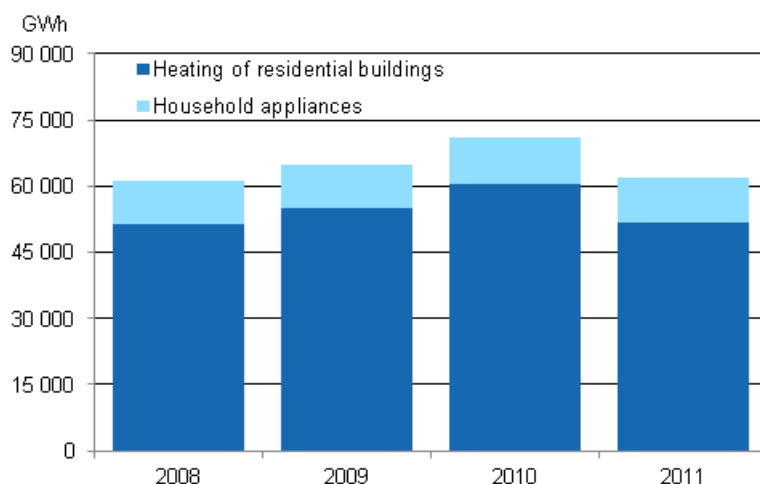


Energy consumption in households 2011

Over 80 per cent of energy consumption in households spent on heating between 2008 and 2011

According to Statistics Finland, energy consumption in households amounted to 61,884 gigawatt hours (GWh) in 2011. Eighty-four per cent of consumption concerned heating of residential buildings and 16 per cent household appliances. The most common energy source for heating of residential buildings was district heat between 2008 and 2011. Wood and electricity were the next most consumed sources. These three energy sources accounted for over 80 per cent of the consumption of heating energy for residential buildings. A total of 17,313 gigawatt hours (GWh) of district heat was used for heating residential buildings in 2011.

Energy consumption in households 2008–2011



The amount of electricity used on housing, or on heating of residential buildings and household appliances was 21,964 gigawatt hours (GWh) in 2011. This represents 35 per cent of the energy consumption in households. District heat was used the second most, 28 per cent, followed by wood, 23 per cent.

Detached houses accounted for 56 per cent of the heating energy of residential buildings, terraced houses for ten per cent and blocks of flats for 29 per cent. The share of free-time residential buildings is estimated

to be around five per cent. About 18 per cent of heating energy is estimated to have been spent on heating of domestic water and five per cent on heating of saunas. Detached houses and free-time residential buildings consumed the most wood on heating, while terraced houses and blocks of flats preferred district heat.

Outdoor temperature has an effect on annual need for heating energy. Heating degree day is used to describe changes in that. The year 2011 was warmer than 2010, which, due to the cold first and last parts of the year, was the coldest year for a long time. For this reason, the consumption of heating energy fell by around 14 per cent from 2010. Heating energy of residential buildings comprises the energy of the main heating system and those of other forms of supplementary heating.

In 2011, energy consumption of household appliances was 10,021 gigawatt hours (GWh), which is three per cent less than in 2010. Electricity is mainly used as an energy source for household appliances, and 10,011 gigawatt hours (GWh) of electricity was spent. In addition, 10 gigawatt hours (GWh) of natural gas was used for cooking. Thirty-six per cent of the energy of household appliances is estimated to have been spent on lighting and seven per cent on cooking. The share of other electrical equipment is estimated to be 57 per cent. Other electrical equipment includes refrigeration equipment, washing machines, tumble dryers, televisions and computers with their accessories, lifts and vehicle engine block and interior heating.

With respect to the consumption of heating energy in residential buildings, the statistics are based on Statistics Finland's calculation model where various data sources were utilised. The energy consumption data for household appliances are estimated on the basis of Adato Energia Oy's survey on households' electricity use in 2006.

Contents

Tables

Appendix tables

Appendix table 1. Energy consumption in households 2008-2011, GWh.....4
Appendix table 2. Energy consumption in households by energy source in 2011, GWh.....4

Figures

Appendix figures

Appendix figure 1. Energy consumption in households by energy source in 2011.....5

Appendix tables

Appendix table 1. Energy consumption in households 2008-2011, GWh

	2008	2009	2010	2011
Heating of residential buildings	51,245	54,872	60,589	51,863
Residential buildings proper, total	48,735	52,219	57,695	49,275
- Detached houses	28,174	30,188	33,781	29,204
- Terraced houses	5,281	5,629	6,093	5,250
- Blocks of flats	15,280	16,402	17,821	14,821
Free-time residential buildings	2,510	2,653	2,894	2,588
Household appliances ¹⁾	9,806	10,033	10,289	10,021
- Lighting	3,384	3,568	3,603	3,570
- Cooking	737	740	746	736
- Other electrical equipment	5,685	5,725	5,940	5,715
Housing, total	61,051	64,905	70,878	61,884
Of heating of residential buildings				
- Heating of saunas	2,749	2,753	2,756	2,755
- Heating of domestic water	9,422	9,476	9,529	9,580

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

Appendix table 2. Energy consumption in households by energy source in 2011, GWh

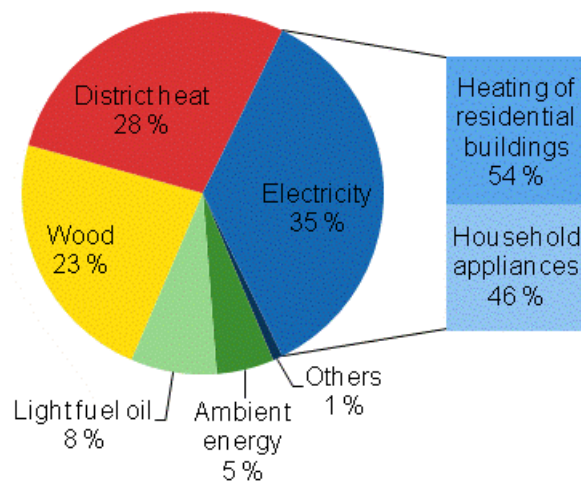
	Wood	Peat	Coal	Heavy fuel oil	Light fuel oil	Natural gas	Ambient energy ¹⁾	District heat	Electricity ²⁾	Total
Housing, total	14,116	98	4	87	4,758	371	3,173	17,313	21,964	61,884
Heating of residential buildings	14,116	98	4	87	4,758	361	3,173	17,313	11,953	51,863
Residential buildings proper, total	12,442	97	4	87	4,714	360	3,062	17,311	11,198	49,275
- Detached houses	12,228	91	4	–	3,699	124	2,902	1,764	8,392	29,204
- Terraced houses	124	1	–	–	383	75	149	2,793	1,725	5,250
- Blocks of flats	90	5	–	87	632	161	11	12,754	1,081	14,821
Free-time residential buildings	1,674	1	0	–	44	1	111	2	755	2,588
Household appliances	–	–	–	–	–	10	–	–	10,011	10,021
- Lighting	–	–	–	–	–	–	–	–	3,570	3,570
- Cooking	–	–	–	–	–	10	–	–	726	736
- Other electrical equipment	–	–	–	–	–	–	–	–	5,715	5,715
Of heating of residential buildings										
- Heating of saunas	1,778	–	–	–	–	–	–	–	977	2,755
- Heating of domestic water	470	17	1	25	1,008	73	430	4,906	2,650	9,580
Explanation of symbols: 0 = Magnitude less than half of unit employed – = Magnitude zero										

1) 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 of heating.

2) 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 2011



Used energy sources 61,884 GWh. The group Others contains the following energy sources: natural gas 0.6 %, peat 0.2 %, heavy fuel oil 0.1 % and coal 0.01 % of energy consumption in households.

Inquiries

Jonna Hakala 09 1734 3419

Director in charge:

Leena Storgårds

energia@stat.fi

www.stat.fi

Source: Energy consumption in households 2011, Statistics Finland