

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

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(million Btu per household using the end use)

	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	2.86	2.11	1.69	1.94	0.99	0.36	0.38	2.16	0.72	0.36	0.28	8.13	1.65	5.05
Census region and division														
Northeast	2.54	1.91	1.48	1.71	0.98	0.34	0.39	2.03	0.65	0.34	0.27	6.70	1.47	4.64
New England	2.42	1.87	1.44	1.54	0.99	0.35	0.41	1.88	0.60	0.32	0.26	6.43	1.36	4.19
Middle Atlantic	2.58	1.93	1.49	1.77	0.97	0.33	0.39	2.08	0.67	0.35	0.28	6.80	1.51	4.79
Midwest	2.85	2.08	1.56	1.86	0.99	0.37	0.40	2.10	0.72	0.34	0.26	7.52	1.93	6.09
East North Central	2.81	2.08	1.52	1.81	0.96	0.36	0.39	2.14	0.73	0.34	0.27	7.25	2.02	6.43
West North Central	2.95	2.09	1.63	1.95	1.04	0.37	0.41	2.03	0.70	0.33	0.23	8.46	1.73	5.26
South	3.02	2.20	1.87	2.13	1.03	0.37	0.37	2.32	0.78	0.39	0.31	9.50	1.54	4.43
South Atlantic	3.02	2.22	1.85	2.05	1.01	0.36	0.38	2.24	0.72	0.38	0.30	9.40	1.54	4.46
East South Central	2.97	2.15	1.83	2.20	1.10	0.37	0.38	2.33	0.82	0.40	0.30	9.14	1.47	4.44
West South Central	3.05	2.20	1.94	2.21	1.03	0.37	0.36	2.45	0.84	0.41	0.32	9.96	1.56	4.37
West	2.87	2.12	1.67	1.88	0.92	0.38	0.38	2.03	0.67	0.34	0.26	6.78	1.70	5.23
Mountain	3.00	2.19	1.67	1.93	0.97	0.39	0.40	2.10	0.70	0.35	0.26	7.72	1.65	5.19
Mountain North	2.93	2.14	1.47	1.90	1.02	0.39	0.45	2.01	0.64	0.32	0.24	9.10	1.87	5.50
Mountain South	3.07	2.24	1.90	1.97	0.91	0.39	0.35	2.18	0.76	0.38	0.29	7.54	1.46	4.79
Pacific	2.80	2.09	1.66	1.85	0.89	0.38	0.37	2.00	0.65	0.34	0.26	6.12	1.73	5.25
Census urban/rural classification^d														
Urban	2.78	2.09	1.69	1.85	0.95	0.36	0.38	2.14	0.71	0.37	0.29	8.15	1.52	4.59
Urbanized area	2.79	2.09	1.69	1.85	0.95	0.36	0.37	2.14	0.70	0.37	0.29	8.18	1.47	4.39
Urban cluster	2.68	2.05	1.67	1.85	0.97	0.36	0.40	2.06	0.76	0.34	0.27	7.88	2.03	6.12
Rural	3.24	2.20	1.69	2.14	1.15	0.39	0.42	2.25	0.76	0.34	0.26	8.07	2.01	6.03
Climate region^e														
Very cold and Cold	2.75	2.03	1.50	1.82	0.99	0.37	0.41	2.06	0.69	0.33	0.26	7.07	1.87	5.70
Mixed-humid	2.85	2.10	1.69	1.96	1.05	0.35	0.40	2.21	0.73	0.38	0.29	8.41	1.50	4.76
Mixed-dry and Hot-dry	2.96	2.18	1.84	1.91	0.86	0.37	0.33	2.16	0.71	0.37	0.28	6.69	1.42	4.37
Hot-humid	3.11	2.24	2.02	2.29	0.97	0.37	0.35	2.32	0.78	0.39	0.31	9.77	1.49	3.94
Marine	2.64	2.00	1.48	1.80	0.94	0.38	0.41	1.88	0.61	0.32	0.24	6.81	2.02	5.93
Housing unit type														
Single-family detached	3.33	2.27	1.71	1.97	1.12	0.39	0.42	2.40	0.73	0.35	0.27	8.21	1.69	5.17
Single-family attached	2.57	2.05	1.58	1.56	0.96	0.35	0.33	2.00	0.69	0.36	0.27	5.42	1.38	5.02
Apartments in buildings with 2–4 units	1.95	1.73	1.53	1.58	0.84	0.30	0.27	1.67	0.68	0.43	0.34	N	1.09	Q

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(million Btu per household using the end use)

	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	2.86	2.11	1.69	1.94	0.99	0.36	0.38	2.16	0.72	0.36	0.28	8.13	1.65	5.05
Apartments in buildings with 5 or more units	1.85	1.75	1.43	1.77	0.69	0.31	0.29	1.50	0.65	0.35	0.33	N	1.37	3.83
Mobile homes	2.51	2.01	1.64	2.13	0.89	0.34	0.37	2.25	0.83	0.43	0.36	7.38	1.74	5.19
Ownership of housing unit														
Owned	3.27	2.26	1.70	1.99	1.07	0.39	0.41	2.33	0.72	0.34	0.26	8.17	1.69	5.18
Single-family	3.38	2.29	1.71	1.98	1.10	0.39	0.42	2.38	0.72	0.34	0.26	8.18	1.69	5.20
Apartments	2.27	2.02	1.45	2.18	0.71	0.32	0.31	1.52	0.55	0.29	0.25	N	1.25	Q
Mobile homes	2.62	2.06	1.69	2.17	0.86	0.35	0.38	2.27	0.83	0.43	0.35	7.63	1.97	6.00
Rented ^d	2.03	1.79	1.54	1.69	0.84	0.32	0.31	1.78	0.71	0.42	0.36	7.27	1.33	3.81
Single-family	2.55	2.01	1.59	1.72	1.11	0.35	0.37	2.28	0.79	0.45	0.37	7.43	1.52	4.27
Apartments	1.82	1.70	1.48	1.62	0.73	0.30	0.28	1.55	0.68	0.39	0.35	N	1.30	3.82
Mobile homes	2.06	1.84	1.29	1.91	0.98	0.33	0.32	2.19	0.85	0.43	0.39	Q	Q	Q
Year of construction														
Before 1950	2.59	1.97	1.59	1.88	1.02	0.35	0.42	1.84	0.65	0.34	0.30	6.89	1.45	4.48
1950 to 1959	2.71	2.04	1.62	1.85	0.97	0.35	0.37	2.06	0.72	0.38	0.29	6.16	1.69	5.28
1960 to 1969	2.77	2.03	1.71	1.86	0.99	0.36	0.37	2.21	0.74	0.38	0.32	6.69	1.62	4.71
1970 to 1979	2.72	2.06	1.65	1.99	0.96	0.37	0.36	2.10	0.73	0.37	0.28	8.11	1.86	5.58
1980 to 1989	2.80	2.07	1.72	1.99	0.99	0.36	0.34	2.11	0.72	0.37	0.27	8.00	1.68	4.99
1990 to 1999	3.22	2.26	1.79	2.05	1.04	0.39	0.41	2.35	0.75	0.34	0.27	9.56	1.85	6.26
2000 to 2009	3.24	2.29	1.75	1.99	1.00	0.38	0.40	2.41	0.72	0.35	0.27	8.93	1.45	4.25
2010 to 2015	3.03	2.18	1.69	2.01	0.98	0.36	0.37	2.31	0.72	0.38	0.28	8.56	1.34	3.60
2016 to 2020	2.66	2.09	1.44	1.66	0.91	0.35	0.42	2.22	0.72	0.35	0.27	7.64	1.93	5.07
Total square footage^e														
Less than 1,000	1.97	1.77	1.58	1.78	0.77	0.30	0.27	1.61	0.69	0.38	0.36	5.98	1.27	3.75
1,000 to 1,499	2.49	2.02	1.62	1.85	0.90	0.34	0.33	2.01	0.73	0.38	0.31	7.84	1.64	4.87
1,500 to 1,999	3.02	2.21	1.70	1.90	1.05	0.38	0.39	2.30	0.76	0.37	0.30	7.49	1.64	4.91
2,000 to 2,499	3.20	2.27	1.65	1.94	1.12	0.40	0.42	2.32	0.70	0.34	0.26	7.76	1.59	4.75
2,500 to 2,999	3.57	2.35	1.72	2.00	1.14	0.41	0.45	2.47	0.72	0.33	0.25	8.48	1.43	4.35
3,000 or more	4.08	2.41	1.75	2.14	1.22	0.43	0.47	2.77	0.70	0.33	0.23	8.73	1.82	5.79
Number of household members														
1 member	2.28	1.96	1.66	1.84	0.69	0.29	0.22	1.41	0.62	0.27	0.20	7.61	1.39	4.56
2 members	3.00	2.15	1.70	2.03	1.04	0.38	0.37	2.15	0.74	0.33	0.22	8.08	1.75	5.31
3 members	3.03	2.14	1.68	1.91	1.11	0.38	0.44	2.52	0.74	0.40	0.30	8.62	1.74	5.33
4 members	3.19	2.20	1.67	1.88	1.17	0.41	0.52	2.63	0.74	0.41	0.32	7.77	1.53	4.56

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(million Btu per household using the end use)

	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	2.86	2.11	1.69	1.94	0.99	0.36	0.38	2.16	0.72	0.36	0.28	8.13	1.65	5.05
5 members	3.32	2.16	1.70	1.80	1.28	0.44	0.54	3.02	0.83	0.47	0.38	8.93	1.57	4.99
6 or more members	3.40	2.17	1.68	2.07	1.31	0.43	0.57	3.33	0.90	0.53	0.41	7.73	1.42	3.77
2020 annual household income														
Less than \$5,000	2.08	1.78	1.61	1.82	0.91	0.31	0.29	1.79	0.78	0.47	0.42	Q	1.30	2.87
\$5,000 to \$9,999	2.10	1.77	1.57	2.03	0.84	0.34	0.31	1.90	0.78	0.52	0.45	Q	1.11	Q
\$10,000 to \$19,999	2.26	1.88	1.62	2.02	0.85	0.33	0.27	1.77	0.77	0.43	0.38	11.65	1.42	4.41
\$20,000 to \$39,999	2.52	2.02	1.69	1.95	0.96	0.35	0.29	2.00	0.77	0.41	0.36	8.16	1.39	3.98
\$40,000 to \$59,999	2.72	2.07	1.67	1.88	0.97	0.35	0.33	2.12	0.75	0.37	0.31	7.56	1.58	4.82
\$60,000 to \$99,999	2.98	2.16	1.69	1.91	1.01	0.37	0.38	2.16	0.69	0.33	0.24	7.39	1.64	4.98
\$100,000 to \$149,999	3.27	2.27	1.73	2.00	1.05	0.39	0.45	2.34	0.67	0.31	0.24	7.67	1.76	5.41
\$150,000 or more	3.68	2.32	1.68	1.97	1.13	0.41	0.49	2.60	0.65	0.30	0.23	9.03	1.77	5.57
Payment method for energy bills														
All paid by household	2.95	2.14	1.69	1.94	1.01	0.37	0.39	2.21	0.72	0.36	0.28	8.13	1.67	5.11
Some paid by household, some included in rent or condo fee	1.90	1.73	1.53	1.93	0.67	0.29	0.30	1.48	0.60	0.38	0.30	Q	0.94	2.34
All included in rent or condo fee	1.97	1.73	1.46	2.00	0.77	0.32	0.35	1.66	0.71	0.49	0.43	Q	1.74	Q
Some other method	2.39	1.73	Q	2.05	0.91	0.31	0.45	1.84	0.64	0.51	Q	Q	Q	Q

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(million Btu per household using the end use)

	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	2.86	2.11	1.69	1.94	0.99	0.36	0.38	2.16	0.72	0.36	0.28	8.13	1.65	5.05

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.

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

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

	Average site electricity consumption ^a (kWh per household using the end use)													
	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	839	617	494	570	290	107	112	632	210	106	82	2,384	484	1,479
Census region and division														
Northeast	743	560	432	501	287	99	115	594	191	99	80	1,964	431	1,359
New England	709	547	422	452	290	104	120	551	177	92	76	1,883	398	1,227
Middle Atlantic	755	565	435	518	285	97	113	610	197	101	82	1,991	442	1,403
Midwest	836	610	456	545	289	107	117	616	211	100	76	2,203	566	1,786
East North Central	823	608	446	530	280	107	115	626	214	101	80	2,125	592	1,884
West North Central	866	613	477	572	304	109	120	595	205	97	67	2,481	507	1,542
South	885	646	548	624	301	108	109	680	227	115	90	2,784	450	1,299
South Atlantic	886	652	541	600	295	106	110	656	212	111	88	2,755	450	1,308
East South Central	870	630	536	644	322	107	112	684	241	118	89	2,678	430	1,302
West South Central	892	643	567	646	301	110	106	718	247	120	93	2,919	458	1,279
West	840	622	489	551	270	111	111	595	195	100	77	1,986	499	1,532
Mountain	878	640	490	565	284	114	118	615	204	103	77	2,261	483	1,522
Mountain North	857	626	432	557	298	113	133	589	186	94	69	2,667	548	1,613
Mountain South	899	655	555	577	267	114	103	640	222	111	85	2,209	428	1,403
Pacific	821	612	488	541	262	110	108	585	190	99	76	1,792	507	1,538
Census urban/rural classification^d														
Urban	813	611	494	543	278	105	110	626	208	107	84	2,390	444	1,345
Urbanized area	817	612	494	543	277	105	110	628	206	108	85	2,397	429	1,287
Urban cluster	786	601	490	541	285	106	116	605	223	100	79	2,310	596	1,794
Rural	951	645	494	627	338	113	122	658	222	100	76	2,366	588	1,767
Climate region^e														
Very cold and Cold	805	596	438	532	290	108	119	605	202	96	77	2,072	549	1,672
Mixed-humid	834	616	496	576	308	104	116	648	215	112	85	2,466	439	1,395
Mixed-dry and Hot-dry	868	640	538	559	253	109	96	632	208	108	82	1,960	416	1,281
Hot-humid	912	655	593	672	284	107	103	680	229	113	91	2,864	435	1,153
Marine	773	585	433	528	275	112	121	550	180	94	69	1,994	592	1,739
Housing unit type														
Single-family detached	976	666	500	578	327	115	123	704	215	103	79	2,406	496	1,516
Single-family attached	754	599	464	457	282	103	98	585	202	106	79	1,588	403	1,470
Apartments in buildings with 2–4 units	570	506	448	463	245	88	78	489	200	127	99	N	319	Q

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(kWh per household using the end use)

	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	839	617	494	570	290	107	112	632	210	106	82	2,384	484	1,479
Apartments in buildings with 5 or more units	542	511	420	518	203	90	85	440	190	103	98	N	401	1,122
Mobile homes	734	590	480	626	260	101	108	660	245	125	105	2,164	511	1,521
Ownership of housing unit														
Owned	958	663	499	584	314	113	121	683	211	100	76	2,394	495	1,519
Single-family	989	671	501	579	323	115	123	698	211	99	75	2,398	495	1,525
Apartments	665	592	425	638	209	94	91	446	161	83	75	N	367	Q
Mobile homes	769	604	494	636	253	101	111	665	243	125	102	2,237	576	1,759
Rented ^d	595	524	451	494	246	93	89	522	209	122	105	2,131	390	1,115
Single-family	746	588	466	504	324	103	108	667	231	132	107	2,178	447	1,251
Apartments	533	497	435	474	215	88	82	455	198	115	102	N	380	1,121
Mobile homes	604	538	377	560	286	98	93	641	250	127	114	Q	Q	Q
Year of construction														
Before 1950	760	577	465	552	299	102	124	540	190	101	89	2,020	424	1,313
1950 to 1959	795	599	475	541	283	102	110	602	210	110	86	1,806	495	1,547
1960 to 1969	813	594	500	545	290	106	108	646	218	112	93	1,961	475	1,380
1970 to 1979	798	604	485	584	281	109	105	615	215	109	81	2,377	546	1,637
1980 to 1989	820	607	505	582	289	105	99	618	211	107	78	2,345	491	1,461
1990 to 1999	943	663	523	602	305	114	119	688	220	100	78	2,803	542	1,835
2000 to 2009	948	671	513	582	292	111	116	706	211	103	79	2,618	423	1,246
2010 to 2015	887	640	495	588	289	104	109	677	212	112	81	2,509	392	1,056
2016 to 2020	780	613	422	485	266	101	122	652	210	102	78	2,239	565	1,486
Total square footage^e														
Less than 1,000	577	519	462	520	227	88	80	472	203	113	106	1,751	372	1,099
1,000 to 1,499	730	592	473	542	263	100	98	590	214	112	91	2,298	480	1,428
1,500 to 1,999	885	646	498	558	308	112	114	673	222	109	87	2,194	481	1,440
2,000 to 2,499	936	664	483	569	327	116	123	680	206	99	76	2,273	466	1,391
2,500 to 2,999	1,047	688	503	585	335	119	131	724	209	98	73	2,485	418	1,274
3,000 or more	1,196	706	514	628	357	127	139	811	206	97	68	2,559	534	1,697
Number of household members														
1 member	668	575	488	539	203	85	66	412	181	80	59	2,231	408	1,336
2 members	878	631	497	596	304	110	109	630	217	96	66	2,368	512	1,556
3 members	888	626	494	559	325	113	128	737	216	118	88	2,525	510	1,561
4 members	935	644	488	551	342	121	152	769	216	121	93	2,277	449	1,336

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(kWh per household using the end use)

	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	839	617	494	570	290	107	112	632	210	106	82	2,384	484	1,479
5 members	974	634	500	526	374	128	157	885	242	138	112	2,617	460	1,463
6 or more members	996	637	492	605	383	127	166	975	263	154	119	2,266	416	1,105
2020 annual household income														
Less than \$5,000	610	522	471	533	268	90	85	526	227	137	122	Q	380	841
\$5,000 to \$9,999	616	520	461	596	246	100	90	557	228	151	131	Q	325	Q
\$10,000 to \$19,999	661	552	475	593	248	97	79	520	224	126	113	3,414	415	1,292
\$20,000 to \$39,999	740	591	495	573	280	103	86	587	224	120	104	2,390	408	1,168
\$40,000 to \$59,999	796	606	490	550	284	103	96	621	219	110	92	2,215	462	1,412
\$60,000 to \$99,999	872	634	496	561	296	108	112	634	202	97	70	2,166	479	1,458
\$100,000 to \$149,999	957	664	506	586	308	113	132	685	197	92	69	2,249	515	1,584
\$150,000 or more	1,079	681	492	577	332	120	145	761	190	88	66	2,646	518	1,631
Payment method for energy bills														
All paid by household	865	628	495	570	297	108	113	648	212	105	82	2,384	491	1,498
Some paid by household, some included in rent or condo fee	557	508	448	565	197	86	88	435	175	111	89	Q	274	687
All included in rent or condo fee	576	507	429	586	227	93	104	485	209	143	126	Q	511	Q
Some other method	701	507	Q	601	267	90	132	539	188	148	Q	Q	Q	Q

Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

Average site electricity consumption^a
(kWh per household using the end use)

	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	839	617	494	570	290	107	112	632	210	106	82	2,384	484	1,479

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.

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

Relative standard errors (RSEs) for Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

RSEs for average 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	0.33	0.23	0.50	0.68	0.74	0.60	0.78	0.56	0.76	1.08	1.76	2.51	2.32	2.61
Census region and division														
Northeast	0.80	0.48	1.18	2.20	1.73	1.17	1.76	1.55	1.74	2.40	3.38	4.25	8.79	9.50
New England	1.27	0.67	2.18	3.14	2.13	2.26	2.69	1.94	2.06	4.04	4.25	6.47	9.91	11.10
Middle Atlantic	1.01	0.60	1.53	2.82	2.36	1.61	2.34	1.92	2.12	2.89	4.28	5.46	10.53	11.61
Midwest	0.84	0.55	1.20	1.56	1.66	1.12	1.67	1.38	1.42	2.65	4.19	5.01	6.99	7.95
East North Central	1.00	0.76	1.45	2.32	2.28	1.52	2.18	1.72	1.78	3.38	5.36	6.47	9.65	10.59
West North Central	1.28	0.92	1.79	2.30	2.11	1.69	2.14	2.03	2.02	3.27	4.17	8.38	7.88	7.94
South	0.66	0.38	0.73	1.25	1.20	0.98	1.27	1.00	1.04	1.80	2.77	3.85	4.78	5.88
South Atlantic	0.93	0.51	1.02	2.04	1.47	1.42	1.72	1.46	1.43	2.44	4.53	5.37	6.64	7.43
East South Central	1.72	0.89	1.97	2.79	2.44	1.79	3.12	1.93	2.38	3.11	4.68	7.51	11.77	12.40
West South Central	1.45	0.76	1.46	2.58	2.56	1.66	2.18	1.97	1.83	3.23	4.12	8.00	6.67	11.40
West	0.76	0.42	1.03	1.51	1.53	1.23	1.53	1.30	1.25	2.46	3.92	5.20	4.31	4.59
Mountain	1.12	0.77	1.51	2.17	2.17	1.78	2.25	1.80	2.39	3.62	5.09	7.51	6.09	5.99
Mountain North	1.74	0.96	2.24	2.87	3.02	2.45	2.84	2.83	3.58	5.53	6.31	28.86	7.36	7.66
Mountain South	1.45	0.99	2.17	3.32	3.60	2.10	3.41	2.69	2.78	4.92	7.18	8.18	9.90	11.51
Pacific	1.13	0.59	1.41	2.15	1.80	1.62	2.21	1.87	1.54	3.12	5.09	7.14	5.20	5.93
Census urban/rural classification^d														
Urban	0.40	0.28	0.63	0.85	0.87	0.71	0.89	0.65	0.87	1.24	2.07	3.34	2.81	3.32
Urbanized area	0.44	0.30	0.67	1.06	0.96	0.76	0.93	0.74	0.90	1.35	2.25	3.38	3.02	3.14
Urban cluster	1.26	0.76	1.95	2.72	2.26	1.74	2.23	2.10	2.26	3.39	5.46	8.55	10.70	10.28
Rural	0.98	0.42	1.16	1.46	1.62	1.18	1.53	1.39	1.39	2.30	3.49	4.48	3.97	4.64
Climate region^e														
Very cold and Cold	0.66	0.37	0.95	1.22	0.99	0.95	1.25	1.03	1.26	1.90	3.03	4.85	4.18	4.82
Mixed-humid	0.78	0.50	0.93	1.22	1.40	0.96	1.58	1.17	1.31	1.90	2.88	4.67	6.71	7.52
Mixed-dry and Hot-dry	1.22	0.65	1.53	2.53	3.19	1.84	2.58	2.05	1.75	3.41	5.67	5.67	7.27	10.36
Hot-humid	1.05	0.52	1.21	2.06	2.09	1.48	1.85	1.65	1.73	2.67	4.41	5.17	6.47	9.06
Marine	1.79	1.11	1.94	4.15	2.76	2.55	3.49	3.12	2.63	5.71	6.78	16.76	7.01	8.36
Housing unit type														
Single-family detached	0.47	0.27	0.51	0.73	0.92	0.66	0.85	0.69	0.83	1.28	1.84	2.59	2.56	3.04
Single-family attached	1.42	0.76	2.29	3.20	2.82	2.23	2.68	2.21	2.48	3.85	4.84	17.73	16.42	16.57
Apartments in buildings with 2–4 units	1.76	1.05	4.57	3.55	3.75	2.44	5.99	3.02	3.59	5.29	7.77	0.00	28.19	38.93

Relative standard errors (RSEs) for Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

RSEs for average 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	0.33	0.23	0.50	0.68	0.74	0.60	0.78	0.56	0.76	1.08	1.76	2.51	2.32	2.61
Apartments in buildings with 5 or more units	0.98	0.74	3.04	5.89	2.75	1.68	3.06	1.82	2.06	3.81	6.98	0.00	15.76	18.20
Mobile homes	1.98	1.34	3.14	3.45	4.52	2.47	4.32	3.42	3.29	5.21	7.94	10.15	19.99	21.74
Ownership of housing unit														
Owned	0.49	0.26	0.47	0.77	0.90	0.69	0.81	0.73	0.78	1.32	1.80	2.49	2.41	2.85
Single-family	0.51	0.27	0.48	0.79	0.94	0.67	0.86	0.76	0.83	1.36	1.83	2.53	2.49	2.97
Apartments	2.36	1.75	4.16	16.21	5.11	3.75	5.96	3.76	3.76	6.70	12.68	0.00	34.54	48.05
Mobile homes	1.97	1.31	3.30	3.88	4.90	2.82	4.42	3.54	3.80	5.72	9.69	11.07	18.00	18.88
Rented ^d	0.80	0.51	1.74	2.10	1.57	1.13	2.22	1.17	1.41	2.37	3.82	14.12	10.68	11.82
Single-family	1.60	0.87	1.97	2.85	2.53	2.04	3.14	2.18	2.23	3.31	4.84	15.01	16.41	18.99
Apartments	0.92	0.65	3.18	3.52	2.30	1.40	3.26	1.90	2.01	3.34	6.60	0.00	13.77	16.80
Mobile homes	3.76	2.82	11.53	8.10	7.91	5.95	15.39	7.72	6.92	11.02	13.68	31.10	55.05	55.19
Year of construction														
Before 1950	1.08	0.70	1.44	2.59	2.36	1.81	2.24	2.11	2.02	3.95	5.31	10.04	11.43	12.18
1950 to 1959	1.30	0.86	1.38	2.24	2.56	1.78	3.06	2.32	2.59	3.63	5.93	8.32	8.90	10.34
1960 to 1969	1.55	0.79	1.98	1.90	2.48	1.61	3.06	1.96	1.79	3.19	5.46	7.35	10.88	11.19
1970 to 1979	1.14	0.67	1.60	1.86	1.94	1.57	2.56	1.70	1.57	2.77	4.63	7.40	7.42	8.65
1980 to 1989	1.34	0.67	1.76	2.36	2.14	1.38	2.22	1.73	2.09	2.52	4.57	6.65	5.51	7.37
1990 to 1999	1.13	0.69	1.45	1.85	2.20	1.56	1.76	1.59	1.88	2.91	4.54	5.56	6.69	6.94
2000 to 2009	1.24	0.63	1.37	2.57	2.14	1.41	1.68	1.81	1.90	2.95	3.48	6.72	4.79	6.26
2010 to 2015	1.92	0.89	1.70	4.68	3.75	1.97	3.22	3.36	2.85	5.46	8.53	12.43	11.00	14.48
2016 to 2020	1.91	1.15	2.57	4.37	3.59	2.52	3.34	3.15	2.96	6.03	7.49	13.62	14.50	28.06
Total square footage^e														
Less than 1,000	0.94	0.61	2.37	2.82	2.33	1.36	2.99	1.64	1.72	2.87	5.02	15.89	11.35	13.61
1,000 to 1,499	1.00	0.49	1.32	1.41	1.80	1.51	1.57	1.28	1.59	2.37	3.68	9.06	9.10	9.68
1,500 to 1,999	0.99	0.61	1.21	1.79	2.01	1.62	1.92	1.58	1.58	2.77	4.41	9.38	7.04	8.37
2,000 to 2,499	0.99	0.61	1.24	1.72	1.90	1.39	1.73	1.63	2.02	2.62	5.33	4.87	5.47	6.11
2,500 to 2,999	1.23	0.73	1.46	2.34	2.00	1.76	2.17	1.70	1.98	3.24	4.32	5.96	7.27	8.26
3,000 or more	1.07	0.55	1.13	2.08	1.98	1.32	1.34	1.31	1.53	2.60	2.85	4.04	4.15	5.45
Number of household members														
1 member	0.84	0.65	1.54	2.11	1.59	1.09	2.02	1.44	1.67	3.12	7.88	8.35	8.45	9.41
2 members	0.66	0.39	0.90	1.10	1.16	0.88	1.19	1.12	1.31	1.98	2.97	4.00	3.77	3.89
3 members	1.30	0.67	1.28	2.11	2.08	1.45	1.98	1.63	1.89	2.29	3.81	6.30	6.27	7.99
4 members	1.07	0.61	1.28	2.07	2.21	1.75	2.06	1.54	2.10	3.04	3.53	6.53	7.46	8.81

Relative standard errors (RSEs) for Table CE5.3b Detailed household site electricity end-use consumption, part 2—averages, 2020

RSEs for average 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	0.33	0.23	0.50	0.68	0.74	0.60	0.78	0.56	0.76	1.08	1.76	2.51	2.32	2.61
5 members	2.11	1.02	2.19	2.50	2.72	3.24	2.76	2.75	3.47	4.90	6.10	8.87	12.47	13.45
6 or more members	2.83	1.26	2.60	4.34	3.78	3.07	3.69	4.09	3.89	5.83	6.41	14.09	13.69	20.91
2020 annual household income														
Less than \$5,000	2.28	1.12	4.22	4.48	5.41	3.36	9.55	5.11	5.55	7.03	12.43	83.39	40.71	41.38
\$5,000 to \$9,999	3.23	2.22	5.03	6.53	5.41	4.19	10.12	4.28	4.56	6.61	12.39	22.80	40.15	72.46
\$10,000 to \$19,999	1.61	1.20	2.90	3.82	3.56	2.32	3.83	2.71	2.51	5.30	6.36	21.49	18.58	25.13
\$20,000 to \$39,999	1.01	0.57	1.36	1.91	1.74	1.30	2.66	1.40	1.71	2.89	4.37	12.26	8.41	9.26
\$40,000 to \$59,999	1.09	0.79	1.51	2.19	2.18	1.48	2.42	1.45	1.66	2.35	4.08	6.64	8.10	9.67
\$60,000 to \$99,999	0.69	0.38	1.17	1.47	1.64	1.28	1.56	1.27	1.23	2.06	3.13	4.78	5.24	5.70
\$100,000 to \$149,999	0.90	0.66	1.34	2.09	1.81	1.51	1.83	1.42	1.92	2.41	4.11	5.17	6.32	7.24
\$150,000 or more	1.12	0.65	1.17	1.98	2.25	1.40	1.56	1.36	1.71	2.03	2.66	4.00	4.30	5.19
Payment method for energy bills														
All paid by household	0.35	0.23	0.48	0.70	0.78	0.62	0.77	0.59	0.78	1.11	1.81	2.49	2.29	2.72
Some paid by household, some included in rent or condo fee	2.01	1.42	6.27	7.03	4.32	2.89	6.37	4.09	4.13	6.78	9.34	80.15	23.31	30.16
All included in rent or condo fee	1.92	1.60	7.08	14.65	4.88	3.18	7.58	3.87	3.90	10.60	11.61	0.00	14.83	22.10
Some other method	13.32	8.96	42.91	21.72	45.34	9.57	22.20	20.76	12.01	45.71	26.88	0.00	0.00	0.00

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.