	0.3	1.2	0.2	0.6
Rural	21.8	14.8	5.2	8.3	5.5	2.6	1.9	14.8	5.0	1.7	0.7	4.8	1.0	2.5
Climate region^e														
Very cold and Cold	34.0	25.2	6.7	9.0	7.6	4.4	3.4	24.9	8.3	2.8	1.2	4.0	1.1	2.9
Mixed-humid	30.5	22.5	6.2	7.0	7.7	3.7	2.9	23.1	7.7	2.9	1.2	5.0	0.6	1.3
Mixed-dry and Hot-dry	13.0	9.6	2.7	1.9	1.8	1.6	1.0	9.3	3.0	1.1	0.4	3.0	0.4	0.7
Hot-humid	20.2	14.5	4.5	4.5	5.0	2.3	1.7	14.9	5.0	1.9	0.8	6.9	0.5	0.9
Marine	5.3	4.0	1.0	1.0	1.2	0.7	0.6	3.5	1.2	0.4	0.1	0.4	0.3	0.7
Housing unit type														
Single-family detached	75.0	51.2	18.3	19.4	16.3	8.6	7.2	53.4	16.3	6.1	2.7	18.6	2.7	5.8
Single-family attached	5.6	4.4	0.9	0.8	1.3	0.7	0.5	4.2	1.5	0.5	0.2	0.2	0.1	0.2
Apartments in buildings with 2–4 units	5.3	4.7	0.4	0.6	1.3	0.8	0.3	4.2	1.7	0.7	0.2	N	*	Q

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Total site electricity consumption ^a (billion kWh)														
	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	103.1	75.8	21.0	23.4	23.3	12.7	9.6	75.7	25.2	9.1	3.7	19.3	3.0	6.5
Apartments in buildings with 5 or more units	12.3	11.6	0.5	1.1	3.3	1.9	1.3	9.4	4.1	1.1	0.3	N	0.2	0.3
Mobile homes	4.9	4.0	0.9	1.7	1.1	0.7	0.3	4.4	1.6	0.6	0.2	0.5	0.1	0.3
Ownership of housing unit														
Owned	79.2	54.8	18.8	20.3	16.5	9.2	7.6	55.7	17.2	6.3	2.7	18.7	2.8	6.0
Single-family	72.2	49.0	17.8	18.5	15.2	8.3	7.0	50.3	15.2	5.6	2.4	18.2	2.6	5.7
Apartments	2.9	2.5	0.2	0.3	0.5	0.4	0.3	1.8	0.7	0.2	0.1	N	*	Q
Mobile homes	4.1	3.2	0.8	1.5	0.8	0.5	0.3	3.5	1.3	0.5	0.2	0.4	0.1	0.2
Rented ^d	23.9	21.1	2.2	3.2	6.8	3.5	2.0	20.0	8.0	2.8	1.0	0.7	0.3	0.5
Single-family	8.4	6.6	1.4	1.6	2.4	1.1	0.7	7.3	2.5	1.1	0.5	0.6	0.1	0.2
Apartments	14.7	13.7	0.7	1.3	4.2	2.3	1.3	11.8	5.1	1.6	0.5	N	0.2	0.3
Mobile homes	0.9	0.8	0.1	0.2	0.3	0.1	*	0.9	0.3	0.1	0.1	Q	Q	Q
Year of construction														
Before 1950	15.3	11.6	2.8	3.5	3.0	1.9	1.3	10.3	3.6	1.2	0.5	1.4	0.2	0.6
1950 to 1959	9.9	7.4	2.0	2.3	2.0	1.2	0.7	7.3	2.6	0.9	0.4	1.2	0.2	0.5
1960 to 1969	10.3	7.5	2.2	2.4	2.3	1.3	0.8	7.9	2.7	1.0	0.4	1.4	0.2	0.4
1970 to 1979	14.5	11.0	2.8	3.7	3.6	1.9	1.3	11.0	3.8	1.4	0.5	3.0	0.4	1.0
1980 to 1989	13.3	9.9	2.6	3.0	3.5	1.6	1.1	9.8	3.3	1.2	0.4	3.0	0.4	0.8
1990 to 1999	16.1	11.4	3.7	3.8	3.6	1.9	1.6	11.6	3.7	1.3	0.6	4.5	0.7	1.6
2000 to 2009	15.2	10.8	3.2	3.2	3.4	1.8	1.6	11.2	3.3	1.3	0.6	3.5	0.6	1.1
2010 to 2015	4.9	3.5	1.0	0.9	1.1	0.6	0.6	3.6	1.1	0.4	0.2	0.9	0.1	0.2
2016 to 2020	3.5	2.8	0.6	0.6	0.8	0.5	0.5	2.9	0.9	0.3	0.1	0.5	0.1	0.2
Total square footage^e														
Less than 1,000	17.1	15.4	1.4	2.4	4.3	2.4	1.1	13.3	5.7	1.7	0.5	0.3	0.1	0.2
1,000 to 1,499	20.4	16.6	3.2	4.3	4.8	2.7	1.8	16.1	5.8	2.1	0.8	2.0	0.4	0.9
1,500 to 1,999	19.6	14.3	4.4	4.9	4.2	2.4	1.8	14.6	4.8	1.8	0.8	3.2	0.5	1.1
2,000 to 2,499	14.6	10.3	3.4	3.8	3.4	1.8	1.6	10.4	3.1	1.2	0.5	3.2	0.5	1.1
2,500 to 2,999	10.8	7.1	2.8	2.8	2.3	1.2	1.1	7.4	2.1	0.8	0.4	3.6	0.3	0.7
3,000 or more	20.6	12.2	5.7	5.3	4.3	2.2	2.1	13.8	3.5	1.4	0.7	7.0	1.2	2.5
Number of household members														
1 member	22.2	19.1	2.6	3.8	4.4	2.7	1.3	13.0	5.7	1.3	0.2	1.8	0.3	0.6
2 members	39.6	28.5	8.8	10.0	9.2	4.8	3.6	28.0	9.7	3.2	1.0	7.9	1.4	3.1
3 members	16.2	11.4	3.6	3.8	3.9	2.0	1.7	13.2	3.9	1.8	0.9	3.8	0.6	1.4
4 members	14.5	10.0	3.3	3.2	3.4	1.8	1.8	11.8	3.3	1.5	0.8	3.3	0.4	0.9

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

Total site electricity consumption^a
(billion kWh)

	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	103.1	75.8	21.0	23.4	23.3	12.7	9.6	75.7	25.2	9.1	3.7	19.3	3.0	6.5
5 members	6.3	4.1	1.6	1.4	1.5	0.8	0.7	5.6	1.5	0.8	0.5	1.8	0.2	0.3
6 or more members	4.3	2.8	1.1	1.3	1.0	0.5	0.5	4.1	1.1	0.6	0.3	0.8	0.1	0.2
2020 annual household income														
Less than \$5,000	2.7	2.3	0.3	0.5	0.8	0.4	0.1	2.2	0.9	0.4	0.1	Q	*	*
\$5,000 to \$9,999	2.4	2.0	0.3	0.5	0.6	0.4	0.1	2.1	0.9	0.3	0.1	Q	*	Q
\$10,000 to \$19,999	6.7	5.6	0.9	1.7	1.6	0.9	0.3	5.0	2.2	0.7	0.2	0.6	0.1	0.1
\$20,000 to \$39,999	17.7	14.1	2.9	4.4	4.5	2.4	1.2	13.7	5.2	1.9	0.7	1.7	0.3	0.6
\$40,000 to \$59,999	15.6	11.8	3.0	3.7	3.7	2.0	1.3	11.8	4.2	1.5	0.6	2.2	0.3	0.8
\$60,000 to \$99,999	24.1	17.5	5.2	5.6	5.5	2.9	2.4	17.2	5.5	1.9	0.8	4.0	0.6	1.3
\$100,000 to \$149,999	15.8	11.0	3.8	3.7	3.2	1.8	1.9	11.1	3.2	1.2	0.5	3.8	0.6	1.5
\$150,000 or more	18.2	11.5	4.6	3.3	3.4	2.0	2.3	12.6	3.1	1.2	0.6	7.0	1.1	2.1
Payment method for energy bills														
All paid by household	97.0	70.4	20.6	22.6	22.1	11.8	9.1	71.1	23.3	8.5	3.5	19.3	2.9	6.3
Some paid by household, some included in rent or condo fee	3.5	3.2	0.2	0.5	0.6	0.5	0.3	2.5	1.0	0.3	0.1	Q	0.1	0.1
All included in rent or condo fee	2.5	2.2	0.2	0.3	0.6	0.4	0.2	1.9	0.8	0.3	0.1	Q	0.1	Q
Some other method	0.1	0.1	Q	*	Q	*	*	0.1	*	Q	Q	Q	Q	Q

Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

Total site electricity consumption ^a (billion kWh)														
	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	103.1	75.8	21.0	23.4	23.3	12.7	9.6	75.7	25.2	9.1	3.7	19.3	3.0	6.5

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the *2020 Residential Energy Consumption Survey*

Notes: Because of rounding, data may not sum to totals. See RECS Terminology for definition of terms used in these tables.

kWh = kilowatthours

^a Electricity consumption from on-site solar photovoltaic generation (that is, solar panels) is included. Small amounts of standby power for devices that some households have but do not use (for example, dishwashers) are not included.

^b *Cooking* includes ranges (units with both a cooktop and an oven), separate cooktops, and separate ovens. Microwaves, small kitchen appliances, and outdoor cooking are excluded.

^c *All TVs and related* includes TVs and peripherals such as cable and satellite boxes, DVRs, internet streaming devices, video game consoles, DVD or Blu-ray players, VCRs, and home theater or audio systems.

^d Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

^e The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^f *Rented* includes households that occupy their primary housing units without paying rent.

^g *Total square footage* includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.

Q = Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households in reporting sample.

N = No households in reporting sample.

* = Estimate is less than 0.05 and rounds to zero.

Data release date: June 2023
Revised data release date: March 2024

Relative standard errors (RSEs) for Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

RSEs for total site electricity consumption^a

	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	0.34	0.24	0.79	1.43	0.88	0.59	0.91	0.61	0.79	1.14	2.03	4.01	4.14	5.03
Census region and division														
Northeast	0.78	0.48	2.27	3.35	2.37	1.23	2.19	1.54	1.70	2.82	3.48	7.17	12.67	14.78
New England	1.33	0.75	4.25	4.75	2.60	2.32	3.06	2.07	2.16	4.92	5.99	11.12	13.03	16.04
Middle Atlantic	0.98	0.59	2.81	4.06	3.34	1.77	2.73	1.89	2.06	3.40	4.38	8.55	16.28	18.00
Midwest	0.83	0.57	2.07	2.52	1.93	1.12	2.12	1.42	1.44	2.74	5.04	10.80	11.67	13.54
East North Central	0.99	0.78	2.56	3.37	2.93	1.63	2.72	1.77	1.79	3.61	6.55	13.11	15.61	17.36
West North Central	1.33	0.93	2.92	3.59	2.76	1.63	2.70	2.04	2.09	3.95	5.06	18.70	12.40	13.61
South	0.66	0.38	1.63	2.37	1.56	0.97	1.63	1.00	1.07	1.82	3.32	5.96	6.85	9.41
South Atlantic	0.95	0.54	2.37	3.45	1.89	1.38	2.03	1.47	1.44	2.37	5.22	8.19	10.66	13.19
East South Central	1.78	0.95	4.22	5.02	2.88	1.86	3.50	1.95	2.42	3.36	4.91	12.89	16.18	17.19
West South Central	1.49	0.77	3.80	4.45	3.20	1.74	2.84	2.02	1.89	3.80	4.92	13.62	11.58	17.36
West	0.76	0.45	2.29	2.84	1.68	1.28	1.73	1.35	1.31	2.71	5.15	7.65	6.88	8.07
Mountain	1.14	0.79	2.26	3.58	2.63	2.01	2.68	1.85	2.43	3.85	6.20	9.76	9.41	11.36
Mountain North	1.76	0.98	4.36	4.53	3.66	2.51	3.34	2.86	3.68	6.33	7.66	35.32	12.50	13.41
Mountain South	1.46	1.03	3.65	5.73	4.41	2.42	3.99	2.68	2.76	5.51	8.54	10.80	13.83	19.44
Pacific	1.12	0.60	3.46	4.66	2.24	1.66	2.44	2.02	1.73	3.71	6.81	11.37	9.44	10.57
Census urban/rural classification^d														
Urban	0.53	0.42	1.13	1.74	1.02	0.74	1.08	0.77	0.97	1.42	2.42	5.34	5.02	6.52
Urbanized area	0.69	0.55	1.34	2.24	1.17	0.80	1.16	0.93	1.09	1.61	2.63	5.45	5.68	7.41
Urban cluster	3.11	2.74	5.55	5.25	3.87	3.06	3.84	3.50	3.53	4.80	6.93	15.65	18.55	19.50
Rural	1.68	1.36	2.58	2.46	2.19	1.63	2.05	1.94	1.89	2.97	4.39	6.97	7.92	8.65
Climate region^e														
Very cold and Cold	0.83	0.64	1.90	1.98	1.42	1.04	1.65	1.20	1.32	2.27	3.67	8.66	6.89	7.80
Mixed-humid	1.22	0.95	2.21	2.64	1.85	1.29	1.96	1.45	1.64	2.19	3.33	7.01	8.80	10.74
Mixed-dry and Hot-dry	1.60	1.25	3.70	5.42	3.65	2.28	2.53	2.37	1.80	3.88	7.54	8.66	11.61	16.62
Hot-humid	1.42	0.97	2.89	4.15	2.82	1.71	2.62	1.84	1.95	2.84	5.31	9.22	9.77	15.07
Marine	2.96	2.63	5.75	7.39	3.76	3.93	3.79	3.90	3.23	6.51	8.91	28.93	12.94	14.38
Housing unit type														
Single-family detached	0.47	0.28	1.02	1.39	0.94	0.65	0.98	0.73	0.84	1.35	2.15	4.11	4.25	5.48
Single-family attached	1.45	0.82	4.56	5.62	3.49	2.26	3.78	2.22	2.37	4.04	6.00	25.57	23.16	27.05
Apartments in buildings with 2–4 units	1.81	1.12	9.94	9.29	5.16	2.40	7.90	3.30	3.70	6.55	10.23	0.00	37.90	48.12

Relative standard errors (RSEs) for Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

RSEs for total site electricity consumption^a

	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	0.34	0.24	0.79	1.43	0.88	0.59	0.91	0.61	0.79	1.14	2.03	4.01	4.14	5.03
Apartments in buildings with 5 or more units	1.02	0.81	10.93	9.25	2.91	1.77	3.13	1.97	2.16	4.17	8.21	0.00	25.21	28.13
Mobile homes	2.03	1.37	6.91	6.75	5.22	2.61	7.14	3.41	3.28	5.76	8.38	22.63	28.12	30.99
Ownership of housing unit														
Owned	0.62	0.49	1.05	1.60	1.03	0.89	1.14	0.87	0.94	1.41	2.02	4.16	4.08	5.16
Single-family	0.63	0.43	1.09	1.56	1.04	0.82	1.12	0.89	0.97	1.42	2.11	4.22	4.10	5.22
Apartments	4.85	4.61	13.25	24.17	7.65	5.57	8.22	5.23	5.07	8.12	16.13	0.00	44.79	57.31
Mobile homes	3.01	2.41	7.52	7.55	6.24	3.60	6.66	4.40	4.46	6.96	11.00	24.02	28.80	31.81
Rented ^d	1.27	1.08	4.56	4.16	2.07	1.48	2.76	1.53	1.65	2.83	4.55	18.91	17.18	18.00
Single-family	2.78	2.59	4.87	6.24	4.15	3.37	4.75	3.29	3.23	4.31	6.32	19.69	25.14	28.30
Apartments	1.18	0.98	9.15	6.83	2.71	1.51	3.62	2.19	2.27	4.43	7.79	0.00	24.11	27.74
Mobile homes	7.90	7.37	20.04	18.15	10.14	9.15	19.24	9.48	9.70	12.25	17.52	74.82	71.63	71.64
Year of construction														
Before 1950	1.07	0.68	3.37	3.53	3.16	1.96	2.92	2.17	2.07	4.52	6.06	17.26	16.68	17.44
1950 to 1959	1.34	0.87	4.21	3.91	3.06	1.92	4.46	2.36	2.59	4.60	7.89	12.76	14.32	16.87
1960 to 1969	1.61	0.85	4.14	4.23	3.49	1.61	3.43	2.21	1.90	3.65	6.77	11.71	16.86	17.49
1970 to 1979	1.16	0.70	3.56	2.96	1.99	1.59	2.72	1.74	1.50	2.88	5.39	10.04	11.50	13.04
1980 to 1989	1.34	0.69	3.55	4.55	2.72	1.49	2.71	1.74	2.15	2.87	4.72	8.74	10.15	12.20
1990 to 1999	1.13	0.69	2.71	3.45	2.58	1.54	2.41	1.62	1.92	3.16	5.43	7.81	10.31	12.66
2000 to 2009	1.28	0.66	2.95	3.51	2.42	1.47	1.86	1.82	1.91	3.41	4.60	10.15	9.05	12.20
2010 to 2015	3.59	2.81	6.32	9.19	5.29	3.59	4.50	4.60	4.20	7.02	10.68	17.97	17.08	19.61
2016 to 2020	3.94	3.60	7.05	8.29	5.85	3.84	4.51	4.33	4.59	6.27	10.13	20.73	24.23	39.90
Total square footage^e														
Less than 1,000	1.60	1.35	6.32	6.46	3.06	1.90	3.39	2.08	1.96	3.69	6.80	27.27	20.08	23.49
1,000 to 1,499	1.88	1.66	3.99	4.21	2.58	2.25	2.61	2.08	2.42	3.00	4.37	13.64	13.50	13.81
1,500 to 1,999	1.84	1.68	3.07	3.50	2.91	2.20	3.29	2.33	2.24	3.36	5.29	13.06	11.42	13.61
2,000 to 2,499	2.49	2.43	3.55	3.52	3.49	2.74	3.01	2.75	3.27	3.75	6.55	9.90	8.96	10.26
2,500 to 2,999	2.76	2.68	3.55	4.46	3.64	3.09	3.31	3.06	3.33	4.64	5.55	8.89	11.04	12.19
3,000 or more	2.29	1.94	2.75	3.48	2.64	2.36	2.23	2.29	2.60	3.27	4.08	6.67	7.39	9.60
Number of household members														
1 member	1.45	1.34	3.54	4.32	2.28	1.74	2.53	1.67	1.89	3.13	8.87	14.46	13.03	14.83
2 members	1.39	1.21	2.28	2.26	1.63	1.42	1.78	1.44	1.75	2.32	3.71	5.68	7.37	8.44
3 members	2.00	1.87	2.78	3.77	3.18	2.39	2.95	2.47	2.69	3.19	4.41	8.97	10.09	11.83
4 members	2.34	2.22	2.88	3.95	3.40	2.48	2.80	2.65	2.98	3.87	4.29	9.79	10.14	12.00

Relative standard errors (RSEs) for Table CE5.1b Detailed household site electricity end-use consumption, part 2—totals, 2020

RSEs for total site electricity consumption^a

	All refri- gerators	Most used refri- gerators	Second refri- gerators	Separate freezers	Cooking ^b	Micro- waves	Dish- washers	All TVs and related ^c	Most-used TVs	Second TVs	Third TVs	Pool pumps	Hot tub pumps	Hot tub heaters
All homes	0.34	0.24	0.79	1.43	0.88	0.59	0.91	0.61	0.79	1.14	2.03	4.01	4.14	5.03
5 members	4.67	4.27	5.82	5.66	5.22	4.94	4.78	5.41	6.04	7.15	9.34	11.88	20.22	25.96
6 or more members	4.90	4.49	6.64	7.14	5.95	5.24	5.66	6.12	5.99	7.22	8.65	20.80	17.85	22.69
2020 annual household income														
Less than \$5,000	4.91	4.75	12.79	9.67	7.49	5.84	12.04	6.45	6.78	9.69	14.82	78.79	42.67	41.65
\$5,000 to \$9,999	5.88	5.61	11.44	11.44	8.14	6.46	14.58	7.25	7.18	9.55	17.71	56.52	43.68	68.20
\$10,000 to \$19,999	3.75	3.79	6.95	7.72	5.52	3.97	6.17	4.47	4.33	6.97	8.76	31.78	26.99	35.29
\$20,000 to \$39,999	2.19	2.05	3.76	3.97	2.73	2.27	4.02	2.51	2.81	3.80	5.33	18.38	16.65	17.71
\$40,000 to \$59,999	2.00	1.87	3.72	3.60	3.28	2.25	3.58	2.40	2.47	3.05	5.63	13.05	14.82	16.27
\$60,000 to \$99,999	1.68	1.69	2.41	2.87	2.34	1.90	2.05	2.18	2.11	2.73	3.72	8.30	9.95	10.61
\$100,000 to \$149,999	1.87	1.91	2.86	3.87	2.68	2.41	2.49	2.19	2.65	2.72	5.00	8.21	9.68	10.82
\$150,000 or more	2.26	2.00	2.77	3.87	3.07	2.39	2.48	2.65	2.70	3.05	4.16	7.05	8.54	11.61
Payment method for energy bills														
All paid by household	0.42	0.31	0.84	1.42	0.94	0.70	0.94	0.70	0.83	1.19	2.12	4.02	4.03	5.00
Some paid by household, some included in rent or condo fee	3.88	3.86	13.03	13.22	6.66	5.01	7.75	5.59	5.39	9.38	14.39	72.68	31.74	38.68
All included in rent or condo fee	5.53	5.06	15.62	19.41	8.50	6.33	11.20	6.85	6.80	13.55	18.06	16.86	34.77	42.57
Some other method	28.52	26.19	44.54	47.15	52.61	27.54	32.42	34.12	29.26	56.58	56.36	15.34	15.39	15.39

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the 2020 Residential Energy Consumption Survey

Notes: See RECS Terminology for definition of terms used in these tables.

^a Electricity consumption from on-site solar photovoltaic generation (that is, solar panels) is included. Small amounts of standby power for devices that some households have but do not use (for example, dishwashers) are not included.

^b *Cooking* includes ranges (units with both a cooktop and an oven), separate cooktops, and separate ovens. Microwaves, small kitchen appliances, and outdoor cooking are excluded.

^c *All TVs and related* includes TVs and peripherals such as cable and satellite boxes, DVRs, internet streaming devices, video game consoles, DVD or Blu-ray players, VCRs, and home theater or audio systems.

^d Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

^e The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^f *Rented* includes households that occupy their primary housing units without paying rent.

^g *Total square footage* includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.