

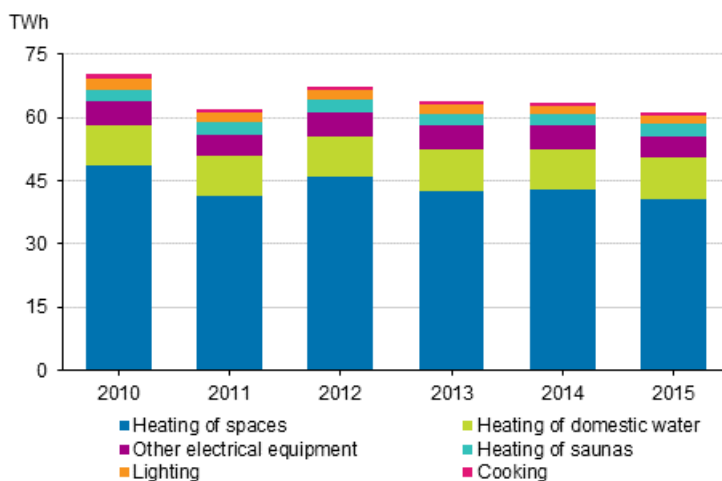
Energy consumption in households 2015

Warm weather decreased energy consumption in households in 2015

Corrected on 8 December 2016. The corrected items is indicated in red.

In 2015, electricity used in housing amounted to 61 terawatt hours (TWh). Consumption decreased by **three** per cent from the previous year. The record warm weather diminished the consumption of heating energy for spaces by five per cent. The energy consumption of household appliances went down by **three** per cent due to, for example, the decreased need to heat car interiors. The data are based on Statistics Finland's statistics on energy consumption in households.

Energy consumption in households 2010-2015



Sixty-six per cent of energy consumption in households concerned heating of residential buildings, 16 per cent heating of domestic water, and five per cent heating of saunas. In domestic appliances the share of lighting was three per cent, in cooking one per cent, and in other electrical appliances **nine** per cent of households' energy consumption.

In 2015, electricity used on housing amounted to 21 TWh. Electricity consumption went down by **two** per cent from 2014. **Forty-five** per cent of electricity was used to heat indoor areas and **37** per cent to household appliances. The remaining share of electricity was used to heat domestic water and saunas. District heat and wood were the next most used energy sources in households. The energy consumption of households

has decreased by 13 per cent in the first half of the decade. Housing accounted, on average, for 20 per cent of the final energy consumption.

Heating of residential buildings consumed 41 TWh of energy in 2015. Consumption decreased by five 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 83 per cent of the energy consumption for heating indoor spaces. The next most common energy source was ambient energy, whose consumption is estimated to have grown by over 50 per cent since 2010. The consumption of other energy sources has declined simultaneously. Ambient energy refers to the energy extracted with heat pumps from the environment, the electricity use of heat pumps is in the statistics included in electricity consumption of heating. The cooling use of air heat pumps is currently included only in electricity consumption.

Outdoor temperature has an effect on the annual need for heating energy. Heating degree day is used to follow changes in that. According to the Finnish Meteorological Institute, there were four exceptionally warm years in the first half of the decade: 2011, 2013, 2014 and the record warm year 2015. In the warm years heating degree days decreased and thus the need for heating energy declined. Over the past five years the consumption of heating energy for heating indoor spaces has declined by 16 per cent.

Three TWh of wood and electricity was consumed to heat saunas in 2015. 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 eight TWh in 2015. One per cent less energy was used on cooking, that is, using cookers and ovens, and two per cent less on lighting than in the year before. Use of energy-efficient lamps becoming more common is estimated to have decreased the electricity use of lighting by as much as 31 per cent since 2010.

The consumption of other electrical equipment fell by **three** per cent from the previous year. Other electrical equipment includes small appliances for cooking, refrigeration equipment, washing machines, tumble dryers, televisions and computers with their accessories, lifts, and car interior heating. Similarly as the heating energy of indoor spaces, the energy consumption of car interior heating went down due to the warm winter.

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. The energy consumption data of household appliances in terms of electricity consumption are based on the calculations of Adato Energia Oy. 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 have been revised to correspond with the division of the new European Union's Regulation on energy statistics for households' energy consumption. Based on the new division, the heating of indoor spaces, domestic water and saunas are reported separately.

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Appendix table 1. Energy consumption in households 2010-2015, GWh (Corrected on 8 December 2016)

Corrected on 8 December 2016. The corrections are indicated in red.						
	2010	2011	2012	2013	2014	2015
Heating of spaces	48 765	41 419	45 928	42 739	42 831	40 804
Residential buildings proper, total	46 365	39 339	43 663	40 643	40 690	38 760
- Detached houses	29 101	25 091	27 641	25 595	25 967	24 507
- Terraced houses	4 462	3 767	4 215	3 972	3 925	3 816
- Blocks of flats	12 802	10 481	11 807	11 076	10 798	10 437
Free-time residential buildings	2 399	2 080	2 265	2 097	2 140	2 044
Household appliances ¹⁾	9 092	8 320	8 856	8 395	8 099	7 886
- Lighting	2 702	2 482	2 349	2 115	1 919	1 876
- Cooking	826	799	714	697	689	680
- Other electrical equipment	5 564	5 039	5 793	5 583	5 491	5 330
Heating of saunas	2 880	2 871	2 894	2 902	2 924	2 920
Heating of domestic water	9 522	9 584	9 658	9 727	9 789	9 850
Housing, total	70 259	62 194	67 336	63 763	63 643	61 460

1) Apart from electricity consumption, consumption of household appliances includes use of natural gas and liquid gas in cooking.
Electricity consumption also covers solar power produced by households.

Appendix table 2. Energy consumption in households by energy source in 2015, GWh (Corrected on 8 December 2016)

Corrected on 8 December 2016. The corrections are indicated in red.										
	Wood	Peat	Coal	Heavy fuel oil	Light fuel oil	Natural gas ¹⁾	Ambient energy ²⁾	District heat	Electricity ³⁾	Total
Housing, total	13 900	43	3	82	3 668	407	4 465	17 976	20 917	61 460
Heating of spaces	11 630	28	3	57	2 926	235	3 711	12 750	9 464	40 804
Residential buildings proper, total	10 441	28	2	57	2 887	235	3 566	12 748	8 796	38 760
- Detached houses	10 271	24	2	-	2 344	72	3 161	1 716	6 916	24 507
- Terraced houses	126	1	-	-	153	53	373	2 057	1 053	3 816
- Blocks of flats	44	3	-	57	390	110	32	8 975	827	10 437
Free-time residential buildings	1 189	0	0	-	39	1	145	2	668	2 044
Household appliances	-	-	-	-	-	107	-	-	7 780	7 886
- Lighting	-	-	-	-	-	-	-	-	1 876	1 876
- Cooking	-	-	-	-	-	107	-	-	574	680
- Other electrical equipment	-	-	-	-	-	-	-	-	5 330	5 330
Heating of saunas	1 805	-	-	-	-	-	-	-	1 115	2 920
Heating of domestic water	465	15	1	25	742	65	754	5 226	2 558	9 850

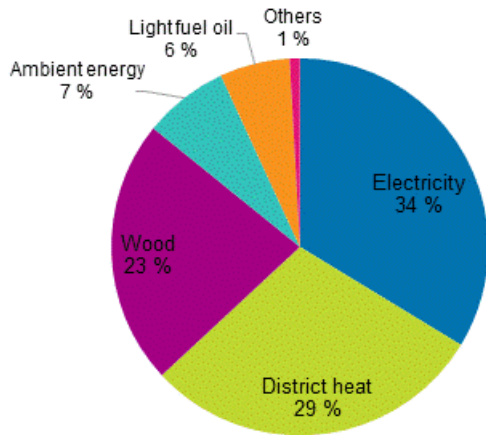
1) Includes liquid gas.

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 spaces includes direct electrical heating, electric storage heating, additional heating and floor heating by electricity, electricity used by heat pumps and electricity consumed by heating systems and heat distribution equipment.

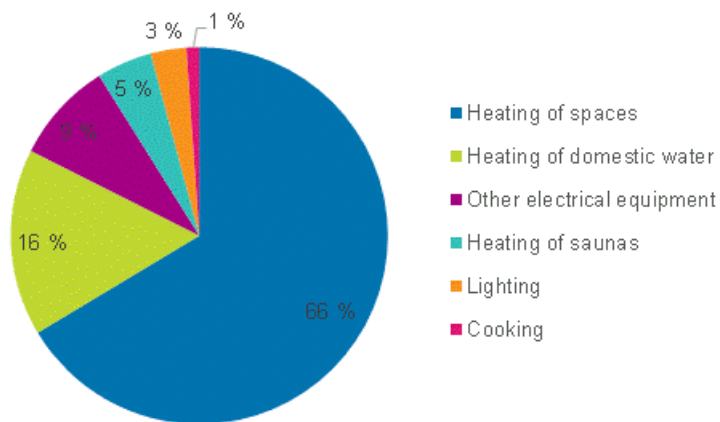
Appendix figures

Appendix figure 1. Energy consumption in households by energy source in 2015



Used energy sources 61 TWh. The group Others contains the following energy sources: natural gas and liquid gas 0.7 %, peat 0.1 %, heavy fuel oil 0.1 % and coal 0.005 % of energy consumption in households.

Appendix figure 2. Energy consumption in households by use in 2015 ((The figure was corrected on 8 December 2016)



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Source: Energy consumption in households 2015, Statistics Finland