

Data release date: June 2023

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**Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020**

Average electricity expenditures<sup>a</sup>  
(dollars per household using the end use)

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	300	33	299	57	29	138	19	339	9	87	89	280
<b>Census region and division</b>												
Northeast	320	42	245	53	19	146	22	385	11	104	101	285
New England	349	58	234	59	21	155	25	428	13	129	104	364
Middle Atlantic	311	36	248	51	19	143	21	369	10	92	99	249
Midwest	377	61	202	39	21	131	21	351	9	92	86	325
East North Central	372	65	196	38	21	143	22	353	10	91	86	239
West North Central	387	53	215	42	21	101	18	348	9	92	86	Q
South	299	15	382	68	38	140	16	324	8	81	85	368
South Atlantic	285	15	367	65	36	143	19	328	8	78	81	295
East South Central	391	17	323	57	36	125	14	338	9	86	86	Q
West South Central	271	14	436	78	41	139	13	305	8	84	92	Q
West	217	23	293	57	24	132	17	340	9	86	87	232
Mountain	208	27	353	65	24	107	18	304	8	81	76	316
Mountain North	254	40	153	32	17	102	19	316	8	79	75	332
Mountain South	170	14	531	91	31	111	17	296	8	83	78	308
Pacific	221	21	256	50	24	140	16	360	10	90	93	210
<b>Census urban/rural classification<sup>d</sup></b>												
Urban	252	31	303	58	28	137	19	320	9	85	89	257
Urbanized area	237	30	310	59	28	138	20	318	9	85	90	254
Urban cluster	358	36	250	48	27	129	15	329	9	86	74	328
Rural	477	42	282	54	31	140	19	392	10	94	89	409
<b>Climate region<sup>e</sup></b>												
Very cold and Cold	363	57	186	37	20	136	21	357	10	94	86	321
Mixed-humid	353	24	296	55	30	138	19	358	9	87	94	392
Mixed-dry and Hot-dry	133	15	388	72	28	135	17	299	10	91	91	237
Hot-humid	220	8	482	82	42	160	16	300	8	79	84	275
Marine	304	23	124	27	16	123	13	379	8	80	87	189

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(dollars per household using the end use)

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	300	33	299	57	29	138	19	339	9	87	89	280
<b>Housing unit type</b>												
Single-family detached	351	42	350	68	31	140	21	367	10	92	100	289
Single-family attached	286	26	248	43	22	128	18	300	8	77	86	197
Apartments in buildings with 2–4 units	228	12	217	35	21	125	17	312	9	78	69	N
Apartments in buildings with 5 or more units	172	6	170	26	21	120	15	265	8	67	66	N
Mobile homes	377	16	289	35	27	125	14	399	9	88	66	Q
<b>Ownership of housing unit</b>												
Owned	345	40	332	64	30	139	21	355	9	90	97	278
Single-family	348	43	342	67	31	140	21	357	9	91	100	279
Apartments	219	12	225	34	22	120	18	254	8	67	82	N
Mobile homes	380	17	287	35	26	124	14	393	9	87	65	Q
Rented <sup>f</sup>	228	14	226	38	24	128	16	313	9	80	72	310
Single-family	330	29	340	62	29	133	16	384	10	93	89	354
Apartments	183	7	176	27	21	123	15	279	8	71	65	N
Mobile homes	364	13	296	33	30	Q	14	422	10	90	71	Q
<b>Year of construction</b>												
Before 1950	305	45	276	59	23	146	21	337	9	91	90	251
1950 to 1959	271	47	308	58	23	130	19	338	9	86	81	164
1960 to 1969	281	37	299	57	26	124	19	325	9	83	85	179
1970 to 1979	366	36	302	56	25	128	18	323	9	84	81	287
1980 to 1989	332	27	312	59	29	125	17	323	9	86	84	234
1990 to 1999	287	25	310	58	31	148	20	369	10	92	94	314
2000 to 2009	271	22	320	60	36	151	21	351	9	89	102	330
2010 to 2015	255	18	268	55	36	151	17	357	9	90	96	210
2016 to 2020	221	15	247	45	34	154	19	323	9	83	84	533
<b>Total square footage<sup>g</sup></b>												

**Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020**

Average electricity expenditures<sup>a</sup>  
(dollars per household using the end use)

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	300	33	299	57	29	138	19	339	9	87	89	280
Less than 1,000	198	10	186	27	21	108	15	283	8	72	64	Q
1,000 to 1,499	274	19	267	42	28	131	17	337	9	80	75	228
1,500 to 1,999	317	32	325	56	31	131	17	354	9	88	88	278
2,000 to 2,499	349	40	346	65	30	138	20	371	10	94	100	235
2,500 to 2,999	382	50	360	71	32	146	21	383	10	98	105	219
3,000 or more	479	63	414	93	32	150	25	406	10	102	135	369
<b>Number of household members</b>												
1 member	261	26	217	40	22	122	18	187	6	52	61	179
2 members	314	36	293	56	28	136	20	311	9	80	88	302
3 members	314	34	342	65	33	141	20	435	10	104	102	272
4 members	309	32	367	71	34	143	19	527	12	120	111	237
5 members	319	37	400	78	36	162	18	547	13	134	120	501
6 or more members	353	37	412	77	34	174	21	650	15	155	129	Q
<b>2020 annual household income</b>												
Less than \$5,000	309	19	249	39	26	134	17	352	9	80	73	Q
\$5,000 to \$9,999	241	17	225	35	22	109	16	336	9	83	66	Q
\$10,000 to \$19,999	289	23	235	40	21	127	15	275	7	65	64	Q
\$20,000 to \$39,999	290	28	259	45	24	129	17	322	8	75	69	Q
\$40,000 to \$59,999	285	31	280	50	26	117	17	333	9	82	77	Q
\$60,000 to \$99,999	297	34	298	55	30	144	19	349	9	89	89	230
\$100,000 to \$149,999	329	38	332	64	32	136	21	365	10	101	100	329
\$150,000 or more	339	43	408	88	37	157	24	387	10	109	143	272
<b>Payment method for energy bills</b>												
All paid by household	308	34	309	59	29	139	19	342	9	88	90	279
Some paid by household, some included in rent or condo fee	203	13	189	29	18	124	21	285	9	78	78	Q
All included in rent or condo fee	228	11	193	25	19	82	14	296	8	79	70	Q
Some other method	187	21	198	34	31	Q	Q	Q	10	55	66	N

**Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020**

Average electricity expenditures<sup>a</sup>  
(dollars per household using the end use)

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	300	33	299	57	29	138	19	339	9	87	89	280

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.

<sup>a</sup> Small amounts of standby power for devices that some households have but do not use (for example, dishwashers) are not included.

<sup>b</sup> Includes main (primary) and secondary space heating.

<sup>c</sup> Includes electricity used by evaporative coolers.

<sup>d</sup> 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.

<sup>e</sup> 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*.

<sup>f</sup> *Rented* includes households that occupy their primary housing units without paying rent.

<sup>g</sup> *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 CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020**

RSEs for average electricity expenditures<sup>a</sup>

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	1.35	1.07	0.62	0.83	1.04	1.83	2.02	0.89	0.60	0.75	1.00	8.08
<b>Census region and division</b>												
Northeast	4.39	1.98	1.71	2.86	2.81	3.08	4.42	2.13	1.18	1.86	2.59	22.13
New England	5.98	3.04	2.68	4.75	4.70	4.55	6.15	3.93	1.95	2.75	3.37	24.51
Middle Atlantic	5.83	2.81	2.13	3.42	3.68	4.53	5.81	2.80	1.57	2.89	3.35	29.71
Midwest	3.57	1.91	1.47	1.60	2.24	3.03	3.51	2.55	1.43	1.87	2.45	22.02
East North Central	5.13	2.23	1.75	1.94	3.05	3.70	4.50	3.35	1.91	2.66	3.31	28.99
West North Central	4.55	2.38	2.02	2.50	3.49	4.43	3.56	3.28	1.93	2.43	3.12	31.55
South	1.57	1.85	1.05	1.38	1.44	4.82	3.97	1.37	1.23	1.46	1.57	19.21
South Atlantic	2.24	2.96	1.55	1.91	2.29	5.71	4.36	1.68	1.41	1.81	2.38	25.11
East South Central	2.97	3.82	1.95	2.29	2.92	7.63	7.71	2.24	2.22	2.71	3.66	46.09
West South Central	3.37	2.55	1.82	2.48	2.07	15.18	10.42	2.30	1.88	2.40	2.86	33.42
West	2.96	2.04	1.67	2.21	2.94	9.10	5.43	2.02	1.58	1.96	2.41	9.42
Mountain	4.75	2.83	2.08	2.90	2.65	14.30	6.01	2.83	1.97	2.43	2.93	12.25
Mountain North	5.49	3.23	3.34	4.52	4.20	16.61	6.38	4.61	2.66	3.25	4.07	20.93
Mountain South	6.36	5.58	2.35	3.18	3.60	23.22	9.64	4.04	2.42	3.21	5.10	17.32
Pacific	3.88	3.16	2.85	3.70	4.85	10.75	8.59	2.85	1.99	2.70	3.26	11.59
<b>Census urban/rural classification<sup>d</sup></b>												
Urban	1.74	1.29	0.74	1.03	1.27	2.40	2.29	1.04	0.66	0.90	1.18	8.45
Urbanized area	1.92	1.46	0.78	1.08	1.41	2.58	2.37	1.21	0.70	1.03	1.30	8.73
Urban cluster	4.30	3.39	2.28	2.60	2.99	6.54	6.04	2.37	1.66	2.02	2.97	29.75
Rural	2.37	2.61	1.45	1.87	1.98	3.17	4.00	1.58	1.41	1.45	2.19	22.46
<b>Climate region<sup>e</sup></b>												
Very cold and Cold	2.91	1.52	1.07	1.48	1.95	2.28	2.46	1.75	1.02	1.43	1.80	12.84
Mixed-humid	1.68	2.02	1.11	1.45	1.82	3.14	3.32	1.39	1.16	1.37	2.06	21.66
Mixed-dry and Hot-dry	6.11	3.85	1.90	2.41	3.63	16.66	9.03	3.98	2.28	3.07	4.18	13.10
Hot-humid	2.87	2.32	1.50	2.04	2.01	9.21	10.40	1.84	1.63	2.16	2.35	23.90
Marine	5.83	4.27	5.56	7.75	8.71	16.08	13.31	4.08	3.04	3.77	4.31	18.36

Relative standard errors (RSEs) for Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020

RSEs for average electricity expenditures<sup>a</sup>

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	1.35	1.07	0.62	0.83	1.04	1.83	2.02	0.89	0.60	0.75	1.00	8.08
<b>Housing unit type</b>												
Single-family detached	1.53	1.07	0.75	0.94	1.07	1.99	2.26	1.20	0.77	0.95	1.21	8.50
Single-family attached	4.71	3.69	2.73	3.24	3.30	7.01	6.21	3.58	1.55	2.35	3.80	23.07
Apartments in buildings with 2–4 units	5.63	5.46	3.51	4.84	5.56	13.16	11.35	3.11	3.05	5.00	4.83	0.00
Apartments in buildings with 5 or more units	4.01	3.16	1.82	2.35	3.49	10.52	6.59	2.38	1.98	2.53	3.29	0.00
Mobile homes	4.41	4.83	2.43	3.84	5.28	15.92	8.54	2.89	3.46	4.74	4.02	70.24
<b>Ownership of housing unit</b>												
Owned	1.53	1.18	0.79	0.95	1.15	1.82	2.17	1.07	0.76	0.94	1.21	8.57
Single-family	1.63	1.14	0.78	0.96	1.09	1.87	2.23	1.15	0.76	1.00	1.30	8.64
Apartments	11.70	9.53	4.45	6.45	7.83	13.68	12.10	5.45	4.27	5.32	7.89	0.00
Mobile homes	4.70	5.85	3.17	4.67	5.93	19.41	10.04	3.48	3.87	4.95	4.20	85.82
Rented <sup>f</sup>	2.45	2.98	1.41	1.98	2.25	6.92	4.88	1.73	1.39	1.77	2.01	44.61
Single-family	5.23	4.29	2.41	2.75	3.71	9.16	7.51	3.27	2.42	2.60	3.22	44.10
Apartments	3.16	2.93	1.66	2.25	2.95	10.54	7.32	2.07	1.77	2.65	2.41	0.00
Mobile homes	7.83	9.54	5.43	6.49	10.42	26.20	21.24	5.76	6.46	9.33	9.65	0.00
<b>Year of construction</b>												
Before 1950	4.20	2.80	2.00	3.22	3.21	4.23	5.31	2.87	1.93	2.67	3.01	22.58
1950 to 1959	4.87	3.24	2.22	3.12	3.64	5.40	7.17	4.45	2.11	2.73	2.94	14.02
1960 to 1969	4.58	3.51	3.26	3.85	3.09	6.11	5.23	3.37	2.37	2.95	2.65	24.76
1970 to 1979	3.89	3.36	2.03	2.42	3.10	4.79	4.49	2.36	1.96	2.39	2.80	23.20
1980 to 1989	3.50	3.46	2.03	2.48	2.98	5.77	6.28	2.26	1.73	2.10	2.80	22.16
1990 to 1999	3.76	2.65	2.33	2.76	2.80	5.79	4.79	2.22	1.52	1.91	2.36	23.11
2000 to 2009	2.78	3.15	1.90	2.54	2.05	5.08	4.74	1.91	1.74	2.20	3.02	16.87
2010 to 2015	5.09	4.82	3.05	3.55	3.76	9.06	8.08	3.56	2.35	3.25	4.67	31.19
2016 to 2020	5.48	5.64	4.03	4.77	5.27	9.04	9.55	3.83	2.89	4.01	5.09	23.03
<b>Total square footage<sup>g</sup></b>												

Relative standard errors (RSEs) for Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020

RSEs for average electricity expenditures<sup>a</sup>

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	1.35	1.07	0.62	0.83	1.04	1.83	2.02	0.89	0.60	0.75	1.00	8.08
Less than 1,000	2.82	2.44	1.68	2.37	3.25	7.01	7.01	2.17	1.67	2.52	2.46	27.69
1,000 to 1,499	3.01	2.12	1.59	1.83	2.60	5.46	5.72	1.66	1.35	1.76	2.09	23.83
1,500 to 1,999	3.01	2.34	1.69	1.58	2.35	5.57	4.31	2.14	1.78	2.08	2.17	25.45
2,000 to 2,499	3.39	2.32	2.25	2.63	2.42	4.03	4.98	2.58	1.48	2.05	2.40	17.16
2,500 to 2,999	3.92	2.81	2.25	2.41	2.90	4.48	4.91	2.71	2.16	2.42	3.28	14.69
3,000 or more	3.93	2.60	1.80	2.14	2.36	3.20	3.56	2.43	1.49	1.90	2.30	12.67
<b>Number of household members</b>												
1 member	2.48	2.53	1.33	1.87	2.57	4.23	4.44	1.51	1.23	1.60	1.74	28.86
2 members	2.17	2.18	1.22	1.39	1.83	2.72	2.74	1.19	0.94	1.06	1.67	13.79
3 members	3.65	3.23	1.86	2.34	2.83	5.34	5.34	1.86	1.32	1.81	2.55	15.36
4 members	3.53	3.00	2.15	2.33	2.84	5.47	5.90	1.99	1.86	1.98	2.46	14.13
5 members	5.21	6.35	3.89	4.62	4.38	8.25	8.09	3.22	2.92	4.01	4.68	33.02
6 or more members	11.10	6.32	3.32	4.34	5.52	9.47	9.34	4.69	2.91	3.89	5.64	47.75
<b>2020 annual household income</b>												
Less than \$5,000	8.38	8.83	4.43	6.58	7.74	13.41	13.74	5.23	4.86	7.15	7.49	0.00
\$5,000 to \$9,999	7.63	9.49	5.35	6.15	6.56	15.06	16.01	5.88	5.62	7.99	5.95	0.00
\$10,000 to \$19,999	4.34	5.42	2.98	4.20	4.26	11.54	9.68	3.03	1.91	2.97	5.02	27.77
\$20,000 to \$39,999	3.14	3.01	1.78	2.17	2.95	6.01	5.60	1.98	1.34	1.81	2.80	39.25
\$40,000 to \$59,999	3.66	3.16	2.16	2.61	2.74	4.32	5.61	2.44	1.88	2.44	2.41	50.67
\$60,000 to \$99,999	2.70	2.23	1.65	1.70	2.01	3.35	3.84	1.57	1.50	1.74	1.79	15.49
\$100,000 to \$149,999	4.29	3.43	2.04	2.18	2.79	4.32	4.79	2.58	1.79	2.08	2.35	22.67
\$150,000 or more	3.95	2.68	1.80	2.23	2.36	3.77	3.76	2.65	1.29	1.53	2.65	10.71
<b>Payment method for energy bills</b>												
All paid by household	1.37	1.10	0.66	0.87	1.08	1.87	1.93	0.94	0.62	0.80	1.06	8.23
Some paid by household, some included in rent or condo fee	9.15	6.58	3.54	5.12	7.64	19.51	10.71	5.60	5.40	6.61	6.27	51.75
All included in rent or condo fee	5.28	8.41	4.17	5.80	6.80	17.36	13.67	4.07	5.55	6.61	6.23	0.00
Some other method	28.18	26.64	22.64	28.64	13.98	42.03	68.86	13.16	24.27	44.70	24.48	0.00

## Relative standard errors (RSEs) for Table CE5.7a Detailed household site electricity end-use expenditures, part 1—averages, 2020

### RSEs for average electricity expenditures<sup>a</sup>

	Space heating <sup>b</sup>	Air handlers for heating	Air conditioning <sup>c</sup>	Air handlers for cooling	Ceiling fans	Dehumidifiers	Humidifiers	Water heating	Clothes washers	Clothes dryers	Lighting	Electric vehicle charging
<b>All homes</b>	1.35	1.07	0.62	0.83	1.04	1.83	2.02	0.89	0.60	0.75	1.00	8.08

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.

<sup>a</sup> Small amounts of standby power for devices that some households have but do not use (for example, dishwashers) are not included.

<sup>b</sup> Includes main (primary) and secondary space heating.

<sup>c</sup> Includes electricity used by evaporative coolers.

<sup>d</sup> 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.

<sup>e</sup> 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*.

<sup>f</sup> *Rented* includes households that occupy their primary housing units without paying rent.

<sup>g</sup> *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.