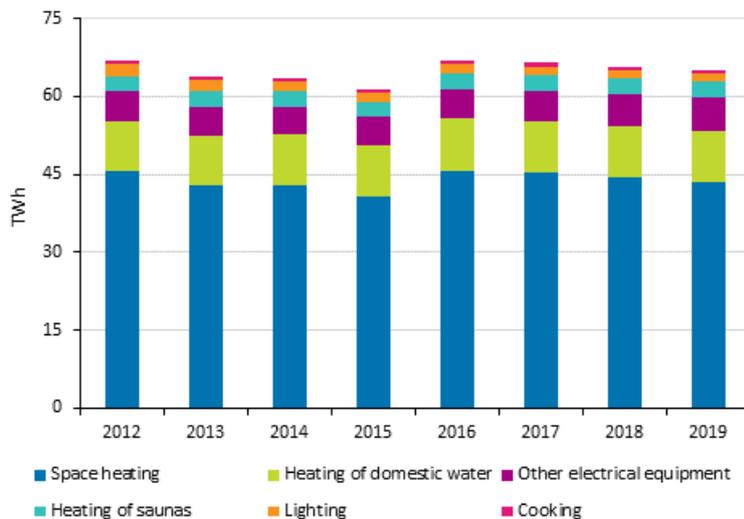


Energy consumption in households 2019

Energy consumption in households fell further in 2019

The energy consumed in housing amounted to around 65 terawatt hours (TWh) in 2019. Consumption fell by good one-half TWh from the previous year. Consumption of indoor living space heating fell by two per cent from 2018 to 2019. The weather was warmer in Southern Finland than in the previous year. The growth in the number and volume of dwellings continued. The share of household appliances in households' energy consumption remained at 13 per cent, even though the energy consumption of the appliances grew. The data are based on Statistics Finland's statistics on energy consumption in households.

Energy consumption in households in 2012 to 2019



Heating of residential buildings amounted to close on 67 per cent of energy consumption in housing, heating of domestic water to 15 per cent and heating of saunas to five per cent. The share of electrical equipment, cooking and lighting was 13 per cent. Housing accounts, on average, for 20 per cent of the final energy consumption. Housing also includes free-time residences.

Good one-third of energy consumption in housing was electricity in 2019. Nearly one-third of consumption was district heat and good one-fifth wood. Altogether 22.5 TWh of electricity was consumed; the consumption has remained more or less unchanged for four years. Forty-six per cent of electricity was

used to heat indoor areas and 38 per cent for household appliances. The remainder of electricity was used to heat domestic water and saunas.

Heating of residential buildings consumed 43 TWh of energy in 2019. Consumption decreased by two per cent from the previous year. The most common sources of energy for heating indoor spaces were district heat, wood and electricity, the share of which was 82 per cent of the energy consumption for heating indoor spaces. The next most common energy source was heat pump energy.

The use of heat pumps for heating has grown significantly from the start of the millennium. This is visible in the statistics as growth in both heat pump energy and electricity use of heat pumps. Heat pump energy refers to the energy extracted with heat pumps from the environment. The electricity use of heat pumps is included in electricity consumption of heating in the statistics on energy consumption in households.

In addition to the area to be heated and the energy efficiency of the building stock, the need for heating energy is also affected by the outdoor temperature. Its changes are monitored with heating degree days. The year 2019 was warmer in Southern Finland than 2018, in Northern Finland the situation was the opposite. The warmest year of the reference period was 2015.

Around three TWh of energy was used for heating saunas in 2019. Nearly two-thirds of energy were wood and good one-third electricity. The energy consumption of heating domestic water was 10 TWh.

The energy consumption of household appliances, that is, cooking, lighting and other electrical equipment, was around 8.5 TWh in 2019. Appliances accounted for 13 per cent of the entire housing energy. One per cent of this was used on cooking, that is, using cookers and ovens, and good two per cent on lighting. Ten per cent was used in other electrical equipment. They include small appliances for cooking, refrigeration equipment, washing machines, tumble dryers, televisions and computers with their accessories, lifts, and car interior heating.

With respect to the consumption of heating energy in indoor spaces, domestic water and saunas, the statistics on energy consumption in households are based on Statistics Finland's calculation model where various sources were utilised. Part of the data have been estimated as the interval between the inquiries used as data sources has become longer.

The concepts of the statistics correspond to the divisions of the European Union's Regulation on energy statistics concerning energy use in households. Based on the division, heating of indoor spaces and domestic water, cooking, electrical equipment, and heating of saunas are reported separately.

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Appendix table 1. Energy consumption in households 2011-2019, GWh

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
Heating of spaces	40 867	45 502	42 739	42 831	40 804	45 692	45 349	44 343	43 370
Residential buildings proper, total	38 843	43 281	40 643	40 690	38 760	43 252	42 876	41 884	40 920
- Detached houses	24 603	27 265	25 595	25 967	24 507	27 373	27 504	26 993	26 294
- Terraced houses	3 761	4 210	3 972	3 925	3 816	4 208	4 127	4 033	3 956
- Blocks of flats	10 479	11 805	11 076	10 798	10 437	11 671	11 245	10 858	10 670
Free-time residential buildings	2 025	2 222	2 097	2 140	2 044	2 440	2 473	2 459	2 450
Household appliances ¹⁾	8 315	8 850	8 389	8 091	7 886	8 295	8 126	8 284	8 519
- Lighting	2 482	2 349	2 115	1 919	1 876	1 770	1 633	1 599	1 558
- Cooking	799	714	697	689	680	681	673	674	680
- Other electrical equipment	5 034	5 787	5 577	5 483	5 330	5 844	5 820	6 011	6 281
Heating of saunas	2 871	2 894	2 902	2 924	2 920	3 049	3 057	3 063	3 069
Heating of domestic water	9 584	9 658	9 727	9 789	9 850	9 961	9 954	9 977	10 022
Housing, total	61 637	66 904	63 757	63 635	61 460	66 997	66 486	65 667	64 980

1) Apart from electricity consumption, consumption of household appliances includes use of natural and liquid gas in cookers.

Appendix table 2. Energy consumption in households by energy source in 2019, GWh

	Wood	Peat	Coal	Heavy fuel oil	Light fuel oil	Natural gas ¹⁾	Ambient energy ²⁾	District heat	Electricity ³⁾	Total
Housing, total	14 304	42	1	11	2 948	381	6 231	18 517	22 545	64 980
Heating of spaces	12 041	29	1	8	2 365	243	5 331	12 951	10 401	43 370
Residential buildings proper, total	10 724	28	1	8	2 319	242	5 067	12 947	9 584	40 920
- Detached houses	10 538	25	1	..	2 028	83	4 452	1 719	7 448	26 294
- Terraced houses	146	1	..	..	97	40	482	2 017	1 178	3 956
- Blocks of flats	40	2	..	8	194	119	133	9 211	963	10 670
Free-time residential buildings	1 317	1	0	..	46	1	264	4	817	2 450
Household appliances	..	..	..	..	..	80	..	..	8 439	8 519
- Lighting	..	..	..	..	..	..	..	..	1 558	1 558
- Cooking	..	..	..	..	..	80	..	..	600	680
- Other electrical equipment	..	..	..	..	..	..	..	..	6 281	6 281
Heating of saunas	1 841	..	..	..	..	..	..	..	1 228	3 069
Heating of domestic water	422	13	0	3	583	58	900	5 566	2 477	10 022

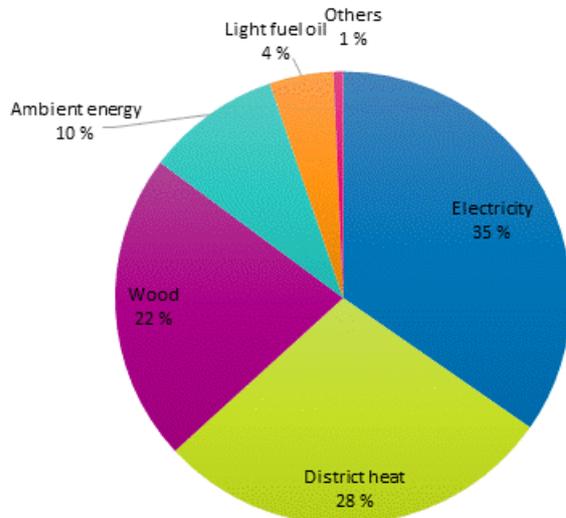
1) Includes liquid gas.

2) Ambient energy refers to energy extracted with heat pumps from the environment (ground, air or water) for space heating. Electricity spent by heat pumps in heating and cooling use is included in electricity consumption.

3) Electrical heating of residential buildings includes direct electrical heating, electric storage heating, additional heating and floor heating by electricity, electricity used by heat pumps, heating of domestic water by electricity, electric sauna stoves and electricity consumed by heating systems and heat distribution equipment.

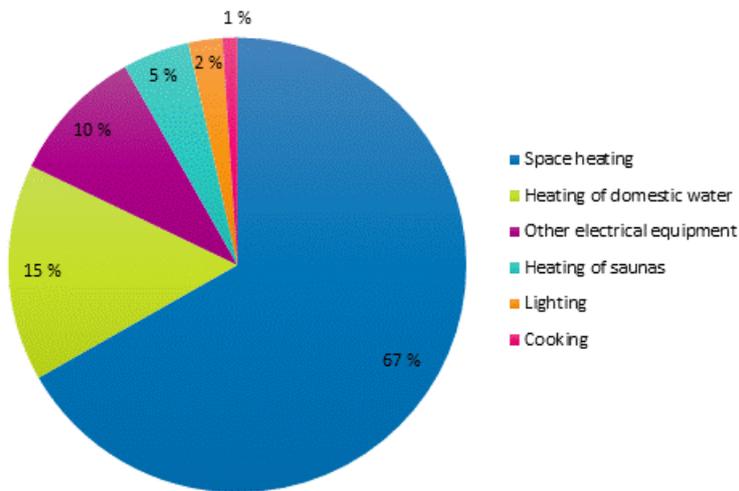
Appendix figures

Appendix figure 1. Energy consumption in households by energy source in 2019



Used energy sources 66 TWh. The group Others contains the following energy sources: natural gas and liquid gas 0.6 %, peat 0.07 %, heavy fuel oil 0.02 % and coal 0.002 % of energy consumption in households.

Appendix figure 2. Energy consumption in households by use in 2019



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Source: Energy consumption in households 2019, Statistics Finland