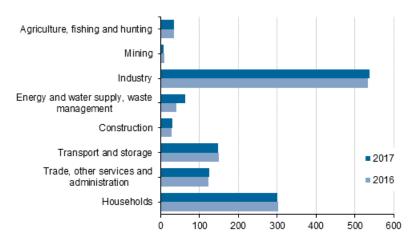


Energy accounts 2017

Households' energy consumption remained unchanged in 2017

The final consumption of energy products by Finns in Finland and abroad grew by two per cent from the previous year to 1,200 petajoule in 2017. The biggest share of energy was consumed by manufacturing, as the 537 petajoule it consumed corresponded with 43 per cent of the final consumption of energy products. Energy use in manufacturing grew by one per cent year-on-year. Households consumed 300 petajoule of the energy, which was in line with the year before. The share of households in total final consumption of energy products stood at 24 per cent.

Final consumption of energy by industry in 2016 and 2017, petajoules



The use of biofuels increased by eight per cent from the year before to 403 petajoule. The growth was particularly visible in land transport, where the use of biofuels more than doubled as the consumption of biodiesel increased. In energy supply, the consumption of biofuels increased by three per cent from the year before as the use of biomass and wood fuels increased. The consumption of biofuels also increased by two per cent among households from the previous year as the use of bio transport fuels grew.

In land transport, the consumption of oil products decreased by 11 per cent as a result of increased use of biofuels. The consumption of oil products also decreased by two per cent among households. However, the use of oil products remained at the 2016 level as consumption by manufacturing increased by six per cent.

Electricity consumption increased by 0.2 per cent from 2016 to 315 petajoule. Electricity consumption grew by 1.1 per cent in manufacturing. The majority of the growth came from the forest industry. Households' electricity consumption remained at the previous year's level at 81 petajoule.

Total supply and consumption of energy products by industry in 2017, TJ

Industry (TOL2008)	Supply	Use
Agriculture, fishing and aquaculture, hunting	1 698	23 442
Forestry	203 865	5 002
Mining and quarrying	273 354	1 873
Food industry	212	3 457
Forest industry	154 761	191 538
Oil refining and manufacture of chemicals	758 523	855 421
Manufacture of basic metals and fabricated metal products	14 140	56 194
Other industries		11 964
Energy management	5 574	553 506
Water supply and waste management		1 847
Construction		29 192
Trade		1 963
Land transport		57 063
Water transport		35 101
Air transport		44 034
Support activities for transportation, postal activities		857
Real estate activities		2 766
Other service activities and administration		21 847
Households		149 326
Change in Inventories		46 865
Rest of the World	997 280	414 272
Statistical Differences		4 400
TOTAL	2 409 408	2 409 408

Energy accounts are part of the second stage of the European Union's Regulation concerning environmental accounts that became legally valid in June 2014 ((EC) No 538/2014). The Regulation obliges the Member States to compile statistics and report annually on energy accounts.

The goal of environmental accounts is to describe the interaction between the environment and the economy by mainly using the same basic concepts and classifications as national accounts (ESA 2010). In the energy accounts, the supply and use of energy are presented in accordance with the industrial classification and domicile principle used in national accounts. Thus, the data of the statistics can be connected to various monetary variables of national accounts, such as total output and value added. The energy accounts' data on the supply and use of energy can also be combined with the data of the statistics on environmental taxes and emissions into air by industry.

Unlike other statistics on energy, energy accounts also contain the supply and consumption of energy by Finns abroad, in accordance with the framework of national accounts. Correspondingly, the supply and consumption of energy by foreigners within Finland are subtracted from energy accounts. Unlike in national accounts, statistics describing the physical flows of environmental accounts, including Energy accounts, do not take into account global factoryless production and merchanting.

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Appendix tables

Appendix table 1. Households' consumption of energy products in 2011 to 2017, TJ

	2011	2012	2013	2014	2015	2016	2017
Total fuels	149 594	154 473	145 755	147 286	144 864	149 730	149 326
Hard coal and peat products	210	211	173	159	150	159	148
Oil products	90 965	91 326	88 292	87 022	87 490	90 261	88 612
Bio fuels excl. peat	56 996	61 337	55 932	58 761	55 984	58 033	59 290
Natural gas (without bio)	1 421	1 597	1 357	1 342	1 238	1 276	1 274
Electrical energy	77 133	80 575	77 439	76 560	75 318	81 083	81 116
Heat	63 255	69 570	66 969	65 894	64 777	70 608	69 591

Appendix table 2. Consumption of energy products by industry in 2017, TJ

	Total fuels	Hard coal and peat products	Oil products	Bio fuels excl. peat	Natural gas (without bio)	Electrical energy	Heat
Agriculture, fishing and aquaculture, hunting	23 442	2 147	13 873	7 376	43	5 562	691
Forestry	5 002		4 918	84	0	0	
Mining and quarrying	1 873		1 862	7	3	5 245	224
Food industry	3 457	450	1 969	341	696	6 955	6 934
Forest industry	191 538	8 135	6 483	159 341	17 577	69 234	21 369
Oil refining and manufacture of chemicals	855 421	39 243	228 856	18 480	20 388	24 123	18 121
Manufacture of basic metals and fabricated metal products	56 194	47 125	6 569	30	2 468	25 747	7 049
Other industries	11 964	3 247	6 916	382	1 416	10 524	4 722
Energy management	553 506	119 175	11 813	142 945	36 820	18 939	39 934
Water supply and waste management	1 847	2	1 548	265	31	1 625	144
Construction	29 192		28 469	722	0	1 620	
Trade	1 963	22	701	963	275	14 373	8 514
Land transport	57 063	3	49 704	7 265	90	4 802	854
Water transport	35 101	0	34 695	82	323	187	164
Air transport	44 034	0	43 766	258	10	311	423
Support activities for transportation, postal activities	857	2	728	98	28	1 487	1 136
Real estate activities	2 766	10	2 090	541	124	6 454	8 221
Other service activities and administration	21 847	57	17 226	3 849	713	36 817	24 801
Households	149 326	148	88 612	59 290	1 274	81 116	69 591
Change in Inventories	46 865	32 932	7 201		900		
Rest of the World	414 272	4 254	408 850	1 168		6 404	
Statistical Differences	4 400	281	3 727	135	839	1 514	3 157
TOTAL	2 409 408	191 376	948 728	403 361	80 549	323 048	216 057

Appendix table 3. Consumption of oil products and crude oil in 2011 to 2017, TJ

Industry (TOL2008)	2011	2012	2013	2014	2015	2016	2017
Agriculture, fishing and aquaculture, hunting	16 783	16 982	17 012	15 226	14 899	14 648	13 873

Industry (TOL2008)	2011	2012	2013	2014	2015	2016	2017
Forestry	4 510	4 509	4 764	4 681	4 577	4 804	4 918
Mining and quarrying	2 479	2 610	2 590	2 423	2 571	1 883	1 862
Food industry	2 385	2 380	2 160	2 039	1 887	1 723	1 969
Forest industry	9 850	8 785	6 251	5 828	5 302	6 508	6 483
Oil refining and manufacture of chemicals	211 408	193 597	214 297	202 451	185 748	215 275	228 856
Manufacture of basic metals and fabricated metal products	16 608	12 049	9 635	8 929	11 828	6 702	6 569
Other industries	7 723	7 941	7 833	7 444	6 690	7 340	6 916
Energy management	14 380	14 174	9 697	10 319	11 227	14 140	11 813
Water supply and waste management	1 776	1 914	2 079	1 974	1 539	1 747	1 548
Construction	29 744	28 018	32 536	29 996	25 224	26 733	28 469
Trade	1 715	1 875	1 649	2 038	642	763	701
Land transport	60 311	62 847	54 972	45 440	46 502	55 959	49 704
Water transport	37 362	37 955	35 364	28 910	31 555	36 502	34 695
Air transport	41 109	35 905	41 715	41 622	43 229	42 470	43 766
Support activities for transportation, postal activities	464	495	633	712	630	729	728
Real estate activities	1 520	1 391	1 130	1 186	1 931	2 229	2 090
Other service activities and administration	17 061	15 844	17 462	16 957	16 559	19 065	17 226
Households	90 965	91 326	88 292	87 022	87 490	90 261	88 612
Change in Inventories	8 380	17 515	29 715	3 082	16 960	11 555	7 201
Rest of the World	321 232	337 171	401 531	378 931	308 328	403 392	408 850
Statistical Differences	28 928	15 757	19 831	27 236	2 996	1 991	3 727
TOTAL	926 702	876 020	961 495	918 291	828 324	943 319	948 728

Appendix table 4. Consumption of biofuels (excl. peat) by industry in 2011 to 2017, TJ

Industry (TOL2008)	2011	2012	2013	2014	2015	2016	2017
Agriculture, fishing and aquaculture, hunting	6 105	7 114	7 929	7 679	6 941	7 331	7 376
Forestry	145	90	66	115	104	50	84
Mining and quarrying	14	45	56	37	50	51	7
Food industry	275	259	246	314	165	203	341
Forest industry	125 445	127 646	131 470	138 761	141 956	150 731	159 341
Oil refining and manufacture of chemicals	9 735	9 705	11 574	23 017	22 928	9 857	18 480
Manufacture of basic metals and fabricated metal products	4	4	13	15	17	15	30
Other industries	391	435	473	412	342	349	382
Energy management	133 425	139 291	147 002	141 421	134 021	138 125	142 945
Water supply and waste management	261	293	244	445	329	153	265
Construction	646	453	634	1 369	898	264	722
Trade	634	881	821	995	868	860	963
Land transport	2 804	2 825	3 770	9 613	10 268	2 673	7 265
Water transport	49	69	85	176	113	38	82
Air transport	137	161	244	421	348	154	258
Support activities for transportation, postal activities	237	253	203	206	76	86	98
Real estate activities	763	492	457	482	527	425	541
Other service activities and administration	2 403	2 848	2 846	4 422	4 096	2 715	3 849
Households	56 996	61 337	55 932	58 761	55 984	58 033	59 290
Change in Inventories				433			
Rest of the World	8 986	10 966	14 331	14 178	1 738	1 327	1 168
Statistical Differences	1 604	1 850	2 090	1 014	111	149	135
TOTAL	347 860	367 026	380 495	404 296	381 665	373 297	403 361

Appendix table 5. Final consumption of electricity and heat by industry in 2011 to 2017, TJ

Industry (TOL2008)	2011	2012	2013	2014	2015	2016	2017
Agriculture, fishing and aquaculture, hunting	5 768	6 219	5 907	6 030	5 976	6 226	6 253
Forestry			0	0	0	0	0
Mining and quarrying	4 108	5 143	5 238	5 424	5 686	6 856	5 469
Food industry	11 818	11 104	11 853	12 571	13 105	14 031	13 889
Forest industry	110 608	105 020	100 580	90 566	90 327	88 037	90 603
Oil refining and manufacture of chemicals	39 002	40 735	40 240	37 178	36 500	43 030	42 244
Manufacture of basic metals and fabricated metal products	28 402	28 103	29 321	31 963	33 651	32 518	32 797
Other industries	16 884	15 983	16 029	16 990	13 874	17 851	15 247
Energy management	37 233	38 555	37 044	36 918	34 183	36 998	58 874
Water supply and waste management	3 492	3 466	2 309	1 988	1 655	1 679	1 769
Construction	1 256	1 324	1 360	1 558	1 339	1 497	1 620
Trade	15 840	22 313	21 388	19 798	22 577	22 786	22 888
Land transport	4 070	5 549	5 471	5 357	5 118	5 198	5 657
Water transport	608	1 136	1 105	1 107	324	350	352
Air transport	347	931	1 005	993	742	784	735
Support activities for transportation, postal activities	5 413	4 911	4 284	4 718	2 254	2 536	2 624
Real estate activities	23 151	14 955	16 329	16 553	13 222	14 310	14 675
Other service activities and administration	51 968	57 331	55 245	56 008	56 017	58 827	61 619
Households	140 388	150 145	144 408	142 454	140 095	151 691	150 707
Rest of the World	13 694	5 922	6 753	13 158	18 439	11 372	6 404
Statistical Differences	2 030	3 048	2 523	6 580	6 935	7 043	4 671
TOTAL	516 089	521 902	508 399	507 920	502 027	523 626	539 105

Appendix table 6. Consumption of other energy products by industry in 2011 to 2017, TJ

Industry (TOL2008)	2011	2012	2013	2014	2015	2016	2017
Agriculture, fishing and aquaculture, hunting	2 071	2 220	1 984	1 856	1 925	2 173	2 191
Forestry	0	0	0	0	0	0	0
Mining and quarrying							3
Food industry	2 261	2 221	1 874	1 797	1 222	1 226	1 146
Forest industry	29 740	27 804	27 746	27 189	25 767	24 868	25 713
Oil refining and manufacture of chemicals	590 782	576 053	595 494	583 818	525 722	595 213	608 084
Manufacture of basic metals and fabricated metal products	47 109	42 816	43 824	45 360	46 964	52 513	49 594
Other industries	6 567	4 864	4 601	4 561	4 344	4 567	4 664
Energy management	518 628	465 428	488 246	454 764	415 302	426 693	398 747
Water supply and waste management	85	77	53	39	30	31	34
Construction	0	0	0	0	0	0	0
Trade	272	301	315	263	303	298	298
Land transport	357	366	291	294	172	165	93
Water transport	7	15	16	15	3	66	323
Air transport	9	16	19	18	10	10	10
Support activities for transportation, postal activities	109	90	84	73	27	29	30
Real estate activities	338	165	177	145	128	133	134
Other service activities and administration	784	806	845	753	720	738	771
Households	1 631	1 808	1 531	1 502	1 389	1 435	1 423
Change in Inventories	6 489	35 192	48	26 788	12 273	42 192	39 664
Rest of the World	1 653	2 190	2 268	2 223	3 818	2 947	4 254
Statistical Differences	5 790	3 954	12 990	459	1 091	3 252	537
TOTAL	1 214 690	1 088 105	1 156 434	1 151 926	1 016 675	1 067 668	1 057 318



Environment and Natural Resources 2019

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Source: Energy Accounts 2017, Statistics Finland