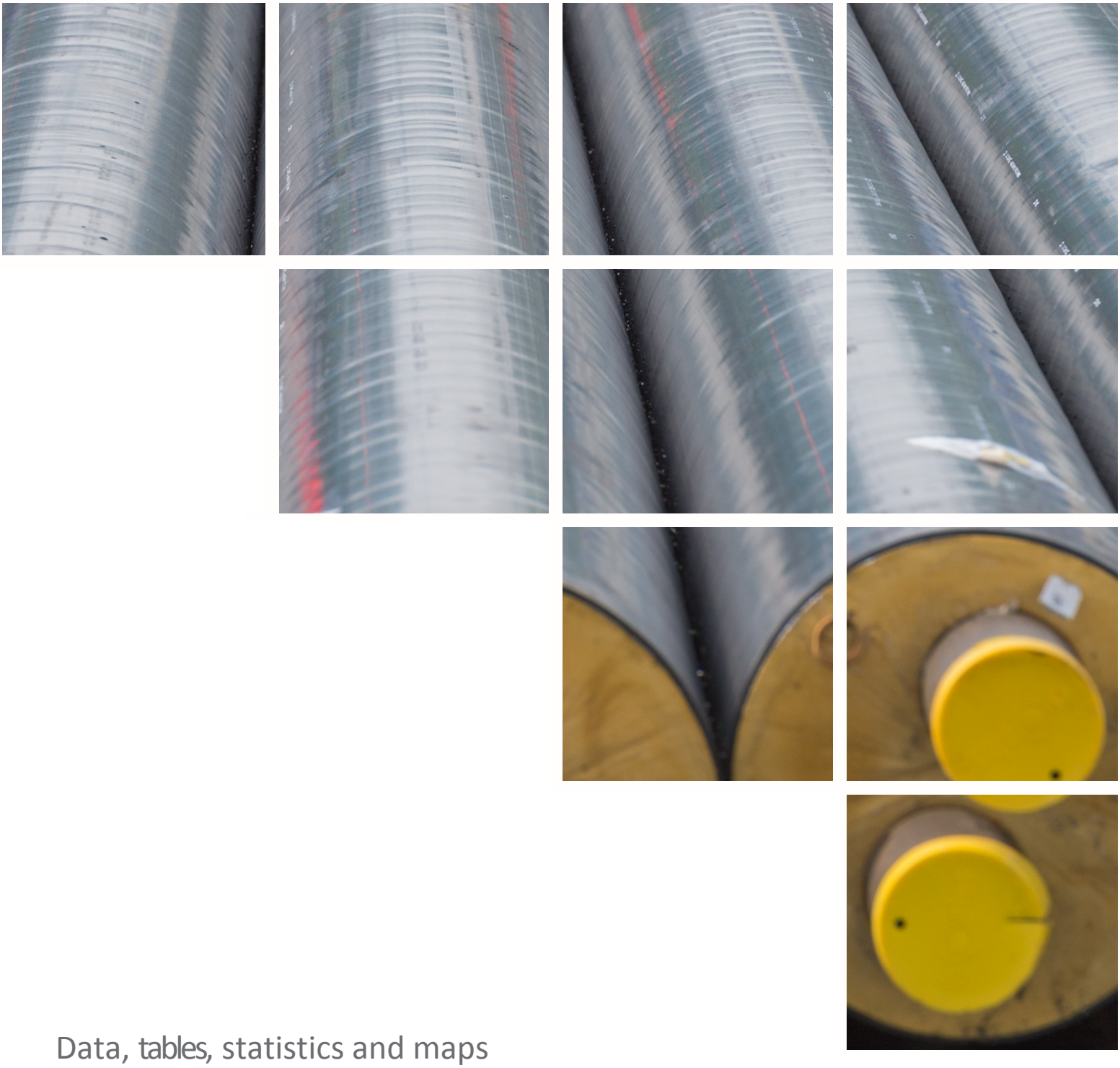

Data, tables, statistics and maps

ENERGY STATISTICS 2015

Danish Energy Agency

CONTENTS

www.ens.dk

Please feel free to visit the Danish Energy Agency's website for statistics and data **www.ens.dk/facts_figures**. This website includes energy statistics that are far more detailed than the statistics published here. Please find the complete energy statistics, including tables and time-lines for energy consumption, emissions and assumptions for the period 1972-2015. Descriptions of methods and revisions are also available here.

Note

National accounts
After the editorial close for the statistics, Statistics Denmark issued revised national accounts. The revised figures have not been used in the calculation of intensities etc.

Briquettes
Wood briquettes have been included in firewood, households for the years 2013-2015.

LNG
LNG (liquified natural gas) has been included in domestic sea transport under the fuel gas/diesel in 2015.

Energy Statistics 2015

Published May 2017 by the Danish Energy Agency, Amaliegade 44, 1256 Copenhagen K, Denmark.

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The Danish Energy Agency is an agency under the Danish Ministry of Energy, Utilities and Climate.

Access to the statistics or parts of the statistics before publication

The organisations below have access to the statistics under a special agreement.

Statistics Denmark

DCE – Danish Centre for Environment and Energy

Danish Energy Agency, relevant employees in the scenarios team

Large net imports of electricity and continued increase in consumption of renewable energy

Share of RE in electricity supply
In 2015, electricity from renewables accounted for 56.0% of Danish domestic electricity supply. Of this figure, wind power accounted for 41.8%. Biomass accounted for 11.0% and solar energy, hydro and biogas accounted for the remaining 3.2%. There were large net imports of electricity in 2015, and this has primarily led to a dramatic fall in the consumption of coal of 35.8%.

Energy production and degree of self-sufficiency fell
The Danish production of crude oil, natural gas and renewable energy etc. fell to 675 PJ in 2015; a drop of 0.3%. Production of crude oil fell by 5.4% and production of natural gas was unchanged compared to the year before.

The degree of self-sufficiency in energy for Denmark fell again in 2015 to 89%, whereas it was 90% the year before. This means that energy production in 2015 was 11% lower than energy consumption.

Observed energy consumption unchanged
Observed energy consumption was unchanged 720 PJ in 2015. This should be considered in light of the fact that Denmark had high net imports of electricity in 2015, whereas 2014 was a warmer year. This meant that fuel consumption for electricity generation decreased by 10.1%. The decrease includes lower consumption of coal, oil and natural gas of a total of 31.4% primarily due to a drop in consumption of coal of 35.8%. Renewable energy etc. rose by 5.4%.

Adjusted gross energy consumption rose 0.3%
Besides *observed energy consumption*, the Danish Energy Agency calculates *adjusted gross energy consumption*, which is adjusted for fuel linked to foreign trade in electricity and climatic variations in relation to a normal weather year. The purpose of the adjusted calculations is to illustrate the trends underlying the development. *Adjusted gross energy consumption* was 756 PJ in 2015, which is 0.3% above the 2014 level.

Compared with 1990, adjusted gross energy consumption has fallen by 7.7%. Coal and coke account for the largest drop at 66.2%, while renewable energy, which began from a low start point, accounted for the largest increase.

Increase in consumption of renewable energy
Consumption of renewable energy increased from 193 PJ in 2014 to 206 PJ in 2015, which corresponds to an increase of 6.4%. This development is due to increases in the consumption of biogas and wind power of 15.0% and 8.1%, respectively. Calculated according to the EU's method of calculation, renewable energy accounted for about 30.0% of energy consumption in 2015 as opposed to 29.2% in 2014.

Decrease in CO_2 emissions
Observed CO_2 emissions from energy consumption decreased by 6.6% in 2015, ending at 35.2 million tonnes. Adjusted for fuel consumption linked to foreign trade in electricity and climatic variations, CO_2 emissions fell by 3.3%. Since 1990, Danish adjusted CO_2 emissions have gone down by 35.8%.

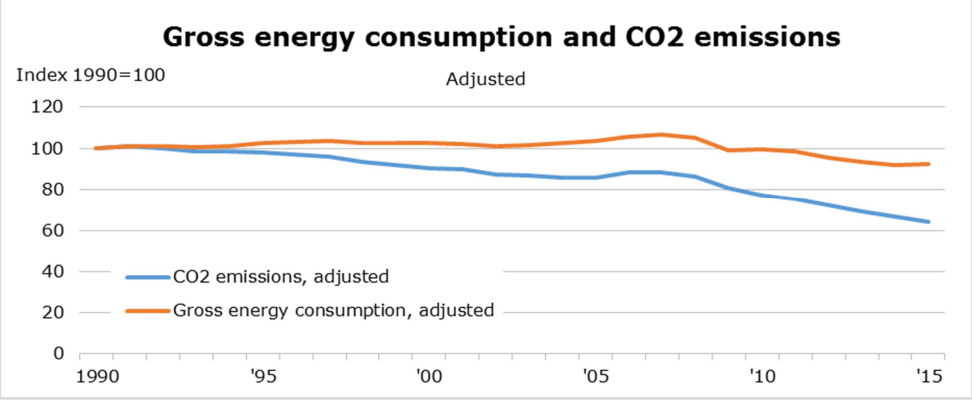
Fall in greenhouse gas emissions for 2015
A preliminary statement of total observed emissions of greenhouse gases in Denmark shows a drop of 31.1% from 1990 to 2015. A drop in observed emissions of 4.9% from 2014 to 2015 is primarily attributable to higher net imports of electricity in 2015.

Energy consumption by area of consumption
Gross energy consumption for *transport* was 1.4% higher in 2015 than the year before. Energy consumption for road transport rose by 2.3%.

The total climate-adjusted energy consumption of the *agriculture and industry sector* was 0.2% higher in 2015 than the year before. Energy consumption by *manufacturing industries* increased by 0.2%.

In *commercial and public services* and *households*, climate-adjusted energy consumption was respectively 0.5% lower and 1.7% higher in 2015 than in 2014.

Exports of energy technology
Exports of energy technology and equipment were DKK 71.4 billion in 2015 as opposed to DKK 74.3 billion in 2014. Exports of energy technology and equipment were thus 11.1% of total Danish goods exports. The corresponding figure for 2014 was about 11.9%.

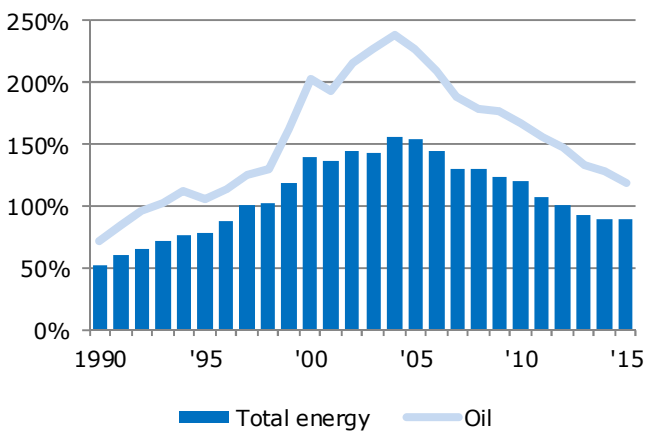


Energy balance 2015

Direct energy content [TJ]	Total	Crude oil and refinery feedstocks	Oil products	Natural gas	Coal and coke	Waste, non-renewable	Renewable energy	Electricity	District heating	Gas works gas
Total energy consumption										
Primary energy production	675 334	330 662	-	173 510	-	15 995	155 167	-	-	-
Recycling	39	-	39	-	-	-	-	-	-	-
Imports	787 849	183 882	401 986	24 743	66 893	1 866	52 007	56 321	151	-
Exports	-690 027	-208 529	-360 805	-82 349	-2 220	-	-1 084	-35 039	-	-
Border trade		-	-6 817	-	-	-	-	-	-	-
International marine bunkers	-32 278	-	-32 278	-	-	-	-	-	-	-
Stock changes		-1 514	-33 762	3 521	11 427	-	- 3	-	-	-
Statistical differences, input from blending		1 857	3 867	650	308	-	- 239	-	0	-
Energy sector		**-306 358**	**291 329**	**-24 082**	**-**	**-**	**-**	**-3 744**	**- 578**	**-**
Extraction and gasification	-24 082	-	-	-24 082	-	-	-	-	-	-
Petroleum products		-	306 929	-	-	-	-	-	-	-
Used in refineries		-306 358	-15 600	-	-	-	-	-1 064	- 578	-
Used in distribution	-2 680	-	-	-	-	-	-	-2 680	-	-
Transformation		**-**	**-4 322**	**-35 032**	**-71 478**	**-17 003**	**-137 969**	**99 639**	**126 974**	**607**
Large-scale units		-	-1 187	-9 952	-71 012	-	-31 057	37 405	50 730	-
Wind turbines and hydropower plants		-	-	-	-	-	-50 944	50 944	-	-
Small-scale units		-	- 42	-5 453	- 349	-3 881	-15 016	6 298	15 630	-
District heating units		-	- 763	-15 439	- 88	- 225	-19 068	- 829	35 609	-
Autoproducers		-	-2 316	-3 587	- 29	-12 897	-21 780	9 560	25 621	-
Gas works		-	- 14	- 601	-	-	-104	-	-	607
Own use	-4 355	-	-	-	-	-	-	-3 738	- 617	-
Distribution losses etc.	**-32 231**	**-**	**-**	**- 118**	**-**	**-**	**-**	**-6 660**	**-25 425**	**- 28**
Final energy consumption	**-605 964**	**-**	**-259 237**	**-60 843**	**-4 931**	**- 859**	**-67 877**	**-110 517**	**-101 122**	**- 579**
Non-energy use	-10 536	-	-10 536	-	-	-	-	-	-	-
Transport	-210 095	-	-199 621	- 76	-	-	-8 969	-1 429	-	-
Agriculture and industry	-122 931	-	-35 751	-28 814	-4 931	- 672	-10 686	-36 814	-5 054	- 209
Commercial and public services	-78 068	-	-2 613	-7 519	-	- 186	-1 712	-35 637	-30 370	- 30
Households	-184 333	-	-10 715	-24 435	-	-	-46 510	-36 636	-65 698	- 341

Note: The energy balance provides an overview of supply, transformation and consumption of energy.
A more detailed statement of input (black figures) and output (red figures) of energy products is listed in the table Energy supply and consumption 2015 on pages 18-19.

Degree of self-sufficiency



The degree of self-sufficiency is calculated as primary energy production in relation to climate-adjusted gross energy consumption. Self-sufficiency in oil is calculated as crude oil production in relation to the share of gross energy consumption constituted by oil.

In 1997, Denmark produced more energy than it consumed for the first time ever. The degree of self-sufficiency was 52% in 1990 and peaked in 2004 at 155%. Denmark was a net importer of energy in 2013 for the first time since 1996. In 2015, the degree of self-sufficiency in energy was 89% as opposed to 90% the year before.

Denmark has been more than self-sufficient in oil since 1993, resulting in annual net exports. In 2015, the degree of self-sufficiency in oil was 118% as opposed to 127% the year before. The degree of self-sufficiency in oil peaked in 2004 and has been falling ever since.

Production of primary energy

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total production	**40 228**	**424 361**	**1 164 525**	**1 311 683**	**978 612**	**703 021**	**677 533**	**675 334**	**58.1%**
Crude oil	12 724	255 959	764 526	796 224	522 733	373 365	349 635	330 662	29.2%
Natural gas	17	115 967	310 307	392 868	307 425	179 275	173 259	173 510	48.8%
Renewable energy	22 699	45 461	76 016	105 585	131 306	134 604	138 767	155 167	241%
Waste, non-renewable	4 787	6 975	13 676	17 006	17 148	15 777	15 872	15 995	129%

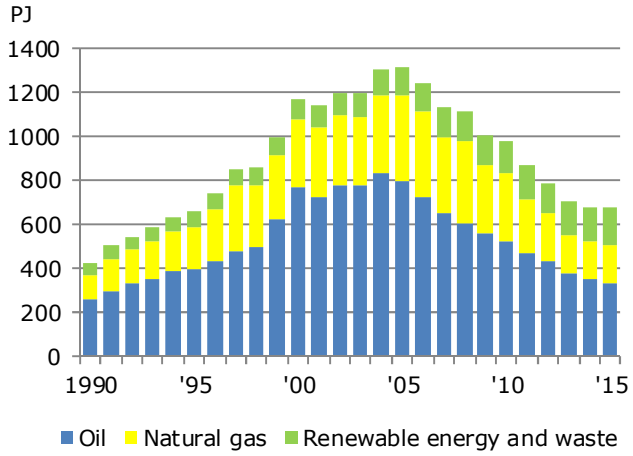
Production and consumption of renewable energy

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Production of renewable energy	**22 699**	**45 461**	**76 016**	**105 585**	**131 306**	**134 604**	**138 767**	**155 167**	**241%**
Solar	50	100	335	419	657	2 890	3 409	3 604	3511%
Wind	38	2 197	15 268	23 810	28 114	40 044	47 083	50 879	2216%
Hydro	123	101	109	81	74	48	54	65	-35.6%
Geothermal	-	48	58	172	212	229	166	140	192%
Biomass	22 023	39 996	54 039	73 542	92 268	79 901	75 292	86 130	115%
- Straw	4 840	12 481	12 220	18 485	23 323	20 296	18 409	19 187	53.7%
- Wood chips	-	1 724	2 744	6 082	11 352	10 753	10 864	13 335	674%
- Firewood	7 621	8 757	12 432	17 667	23 779	19 659	16 890	21 943	151%
- Wood pellets	-	1 575	2 984	3 262	2 407	1 843	1 952	2 641	67.7%
- Wood waste	3 710	6 191	6 895	6 500	8 500	7 191	7 053	8 837	42.7%
- Waste, renewable	5 851	8 524	16 715	20 786	20 959	19 283	19 399	19 550	129%
- Biodiesel *)	..	..	..	..	..	..	..	..	•
- Biooil	-	744	49	761	1 949	877	725	636	-14.5%
Biogas	184	752	2 912	3 830	4 337	4 588	5 519	6 348	744%
Heat pumps	282	2 267	3 296	3 731	5 643	6 904	7 245	8 001	253%
Imports of renewable energy	**-**	**-**	**2 466**	**18 918**	**39 483**	**53 920**	**56 564**	**52 007**	•
Firewood	-	-	-	1 963	2 939	3 308	2 842	2 547	•
Wood chips	-	-	305	1 521	4 865	5 539	5 596	3 334	•
Wood pellets	-	-	2 161	12 802	27 675	33 455	35 435	33 542	•
Waste, renewable	-	-	-	-	-	1 323	1 899	2 281	•
Bioethanol	-	-	-	-	1 118	1 855	1 998	1 818	•
Biodiesel	-	-	-	2 632	2 886	8 439	8 794	8 485	•
Exports of renewable energy	**-**	**-**	**-**	**2 632**	**2 846**	**1 423**	**1 503**	**1 084**	•
Biodiesel	-	-	-	2 632	2 846	1 423	1 503	1 084	•
Stock changes, stat. diffs. etc.	**-**	**- 3**	**31**	**9**	**1**	**- 59**	**- 353**	**- 267**	•
Consumption of renewable energy	**22 699**	**45 458**	**78 513**	**121 880**	**167 944**	**187 042**	**193 475**	**205 823**	**353%**

**) Production of biodiesel has been included under imports of biodiesel.*

PRODUCTION OF PRIMARY ENERGY

Primary energy production



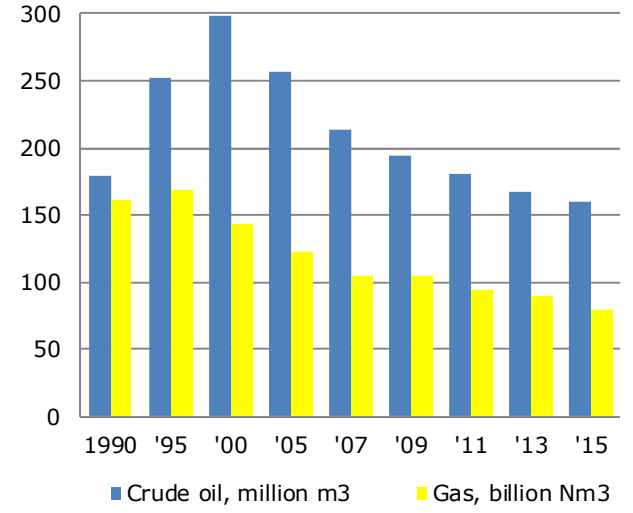
Primary energy refers to crude oil, natural gas, renewable energy (including renewable waste) and non-renewable waste.

In 2015, primary energy production was 675 PJ, as opposed to 678 PJ in 2014. This corresponds to a drop of 0.3%. Primary energy production peaked at 1312 PJ in 2005.

Production of crude oil and natural gas increased steadily up to 2004 and 2005, respectively, after which it fell.

Production of crude oil fell by 5.4% in 2015, while production of renewable energy etc. and natural gas increased by 10.7% and 0.1% respectively.

Oil and gas reserves / resources



Up to the end of 2009, crude oil and natural gas reserves were calculated as the volumes that were financially feasible to recover from known oil fields and oil discoveries, using known technologies. The reserves are regularly reassessed for new discoveries and changes in assumptions for calculations.

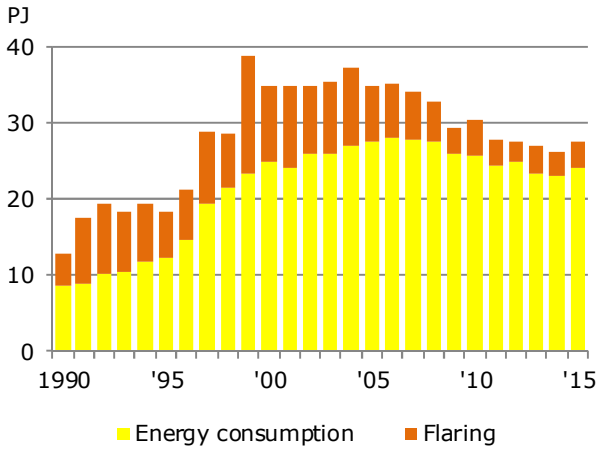
At the end of 2009, the Danish Energy Agency changed the classification system for oil and gas reserves, introducing the category *contingent resources.* For the period 2009-2015, the statement includes the sum of reserves and contingent resources so that comparison with earlier statements is possible.

At the end of 2015, the sum of reserves and contingent resources totaled 160 million m^3 oil and 80 billion Nm^3 gas.

Danish oil and gas reserves have been calculated every two years since and including 2011.

Source: Resources and forecasts of August 29th 2016. Published by Danish Energy Agency.

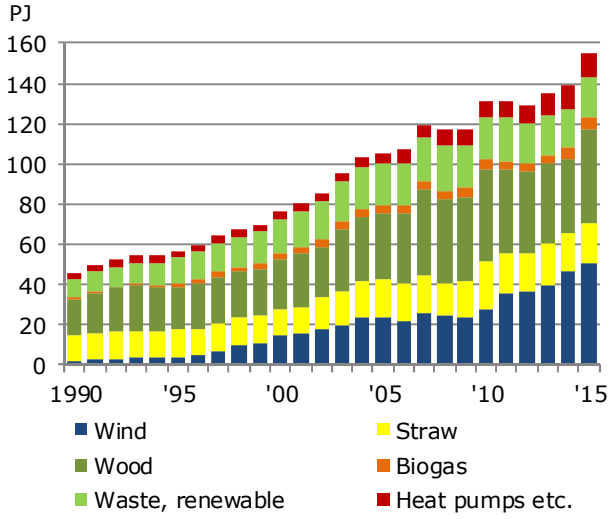
Natural gas consumption and flaring on platforms in the North Sea



Extraction of crude oil and natural gas requires natural gas consumption for production as well as for transport and off-loading ashore. In 2015 consumption was 24.0 PJ, corresponding to 20.1% of total Danish natural gas consumption. In 2014 consumption on platforms was 22.9 PJ.

Furthermore, flaring (burning) is carried out in the production of natural gas in the North Sea fields. Flaring is not included in energy consumption, but is included in Denmark's international statement of greenhouse gases, and is covered by the EU Emission Trading System (EU ETS). In 2015, flaring of natural gas was calculated at 3.6 PJ compared with 3.4 PJ in 2014.

Production of renewable energy by energy product



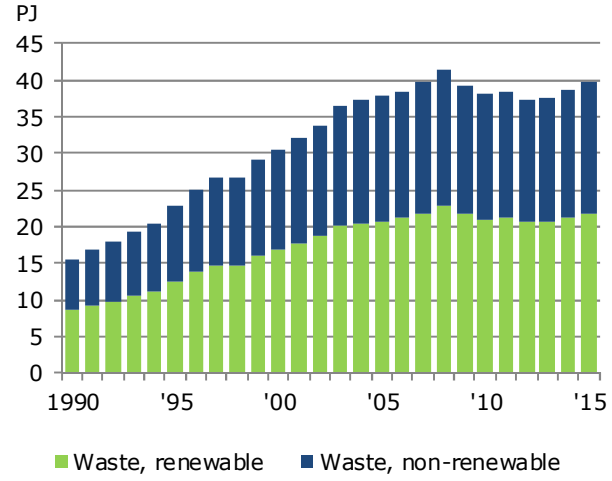
Renewable energy includes wind power, wood, straw, biogas, renewable waste and others (hydropower, geothermal energy, solar energy and heat pumps).

Production of renewable energy was 155 PJ in 2015, which corresponds to a rise of 11.8% compared with 2014. Production of renewable energy grew by 241% during the period 1990 to 2015.

In 2015 wind power production was 50.9 PJ, which is an increase of 8.1% compared with 2014.

Production from straw, wood and renewable waste in 2015 was 19.2 PJ, 46.8 PJ and 19.5 PJ, respectively. Compared with 2014, the total production from the three fuels increased by 14.7%.

Consumption of waste

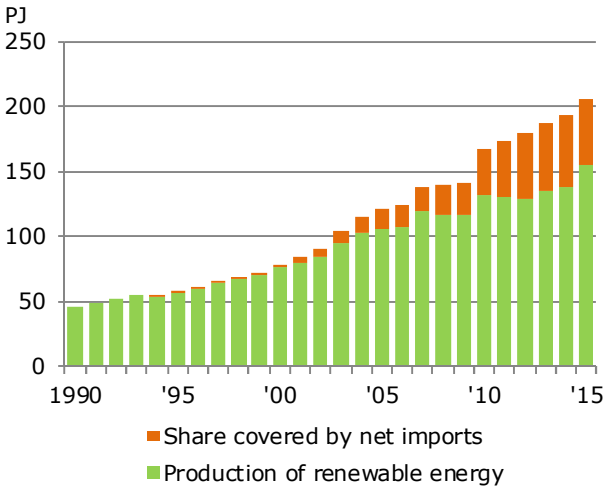


Consumption of waste for the production of electricity and district heating has increased significantly over time. Total consumption of waste increased by 2.5% in 2015 compared with 2014. Compared with 1990, waste consumption for energy purposes increased by 156% in 2015.

In statistics for energy and CO_2 emissions, waste is divided into two components: Renewable waste and non-renewable waste. According to international conventions, renewable waste is included in renewable energy.

These energy statistics assume that 55.0% of the waste consumed is renewable waste. This means that waste accounts for a considerable proportion of the total consumption of renewable energy.

Consumption of renewable energy

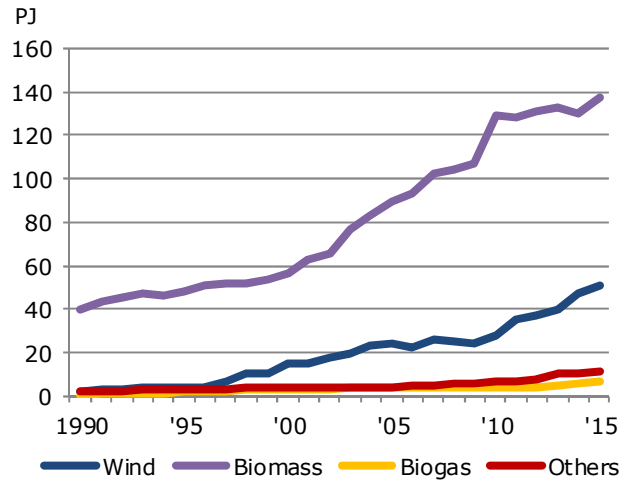


Production of renewable energy has increased dramatically since 1990. In addition, net imports have increased. Net imports of renewable energy (including stock changes etc.) were 50.7 PJ in 2015.

In 2015 consumption of renewable energy was 205.8 PJ, which is 6.4% more than the year before. Observed consumption of renewable energy was 45.5 PJ in 1990.

The increased use of renewable energy makes a significant contribution to reducing Danish CO2 emissions.

Renewable energy - consumption by energy product

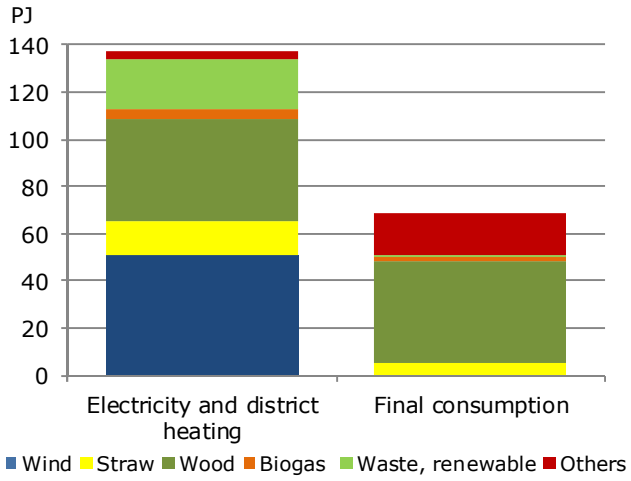


Consumption of renewable energy increased from 193.5 PJ in 2014 to 205.8 PJ in 2015.

Consumption from biomass increased from 130.4 PJ in 2014 to 137.1 PJ in 2015, while wind power rose from 47.1 PJ to 50.9 PJ.

The increasing consumption of biomass since 2000 entails higher consumption of wood chips, wood pellets and firewood. In the period 2000 to 2015 the increase was 447%, 603%, and 97.0%, respectively.

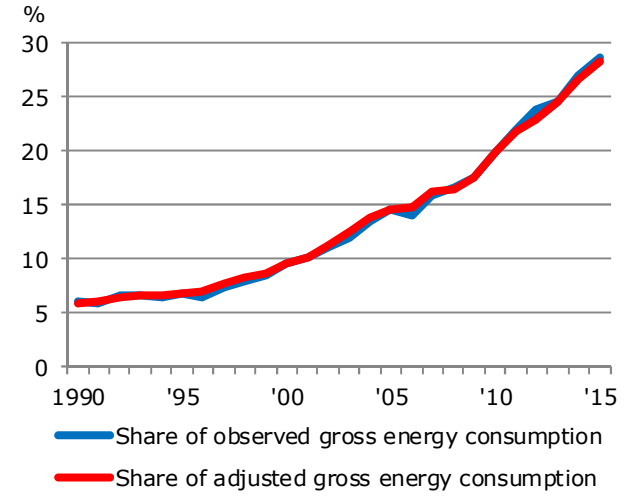
Use of renewable energy in 2015



Total consumption of renewable energy in 2015 (production plus net imports) was 206 PJ, of which 137.5 PJ was used in the production of electricity and district heating. Wind power, wood pellets and renewable waste were predominant in the production of electricity and district heating, accounting for 50.9 PJ, 21.4 PJ and 20.8 PJ, respectively. Consumption of wood otherwise, straw and biogas accounted for 21.6 PJ, 14.3 PJ and 4.7 PJ, respectively.

A total of 68.6 PJ of renewable energy was included in final energy consumption, i.e. for process consumption and consumption for heating in the agriculture and industry sector, in the commercial and public services sector, as well as for heating in households and for transport. In final energy consumption, wood, particularly firewood, is most prominent.

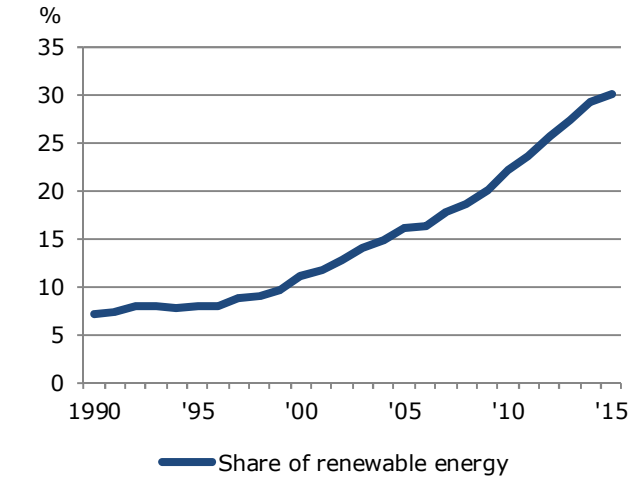
Renewable energy - share of total energy consumption



Observed energy consumption shows the registered amount of energy consumed in a calendar year. In 2015 renewable energy covered 28.6% of total observed energy consumption, as opposed to 26.9% the year before. In 1990 this figure was 6.0%.

Adjusted gross energy consumption is found by adjusting observed energy consumption for the fuel consumption linked to foreign trade in electricity, and by adjusting for fluctuations in climate with respect to a normal weather year. In 2015 renewable energy's share of adjusted gross energy consumption was 28.3%, as opposed to 26.6% the previous year. In 1990 this figure was 5.8%.

Share of renewable energy according to the EU method of calculation



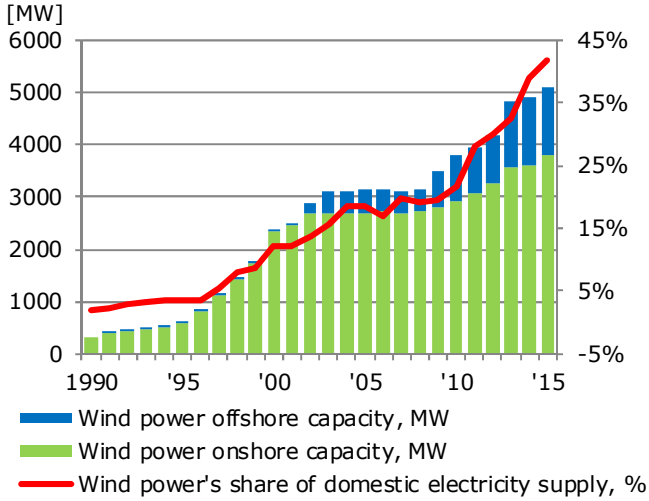
The EU Directive on renewable energy prescribes a different method for calculating the share of renewable energy than those used above.

The EU's calculation is based on final energy consumption expressed as energy consumption by end-users, excl. border trade and consumption for non-energy purposes, incl. distribution losses and own use in the production of electricity and district heating. In the EU method, renewable energy is defined as end-consumption of renewables as well as consumption of renewables for the production of electricity and district heating.

According to the EU method of calculation, the share of renewable energy was 30.0% in 2015 as opposed to 29.2% the year before, i.e. 1.5 percentage points higher than if the share of renewable energy is calculated as the share of the total energy consumption (p. 8).

Sources: 2004-2014 Eurostat. 1990-2003 and 2015 Danish Energy Agency calculations.

Wind power capacity and wind power's share of domestic electricity supply

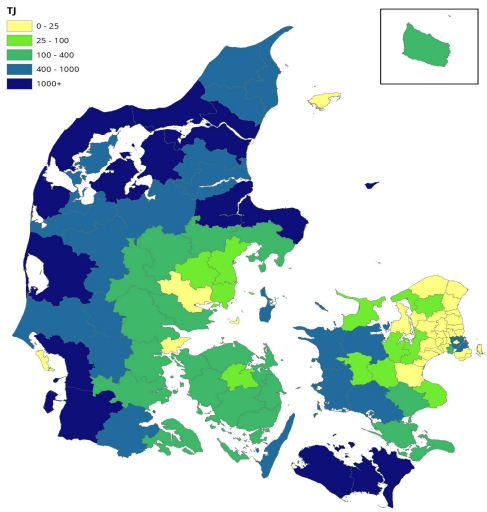


In 2015, wind power production accounted for 41.8% of domestic electricity supply, compared with 38.8% in 2014 and 1.9% in 1990.

Wind power capacity was 5075 MW in 2015, as opposed to 4888 MW the year before. In 2015 onshore and offshore wind turbine capacities were 3804 MW and 1271 MW, respectively. In 1990 there were only onshore wind turbines and they accounted for a wind power capacity of 326 MW.

Trends in wind power capacity and production do not always correspond, as annual wind power generation is highly dependent on wind conditions, which can be quite variable in Denmark. Furthermore, when capacity goes up, this is not reflected fully in the production until in the following year, as production from new capacity is limited to the part of the year in which the installations are in operation.

Wind power onshore by municipality



Total wind-power production was 50.9 PJ in 2015. Of this, onshore installations accounted for 65.8% and offshore installations accounted for 34.2%.

Wind power generation from onshore installations varies across Denmark. Municipalities with west-facing coastlines have many wind turbines, and the favourable wind conditions in these areas contribute to high production from these installations.

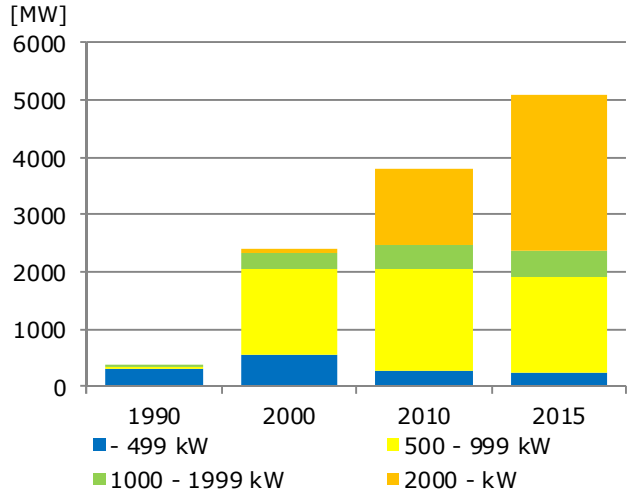
In 2015 the turbines in the ten municipalities with the highest wind power production thus together accounted for a production of 16.2 PJ, or 48.3% of total wind power production from onshore installations.

Wind power - number of turbines and capacity by size

	1980	1990	2000			2014			2015		
	Onshore	Onshore	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Total
Total no. of turbines	**68**	**2 664**	**6 193**	**41**	**6 234**	**4 768**	**516**	**5 284**	**5 263**	**516**	**5 779**
- 499 kW	68	2 654	3 651	11	3 662	1 456	11	1 467	1 909	11	1 920
500 - 999 kW	-	8	2 283	10	2 293	2 503	10	2 513	2 473	10	2 483
1 000 - 1 999 kW	-	2	251	-	251	359	-	359	362	-	362
2 000 - kW	-	-	8	20	28	450	495	945	519	495	1 014
Total wind power capacity [MW]	**3**	**326**	**2 340**	**50**	**2 390**	**3 616**	**1 271**	**4 888**	**3 804**	**1 271**	**5 075**
- 499 kW	3	317	533	5	538	227	5	232	216	5	221
500 - 999 kW	-	6	1 512	5	1 517	1 705	5	1 710	1 683	5	1 688
1 000 - 1 999 kW	-	3	279	-	279	438	-	438	444	-	444
2 000 - kW	-	-	16	40	56	1 246	1 261	2 507	1 461	1 261	2 722

Note: In 2015, a number of small wind-turbine installations were put into operation, and these have resulted in an increase in installations of less than 500 kW.

Wind power capacity by size of turbine

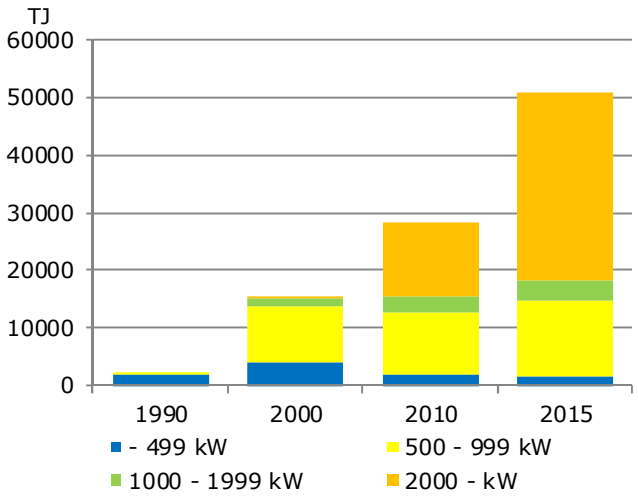


The total number of wind turbines increased by 495 from 2014 to 2015, and the total wind power capacity grew by 188 MW.

For some years now, the trend has been toward fewer but larger turbines. There were 455 fewer turbines in 2015 than in 2000. This is due to a fall of 1742 in the number of turbines with capacities of 499kW and below, as well as an increase of 1287 in the number of larger turbines.

Similarly, turbines with a capacity below 500kW accounted for only 4.4% of the total capacity in 2015, whereas this figure was 22.5% in 2000.

Wind power production by size of turbine



The development toward larger turbines is even more evident in terms of wind power production.

Where turbines larger than 2 MW accounted for 53.6% of wind power capacity, in 2015 these turbines produced 63.8% of the total energy from wind turbines.

Similarly, in 2015 wind turbines with a capacity below 500kW accounted for only 3.2% of the total production.

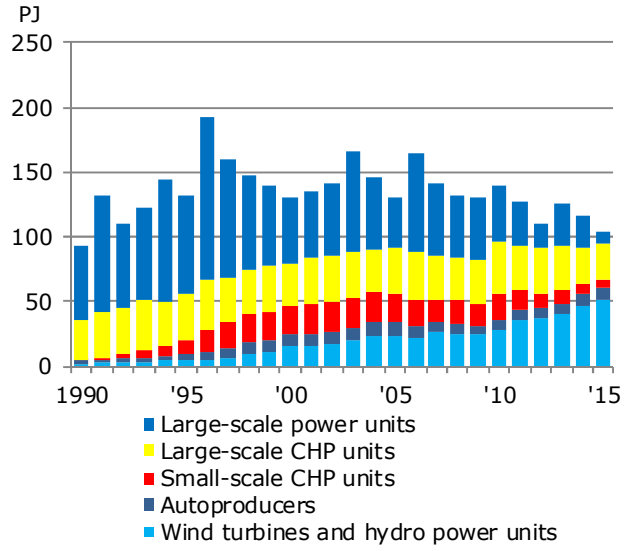
The most important reason for this is that by far the majority of the turbines established offshore have capacities above 2 MW, and that offshore wind turbines have a higher production in terms of their capacity than onshore wind turbines.

Electricity production by type of producer

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90 -'15
Total electricity production(gross)	**97 508**	**93 518**	**129 776**	**130 469**	**139 906**	**125 072**	**115 854**	**104 207**	**11.4%**
Large-scale power units	44 155	7 494	8 871	49	336	189	82	47	-99.4%
Large-scale CHP units	52 056	80 639	73 809	74 932	83 940	65 598	52 115	37 358	-53.7%
- of which electricity production	36 026	50 157	41 584	38 402	43 221	31 023	24 504	8 919	-82.2%
Small-scale CHP units	18	988	21 547	21 254	19 216	10 454	7 119	6 298	537%
Autoproducers	1 118	2 099	10 168	10 336	8 203	6 877	7 257	7 384	252%
- Electricity production [1]	-	-	9	7	6	4	3	3	•
- CHP [1]	1 118	2 099	10 158	10 328	8 197	6 873	7 254	7 381	252%
Wind turbines [1]	38	2 197	15 268	23 810	28 114	40 044	47 083	50 879	2216%
Hydropower units [1]	123	101	109	81	74	48	54	65	-35.6%
Photovoltaics [1]	-	-	4	8	22	1 863	2 144	2 175	•
Own use in production	**-5 731**	**-6 118**	**-5 776**	**-6 599**	**-7 159**	**-5 774**	**-4 929**	**-3 738**	**-38.9%**
Large-scale power units	- 2 787	- 590	- 312	- 2	- 17	- 13	- 5	- 0	-99.9%
Large-scale CHP units	- 2 944	- 5 509	- 4 993	- 6 033	- 6 602	- 5 275	- 4 505	- 3 301	-40.1%
Small-scale CHP units	-	- 19	- 472	- 564	- 541	- 487	- 419	- 437	2198%
Total electricity production (net)	**91 777**	**87 400**	**123 999**	**123 870**	**132 747**	**119 298**	**110 925**	**100 468**	**15.0%**
Net imports of electricity	- 4 453	25 373	2 394	4 932	- 4 086	3 892	10 279	21 282	-16.1%
Domestic electricity supply	**87 323**	**112 773**	**126 393**	**128 802**	**128 661**	**123 190**	**121 204**	**121 750**	**8.0%**
Transformation consumption	-	-	- 1	-	- 110	- 522	- 407	- 829	•
Distribution losses etc. [2]	- 7 497	- 8 886	- 7 650	- 5 573	- 9 482	- 6 928	- 7 149	- 6 660	-25.0%
Domestic electricity consumption	**79 827**	**103 887**	**118 742**	**123 228**	**119 068**	**115 740**	**113 649**	**114 261**	**10.0%**
Consumption in the energy sector	- 1 214	- 1 748	- 1 893	- 2 761	- 3 445	- 3 764	- 3 744	- 3 744	114%
Final electricity consumption	**78 613**	**102 139**	**116 849**	**120 467**	**115 623**	**111 975**	**109 905**	**110 517**	**8.2%**

[1] Gross and net production are by definition identical. [2] Determined as the difference between supply and consumption.

Electricity production by type of producer



In 2015 electricity production was 104.2 PJ, which is a decrease of 10.1% compared with 2014. As domestic electricity supply showed a slight increase, the reason for this decrease is primarily that Denmark had considerably higher net imports of electricity in 2015 opposed to 2014.

Electricity is generated at large-scale power units, at small-scale CHP units, by wind turbines and by autoproducers (i.e. small producers, whose main product is not energy).

Large-scale power units generate electricity, partly as separate electricity production, and partly as combined electricity and heat production. Of the total electricity production of 104.2 PJ, 37.4 PJ (36%) were generated from large-scale power units - 8.9 PJ as separate production. Separate electricity production varies greatly from year to year due to fluctuations in foreign trade in electricity. Electricity production from small-scale units and autoproducers was 6.3 PJ and 7.4 PJ, respectively. Wind turbines generated 50.9 PJ of electricity, an increase of 8.1% relative to 2014.

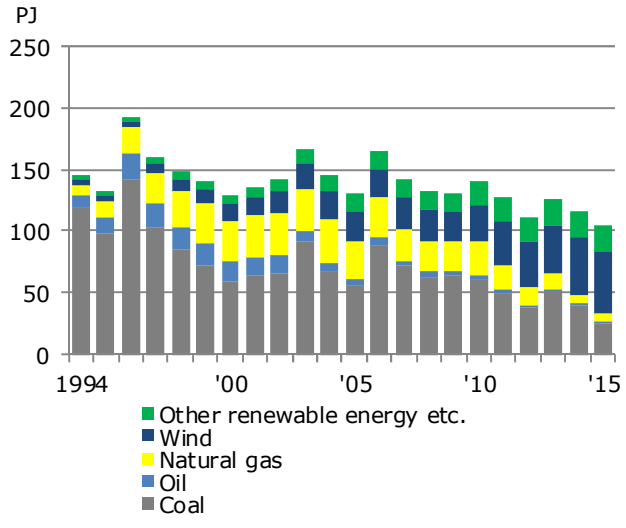
Electricity production by fuel

Direct energy content [TJ]	1994	2000	2005	2010	2013	2014	2015	Change '94 -'15
Total electricity production (gross)	**144 707**	**129 776**	**130 469**	**139 906**	**125 072**	**115 854**	**104 207**	**-28.0%**
Oil	9 547	15 964	4 933	2 783	1 261	1 138	1 123	-88.2%
- of which orimulsion	-	13 467	-	-	-	-	-	•
Natural gas	8 206	31 589	31 606	28 464	12 302	7 519	6 536	-20.4%
Coal	119 844	60 022	55 666	61 222	51 451	39 828	25 579	-78.7%
Surplus heat	-	139	-	-	-	-	-	•
Waste, non-renewable	836	2 002	2 938	2 689	2 574	2 607	2 706	224%
Renewable energy	**6 275**	**20 060**	**35 326**	**44 749**	**57 484**	**64 763**	**68 262**	**988%**
Solar	-	4	8	22	1 863	2 144	2 175	•
Wind	4 093	15 268	23 810	28 114	40 044	47 083	50 879	1143%
Hydro	117	109	81	74	48	54	65	-44.7%
Biomass	1 743	3 928	10 410	15 253	14 153	13 837	13 396	668%
- Straw	293	654	3 088	3 968	2 620	2 293	2 080	611%
- Wood	429	828	3 730	7 998	8 383	8 357	7 987	1760%
- Biooil	-	0	1	1	4	-	22	•
- Waste, renewable	1 021	2 447	3 591	3 286	3 146	3 186	3 307	224%
Biogas	321	751	1 017	1 285	1 375	1 645	1 747	444%

Electricity from renewable energy: Share of domestic electricity supply

[%]	1994	2000	2005	2010	2013	2014	2015	Change '94 -'15
Renewable energy	**5.3**	**15.9**	**27.4**	**34.8**	**46.7**	**53.4**	**56.0**	**962%**
Solar	0.0	0.0	0.0	0.0	1.5	1.8	1.8	•
Wind	3.4	12.1	18.5	21.9	32.5	38.8	41.8	1115%
Hydro	0.1	0.1	0.1	0.1	0.0	0.0	0.1	-46.0%
Biomass	1.5	3.1	8.1	11.9	11.5	11.4	11.0	650%
- Straw	0.2	0.5	2.4	3.1	2.1	1.9	1.7	595%
- Wood	0.4	0.7	2.9	6.2	6.8	6.9	6.6	1717%
- Biooil	-	0	0	0	0	-	0	•
- Waste, renewable	0.9	1.9	2.8	2.6	2.6	2.6	2.7	216%
Biogas	0.3	0.6	0.8	1.0	1.1	1.3	1.4	411%

Electricity production by fuel



In 2015, 25.6 PJ (24.5%) of total electricity production was generated by coal. Natural gas accounted for 6.5 PJ (6.3%) of electricity production. Oil and non-renewable waste accounted for 1.1 PJ (1.1%) and 2.7 PJ (2.6%) of the electricity production, respectively.

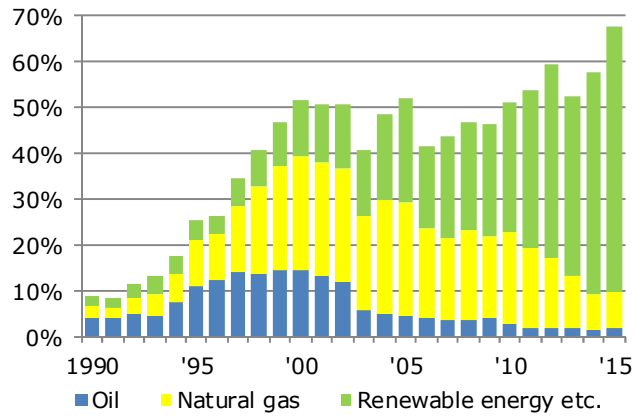
Electricity production based on renewables was 68.3 PJ in 2015. This is 5.4% more than production in 2014.

Electricity production based on biomass contributed 13.4 PJ, which is 3.2% less than in 2014. With 50.9 PJ, wind turbines accounted for the greatest contribution to electricity production based on renewable energy. This is the second year in a row the percentage of energy coming from wind power has exceeded production based on coal.

Fuel consumption for electricity production

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '94 -'15
Total fuel consumption	**261 835**	**227 001**	**276 974**	**265 330**	**286 006**	**238 451**	**211 156**	**180 711**	**-20.4%**
Oil	47 533	9 215	40 356	11 867	8 087	4 127	3 249	3 115	-66.2%
- of which orimulsion	-	-	33 503	-	-	-	-	-	•
Natural gas	-	6 181	68 868	65 912	57 229	26 877	15 898	14 378	133%
Coal	214 012	207 173	134 205	127 119	139 714	113 951	89 820	58 374	-71.8%
Waste, non-renewable	-	262	5 294	7 650	9 085	8 807	9 280	9 382	3482%
Renewable energy	**290**	**4 170**	**28 252**	**52 784**	**71 891**	**84 689**	**92 909**	**95 462**	**2189%**
Solar	-	-	4	8	22	1 863	2 144	2 175	•
Wind	38	2 197	15 268	23 810	28 114	40 044	47 083	50 879	2216%
Hydro	123	101	109	81	74	48	54	65	-35.6%
Biomass	90	1 428	11 009	26 470	40 808	39 686	40 101	38 620	2604%
- Straw	-	363	2 021	7 715	10 213	6 933	5 983	5 806	1499%
- Wood	90	745	2 518	9 405	19 492	21 941	22 777	21 241	2751%
- Biooil	-	-	0	0	-	48	-	107	•
- Waste, renewable	-	320	6 470	9 350	11 104	10 765	11 342	11 467	3482%
Biogas	39	444	1 861	2 415	2 872	3 047	3 527	3 723	738%

Other fuels than coal for electricity production

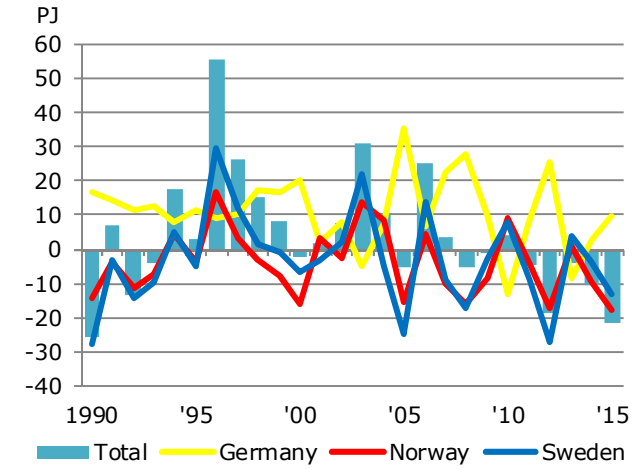


In the early 1990s, coal was the dominant fuel used in the production of electricity. In 1990, other types of fuel than coal only accounted for just 8.7% of total fuel consumption.

The share of fuels other than coal increased throughout the 1990s and in the period from 2000 to 2010 amounted to 40-53%. In recent years this share has been more than 50%, and in 2015, oil, natural gas and renewable energy etc. together accounted for 67.7% of fuel consumption for electricity production.

The share of other fuels than coal has increased compared with 2014. This is primarily because use of coal was lower in 2015 than in 2014.

Net exports of electricity by country



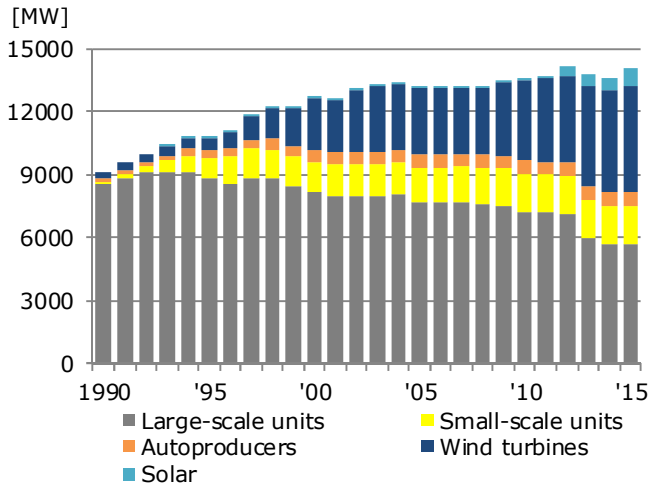
Danish foreign trade in electricity varies considerably from year to year. Foreign trade is strongly affected by price trends on the Nordic electricity exchange, Nordpool, which, in turn, is significantly influenced by varying precipitation patterns in Norway and Sweden, where electricity production is dominated by hydropower.

In 2015, Denmark had overall net imports of electricity of 21.3 PJ. This was the result of net imports from Norway and Sweden of 17.8 PJ and 13.1 PJ, respectively and net exports to Germany of 9.7 PJ.

Electricity capacity, end of year

[MW]	1994	2000	2005	2010	2013	2014	2015	Change '94 -'15
Total	**10 767**	**12 598**	**13 088**	**13 450**	**13 795**	**13 630**	**14 010**	**30.1%**
Large-scale units	9 126	8 160	7 710	7 175	5 964	5 689	5 689	-37.7%
- Electricity	2 186	1 429	834	840	841	841	841	-61.5%
- CHP	6 940	6 731	6 877	6 335	5 123	4 848	4 848	-30.1%
Small-scale units	773	1 462	1 579	1 819	1 814	1 822	1 837	138%
Autoproducers	339	574	657	638	618	616	619	82.6%
Solar	0	1	3	7	571	607	782	•
Wind	521	2 390	3 128	3 802	4 820	4 888	5 075	874%
Hydro	8	10	11	9	9	9	7	-17.1%

Electricity capacity

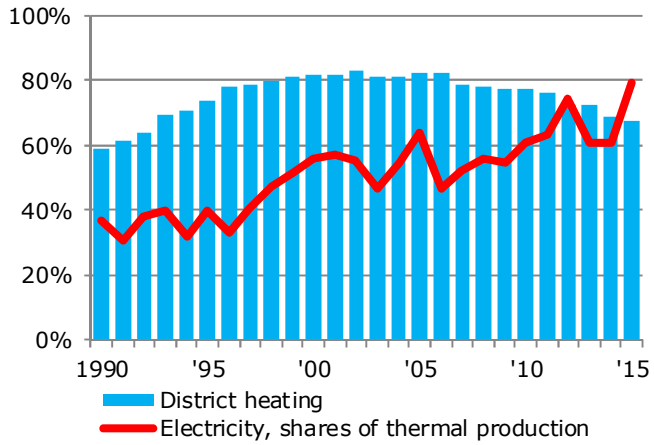


Up until the early 1990s electricity production capacity was dominated by the large-scale power units. Up through the 1990s, electricity capacity in small-scale units and secondary installations (autoproducers) increased. By the turn of the millennium, this capacity corresponded to a quarter of the capacity of the large-scale units.

A number of units at the large-scale plants which have in fact been out of operation for a number of years have now been scrapped and capacity at the large-scale plants therefore fell significantly. Capacity at small-scale units has increased slightly and has remained quite constant over recent years. Capacity at small-scale and autoproducers' installations now corresponds to one-third of the capacity of thermal plants.

Wind power capacity has also been increasing and in 2015 accounted for 5075 MW which is an increase of 188 MW or 3.8% compared with 2014.

CHP share of thermal power and district heating production



By generating electricity and district heating together, it is possible to exploit the large amounts of heat generated through thermal production of electricity.

In 2015, 79.1% of thermal electricity production (i.e. total production excl. wind, solar and hydropower) was produced simultaneously with heating. This is an increase of 18 percentage points compared with 2014. It is primarily because electricity production without simultaneous production of heat (condensate) at thermal plants has fallen because of large net imports of electricity and increasing wind power generation.

In 2015, 67.4% of district heating was produced with electricity. This is 1.4 percentage points less than in 2014, and it reflects the situation that district heating production from combined heat and power plants is dropping, while district heating production from plants without co-production of electricity is increasing.

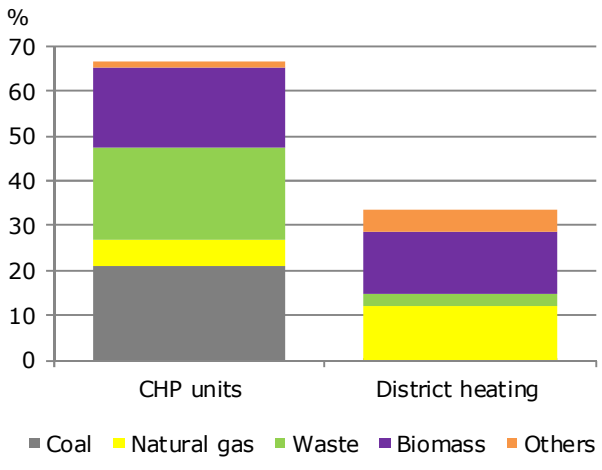
Heat production by type of production plant, 2015

	Number of units	Electricity capacity [MW]	Heat capacity [MJ/s]	Share of total heat supply [%]
Total	**2 718**	**7 292**	**23 609**	**100**
Large-scale CHP units	27	4 848	5 885	39.3
Small-scale CHP units	632	1 856	2 307	11.9
District heating units	1 659	-	12 916	28.7
Autoproducers				
- CHP units	291	589	1 567	15.3
- Heating units	109	-	935	4.8

Heat production by primary fuel, 2015

	CHP by plant				Heat producers by plant		
Primary fuel of unit	Number of units	Electricity capacity [MW]	Heat capacity [MJ/s]	Share of total heat supply [%]	Number of units	Heat capacity [MJ/s]	Share of total heat supply [%]
Total	**950**	**7 292**	**9 759**	**66.5**	**1 768**	**13 851**	**33.5**
Coal	12	3 169	3 342	20.9	1	10	0.1
Natural gas	504	1 989	2 761	6.0	545	4 328	12.0
Oil	75	168	378	0.2	306	3 292	0.5
Waste	31	362	1 013	20.4	15	149	2.5
Biogas	159	100	132	1.0	25	62	0.2
Biomass	24	904	1 523	17.9	297	1 520	14.0
Biooil	-	-	-	-	56	693	0.4
Surplus heat	-	-	-	-	22	273	2.5
Solar heating	-	-	-	-	79	509	0.7
Heat pumps and electric boilers	-	-	-	-	54	445	0.7
No production in 2015	145	602	609	-	368	2 571	-

Heat supply by primary fuel, 2015



District heating supply takes place partly at CHP units and partly at units exclusively producing district heating. In 2015 CHP units produced 66.5%, of which: large-scale CHP units contributed 39.3%, small-scale CHP units contributed 11.9%, and CHP units at autoproducers contributed 15.3%.

Some CHP and district heating units use several types of fuel. A break down by types of primary fuel used by units in 2015 reveals that CHP units using coal as the primary fuel accounted for 20.9% of heat supply, while units using natural gas, waste or biomass as primary fuel accounted for 6.0%, 20.4% and 17.9%, respectively, of total district heating supply.

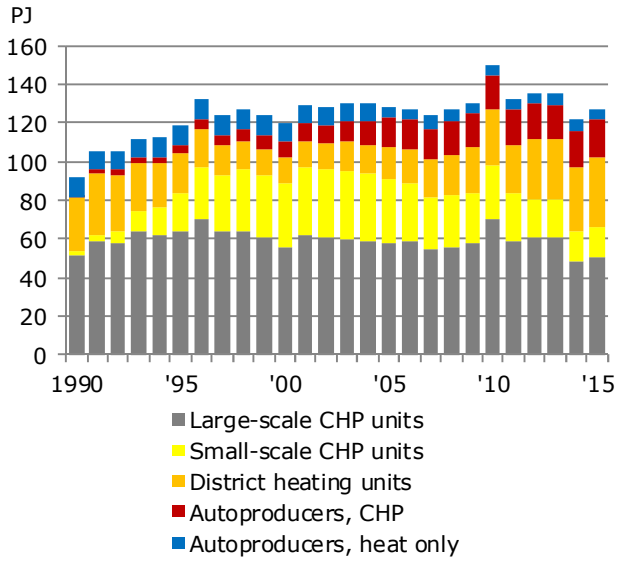
For units that produce district heating alone, units primarily firing with biomass contributed 14.0% and natural gas units contributed 12.0% of total district heating supply.

District heating production by type of production plant

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90 -'15
Total production (gross)	**79 016**	**92 411**	**119 702**	**128 382**	**150 393**	**135 086**	**121 583**	**127 590**	**38.1%**
Large-scale CHP units	30 757	51 511	56 271	58 248	69 955	60 636	48 900	50 730	-1.5%
Small-scale CHP units	30	2 145	33 027	32 727	28 462	19 928	15 628	15 630	629%
District heating by type of producer	43 655	27 755	12 516	16 621	28 816	31 364	32 334	35 609	28.3%
Autoproducers									
- CHP units [1)]	130	694	8 375	14 884	17 625	17 727	19 128	19 654	2732%
- Heating units [1)]	4 444	10 306	9 513	5 901	5 537	5 431	5 593	5 967	-42.1%
Consumption in production	**-**	**-**	**-1 539**	**-1 303**	**-1 207**	**-1 183**	**-1 154**	**- 617**	•
Large-scale CHP units	-	-	- 866	- 384	- 331	-	-	-	•
Small-scale CHP units	-	-	- 637	- 656	- 643	- 870	- 795	- 330	•
District heating units	-	-	- 36	- 262	- 233	- 312	- 359	- 286	•
Total production (net)	**79 016**	**92 411**	**118 163**	**127 079**	**149 187**	**133 904**	**120 429**	**126 974**	**37.4%**
Net imports	-	122	144	153	174	155	141	151	23.4%
Domestic supply	**79 016**	**92 533**	**118 307**	**127 232**	**149 360**	**134 059**	**120 570**	**127 125**	**37.4%**
Consumption in refineries	-	- 428	- 275	- 355	- 584	- 582	- 578	- 578	35.0%
Distribution losses	-19 754	-18 507	-23 661	-25 446	-29 872	-26 812	-24 114	-25 425	37.4%
Final consumption	**59 262**	**73 599**	**94 370**	**101 430**	**118 904**	**106 665**	**95 878**	**101 122**	**37.4%**

[1)] *Gross and net production are by definition identical.*

District heating production by type of production plant



District heating production is generated at large-scale CHP units, small-scale CHP units, district heating units and by autoproducers such as industrial enterprises, horticulture and waste treatment enterprises.

The greatest contribution to district heating production comes from large-scale CHP units. Throughout the 1990s, the share produced at small-scale CHP units and by autoproducers such as CHP units, at CHP units at waste treatment facilities, in industry and in horticulture etc. increased.

However, in recent years production at small-scale CHP units has fallen, while production at district heating plants has gone up again.

In 2015 total district heating production was 127.6 PJ, which is a rise of 4.9% compared with 2014. Compared with 2000, district heating production increased by 6.6%; compared with 1990 it increased by 38.1%.

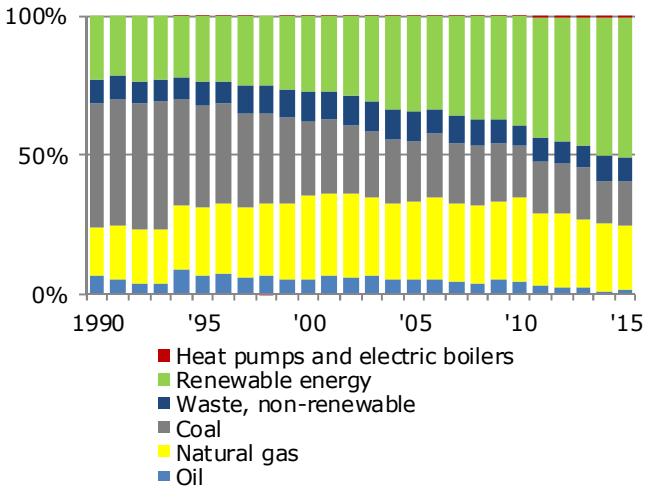
District heating production by fuel

Direct energy content [TJ]	1994	2000	2005	2010	2013	2014	2015	Change '94 -'15
Total production (gross)	**113 103**	**119 702**	**128 382**	**150 393**	**135 086**	**121 583**	**127 590**	**12.8%**
Oil	6 335	4 433	6 103	4 627	2 062	1 156	1 406	-77.8%
- of which orimulsion	-	1 291	-	-	-	-	-	•
Natural gas	25 370	41 620	39 377	44 844	29 996	23 346	23 573	-7.1%
Coal	55 748	38 873	34 189	36 337	32 336	24 648	26 025	-53.3%
Surplus heat	2 838	3 676	3 174	2 518	2 288	2 564	2 613	-7.9%
Electricity excl. heat pumps	-	-	-	110	490	388	794	•
Electricity, heat pumps	12	1	-	0	16	14	29	154%
Waste, non-renewable	6 084	8 651	10 713	10 627	10 748	11 396	12 251	101%
Renewable energy	**16 715**	**22 448**	**34 826**	**51 331**	**57 150**	**58 070**	**60 898**	**264%**
Solar	6	24	53	139	464	698	835	14429%
Geothermal	21	29	86	106	114	83	70	231%
Biomass	16 304	21 462	33 509	49 912	55 149	55 431	57 810	255%
- Straw	4 318	5 696	7 681	11 507	10 827	9 728	10 822	151%
- Wood	4 327	5 153	12 086	23 731	30 478	31 097	31 507	628%
- Biooil	223	39	650	1 685	707	678	508	128%
- Waste, renewable	7 436	10 574	13 093	12 989	13 137	13 928	14 974	101%
Biogas	348	903	1 169	1 173	1 368	1 809	2 101	505%
Heat pumps	36	29	9	0	55	50	82	124%

Fuel consumption for district heating production

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90 -'15
Total fuel consumption	**75 443**	**69 830**	**73 228**	**78 758**	**95 889**	**88 267**	**80 724**	**85 251**	**22.1%**
Oil	51 304	4 766	3 726	4 322	4 554	2 147	1 050	1 193	-75.0%
- of which orimulsion	-	-	646	-	-	-	-	-	•
Natural gas	-	12 131	22 203	22 044	28 454	21 513	19 437	20 054	65.3%
Coal	13 527	30 898	19 459	17 121	18 245	16 225	12 367	13 104	-57.6%
Electricity	-	-	46	68	149	504	404	796	•
Waste, non-renewable	4 492	6 289	7 675	8 138	7 122	7 160	7 139	7 621	21.2%
Renewable energy	**6 120**	**15 746**	**20 120**	**27 065**	**37 364**	**40 719**	**40 326**	**42 485**	**170%**
Solar	-	6	24	53	143	475	700	848	14034%
Geothermal	-	48	58	172	212	229	166	140	192%
Biomass	6 105	15 611	19 425	26 125	36 288	39 232	38 286	40 063	157%
- Straw	290	3 640	5 013	5 934	8 269	8 541	7 605	8 467	133%
- Wood	324	3 541	4 983	9 484	17 365	21 110	21 230	21 752	514%
- Biooil	-	744	49	761	1 949	829	725	529	-28.9%
- Waste, renewable	5 491	7 686	9 380	9 946	8 705	8 751	8 726	9 314	21.2%
Biogas	15	81	582	707	721	728	1 125	1 352	1572%
Heat pumps	-	-	29	9	0	55	50	82	•

Fuel consumption for district heating production, percentage distribution



The upper table shows output, the amount of district heating produced, and the type of fuel used. For example, in 2015 a total of 127.6 PJ district heating was produced. The lower table shows input and the amount of fuel used to produce district heating. For example, in 2015 a total of 85.3 PJ fuel was used. Input can well be less than output. This is because of variations in the heat efficiency by which the different fuels are converted into district heating, and because the energy statistics assume that certain fuels have a heat efficiency of 200% and these are used at combined heat and power plants to a greater degree. For this reason, consumption of 13.1 PJ coal (lower table) results in district heating production of 26.0 PJ (upper table).

There has been a significant change in the fuel used in the production of district heating since 1990.

Production of district heating based on coal has fallen from about 50% to the current about 15%. The corresponding percentage based on renewable energy - primarily biomass - has increased from around 20% to today's slightly below 50% of district heating production.

Energy supply and consumption 2015

Direct energy content [TJ]	Total	Crude oil	Refinery feed-stocks	Refinery gas	LPG	Aviation gasoline	Motor gasoline	Other kerosene	JP1	Gas-/diesel-oil	Fuel oil	Waste oil	Petro-leum coke	Lubri-cation oil and bitumen
Energy supply														
- Primary production	330 662	-	-	-	-	-	-	-	-	-	-	-	-	-
- Recycling	-	-	-	-	-	-	-	-	-	-	-	39	-	-
- Imports	179 063	4 819	-	1 197	104	29 238	-	39 060	158 675	157 449	-	5 544	10 719	
- Exports	-194 506	-14 023	-	-4 380	-76	-58 497	-	-2 719	-109 848	-185 025	-	-80	-180	
- Border trade	-	-	-	-	-	2 957	-	-	-10 402	-	-	628	-	
- International marine bunkers	-	-	-	-	-	-	-	-	-18 580	-13 598	-	-	-101	
- Supply from blending	-	-1 533	-	6	-	-78	32	-1	- 699	2 414	-	-	3	
- Stock changes	-3 213	1 700	-	-60	14	-1 083	-	-3 610	-18 688	-11 553	-	1 113	104	
Statistical differences	3 459	- 68	0	239	11	-392	0	-56	1 943	453	-	1	-9	
Extraction and gasification	-	-	-	-	-	-	-	-	-	-	-	-	-	
Refineries														
- Input and net production	-315 465	9 106	16 580	5 342	-	86 903	-	6 252	137 795	54 056	-	-	-	
- Own use in production	-	-	-14 997	-	-	-	-	-	-	-603	-	-	-	
Used in distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	
Large-scale power units														
- Fuel used and production	-	-	-	-	-	-	-	-	-194	-4	-	-	-	
- Own use in production	-	-	-	-	-	-	-	-			-	-	-	
Large-scale CHP units														
- Fuel used and production	-	-	-	-0	-	-	-	-	-38	-951	-	-	-	
- Own use in production	-	-	-	-	-	-	-	-	-	-	-	-	-	
Renewable energy, selected														
- Wind	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	
Small-scale CHP units														
- Fuels used and production	-	-	-	-	-	-	-	-	-41	-1	-	-	-	
- Own use in production	-	-	-	-	-	-	-	-	-	-	-	-	-	
District heating units														
- Fuels used and production	-	-	-	-	-	-	-	-	-659	-101	-2	-	-	
- Own use in production	-	-	-	-	-	-	-	-	-	-	-	-	-	
Autoproducers														
- Electricity units	-	-	-	-	-	-	-	-	-	-	-	-	-	
- CHP units	-	-	-1 583	-39	-	-	-	-	-52	-635	-2	-	-	
- Heat units	-	-	-	-	-	-	-	-	-2	-1	-2	-	-	
Gas works	-	-	-	-	-	-	-	-	-14	-	-	-	-	
Biogas upgrading plants	-	-	-	-	-	-	-	-	-	-	-	-	-	
Distribution losses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	
Final consumption														
- Non-energy use	-	-	-	-	-	-	-	-	-	-	-	-	-10 536	
- Road	-	-	-	-	-	-58 088	-	-	-92 946	-	-	-	-	
- Rail	-	-	-	-	-	-	-	-	-3 356	-	-	-	-	
- Domestic sea transport	-	-	-	-	-	-	-	-	-5 601	-39	-	-	-	
- International aviation	-	-	-	-	-7	-	-	-36 972	-	-	-	-	-	
- Domestic aviation	-	-	-	-	-43	-0	-	-1 221	-	-	-	-	-	
- Military transport	-	-	-	-	-4	-2	-	-734	-610	-	-	-	-	
- Agriculture, forestry and horticulture	-	-	-	-180	-	-60	- 0	-	-13 669	-67	-	-1	-	
- Fishing	-	-	-	-12	-	-0	-	-	-5 193	-	-	-	-	
- Manufacturing	-	-	-	-911	-	-6	-18	-	-2 470	-1 760	-33	-6 570	-	
- Construction	-	-	-	-70	-	-7	-0	-	-4 724	-	-	-	-	
- Wholesale	-	-	-	-40	-	-	-1	-	-266	-0	-	- 0	-	
- Retail trade	-	-	-	-33	-	-	-0	-	-114	-0	-	-0	-	
- Private service	-	-	-	-150	-	-	-1	-	-686	-9	-0	-1	-	
- Public service	-	-	-	-157	-	-	-2	-	-1 139	-11	-	-2	-	
- Single-family houses	-	-	-	-483	-	-885	-5	-	-7 082	-	-	-628	-	
- Multi-family houses	-	-	-	-267	-	-	-4	-	-1 342	-15	-	-4	-	

Natural gas	Coal	Coke etc.	Solar energy	Wind power	Hydro power	Geo-ther-mal	Straw	Wood chips	Fire-wood	Wood pellets	Wood waste	Biogas	Bio met-hane	Waste	Biooil, biodie-sel etc.	Heat pumps	Electri-city	District heating	Gas-works gas
173 510	-	-	3 604	50 879	65	140	19 187	13 335	21 943	2 641	8 837	6 348	-	35 545	636	8 001	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24 743	66 454	439	-	-	-	-	-	3 334	2 547	33 542	-	-	-	4 147	10 304	-	56 321	151	-
-82 349	-2 219	-1	-	-	-	-	-	-	-	-	-	-	-	-	-1 084	-	-35 039	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-235	-	-	-	-
3 521	11 362	65	-	-	-	-	-	-	-	-	-	-	-	-	-3	-	-	-	-
650	307	1	-	-	-	-	-	-0	-	1	0	-	0	0	-6	-	-	0	0
-24 082	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-9 952	-71 012	-	-	-	-	-	-5 697	-4 929	-	-19 062	-1 254	-9	-105	-	-	-	37 358	50 730	-
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-	-	-	-	-50 879	-	-	-	-	-	-	-	-	-	-	-	-	50 879	-	-
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-5 453	-349	-	-	-	-	-	-2 893	-2 206	-	-417	-1 705	-2 994	-57	-8 624	-	-	6 298	15 630	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-437	-330	-
-15 439	-88	-	-848	-	-	-140	-5 658	-8 754	-	-1 928	-507	-267	-163	-499	-529	-	-829	35 609	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-286	-
-	-	-	-2 175	-	-	-	-	-	-	-	-	-13	-	-	-	-	2 178	-	-
-3 399	-29	-	-	-	-	-	-1	-170	-	-1	-1 389	-1 326	-36	-25 661	-107	-	7 381	19 654	-
-189	-	-	-	-	-	-	-23	-335	-	-	-336	-102	-2	-2 999	-	-	-48	5 967	-
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-	-	-	-	-	-	-	-	-	-	-	-	-1 011	1 011	-	-	-	-	-	-
-118	-	-	-	-	-	-	-	-	-	-	-	-	-1	-	-	-	-6 612	-25 425	-28
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-76	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-8 969	-	-	-	-
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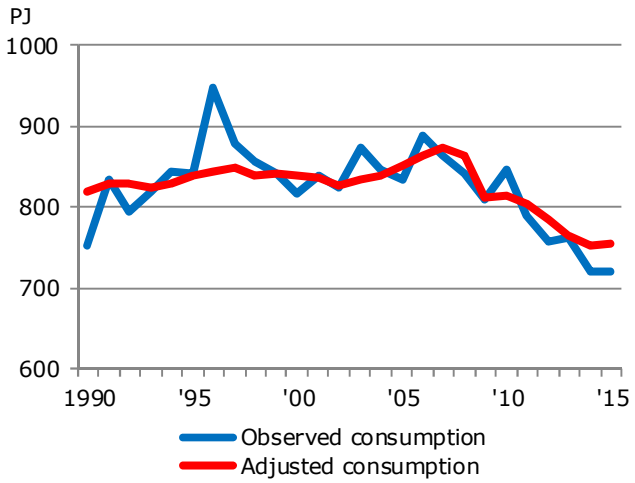
-421	-	-	-	-	-	-	-	-	-	-	-	-	-4	-	-	-	-1 300	-	-
-1 019	-	-	-	-	-	-	-	-	-	-	-	-	-11	-	-	-	-5 184	-3 977	-
-779	-	-	-	-	-	-	-	-	-	-	-	-	-8	-	-	-	-5 977	-3 070	-
-3 266	-	-	-	-	-	-	-	- 21	-	-	-19	-165	-34	-414	-	-	-16 060	-13 374	-12
-2 455	-	-	-87	-	-	-	-	- 147	-	-965	-	-	-26	-	-	-	-8 416	-9 949	-18
-20 673	-	-	-407	-	-	-	-2 949	-81	-24 490	-12 709	-	-	-218	-	-7	-5 524	-27 572	-32 064	-185
-3 762	-	-	-87	-	-	-	-	-	-	-	-	-	-40	-	-	-	-9 064	-33 633	-156

Gross energy consumption

	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Adjusted total gross energy consumption. Fuel equivalent [PJ]	**814**	**819**	**839**	**850**	**814**	**765**	**753**	**756**	**-7.7%**
By fuel	**814**	**819**	**839**	**850**	**814**	**765**	**753**	**756**	**-7.7%**
Oil	546	355	376	352	312	281	275	280	-21.0%
Natural gas	0	82	192	192	176	140	130	133	62.1%
Coal and coke	241	327	175	166	147	141	130	111	-66.2%
Waste, non-renewable	5	8	14	17	16	17	18	18	137%
Renewable energy	22	48	81	123	163	187	201	214	348%
By energy product	**814**	**819**	**839**	**850**	**814**	**765**	**753**	**756**	**-7.8%**
Oil	446	338	329	333	300	274	270	275	-18.6%
Natural gas	0	59	98	100	94	89	87	87	45.9%
Coal and coke	22	17	12	11	6	5	5	5	-71.2%
Waste, non-renewable	0	0	1	1	1	1	1	1	84.4%
Renewable energy	16	28	32	43	54	61	65	70	151%
Electricity	249	297	286	279	274	247	236	229	-22.9%
District heating	73	77	79	81	86	87	89	89	14.5%
Gas works gas	7	2	1	1	1	1	1	1	-66.5%
By use	**814**	**819**	**839**	**850**	**814**	**765**	**753**	**756**	**-7.8%**
Energy sector	17	28	44	52	46	41	39	42	49.5%
Non-energy use	16	13	13	12	11	12	11	11	-19.0%
Transport	144	172	203	218	212	207	209	212	23.3%
Agriculture and industry	228	226	226	213	187	168	163	161	-28.7%
Commercial and public services	130	132	125	127	130	120	115	112	-14.8%
Households	277	248	228	229	228	219	217	218	-12.2%
Observed total energy consumption [PJ]	**830**	**752**	**816**	**835**	**846**	**762**	**720**	**720**	**-4.3%**
Oil	555	343	370	348	316	281	272	279	-18.9%
Natural gas	0	76	186	188	185	138	119	120	57.7%
Coal and coke	252	255	166	155	164	136	107	76	-70.0%
Waste, non-renewable	5	7	14	17	17	17	17	18	156%
Renewable energy	23	45	79	122	168	187	193	206	353%
Foreign trade in electricity, net imports	- 4	25	2	5	- 4	4	10	21	-16.1%
Foreign trade in district heating, net imports	-	0	0	0	0	0	0	0	23.4%

Observed energy consumption and adjusted gross energy consumption

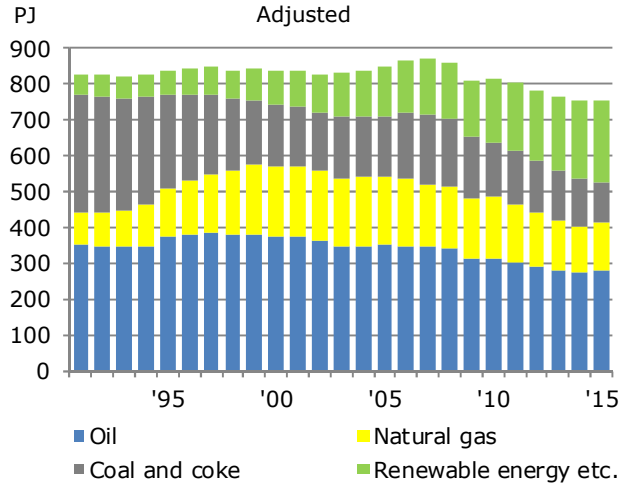


Observed energy consumption shows the registered amount of energy consumed in a calendar year. Gross energy consumption is derived by adjusting observed energy consumption for the fuel consumption linked to foreign trade in electricity. The adjusted gross energy consumption is moreover adjusted for climate variations with respect to a normal weather year. The purpose of this consumption figure is to provide a clearer picture of trends in domestic energy consumption.

Adjusted gross energy consumption was 756 PJ in 2015, which is 0.3% higher than the 2014 level. Compared with 1990, consumption fell by 7.7%.

Observed energy consumption was 720 PJ in 2015, which is the same as the 2014 level. Compared with 1990, observed energy consumption was 4,3% lower.

Gross energy consumption by fuel

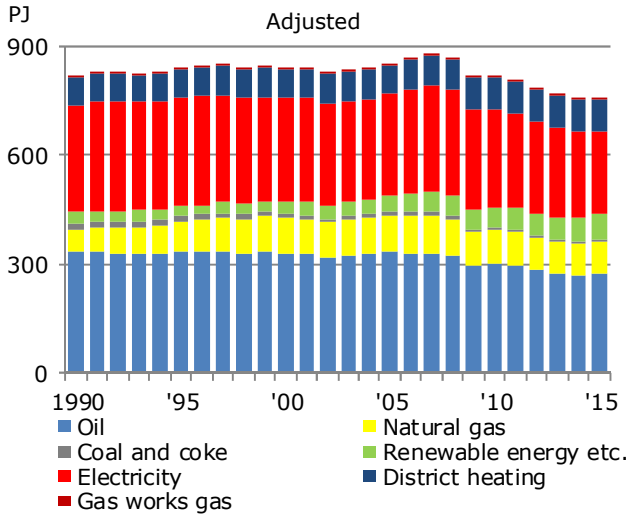


Adjusted gross energy consumption was 7.7% lower in 2015 than in 1990. However, consumption of individual fuels has followed rather varied trends.

Consumption of oil fell up until 1993, after which it rose again and stabilised, first at around 380 PJ and then at around 350 PJ. After this, there was another drop. From 1990 to 2015, oil consumption fell by 21.0%. Consumption of coal, which primarily takes place at CHP units, has decreased by 66.2% since 1990. In the period consumption of natural gas and renewable energy etc. (i.e. renewable energy and non-renewable waste) went up by 62.1% and 319%, respectively.

In 2015 consumption of oil, natural gas and renewable energy etc. increased by 2.0%, 1.9% and 6.1%, respectively, compared with the year before. Coal fell by 14.7% compared with 2014.

Gross energy consumption by energy product after transformation

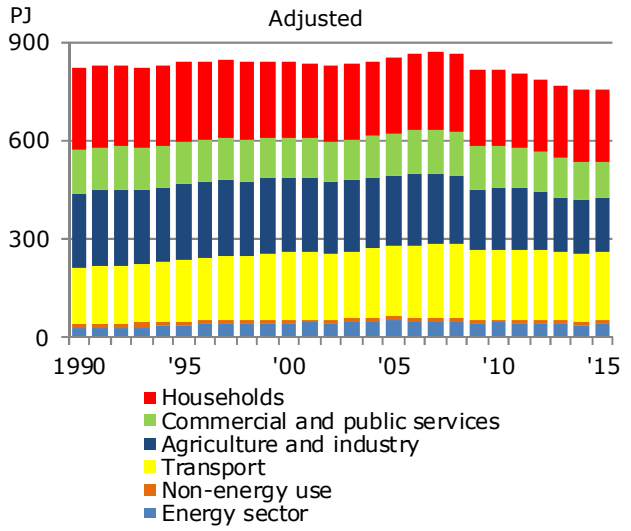


Gross energy consumption by energy product shows gross energy consumption after a number of fuels have been transformed to electricity, district heating, and gas works gas. In other words, the consumption of oil, natural gas, coal and renewable energy etc. is a statement of the volumes of these fuels used outside the transformation sector.

Fuel consumption for electricity production was 229 PJ in 2015, which is 2.8% less than in 2014. Compared with 1990, fuel consumption fell by 22.9% due to more efficient electricity production and a growing share of wind power.

Fuel consumption for district heating was 89 PJ in 2015, which is 0.5% lower than in 2014. Compared with 1990, fuel consumption increased by 14.5%. Also in this regard, production has become more efficient, as district heating production has increased by 38.1% since 1990.

Gross energy consumption by use



For gross energy consumption broken down by use, note that electricity, district heating and gas works gas are included with their associated fuel consumptions.

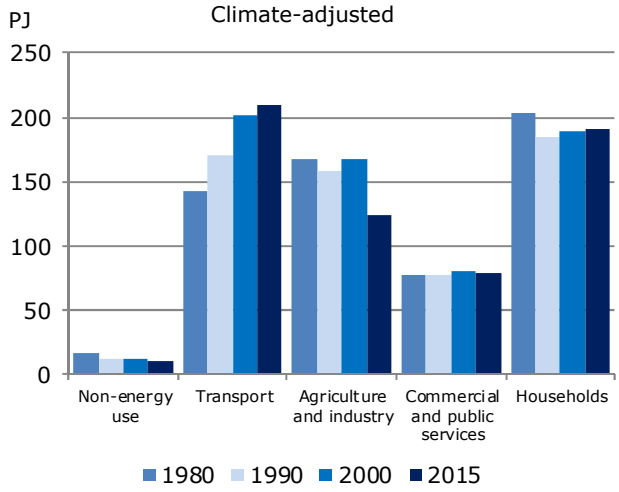
Gross energy consumption for transport and households was 1.3% and 0.4% higher respectively in 2015 than the year before, whereas in the agriculture and industry sector consumption fell by 0.8%. In the commercial and public services sector, gross energy consumption fell by 2.6%. In the energy sector (platforms in the North Sea and oil refineries) gross energy consumption fell by 7.8%.

Compared with 1990, gross energy consumption for transport increased by 23.3%. In the agriculture and industry sector, gross energy consumption fell by 28.7%, while it fell by 14.8% and 12.2%, respectively, for the commercial and public services sector and for households. From 1990 to 2015, developments were affected by the fact that electricity and district heating can be generated with ever smaller fuel consumption.

Final energy consumption

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total final energy consumption Climate adjusted	**609 602**	**604 097**	**650 815**	**665 869**	**633 250**	**610 669**	**609 011**	**614 751**	**1.8%**
By energy product									
Oil	430 738	321 946	312 354	312 290	283 644	260 063	256 743	259 972	-19.2%
Natural gas	-	50 060	72 674	72 415	67 638	65 097	63 540	62 317	24.5%
Coal and coke	21 623	17 243	12 389	10 826	5 559	5 418	5 456	4 972	-71.2%
Waste, non-renewable	288	470	763	1 239	922	890	1 043	866	84.4%
Renewable energy	15 928	27 833	32 228	43 216	53 578	61 149	64 947	69 975	151%
Electricity	78 378	103 212	117 590	120 731	114 700	111 893	110 642	110 819	7.4%
District heating	57 715	81 679	102 127	104 604	106 725	105 552	105 952	105 237	28.8%
Gas works gas	4 930	1 654	691	547	485	607	688	592	-64.2%
By use									
Non-energy use	**16 253**	**13 004**	**12 619**	**12 064**	**11 026**	**11 651**	**10 573**	**10 536**	**-19.0%**
Total transport	**143 337**	**170 216**	**201 209**	**215 789**	**209 731**	**205 259**	**207 258**	**210 095**	**23.4%**
Road transport	100 945	129 943	153 666	161 923	161 215	155 997	156 504	160 079	23.3%
Rail transport	5 016	4 765	4 339	4 488	4 728	4 740	4 795	4 785	0.4%
Sea transport, domestic	5 588	6 344	6 857	8 026	6 533	6 293	5 024	5 640	-11.1%
Aviation	23 642	27 515	34 822	37 627	35 785	36 300	39 125	38 242	39.0%
Military transport	8 145	1 649	1 525	3 726	1 470	1 930	1 810	1 350	18.1%
Total agriculture and industry	**167 679**	**158 790**	**167 113**	**158 242**	**137 014**	**124 991**	**123 467**	**123 703**	**-22.1%**
Agriculture, forestry and horticulture	29 818	33 087	32 428	29 322	29 146	28 039	27 875	27 551	-16.7%
Fishing	7 312	10 785	9 451	7 488	6 049	5 209	4 856	5 205	-51.7%
Manufacturing	124 557	108 624	117 583	113 280	94 679	85 120	84 207	84 392	-22.3%
Construction	5 992	6 295	7 651	8 152	7 140	6 623	6 528	6 554	4.1%
Total commercial and public services	**78 314**	**77 047**	**80 599**	**85 045**	**83 893**	**81 752**	**80 210**	**79 805**	**3.6%**
Wholesale	19 045	13 795	13 893	12 906	11 493	11 081	10 694	10 688	-22.5%
Retail trade	9 702	8 883	9 323	9 991	10 939	10 482	10 324	10 151	14.3%
Private service	25 955	28 812	32 901	36 238	36 653	35 909	35 385	34 967	21.4%
Public service	23 612	25 557	24 481	25 909	24 807	24 281	23 807	24 000	-6.1%
Total households	**204 018**	**185 039**	**189 275**	**194 729**	**191 585**	**187 015**	**187 503**	**190 612**	**3.0%**
Single-family houses	155 706	137 383	139 568	144 258	140 888	137 101	137 263	140 596	2.3%
Multi-family houses	48 312	47 656	49 706	50 471	50 696	49 914	50 240	50 015	5.0%
Observed consumption Total final energy consumption	**616 998**	**580 458**	**632 528**	**658 455**	**659 750**	**613 034**	**587 852**	**605 964**	**4.2%**

Final energy consumption by use

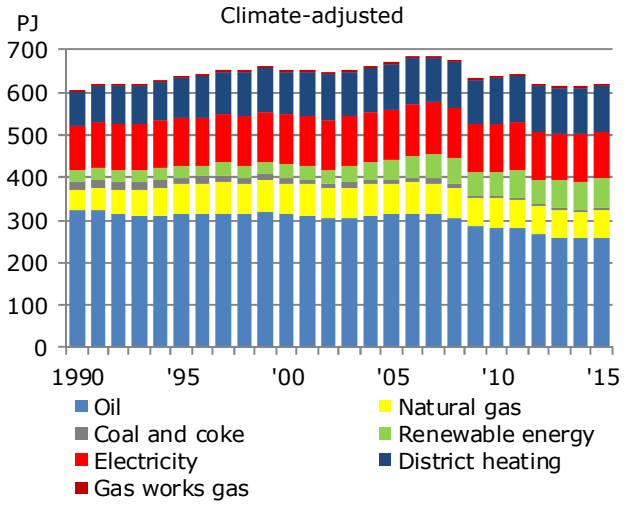


Final energy consumption includes consumption for transport and non-energy purposes (such as lubricants and asphalt), and energy consumption for production and heating by the agriculture and industry sector, the commercial and public services sector, and energy consumption by households.

Final energy consumption in 2015 was 615 PJ, which is unchanged compared with 2014. Final consumption was 1.8% higher compared with 1990.

Energy consumption for the transport sector increased steadily throughout most of the period. From 1990 to 2015 consumption went up by 23.4%. Energy consumption in the agriculture and industry sector fell by 22.1% from 1990 to 2015, while consumption in the commercial and public services sector and households increased by 3.6% and 3.0%, respectively.

Final energy consumption by energy product

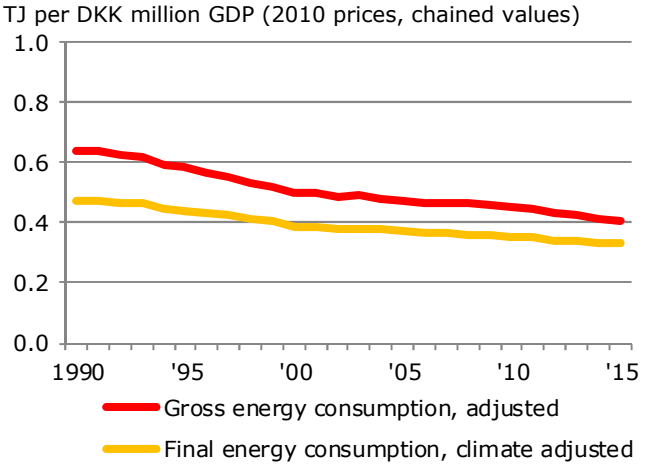


Consumption of oil fell by 1.3%, while consumption of natural gas (for other uses than electricity and district heating production) fell by 1.9% from 2014 to 2015. Consumption of electricity increased by 0.2% and consumption of district heating was 0.7% lower than the year before.

Since 1990, final consumption of natural gas has increased by 24.5%, while consumption of electricity and district heating has increased by 7.4% and 28.8%, respectively. In the same period, consumption of oil and coal fell by 19.2% and 71.2%, respectively.

In 2015, final consumption of renewable energy etc. was 7.3% higher than in 2014. Consumption of renewable energy etc. has increased by 150% since 1990.

Gross energy consumption and final energy consumption per DKK million GDP (intensity)



Economic activity in Denmark, measured in terms of gross domestic product (GDP) in 2010 prices (chained values), has increased much faster than energy consumption.

In 2015 gross energy consumption was 0.408 TJ per DKK million GDP (calculated in 2010 prices, chained values), as opposed to 0.635 TJ in 1990; i.e. fuel intensity was reduced by 35.8% during this period. Intensity fell by 0.7% in 2015 compared with the year before.

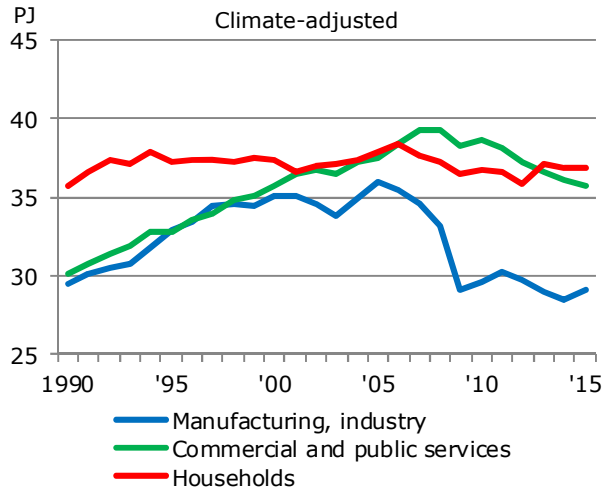
If developments in GDP are instead compared to developments in final energy consumption, energy intensity fell by 29.2% from 1990 to 2015. This reduction is less than the figure above, because the increased efficiency of the transformation sector is not included. Intensity was unchanged in 2015 compared with the year before.

Note: After the editorial close for the energy statistics, Statistics Denmark published updated statistics for the national accounts. These figures have not been included in the calculations in the energy statistics of intensities etc.

Final electricity consumption

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total final electricity consumption Climate adjusted	**78 378**	**103 212**	**117 590**	**120 731**	**114 700**	**111 893**	**110 642**	**110 819**	**7.4%**
Rail transport	**479**	**736**	**1 253**	**1 351**	**1 455**	**1 391**	**1 387**	**1 429**	**94.2%**
Agriculture and industry	**27 724**	**36 633**	**43 283**	**44 092**	**37 851**	**36 899**	**36 253**	**36 850**	**0.6%**
Agriculture, forestry and horticulture	5 553	6 143	7 047	6 874	6 841	6 572	6 463	6 441	4.9%
Manufacturing	21 404	29 436	35 022	35 943	29 638	29 029	28 505	29 109	-1.1%
Construction	767	1 054	1 214	1 274	1 372	1 299	1 285	1 300	23.3%
Commercial and public services	**21 788**	**30 147**	**35 715**	**37 479**	**38 656**	**36 557**	**36 093**	**35 685**	**18.4%**
Wholesale	3 599	5 451	5 936	5 973	5 740	5 415	5 315	5 188	-4.8%
Retail trade	3 784	5 202	5 742	6 260	6 543	6 221	6 212	5 982	15.0%
Private services	8 347	11 715	14 903	15 866	17 108	16 342	16 306	16 086	37.3%
Public services	6 058	7 778	9 134	9 380	9 266	8 578	8 260	8 429	8.4%
Households	**28 388**	**35 696**	**37 339**	**37 810**	**36 738**	**37 046**	**36 908**	**36 855**	**3.2%**
Single-family houses	21 431	27 011	28 210	28 279	27 335	27 994	27 870	27 772	2.8%
Multi-family houses	6 957	8 686	9 129	9 530	9 403	9 052	9 039	9 084	4.6%
Observed electricity consumption	**78 613**	**102 139**	**116 849**	**120 467**	**115 623**	**111 975**	**109 905**	**110 517**	**8.2%**

Final electricity consumption by use

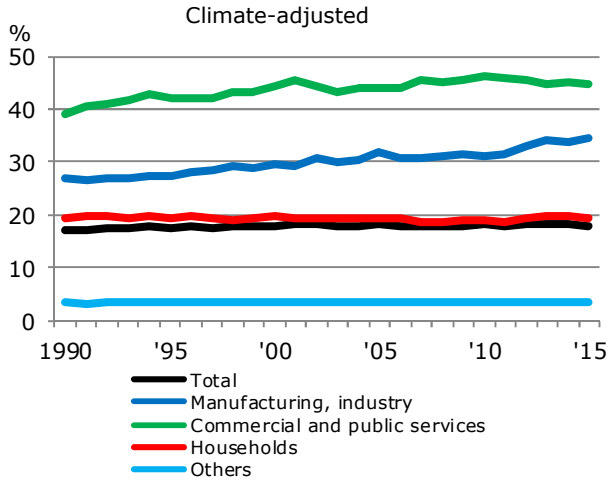


Electricity consumption by manufacturing industries was 2.1% higher in 2015 than in 2014. Compared with 1990, electricity consumption fell by 1.1%.

In the commercial and public services sector, electricity consumption increased until 2008, after which it fell. In 2015, electricity consumption was 1.1% lower than the year before. From 1990 to 2015 electricity consumption went up by 18.4%.

The electricity consumption of households increased slightly from 1990 to 2006. Consumption has remained almost stable from 2009 to 2011. Electricity consumption decreased by 0.1% in 2015. Consumption increased by 3.2% relative to 1990.

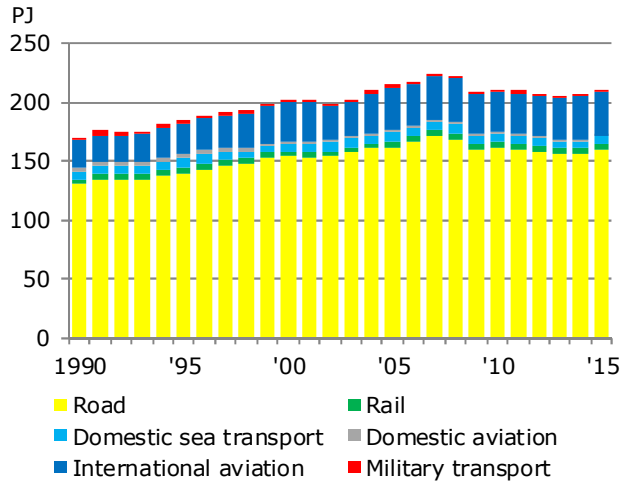
Electricity consumption's share of total energy consumption



From 1990 to 2000, there was a slight increase in electricity consumption's share of total energy consumption in all areas of use, except for in the transport sector. In 1990, the share was 17.1%, in 2000 it was 18.1% and in 2015 it was 18.1%.

In the commercial and public services sector, electricity consumption's share of total energy consumption grew steadily from 1990 when the share was 39.1% and up to 2001 when it was 45.7%. Since 2002 the share has fluctuated between 43.4% and 46.1%. In 2015, electricity consumption accounted for 45.3% of the sector's total energy consumption. Manufacturing industries has seen a steady increase across the period 1990-2015; with the share of electricity at 34.5% in 2015 compared with 27.1% in 1990. Electricity consumption's share for households remains more or less unchanged with 19.3% in 1990 and 2015.

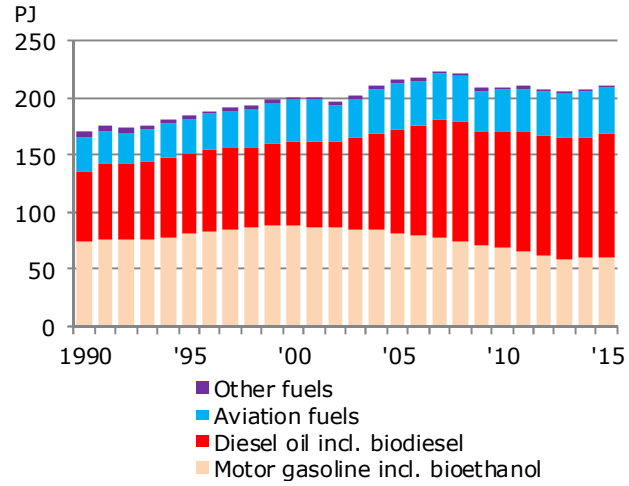
Energy consumption for transport by type



Energy consumption for transport followed an upward trend until 2007, when energy consumption was at 224.0 PJ. In 2009 energy consumption fell to 208.4 PJ. In 2015, energy consumption was calculated at 210.1 PJ, which is 1.4% higher than in 2014. Compared with 1990, energy consumption for transport has increased by 23.4% in 2015.

Energy consumption for road transport was 160.1 PJ in 2015, which is 2.3% higher compared with 2014. Energy consumption for road transport is calculated as sales in Denmark, adjusted for border trade. Energy consumption for international aviation grew steadily throughout almost the whole period 1990-2015, only interrupted by drops in 2002 and 2009, 2013 and 2015. In 2015, consumption decreased by 2.1%.

Energy consumption for transport by fuel type

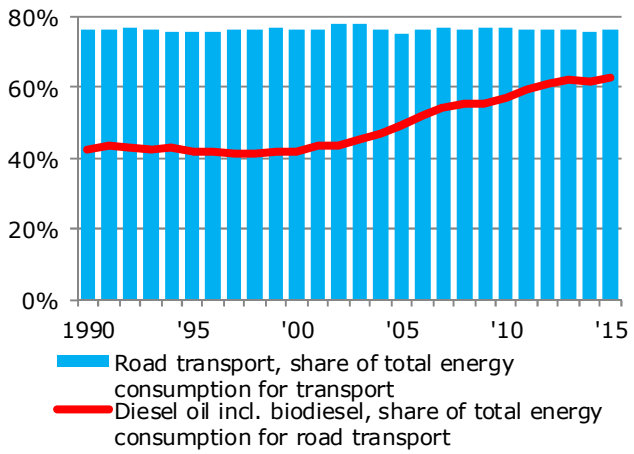


Consumption of motor gasoline (including bioethanol) grew by 0.2% from 2014 to 2015, while consumption of diesel oil (including biodiesel) increased by 4.0%. Consumption of bioethanol and biodiesel together went up from 8.9 PJ in 2014 to 9.0 PJ in 2015.

Considering developments from 1990 to 2015, consumption of motor gasoline (including bioethanol) fell by 19.4%, while consumption of diesel oil (including biodiesel) grew by 77.7%. Consumption of aviation fuels increased by 34.5%.

Consumption of other types of fuel fell by 70.4% in the same period. Other types of fuel include fuel oil for sea transport, as well as electricity consumption by railways.

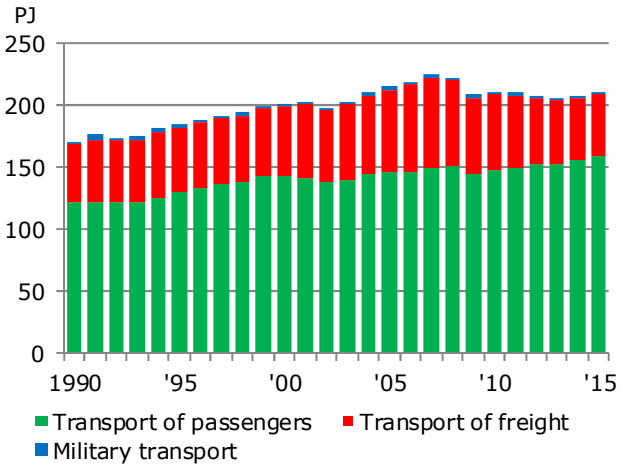
Energy consumption for road transport



Energy consumption for road transport is by far the largest contributor to total energy consumption for transport. This contribution was almost unchanged from 1990 to 2015. In 2015, road transport accounted for 76.2% of total energy consumption for transport.

Consumption of diesel oil has increased significantly and diesel oil has been the most common fuel for road transport since 2006. In 2015, diesel oil (including biodiesel) accounted for 62.5% of total energy consumption for transport, as opposed to 42.1% in 1990.

Final energy consumption by passenger and freight transport

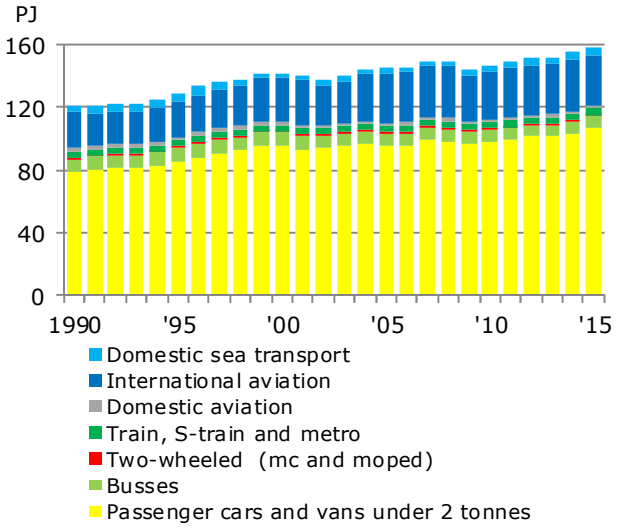


In the distribution of energy consumption for transport of passengers and freight, vans less than two tonnes are included under passenger transport, whereas vans of 2-6 tonnes are included under freight transport.

Out of the total energy consumption for transport in 2015, which amounted to 210.1 PJ, passenger transport accounted for 158.5 PJ, corresponding to 75,4%. Energy consumption for freight transport was 50.2 PJ, corresponding to 23.9%, while energy consumption for transport by Danish military was 1.3 PJ.

Energy consumption for passenger transport increased by 2.1% from 2014 to 2015, while energy consumption for freight transport grew by 0.2%. Considering the trend from 1990 to 2015, energy consumption for passenger transport increased by 30.6%, while energy consumption for freight transport increased by 6.4%.

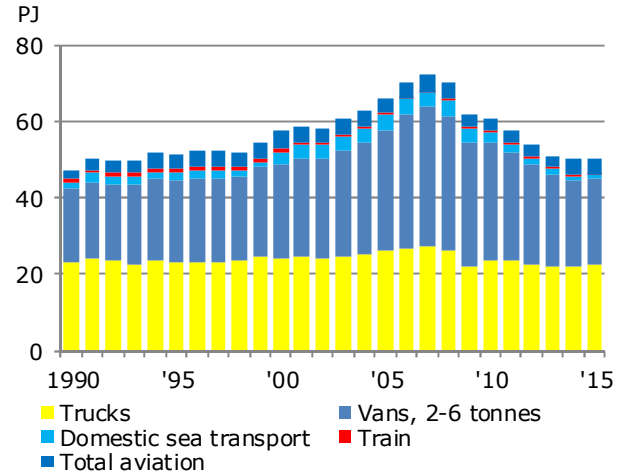
Energy consumption for passenger transport by means of transport



Energy consumption for passenger transport is mainly used for transport by car and for international aviation. In 2015, energy consumption for these categories made up 67.4% and 20.9%, respectively, of total energy consumption for passenger transport.

Energy consumption for cars and vans (less than 2 tonnes) increased by 2.8% from 2014 to 2015, while energy consumption for international aviation fell by 1.6%. From 1990 to 2015, energy consumption for cars and vans increased by 35.7%, while energy consumption for international aviation grew by 48.5%.

Energy consumption for freight transport by means of transport



Energy consumption for freight transport is mostly by trucks and vans (2-6 tonnes). In 2015, energy consumption by these types of vehicle made up 44.6% and 45.1%, respectively, of total energy consumption for freight transport.

Energy consumption for trucks grew by 2.1% from 2014 to 2015, while energy consumption for vans fell by 0.7%. Energy consumption for trucks dropped by 3.4% from 1990 to 2014, while energy consumption for vans increased by 18.6%.

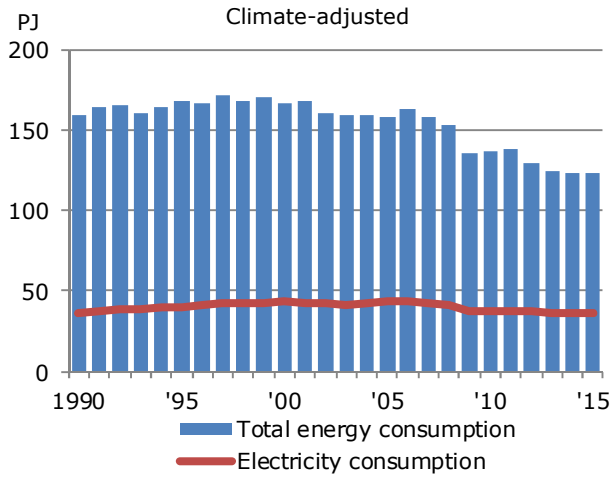
Final energy consumption for transport

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total transport Observed consumption	**143 337**	**170 216**	**201 209**	**215 789**	**209 731**	**205 259**	**207 258**	**210 095**	**23.4%**
LPG	880	464	425	323	3	-	0	-	•
Aviation gasoline	201	155	119	107	76	69	48	53	-65.6%
Motor gasoline	67 830	74 327	88 976	82 126	67 726	57 440	57 932	58 090	-21.8%
JP4	7 500	-	-	-	-	-	-	-	•
Petroleum	129	462	39	14	0	0	-	-	•
JP1	23 473	28 828	35 810	39 959	36 577	37 284	40 046	38 927	35.0%
Gas/diesel oil	41 053	61 685	73 077	90 529	101 893	99 591	98 364	102 512	66.2%
Fuel oil	1 791	3 560	1 509	1 379	868	775	546	39	-98.9%
Natural gas								76	•
Bio methane								1	•
Bioethanol	-	-	-	-	1 118	1 927	1 872	1 840	•
Biodiesel	-	-	-	-	16	6 783	7 063	7 129	•
Electricity	479	736	1 253	1 351	1 455	1 391	1 387	1 429	94.2%
Road	100 945	129 943	153 666	161 923	161 215	155 997	156 504	160 079	23.2%
Rail	5 016	4 765	4 339	4 488	4 728	4 740	4 795	4 785	0.4%
Domestic sea transport	5 588	6 344	6 857	8 026	6 533	6 293	5 024	5 640	-11.1%
Domestic aviation	1 850	3 177	2 191	1 809	1 858	1 480	1 370	1 263	-60.2%
International aviation	21 792	24 338	32 631	35 818	33 927	34 820	37 755	36 979	51.9%
Military transport	8 145	1 649	1 525	3 726	1 470	1 930	1 810	1 350	-18.1%
Passenger transport	100 889	121 356	142 254	145 934	147 460	152 364	155 281	158 503	30.6%
Freight transport	34 303	47 212	57 430	66 129	60 801	50 966	50 167	50 243	6.4%
Military transport	8 145	1 649	1 525	3 726	1 470	1 930	1 810	1 350	-18.1%

Final energy consumption in agriculture and industry

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total for agriculture and industry Climate adjusted	**167 679**	**158 790**	**167 113**	**158 242**	**137 014**	**124 991**	**123 467**	**123 703**	**-22.1%**
By energy product									
Oil	112 269	65 613	58 460	53 743	44 071	36 666	35 249	35 925	-45.2%
Natural gas	-	25 281	35 606	32 433	30 901	29 643	30 418	29 064	15.0%
Coal and coke	19 126	16 315	12 339	10 817	5 531	5 399	5 455	4 972	-69.5%
Waste, non-renewable	25	13	72	591	759	664	672	672	5229%
Renewable energy	5 174	9 377	8 098	7 759	11 509	9 682	9 774	10 809	15.3%
Electricity	27 724	36 633	43 283	44 092	37 851	36 899	36 253	36 850	0.6%
District heating	2 949	5 409	9 210	8 788	6 353	5 857	5 434	5 201	-3.9%
Gas works gas	413	149	45	19	41	179	212	210	40.6%
By use									
Agriculture, forestry and horticulture	29 818	33 087	32 428	29 322	29 146	28 039	27 875	27 551	-16.7%
Fishing	7 312	10 785	9 451	7 488	6 049	5 209	4 856	5 205	-51.7%
Manufacturing industries	124 557	108 624	117 583	113 280	94 679	85 120	84 207	84 392	-22.3%
Construction	5 992	6 295	7 651	8 152	7 140	6 623	6 528	6 554	4.1%

Energy and electricity consumption in agriculture and industry

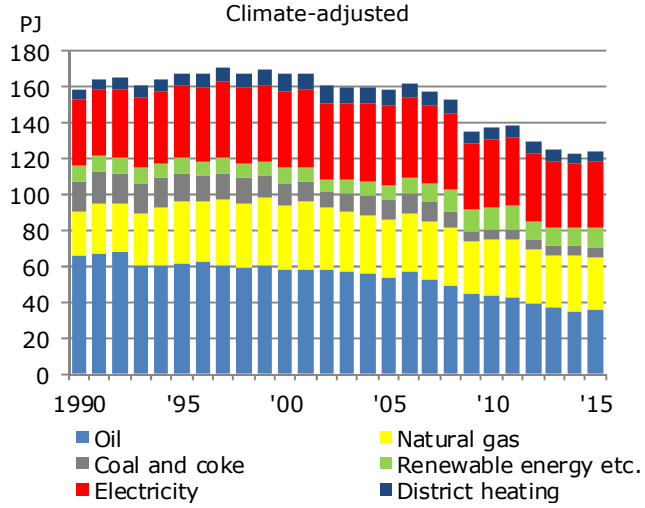


Agriculture and industry covers agriculture, forestry and horticulture, fishing, manufacturing industries (excl. refineries), as well as construction.

In 2015 climate-adjusted energy consumption in agriculture and industry was 123.7 PJ, which is 0.2% higher than the year before. Compared with 1990, energy consumption decreased by 22.1%.

Electricity consumption in 2015 was 36.8 PJ after adjusting for climate variation. This is 1.6% higher than the year before. Compared with 1990, electricity consumption increased by 0.6%.

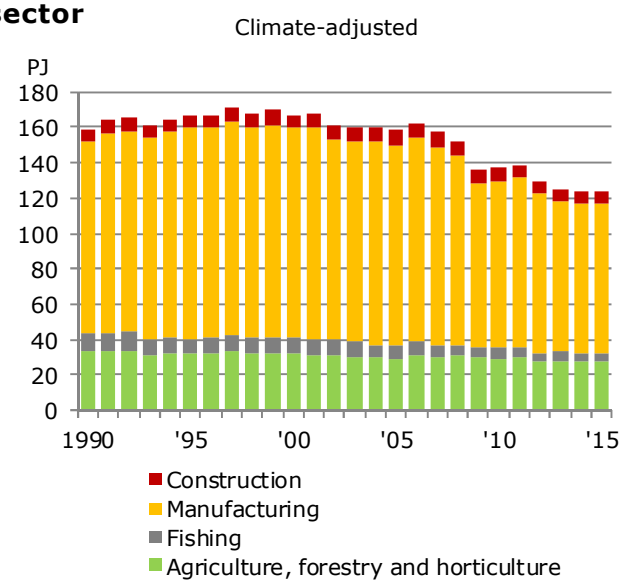
Energy consumption in agriculture and industry by energy products



In 2015 consumption of oil and renewable energy etc. for agriculture and industry grew by 1.9% and 9.9%, respectively, compared with 2014, while coal and natural gas decreased by 8.9% and 4.4%, respectively. Consumption of electricity grew by 1.6%, while consumption of district heating was 4.3% lower in 2015 than the year before.

Consumption of natural gas in the period 1990-2015 increased by 15.0%, while consumption of oil and coal fell by 45.2% and 69.5%, respectively. Consumption of renewable energy etc. increased by 22.3%. Consumption of electricity has increased by 0.6% and district heating has decreased by 3.9% since 1990.

Energy consumption by individual industry in the agriculture and industry sector

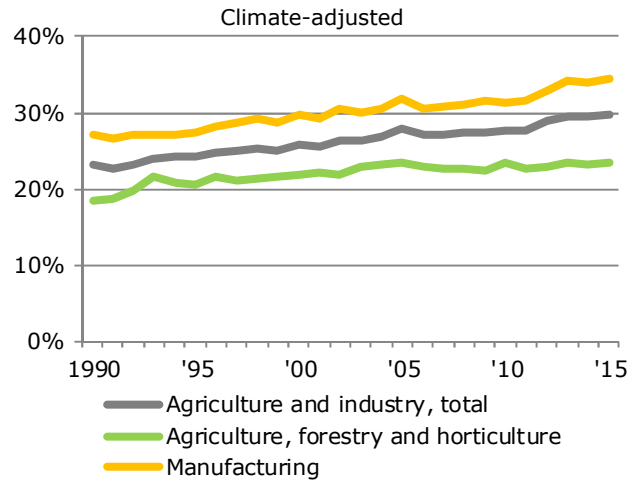


Compared with 2014 energy consumption grew by 0.2% and 0.4%, respectively, in manufacturing industries and in construction. Energy consumption in agriculture, forestry and horticulture fell by 1.2% in 2015.

From 1990 to 2015, energy consumption in manufacturing industries fell by 22.3%. Energy consumption in agriculture, forestry and horticulture fell by 16.7%, while in construction consumption increased by 4.1%. In fishing, energy consumption fell by 51.7%.

In 2015, agriculture, forestry and horticulture's share of total energy consumption by the agriculture and industry sector was 22.3%, while the share of manufacturing industries was 68.2%. In 2015, fishing and construction accounted for 4.2% and 5.3%, respectively, of energy consumption in the agriculture and industry sector.

Electricity consumption's share of total energy consumption

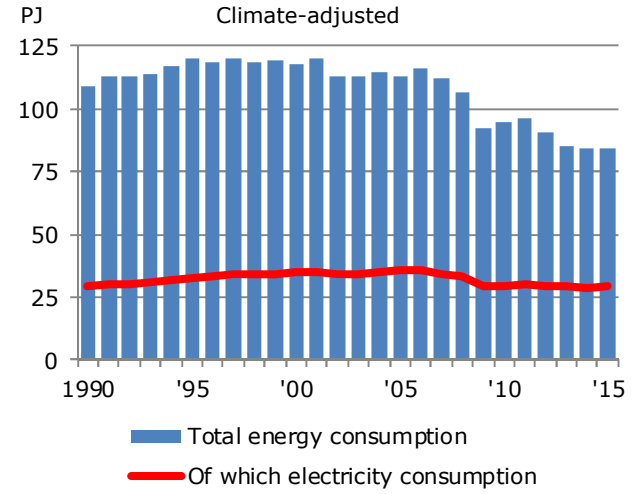


Electricity consumption's share of total energy consumption in the agriculture and industry sector increased from 23.1% in 1990 to 29.8% in 2015.

In manufacturing industries the share of electricity increased from 27.1% in 1990 to 34.5% in 2015.

In agriculture, forestry and horticulture the share of electricity was 18.6% in 1990. In 2015 this share increased to 23.4%.

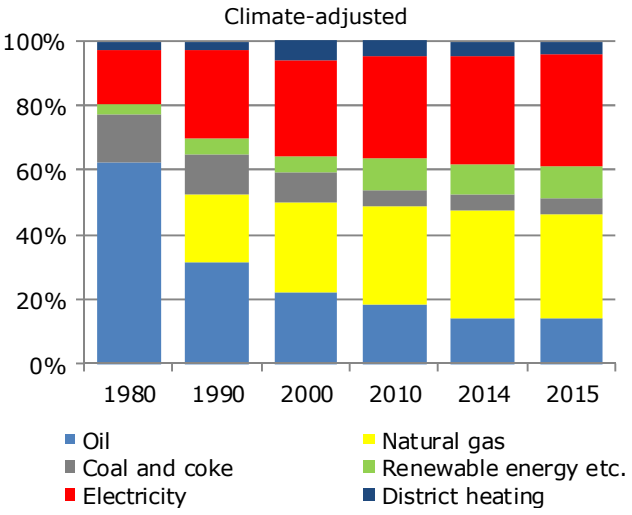
Energy and electricity consumption in manufacturing industries



Climate-adjusted energy consumption in manufacturing industries increased from 84.2 PJ in 2014 to 84.4 PJ in 2015, corresponding to a rise of 0.2%. Compared with 1990, energy consumption decreased by 22.3%.

In 2015, electricity consumption was 29.1 PJ, which is 2.1% higher than the year before. Electricity consumption has fallen by 1.1% since 1990.

Composition of energy consumption in manufacturing industries



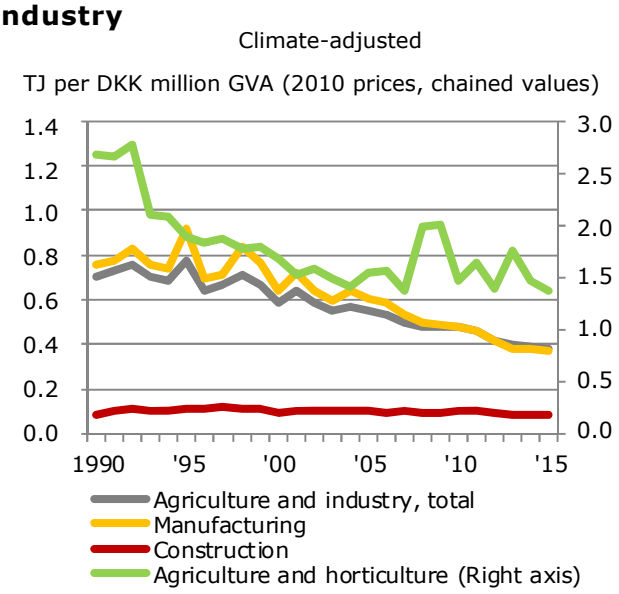
The composition of energy consumption in manufacturing industries has changed significantly since 1980, when oil consumption was dominant by 62.2% of the total energy consumption. In 1990, oil consumption accounted for almost one-third of total energy consumption. In 2015 this figure was 14.0%.

Natural gas continues to make up an increasing share of energy consumption in manufacturing industries. This share was 32.1% in 2015, as opposed to 20.8% in 1990.

Coal's share of energy consumption has gone down from 12.3% in 1990 to 5.0% in 2015. The contribution from renewable energy etc. and district heating has increased from 1990 to 2015. In 2015, their shares were 10.0% and 4.2%, respectively.

The share of electricity consumption grew from 27.1% in 1990 to 34.5% in 2015.

Energy intensities in agriculture and industry



Energy intensity has been calculated as climate-adjusted energy consumption in relation to the gross value added (GVA), measured at 2010 prices, chained values.

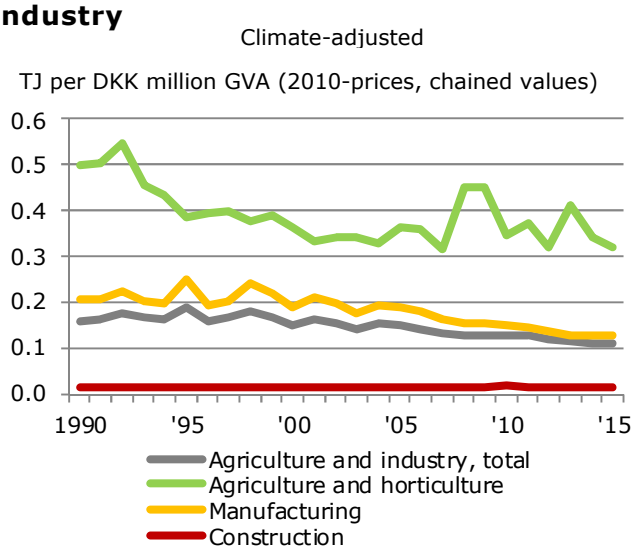
Energy intensity in agriculture and industry dropped by 46.1% from 1990 to 2015. The annual average fall in energy intensity from 1990 to 2015 was 2.4% per year.

In manufacturing industries, energy intensity fell by 51.1% from 1990 to 2015. In 2015, energy intensity fell by 2.2% compared with 2014.

In agriculture, forestry and horticulture, energy intensity decreased by 7.1% in 2015. The energy intensity has fallen by 48.9% since 1990. Since 2005, the trend has been influenced by significant fluctuations in agricultural, forestry and horticultural GVA.

Note: After the editorial close for the energy statistics, Statistics Denmark published updated statistics for the national accounts. These figures have not been included in the calculations in the energy statistics of intensities etc.

Electricity intensities in agriculture and industry

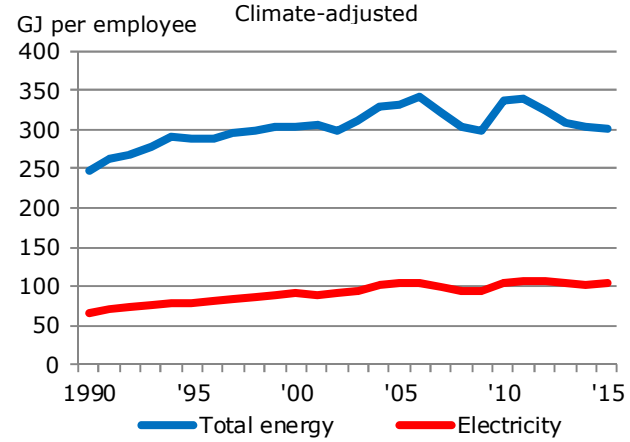


Electricity intensity has been calculated as climate-adjusted electricity consumption in relation to GVA, measured at 2010 prices, chained values.

After a period of fluctuating electricity intensity in the 1990s, it fell steadily up to 2015. In the period 1990 to 2015, electricity intensity fell by 30.4%. In 2015, electricity intensity was 0.113, i.e. 0.113 TJ of electricity (corresponding to 31,256 kWh) were used for every DKK 1 million GVA in the agriculture and industry sector. In 2015, electricity intensity fell by 1.2% compared with 2014.

Electricity intensity in manufacturing industries fell by 0.3% in 2015. In agriculture, forestry and horticulture intensity fell by 6.3%. Both compared with 2014. Electricity intensity in construction fell by 1.8%.

Energy consumption per employee in manufacturing industries

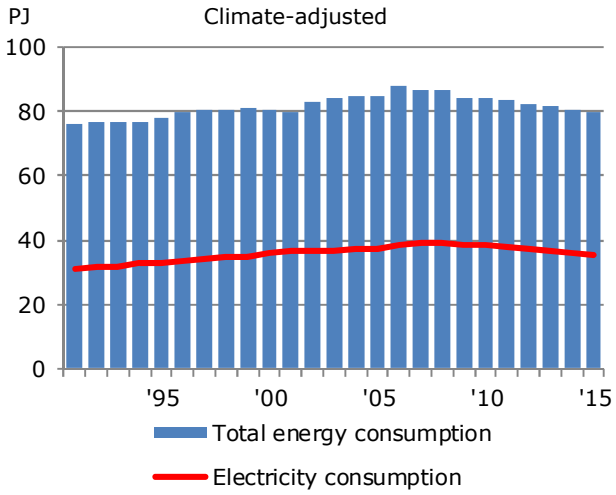


Energy and electricity consumption per employee in manufacturing industries have developed differently than the intensities shown above. This is due to a considerable increase in productivity, i.e. measured as GVA per employee in this sector.

Energy consumption per employee was 301.4 GJ in 2015, as opposed to 303.0 GJ the year before. This corresponds to a decrease of 0.5%. Compared with 1990, energy consumption per employee grew by 21.8%.

Electricity consumption per employee was 104.0 GJ in 2015, which is 1.3% higher than the year before. Compared with 1990, electricity consumption per employee increased by 55.0%.

Energy and electricity consumption in the commercial and public services

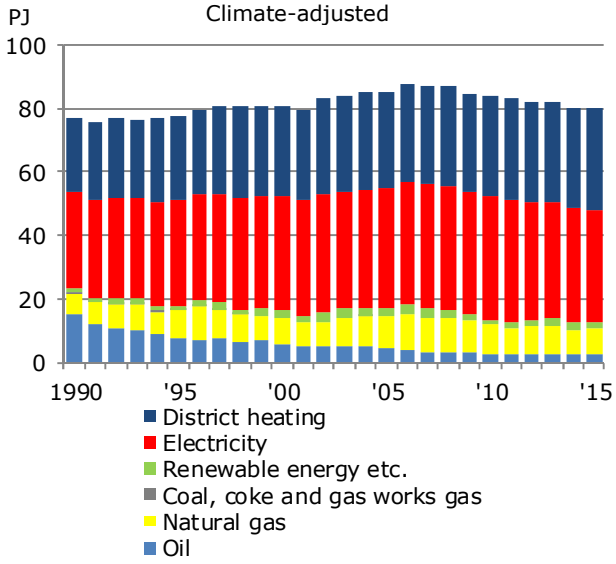


The commercial and public services sector includes wholesale, retail, private and public services.

Climate-adjusted energy consumption was 79.8 PJ in 2015, which is 0.5% lower than the year before. Compared with 1990, consumption increased by 3.6%.

In 2015, climate-adjusted electricity consumption was 35.7 PJ, which is 1.1% lower than the year before. Compared with 1990, electricity consumption increased by 18.4%.

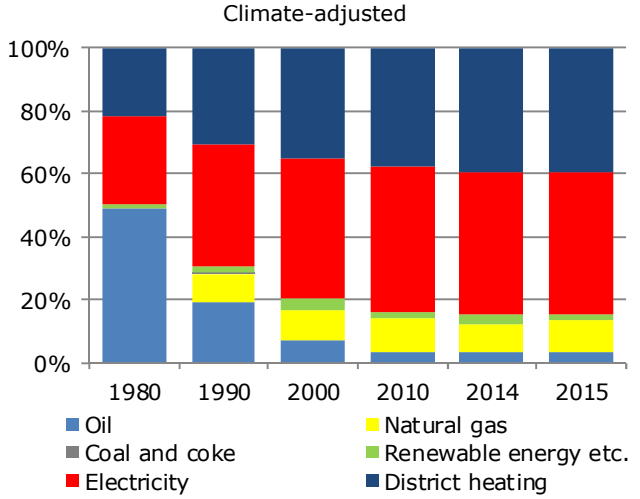
Energy consumption by energy product



Electricity and district heating are predominant energy sources in the commercial and public services sector. In 2015, consumption of electricity fell by 1.1%, while consumption of district heating was 0.4% lower than the year before.

Compared with 1990, oil consumption fell by 81.8%, while natural gas consumption increased by 13.1%. In 2015, consumption of electricity and district heating was 18.4% and 34.8% higher, respectively, compared with 1990.

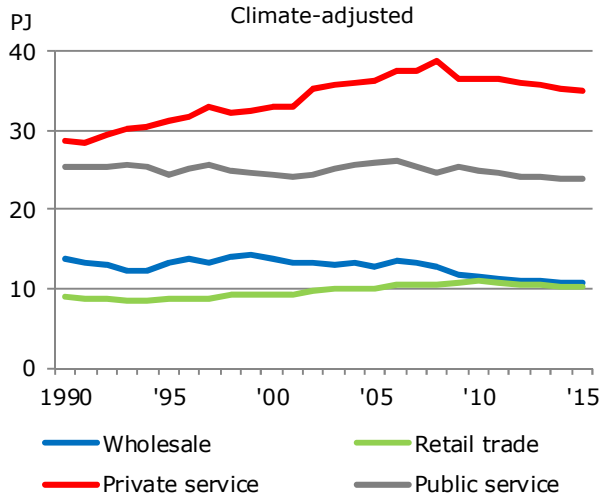
Composition of energy consumption in the commercial and public services



In 1990, electricity and district heating together accounted for 69.6% of total energy consumption in the commercial and public services sector (electricity 39.1% and district heating 30.4%). The share of oil and natural gas was 19.3% and 9.0%, respectively, while consumption of renewable energy etc. accounted for 1.9%.

In 2015, electricity and district heating consumption together accounted for 84.3% of total energy consumption (electricity 44.7% and district heating 39.6%). The share of oil was 3.4%, while the share of natural gas was 9.8%. Renewable energy etc. was 2.5%.

Energy consumption by sector

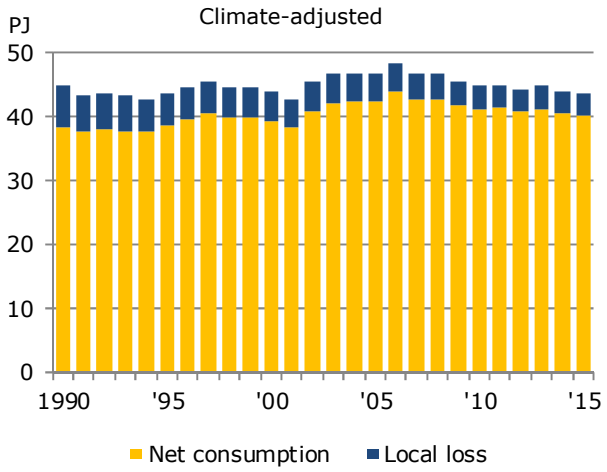


In 2015, 73.9% of energy consumption in the commercial and public services sector was in private and public services, while wholesale and retail accounted for the remaining 26.1%. From 2014 to 2015, energy consumption in private services fell by 1.2%. Energy consumption in public services increased by 0.8%. Energy consumption in wholesale fell by 0.1% and in retail it fell by 1.7%.

Compared with 1990, energy consumption in wholesale fell by 22.5%, while energy consumption in retail grew by 14.3%.

Energy consumption in the private service sector is higher today than in 1990. Since 1990, growth has been 21.4%. In the public service sector, energy consumption is 6.1% lower compared with 1990.

Energy consumption for heating in the commercial and public services

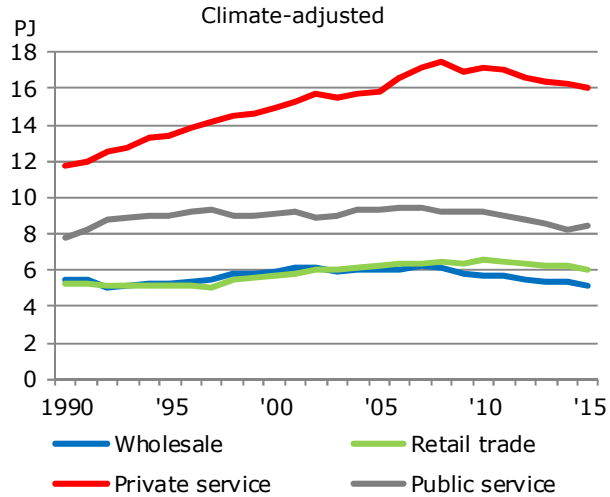


Energy consumption for heating (space heating and hot water) can be calculated in different ways. While final energy consumption is the volume of energy paid for, net energy consumption is the volume of energy utilised. The difference is local losses by the individual consumers, e.g. from oil and natural gas boilers.

Final energy consumption for heating in the commercial and public services sector was 43.7 PJ in 2015, which is 0.5% lower than the year before. Compared with 1990, consumption fell by 2.8%.

Net energy consumption was 40.4 PJ in 2015, which is 0.3% lower than the year before. Compared with 1990, net energy consumption increased by 4.8%. The increase in net energy consumption is due to the fact that the growth in the total heated area has been greater than the reduction in consumption per m^2.

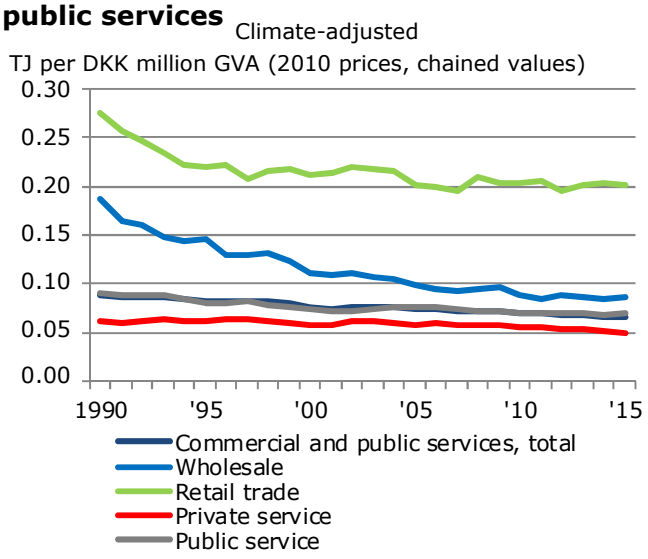
Electricity consumption by sector



Electricity consumption generally increased in the commercial and public services sector up to 2008, after which it decreased. In 2015, electricity consumption was 2.4% and 3.7% lower in wholesale and retail, respectively, compared with 2014. In private service, electricity consumption fell by 1.4% and electricity consumption in public services increased by 2.0%.

From 1990 to 2015, electricity consumption in wholesale fell by 4.8% and retail increased by 15.0%. Electricity consumption in the public service sector increased by 8.4%. In the private service sector the increase was significantly higher, reaching 37.3%.

Energy intensities in the commercial and public services

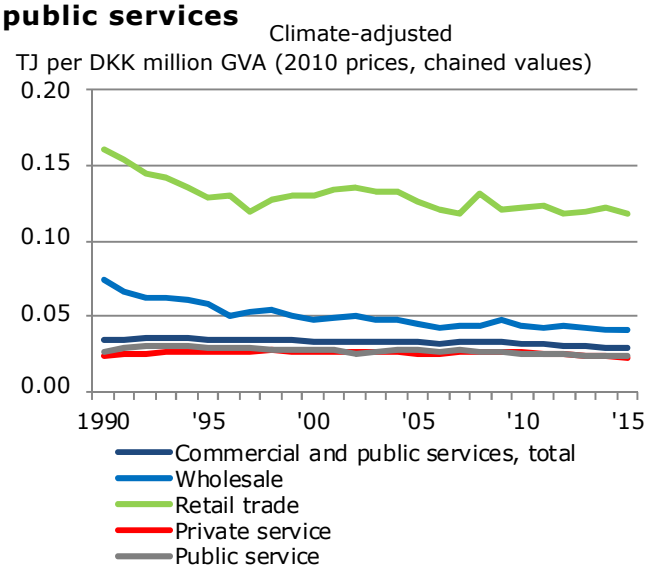


Energy intensities have been calculated as climate-adjusted energy consumption in relation to gross value added (GVA), measured at 2010 prices, chained values.

Energy intensity was 0.066 in 2015, i.e. for every DKK 1 million GVA in the commercial and public services sector, 0.066 TJ of energy were used. This is 1.1% less than the year before.

Energy intensity in the commercial and public services sector fell by 26.4% from 1990 to 2015. For wholesale and retail, energy intensities fell by 54.1% and 26.7%, respectively. For the private service sector and the public service sector, intensities fell by 17.7% and 22.1%, respectively.

Electricity intensities in commercial and public services

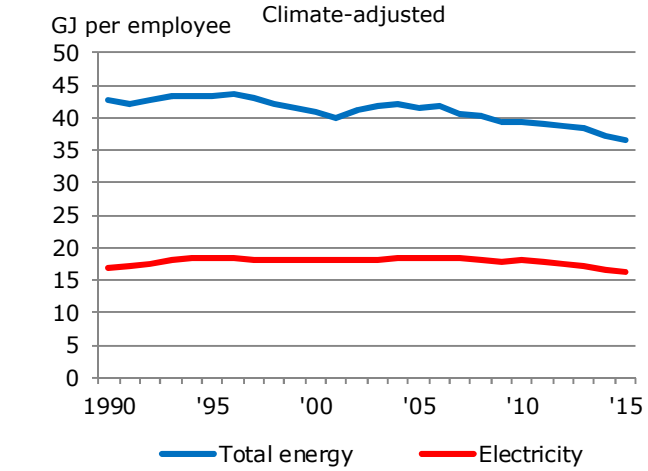


Electricity intensities have been calculated as climate-adjusted electricity consumption in relation to GVA, measured at 2010 prices, chained values.

In 2015 electricity intensity was 0.029, i.e. for every DKK 1 million GVA in the commercial and public services sector, 0.029 TJ of electricity (corresponding to 8,150 kWh) were used. Electricity intensity fell by 1.7% relative to the year before.

Electricity intensity in the commercial and public services sector fell by 15.9% from 1990 to 2015. For wholesale, retail and public services, electricity intensities fell by 43.6%, 26.2% and 10.1%, respectively. In private services, electricity intensity fell by 6.9%.

Energy consumption per employee in the commercial and public services



Energy and electricity consumption per employee in the commercial and public services sector have developed differently than the intensities shown above. This is due to a considerable increase in productivity, measured as GVA per employee.

Energy consumption per employee was 36.6 GJ in 2015, as opposed to 37.2 GJ the year before. This corresponds to a decrease of 1.5%. Compared with 1990, energy consumption per employee fell by 14.5%.

In 2015, electricity consumption per employee was 16.4 GJ as opposed to 16.7 GJ the year before, which is a fall of 2.1%. Compared with 1990, electricity consumption per employee decreased by 2.3%.

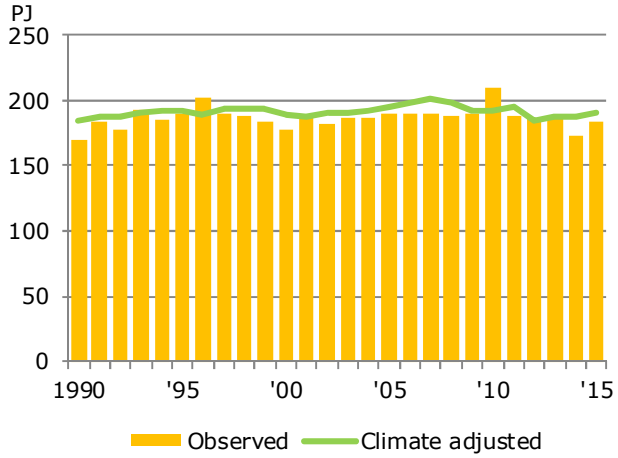
Final energy consumption in the commercial and public services

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total commercial and public services. Climate adjusted	**78 314**	**77 047**	**80 599**	**85 045**	**83 893**	**81 752**	**80 210**	**79 805**	**3.6%**
Oil	38 337	14 850	5 874	4 428	2 810	2 663	2 557	2 699	-81.8%
Natural gas	-	6 902	7 739	9 989	8 977	8 926	7 315	7 804	13.1%
Coal and coke	-	98	-	-	-	-	-	-	-100%
Waste, non-renewable	263	457	691	648	163	225	371	194	-57.5%
Renewable energy	448	1 022	2 078	2 178	1 491	1 826	2 089	1 779	73.1%
Electricity	21 788	30 147	35 715	37 479	38 656	36 557	36 093	35 685	18.4%
District heating	17 117	23 449	28 451	30 281	31 761	31 520	31 747	31 613	34.8%
Gas works gas	361	121	52	42	35	34	38	31	-74.4%
By use									
Wholesale	19 045	13 795	13 893	12 906	11 493	11 081	10 694	10 688	-22.5%
Retail	9 702	8 883	9 323	9 991	10 939	10 482	10 324	10 151	14.3%
Private service	25 955	28 812	32 901	36 238	36 653	35 909	35 385	34 967	21.4%
Public service	23 612	25 557	24 481	25 909	24 807	24 281	23 807	24 000	-6.1%

Final energy consumption in households

Direct energy content [TJ]	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total households. Climate adjusted	**204 018**	**185 039**	**189 275**	**194 729**	**191 585**	**187 015**	**187 503**	**190 612**	**3.0%**
Oil	121 022	58 998	35 444	27 617	18 595	13 923	11 429	11 115	-81.2%
Natural gas	-	17 877	29 329	29 993	27 761	26 527	25 807	25 448	42.4%
Coal and coke	2 498	830	49	8	28	18	0	-	-100%
Renewable energy	10 305	17 434	22 052	33 279	39 444	40 932	44 149	48 419	178%
Electricity	28 388	35 696	37 339	37 810	36 738	37 046	36 908	36 855	3.2%
District heating	37 649	52 820	64 466	65 536	68 612	68 175	68 771	68 423	29.5%
Gas works gas	4 157	1 384	594	486	408	394	438	351	-74.6%
Single-family houses	**155 706**	**137 383**	**139 568**	**144 258**	**140 888**	**137 101**	**137 263**	**140 596**	**2.3%**
Oil	102 281	52 233	32 741	25 032	16 910	12 312	9 706	9 418	-82.0%
Natural gas	-	15 143	24 907	25 472	23 554	22 450	21 833	21 530	42.2%
Coal and coke	1 249	136	17	0	13	9	0	-	-100%
Renewable energy	10 298	17 420	22 006	33 226	39 370	40 849	44 051	48 291	177%
Electricity	21 431	27 011	28 210	28 279	27 335	27 994	27 870	27 772	2.8%
District heating	18 190	24 685	31 364	31 985	33 486	33 273	33 564	33 395	35.3%
Gas works gas	2 258	754	323	264	221	214	238	191	-74.7%
Multi-family houses	**48 312**	**47 656**	**49 706**	**50 471**	**50 696**	**49 914**	**50 240**	**50 015**	**5.0%**
Oil	18 740	6 766	2 703	2 585	1 685	1 611	1 723	1 696	-74.9%
Natural gas	-	2 733	4 422	4 522	4 207	4 077	3 974	3 918	43.4%
Coal and coke	1 249	693	32	8	15	9	0	-	-100%
Renewable energy	8	14	46	54	74	83	99	128	812%
Electricity	6 957	8 686	9 129	9 530	9 403	9 052	9 039	9 084	4.6%
District heating	19 459	28 135	33 103	33 550	35 125	34 902	35 207	35 029	24.5%
Gas works gas	1 899	630	271	222	187	180	199	160	-74.6%

Energy consumption in households



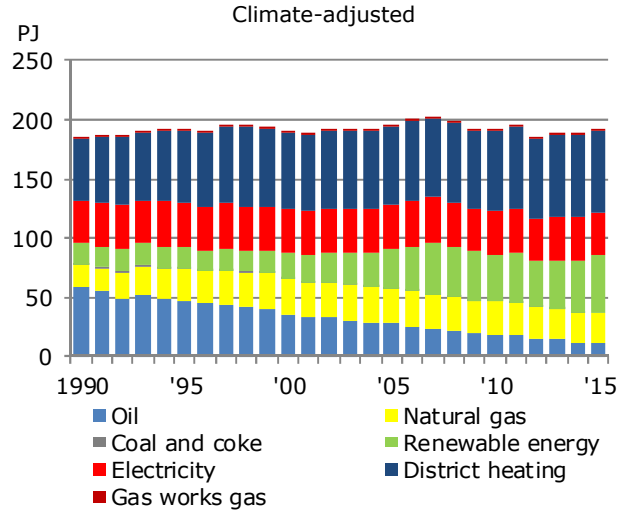
Household energy consumption is greatly influenced by the weather. The years 1990, 2000 and 2014 were very hot years with low energy consumption, whereas 1996 and 2010 were exceptionally cold.

In 2015 climate-adjusted energy consumption by households was 190.6 PJ, accounting for 31.1% of total final energy consumption in Denmark. 158.1 PJ of the 190.6 PJ was used for heating and 32.5 PJ were used for electrical appliances etc.

The climate-adjusted energy consumption of households was 1.7% higher in 2015 than the year before. Compared with 1990, energy consumption grew by 3.0%.

Note: The population base for the firewood survey has been increased and therefore firewood consumption figures before and after 2015 are not fully comparable. See the report on the Danish Energy Agency website.

Household consumption by energy products

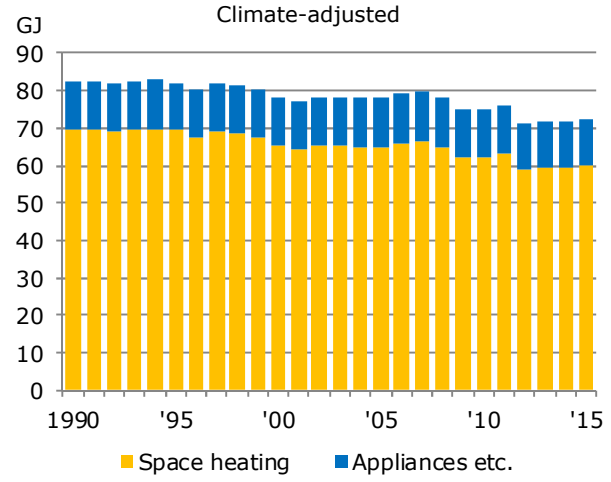


There have been significant changes in the composition of household energy consumption since 1990. Oil consumption decreased throughout the period shown due to a shift to district heating and natural gas. Firewood and wood pellets consumption has increased significantly since 2000.

In 2015 district heating amounted to 35.9% of household energy consumption, and renewable energy and electricity amounted to 25.4% and 19.3%, respectively. Consumption of natural gas, oil and gas works gas amounted to 13.4%, 5.8% and 0.2%, respectively.

Household electricity consumption increased significantly from 1980 to the early 1990s, and subsequently remained more or less constant until 2000. Electricity consumption showed an increasing trend from 2002 to 2006, whereas consumption in the period from 2009 to 2015 has fluctuated around 36 and 37 PJ. Electricity consumption fell by 0.1% in 2015 compared with 2014.

Energy consumption per household

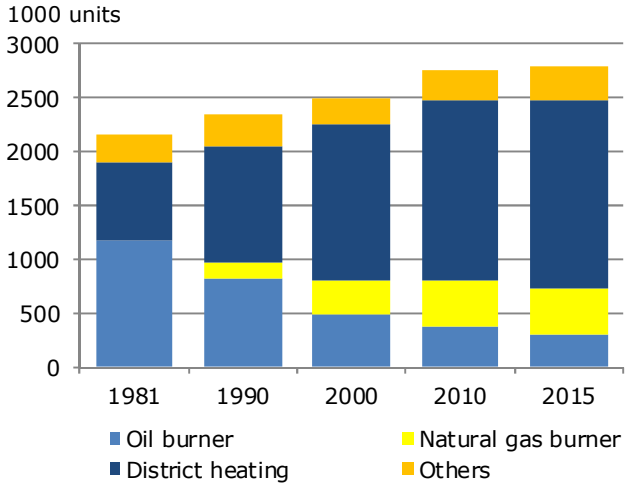


In 2015, average energy consumption per household was 72.5 GJ, which is 1.0% higher than the year before. Of this, 60.1 GJ – corresponding to about 80% - were used for space heating and hot water. Energy consumption by households went down by 12.0% compared with 1990.

In 2015, average electricity consumption per household for electrical appliances and lighting was 12.2 GJ, corresponding to approximately 3390 kWh. This is 0.5% less than the year before and 4.4% more than in 1990.

Households also consume a small amount of motor gasoline for garden tools etc., LPG (bottled gas) and gas works gas for other purposes. Consumption of motor gasoline and diesel oil for household vehicles has been included under road transport.

Heating installations in dwellings

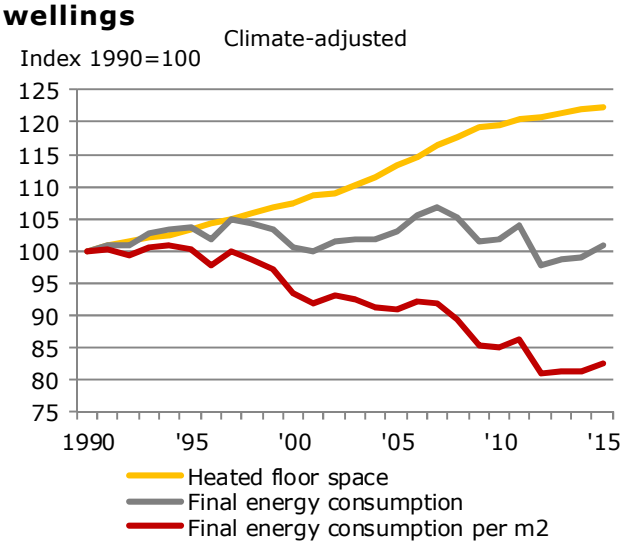


The significant changes in the composition of energy consumption by energy type reflect changes in the composition of heating installations in dwellings over time. Until the mid-1980s, oil-fired boilers clearly dominated the market, after which district heating became the most common source of heating. Thus since the late 1980s and during the 1990s, the number of district heating installations and natural gas boilers continued to increase at the cost of oil-fired boilers.

As of 1 January 2015, the total of 2.79 million heating installations could be analysed as follows: District heating installations 63.2%, natural gas boilers 15.4%, oil-fired boilers 10.7% and other installations, including heat pumps, electric heating and wood-fired boilers 10.7%.

Source: Statistics Denmark

Energy consumption for heating in dwellings

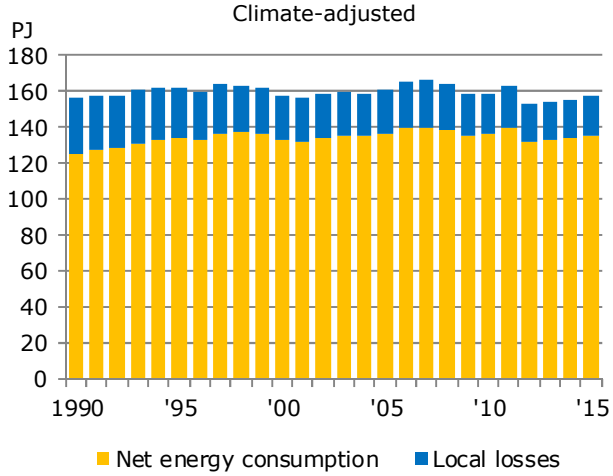


In the period 1990 to 2011, climate-adjusted energy consumption for heating (space heating and hot water) has been between 0.1% and 7.6% above the 1990 level. Since then, energy consumption has been below the 1990 level. In 2015, energy consumption was 1.0% higher compared with 1990.

The background for this is a 22.4% increase in total heated area in the period from 1990 to 2015.

In the period 1990 to 2015, energy consumption for heating per m^2 fell by 17.5%. This fall can be explained by improvements in the insulation of older dwellings as well as a shift away from old oil-fired boilers to more efficient natural gas boilers and district heating installations. In addition, according to the building regulations, new homes must have lower energy consumption per m^2 than existing homes.

Net energy consumption and heat loss for heating in dwellings

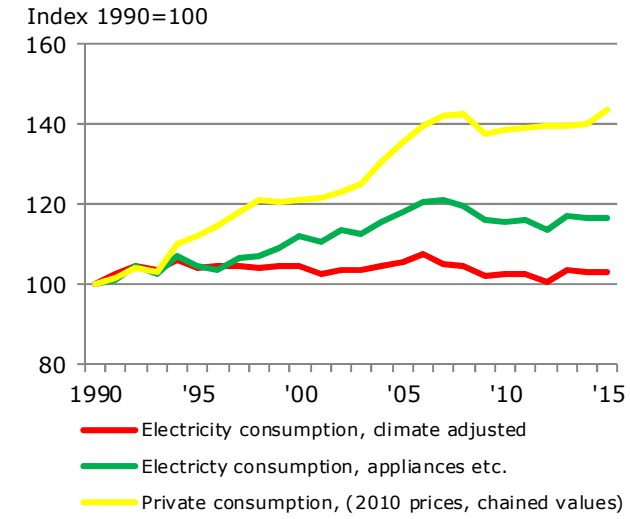


Net energy consumption means the energy utilised. The difference between final energy consumption and net energy consumption is local heat loss in individual dwellings, e.g. from oil and natural gas boilers.

While final consumption for heating as mentioned increased by 1.0% from 1990 to 2015, net energy consumption for space heating and hot water in households increased by 8.2% in the same period.

The different trend is due to the shift from oil heating to district heating and later also to natural gas heating, where the local losses are considerably smaller. The increase in net energy consumption is due to the fact that the growth in the total heated area has been greater than the reduction in consumption per m^2.

Private consumption and electricity consumption in households

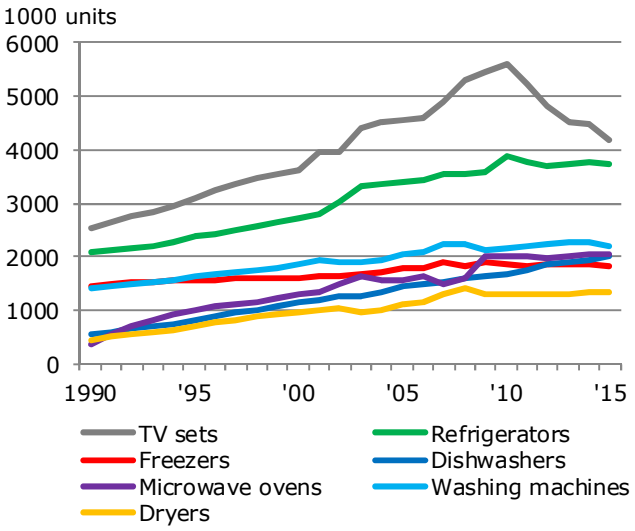


In the period 1990-2015, total household electricity consumption increased by 3.2%, whereas electricity consumption for appliances and lighting etc. increased by 16.6%. This big difference is due to a significant fall in electricity consumption for heating.

Taking into account the large increase in the number of electrical appliances per household, see below, and a general increase of 43.5% in total private consumption, i.e. considerably larger growth than in electricity consumption for appliances and lighting etc., this may seem as a surprise.

This is due to significant falls in the specific electricity consumption of electrical appliances, see below.

Household stock of electrical appliances

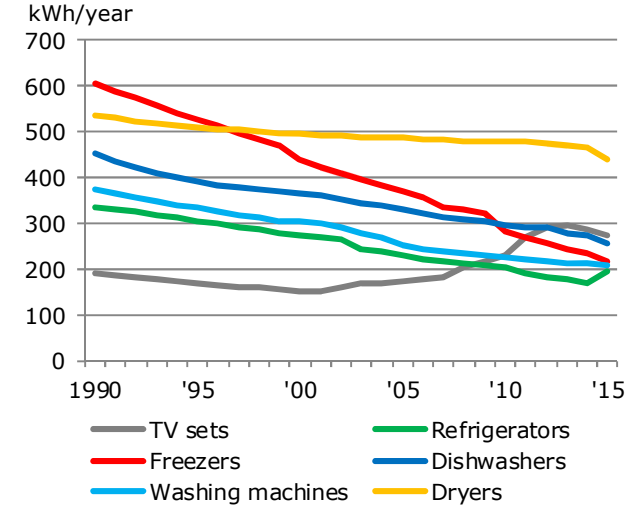


The past 20 years and more have seen a sharp increase in the stock of almost all electricity-consuming household appliances.

For instance, since 1990 the number of microwaves has increased by 443%, while the number of tumble dryers and dishwashers has increased by 187% and 253%, respectively. Television sets, washing machines and refrigerators have also increased considerably in numbers. With an increase of 25.1%, separate freezers have seen a more moderate growth.

Source: ElmodelBOLIG

Specific electricity consumption of household appliances



Ceteris paribus, the trend in the stock of appliances should lead to a considerable increase in electricity consumption. The reason that this has not happened is particularly due to a significant improvement in the average specific electricity consumption (kWh/year) of appliances in the same period.

For example, the average annual electricity consumption of a refrigerator fell from 336 kWh in 1990 to 197 kWh in 2015, i.e. by 41.4%. Electricity consumption for a separate freezer fell by 64.3%, while the fall for a washing machine was 43.9% in the same period. Other electrical appliances, apart from television sets, have also experienced considerable reductions in average specific annual consumption.

Source: ElmodelBOLIG

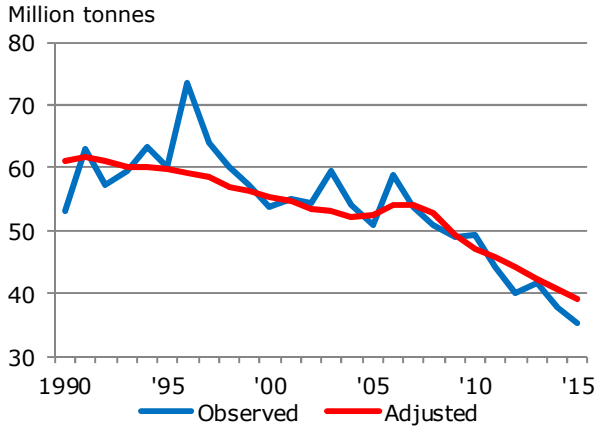
CO_2 accounts and statements for other greenhouse gases

CO_2 accounts are used along with statements for the other greenhouse gas emissions in order to e.g. monitor developments with regard to international greenhouse gas emission reduction targets. Denmark's international climate commitment means that, in accordance with the EU Effort Sharing Decision (ESD), by 2020 Denmark must have reduced emissions of greenhouse gases from the sectors not covered by the EU Emissions Trading System (ETS) by 20% in relation to the base year, 2005. In 2010 the base year was determined in relation to emissions outside the ETS in 2005 for CO_2, CH_4 and N_2O and the fluorinated greenhouse gases (the F-gases). Furthermore, annual permitted non-ETS emissions have been set under the ESD for the period 2013-2020, and in 2014 this was 35.9 million tonnes CO_2 equivalents.

In 2014, observed total emissions of greenhouse gases were 51.2 million tonnes CO_2 equivalents, which is 27.6% lower than in 1990. Including adjustments in the Energy Statistics for fluctuations in temperature and net exports of electricity, the level in 2014 was 52.6 million tonnes CO_2 equivalents, corresponding to a drop of 33.1% relative to the adjusted emissions in 1990. In 2014, total observed emissions of greenhouse gases outside the ETS (ESD) were 32.6 million tonnes CO_2 equivalents, which is 18.6% lower than the 2005 base-year emissions and 7.4 million tonnes CO_2 equivalents lower than the emissions permitted under the ESD for 2014.
The greenhouse gas inventory for 2015 will be ready in 2017. The overall greenhouse gas accounts include both CO_2 emissions from energy use (excluding emissions from international aviation and the effect of border trade in motor gasoline and diesel oil - unlike the separate CO_2 accounts in the Energy Statistics) and CO_2 emissions from other sources (flaring of gas in the North Sea and certain industrial processes). Emissions of six other greenhouse gases are also included in the commitment: methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs),sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3), which are converted to CO_2 equivalents.
Reductions achieved in connection with certain carbon removals by forests and soils, as well as from potential projects in other countries (JI and CDM projects) must also be stated in the climate accounts under the Kyoto Protocol.

Source: Danish Energy Agency and DCE, Danish Centre for Environment and Energy

CO_2 emissions from energy consumption

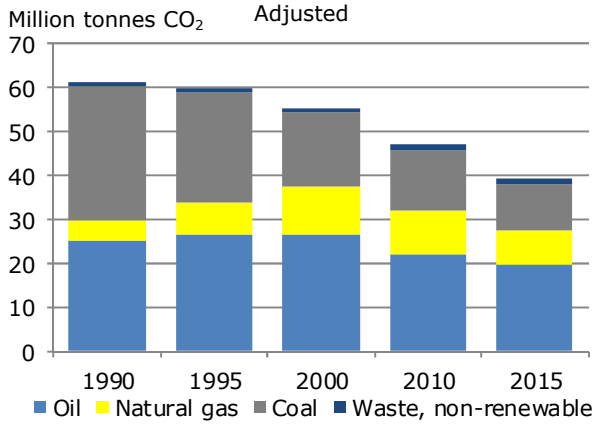


The Danish Energy Agency calculates observed CO_2 emissions as well as adjusted CO_2 emissions, which take annual temperature variations and foreign trade in electricity into account, see the statement of energy consumption on pages 18 and 19. The purpose of the adjusted calculations is to illustrate the trends underlying the development.

In 2015, observed CO_2 emissions from energy consumption were 35.2 million tonnes, which is 6.6% lower than in 2014. Observed CO_2 emissions dropped by 33.7% compared with 1990.

Adjusted CO_2 emissions from energy consumption fell to 39.2 million tonnes in 2015; a drop of 3.3% compared with the previous year. Compared with 1990, the drop is 35.8%.

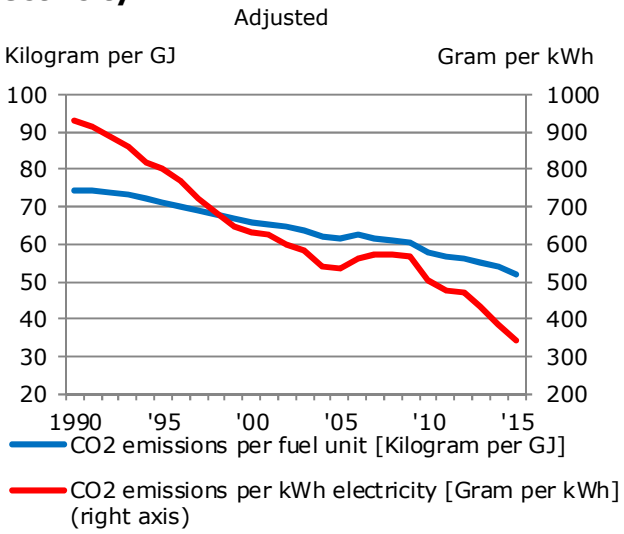
CO_2 emissions by fuel



Since 1990, there has been a significant shift in energy consumption analysed by fuel. Consumption of natural gas and renewable energy has increased at the expense of consumption of oil and coal.

This shift in fuels has led to a reduction in CO_2 emissions, as consumption of oil and coal entails greater CO_2 emissions than consumption of natural gas and renewable energy. While gross energy consumption has fallen by 7.7% since 1990, adjusted CO_2 emissions have fallen by 35.8%.

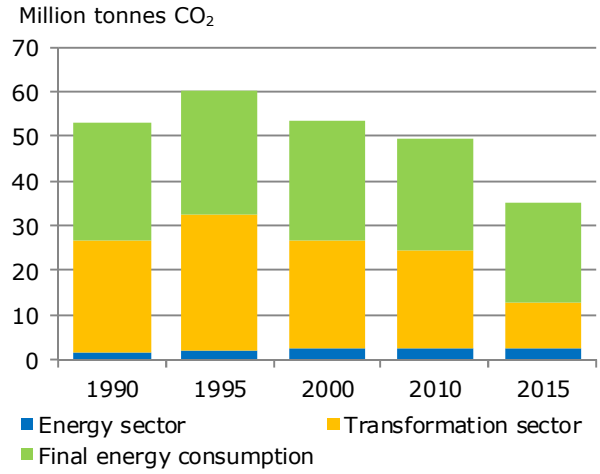
CO_2 emissions per fuel unit and per kWh electricity



The figure for gross energy consumption until 2015 has fallen by 7.7% compared with 1990, whereas the breakdown by fuel has changed significantly. As a result of the shift from oil and coal to natural gas and renewable energy, still less CO_2 is emitted for each unit of fuel consumed. In 2015, each GJ of adjusted gross energy consumption was linked to 51.9 kg CO_2, as opposed to 74.5 kg in 1990. This corresponds to a reduction of 30.4%.

One kWh of electricity sold in Denmark in 2015 led to 343 grams of CO_2 emissions. In 1990, CO_2 emissions were 928 grams per kWh of electricity sold. The reasons for this large reduction are shifts to other fuels in electricity production as well as the ever increasing significance of wind power.

Observed CO_2 emissions by sector

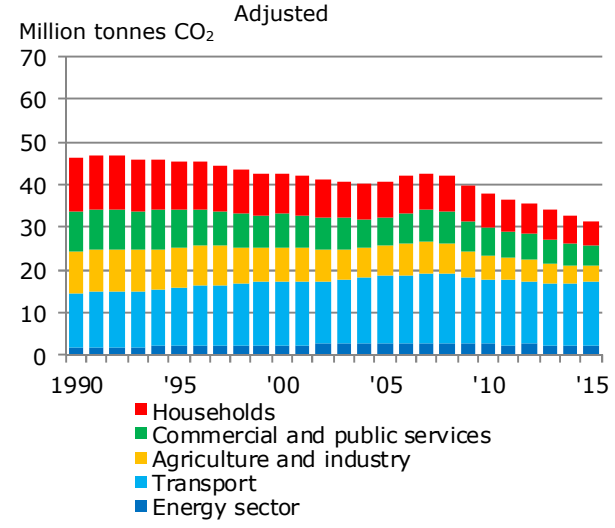


The energy system is divided into three sectors: The *energy sector* (extraction and refining), the *transformation sector* (production of electricity, district heating, and gas works gas), and *final consumption* (transport and consumption by households and industries).

In 1990, total observed CO_2 emissions were 53.0 million tonnes. Of these, 25.1 million tonnes came from the transformation sector and 26.5 million tonnes came from final energy consumption, while the energy sector emitted 1.4 million tonnes.

In 2015, total observed CO_2 emissions were 35.2 million tonnes, of which 10.4 million tonnes were from the transformation sector, 22.4 million tonnes were from final energy consumption, and 2.3 million tonnes were from the energy sector. The transformation sector saw a fall of 14.7 million tonnes of CO_2 from 1990 to 2014, although electricity and district heating production grew significantly in this period.

CO_2 emissions from end-use of energy



Breaking down CO_2 emissions from production of electricity, district heating, and gas works gas by end consumer provides a picture of how total emissions of CO_2 can be allocated to the energy sector, transport, industry and households.

In 2015, the transport and the agriculture and industry sectors were responsible for the largest shares of total CO_2 emissions, with 47.2% and 12.1%, respectively. Households and the commercial and public services sector accounted for 18.5% and 14.3%, respectively, while the energy sector accounted for 7.9% of CO_2 emissions.

Compared with 1990, CO_2 emissions from transport increased by 17.2%. Industries and households have seen significant decreases. In the agriculture and industry sector, and the commercial and public service sectors, CO_2 emissions fell by 61.7% and 52.1% respectively, while for households they fell by 54.2%.

Observed CO_2 emissions from energy consumption

1000 tonnes

Observed emissions	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total CO_2 emissions	**64 159**	**53 048**	**53 579**	**50 854**	**49 383**	**41 752**	**37 651**	**35 158**	**-33.7%**
By fuel	**64 159**	**53 048**	**53 579**	**50 854**	**49 383**	**41 752**	**37 651**	**35 158**	**-33.7%**
Oil	40 030	24 180	26 213	24 199	22 070	19 839	19 290	19 483	-19.4%
Natural gas	1	4 323	10 629	10 676	10 572	7 778	6 823	7 022	62.4%
Coal	23 734	23 972	15 612	14 582	15 331	12 749	10 105	7 185	-70.0%
Waste, non-renewable	394	573	1 124	1 398	1 410	1 386	1 433	1 469	156%
By sector	**64 159**	**53 048**	**53 579**	**50 854**	**49 383**	**41 752**	**37 651**	**35 158**	**-33.7%**
Energy sector	**888**	**1 401**	**2 322**	**2 439**	**2 323**	**2 278**	**2 277**	**2 346**	**67.5%**
Transformation sector	**30 026**	**25 129**	**24 211**	**21 124**	**21 948**	**16 779**	**13 297**	**10 414**	**-58.6%**
Electricity production	23 824	20 556	20 160	17 227	17 666	13 249	10 329	7 288	-64.5%
District heating production	5 638	4 472	4 009	3 864	4 247	3 493	2 933	3 090	-30.9%
Gas works gas production	564	101	42	33	35	36	36	35	-64.9%
Final energy consumption	**33 246**	**26 519**	**27 046**	**27 291**	**25 112**	**22 695**	**22 076**	**22 398**	**-15.5%**
Transport	10 439	12 418	14 637	15 708	15 191	14 313	14 437	14 640	17.9%
Agriculture and industry	10 404	7 774	7 573	7 020	5 827	5 087	4 955	4 934	-36.5%
Commercial and public services	2 965	1 406	868	922	803	726	579	634	-54.9%
Households	9 438	4 922	3 967	3 641	3 292	2 569	2 104	2 190	-55.5%

Observed CO_2 emissions have been calculated on the basis of observed energy consumption as shown in the energy balance on page 4. By using emission factors specific to fuel, energy consumption is converted to CO_2 emissions. The emission factors applied are shown on page 59. Renewable energy, including renewable waste, is not linked to CO_2 emissions in the calculations.

CO_2 emissions from energy consumption, adjusted*)

1000 tonnes

Adjusted emissions	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Total CO_2 emissions	**62 449**	**61 023**	**55 329**	**52 401**	**47 019**	**42 294**	**40 546**	**39 196**	**-35.8%**
By fuel	**62 449**	**61 023**	**55 329**	**52 401**	**47 019**	**42 294**	**40 546**	**39 196**	**-35.8%**
Oil	39 367	25 035	26 732	24 472	21 770	19 842	19 470	19 612	-21.7%
Natural gas	1	4 646	10 961	10 955	10 054	7 858	7 459	7 732	66.4%
Coal	22 690	30 758	16 500	15 570	13 798	13 209	12 172	10 379	-66.3%
Waste, non-renewable	392	583	1 136	1 403	1 398	1 385	1 445	1 473	153%
By sector	**62 449**	**61 023**	**55 329**	**52 401**	**47 019**	**42 294**	**40 546**	**39 196**	**-35.8%**
Energy sector	**888**	**1 401**	**2 322**	**2 439**	**2 323**	**2 278**	**2 277**	**2 346**	**67.5%**
Transformation sector	**28 702**	**32 248**	**25 452**	**22 487**	**20 114**	**17 364**	**15 838**	**14 310**	**-55.6%**
Electricity production	22 664	27 064	20 962	18 409	16 570	13 905	12 221	10 920	-59.7%
District heating production	5 484	5 077	4 445	4 045	3 511	3 423	3 580	3 354	-33.9%
Gas works gas production	553	108	45	33	32	36	38	36	-66.6%
Final energy consumption	**32 859**	**27 374**	**27 554**	**27 474**	**24 583**	**22 652**	**22 431**	**22 540**	**-17.7%**
Transport	10 439	12 418	14 637	15 708	15 191	14 313	14 437	14 640	17.9%
Agriculture and industry	10 339	7 952	7 686	7 061	5 708	5 077	5 036	4 965	-37.6%
Commercial and public services	2 895	1 542	934	949	727	719	635	657	-57.4%
Households	9 187	5 462	4 298	3 756	2 956	2 542	2 322	2 278	-58.3%

*) Adjusted for fuel consumption linked to net import of electricity, as well as for temperature fluctuations.

Adjusted CO_2 emissions have been calculated on the basis of adjusted gross energy consumption as shown in the table on page 20. In this statement, energy consumption has been adjusted for temperature fluctuations relative to a normal weather year and fuel consumption linked to foreign trade in electricity. In cold years or years with net electricity exports, the adjustment is therefore negative, while in warmer years or years with net imports of electricity, the adjustment is positive.

Total emissions of greenhouse gases

1000 tonnes CO2 equivalents	Base year[1)]	1990	1995	2000	2005	2010	2012	2013	2014	Change '90-'14
Observed emissions in total[2)]	**-**	**70 671**	**78 608**	**71 088**	**66 729**	**63 603**	**53 457**	**55 451**	**51 169**	**-27.6%**
Of which ETS excl. aviation (ETS) [3)]	-	-	-	-	26 476	25 266	18 186	21 602	18 389	-30.5%
- CO_2 from domestic aviation (ETS) [3)]	135	-	-	-	175	176	149	143	137	-8.2%
- Non-ETS (ESD) [3)]	38 127	-	-	-	40 079	38 160	35 123	33 706	32 644	-18.6%
Emissions ceiling for non-ETS (ESD)	-	-	-	-	-	-	-	36 829	35 925	•
Over fulfillment for non-ETS (ESD)	-	-	-	-	-	-	-	3 123	3 282	•
Observed net emissions in total [4)]		**76 918**	**83 737**	**75 849**	**72 824**	**65 116**	**55 090**	**57 913**	**52 749**	**-31.4%**
Emissions from energy consumption		**51 859**	**59 866**	**52 437**	**49 896**	**48 541**	**38 748**	**40 610**	**36 387**	**-29.8%**
Energy and transformation sector		26 248	32 554	26 044	23 148	24 079	16 783	19 019	15 549	-40.8%
Final energy consumption		25 611	27 312	26 393	26 749	24 461	21 965	21 591	20 838	-18.6%
- Transport		10 904	12 416	12 486	13 621	13 333	12 364	12 190	12 359	13.3%
- Agriculture and industry		5 517	5 995	6 115	5 623	4 601	4 285	4 196	4 234	-23.3%
- Commercial and public services and households		9 190	8 901	7 792	7 505	6 527	5 317	5 205	4 245	-53.8%
Industrial process, flaring etc.		**2 858**	**3 577**	**4 720**	**3 664**	**2 601**	**2 487**	**2 525**	**2 469**	**-13.6%**
Transient emissions and flaring		516	698	1 088	876	567	367	392	398	-22.9%
Industrial process		2 342	2 879	3 632	2 789	2 034	2 121	2 133	2 071	-11.6%
Emissions from agriculture		**12 728**	**12 198**	**11 337**	**10 966**	**10 595**	**10 464**	**10 536**	**10 570**	**-17.0%**
Animals digestion		3 955	3 848	3 522	3 390	3 549	3 597	3 598	3 636	-8.1%
Animal manure		2 789	3 099	3 350	3 510	3 140	3 006	2 930	2 947	5.6%
Agricultural land		5 984	5 251	4 465	4 066	3 906	3 861	4 008	3 987	-33.4%
Other emissions		**2 001**	**1 824**	**1 717**	**1 466**	**1 311**	**1 283**	**1 330**	**1 322**	**-33.9%**
Waste deposit		1 774	1 556	1 276	1 099	931	882	847	826	-53.5%
Sewage treatment		157	167	166	169	163	162	168	170	8.1%
Other waste		70	100	275	198	216	239	314	327	365%
Forestry and land use [5)]		**6 247**	**5 129**	**4 760**	**6 094**	**1 513**	**1 633**	**2 462**	**1 580**	•
Forestry [5)]		- 234	- 559	- 657	551	-3 691	-3 954	-2 463	-3 735	•
Land use [5)]		6 480	5 688	5 418	5 543	5 204	5 588	4 926	5 315	•
Indirect CO_2-emissions		**1 225**	**1 143**	**877**	**736**	**556**	**474**	**451**	**421**	**-65.6%**

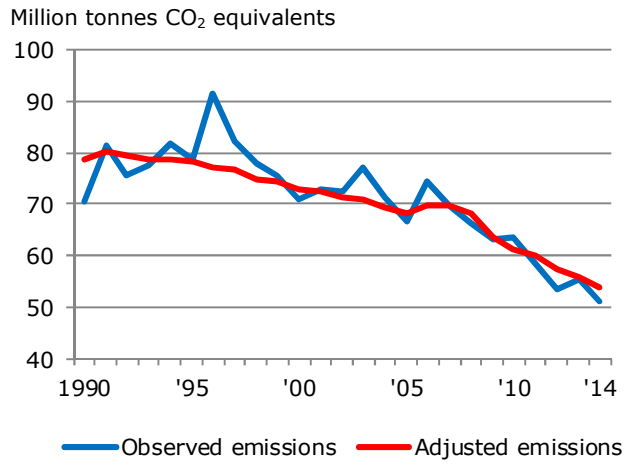
Note 1: This table only includes Denmark's emissions and removal of greenhouse gases. In the total climate accounts in relation to the Kyoto Protocol, credits that are part of the CO_2 removal under "Forestry and land use", credits from reductions achieved through projects in other countries and purchases of emission allowance, must also be included. The base year stated is the non-ETS emissions set in 2010 for 2005.
1) The changes have been stated in relation to 1990, except for ETS, ESD and domestic aviation, where the reductions have been stated in relation to 2005 (for ESD and domestic aviation in relation to the baseline year for ESD set in 2010).
2) Total emissions without the contribution from "Forestry and land use", as only a part of this is to be included in the climate accounts in the Kyoto Protocol.
3) CO_2 emissions from domestic aviation are shown separately here and as part of ETS, even though these emissions were in practice included under ESD in the period 2005-2011. ESD emissions have been calculated by deducting ETS emissions from the total observed emissions without the contribution from forest "Forestry and land use".
4) Total emissions with the contribution from "Forestry and land use", in which CO_2 removals has been included as negative emissions.
5) The figures are not directly comparable with contributions from forestry and soil, which are included in Denmark's reduction commitment in the Kyoto Protocol.

Observed and adjusted emissions of greenhouse gases

1000 tonnes CO_2 equivalents	1990	2000	2005	2010	2013	2014	2015*	Change '90 - '15
Observed emissions, total [1)]	**70 671**	**71 088**	**66 729**	**63 603**	**55 451**	**51 169**	**48 677**	**-31.1%**
Adjusted emissions, total [1)]	**78 645**	**72 838**	**68 276**	**61 239**	**55 993**	**54 064**	**52 715**	**-33.0%**

Note 1: See note 1 above.
Note 2: Denmark's greenhouse gas inventory must be reported internationally without adjustments for fluctuations in climate or fuel consumption linked to foreign trade in electricity. The adjusted greenhouse gas inventory can only be used to illustrate the effect of initiatives and other national impacts influencing CO_2 emissions connected to Denmark's own energy consumption.
1) See 2) above.
* The preliminary emissions statement for 2015 is solely based on CO_2 emissions from energy consumption and flaring as calculated in the Energy Statistics 2015. Total greenhouse gas emissions are calculated by assuming that all emissions other than CO_2 from energy consumption and flaring are constant at the values for 2014, calculated by DCE - Danish Centre for Environment and Energy.
Source: DCE - Danish Centre for Environment and Energy

Emissions of greenhouse gases



The figure shows emissions of greenhouse gases, excluding the effects of CO_2 removal by forests and land use.

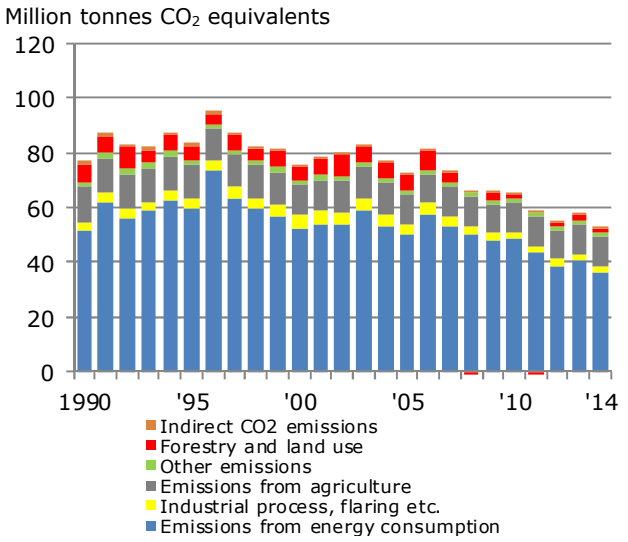
Observed emissions of greenhouse gases were 51.2 million tonnes of CO_2 equivalents in 2014, which is 7.7% less than in 2013.

Adjusted for climatic variations and fuel consumption linked to foreign trade in electricity, emissions of greenhouse gases were 54.1 million tonnes of CO_2 equivalents in 2014, which is 3.4% less than in 2013.

Source: DCE - Danish Centre for Environment and Energy

www.dce.au.dk

Observed net emissions of greenhouse gases by origin



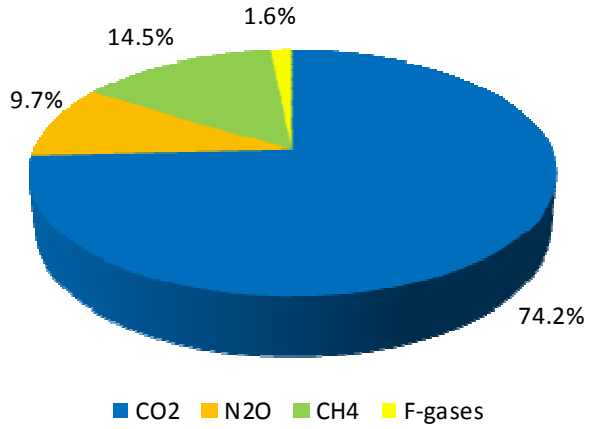
Emissions from energy consumption make the largest contribution to total net emissions of greenhouse gases. Such emissions derive from the energy and transformation sector as well as from final energy consumption. The second-largest contribution derives from agriculture.

In 2014 observed emissions excluding CO_2 removals from forestry and land use were: Emissions from energy consumption 69.0%, emissions from agriculture 20.0%, industrial processes, flaring etc. 4.7% and other emissions 2.5% and indirect CO_2 emissions of 0.8%. CO_2 removals from forestry and land use corresponded to a deduction of 3.0% from observed emissions.

Source: DCE - Danish Centre for Environment and Energy

www.dce.au.dk

Observed emissions by type of greenhouse gases in 2014



The greenhouse gases included in the statement of total emissions contribute with different percentages. With 74.2%, CO_2 accounted for the largest part of total greenhouse gas emissions in 2014. With 14.5%, methane (CH_4) was the second-largest contributor to total emissions, followed by nitrous oxide (N_2O) with 9.7% and F-gases with 1.6%.

The primary source of CO_2 emissions is fuel consumption for energy purposes. The primary source of both methane and nitrous oxide emissions is agriculture, but waste also significantly contributes to methane emissions.

Source: DCE - Danish Centre for Environment and Energy

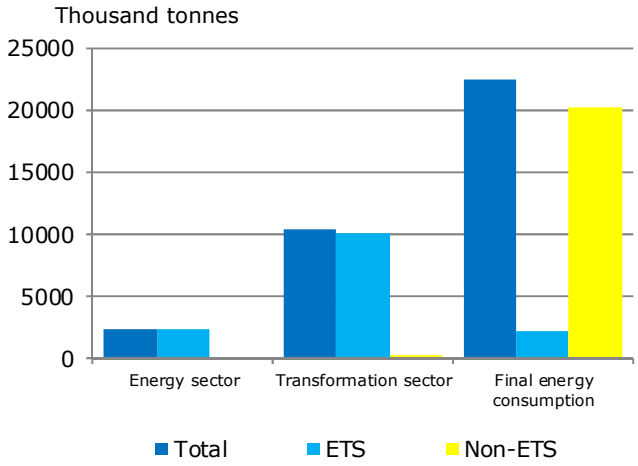
www.dce.au.dk

ETS and non-ETS CO_2 emissions from energy consumption 2013-2015

1000 tonnes	Observed CO_2 emissions from energy consumption								
	Total			EU ETS			Non-EU ETS		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Total	**41 752**	**37 651**	**35 158**	**20 492**	**17 261**	**14 631**	**21 259**	**20 390**	**20 527**
Energy sector	**2 278**	**2 277**	**2 346**	**2 278**	**2 277**	**2 346**	**0**	**0**	**0**
Transformation sector	**16 779**	**13 297**	**10 413**	**16 177**	**12 801**	**10 110**	**602**	**496**	**304**
Final energy consumption	**22 695**	**22 076**	**22 398**	**2 037**	**2 182**	**2 175**	**20 658**	**19 894**	**20 223**
Transport*	14 313	14 437	14 640	107	99	91	14 206	14 338	14 549
Agriculture and industry	5 087	4 955	4 934	1 930	2 083	2 084	3 156	2 872	2 850
- agriculture, forestry and horticulture	1 278	1 178	1 186	13	11	18	1 265	1 167	1 169
- manufacturing	3 039	3 044	2 984	1 917	2 072	2 067	1 122	973	917
- other industry	769	733	764	-	-	-	769	733	764
Commercial and public services	726	579	634	-	-	-	726	579	634
Households	2 569	2 104	2 190	-	-	-	2 569	2 104	2 190

Note 1: The first three columns of figures include CO_2 emissions from oil, natural gas and non-renewable waste.
Note 2: The table does not include emissions from industrial processes and flaring.
Note 3: From 2013 non-renewable waste is covered by the EU ETS (EU Emission Trading System). CO_2 emissions from own consumption by waste incineration plants (industry code 383921) have been included under the transformation sector.
* Of the stated Danish CO_2 emissions in the transport sector the stated EU ETS CO_2 emissions are from domestic flights. However, the statement is inclusive of CO_2 emissions from non-scheduled flights which are not covered by the EU ETS.

Observed CO_2 emissions from energy consumption in 2015, EU ETS and non-EU ETS sectors



The EU Emission Trading System (EU ETS) comprises almost half the CO_2 emissions from energy consumption. However, the share varies considerably from sector to sector.

In the energy sector, which includes refineries and oil and gas production plants in the North Sea, all emissions are covered by the EU ETS. In the transformation sector, which includes power plants and district heating plants, if non-renewable waste is excluded, the picture is almost the same.

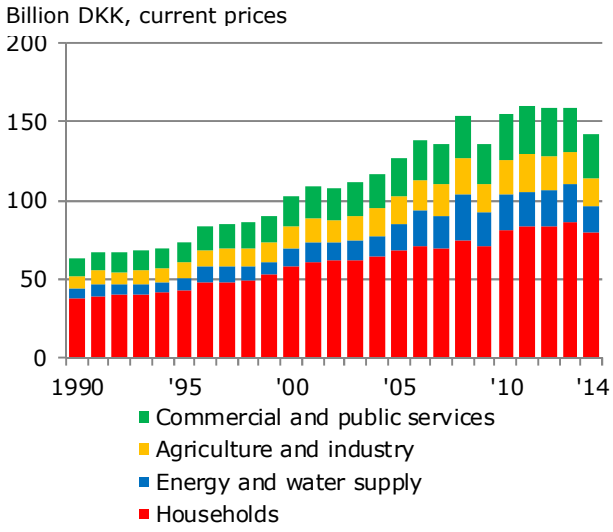
In relation to emissions linked to final energy consumption, i.e. emissions from burning oil, natural gas and coal by enterprises, households and means of transport, less than 10% is covered by the EU ETS. In this context, almost all emissions can be attributed to manufacturing industries.

Total observed emissions of greenhouse gases, EU ETS and non-EU ETS sectors

1000 tonnes CO_2 equivalents	Total	EU ETS, from energy consumption	EU ETS, from industries and flaring	Non-EU ETS
2014	**51 169**	17 261	1 227	**32 681**
2015	**48 677**[*)]	14 631	1 257	**32 789**

Note: The preliminary emissions statement for 2015 is solely based on CO_2 emissions from energy consumption and flaring as calculated in the Energy Statistics 2015. Total greenhouse gas emissions are calculated by assuming that all emissions other than CO_2 from energy consumption and flaring are constant at the values for 2014, calculated by DCE - Danish Centre for Environment and Energy.

Energy expenses by industry and households



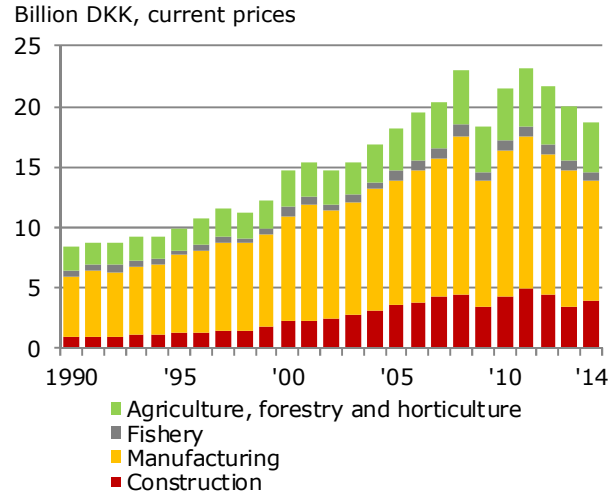
Energy expenses have been calculated based on purchase prices for the year, including taxes and VAT. For industries, as a general rule, a full refund of energy taxes (but not CO_2 taxes) and VAT applies.

Total energy expenses by industry and households amounted to DKK 142.0 billion in 2014, which is 10.7% less than the year before. For households energy expenses were DKK 79.8 billion; for agriculture and industry (excluding oil refineries) expenses were DKK 18.8 billion; while for commercial and public services expenses were DKK 27.4 billion.

Energy expenses in current prices increased during the period from 1990-2014. The fall from 2008 to 2009 is due to a reduction in energy consumption. The reason for the large drop in expenses from 2013 to 2014 is a drop in consumer prices and less energy consumption, especially for heating.

Source: Statistics Denmark

Energy expenses in agriculture and industry



Energy expenses for agriculture and industry can be further analysed between four sub-sectors.

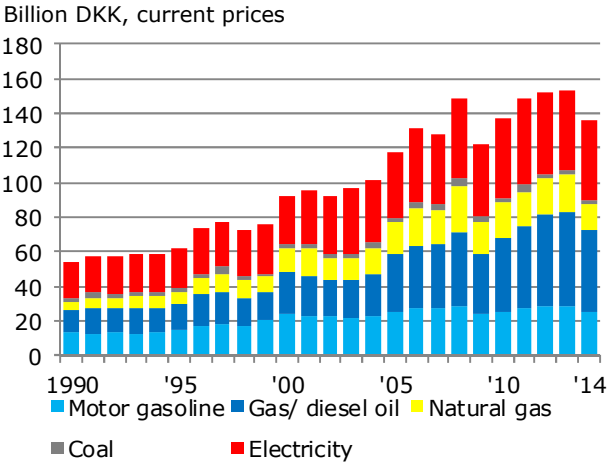
Energy expenses for manufacturing industries (DKK 10.0 billion) accounted for the major part of agriculture and industry's energy expenses in 2014 (53.1%).

With DKK 4.3 billion (22.7%), agriculture, forestry and horticulture contributed the second-largest share. The third-largest share was contributed by construction with DKK 3.9 billion (20.8%). Finally, with DKK 0.6 billion (3.4%), fishing accounted for the smallest share of energy expenses.

In the period 1990-2014, manufacturing industries' share of the agriculture and industry sector's energy expenses followed a downward trend, while the energy expenses of construction have followed an upward trend. There was a small drop in fishing's share during the period.

Source: Statistics Denmark

Energy expenses by fuel



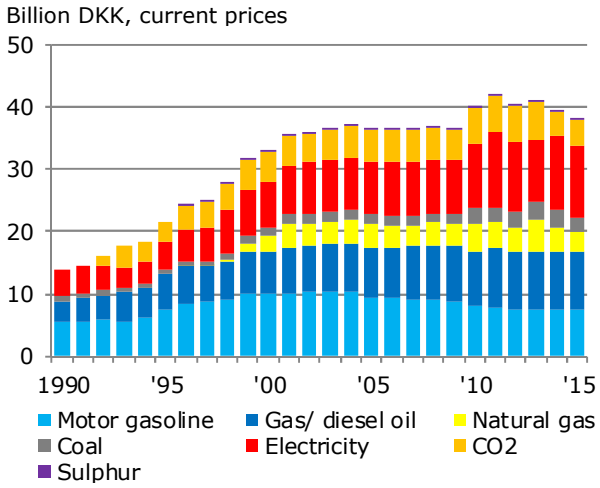
Energy expenses include i.a. motor gasoline, gas/diesel oil, natural gas, coal and electricity. These five fuels account for almost 50% of total energy expenses of DKK 279 billion, when including expenses for foreign bunkering of Danish vessels and oil refineries.

Of these fuels, the greatest share of energy expenses in 2014 was attributable to gas/diesel oil (DKK 47.4 billion). Electricity accounted for the second-largest share (DKK 46.1 billion). However, seen over the period 1990-2014, electricity usually accounts for the largest share.

This is followed by motor gasoline (DKK 25.5 billion), natural gas (DKK 14.3 billion), and coal (DKK 2.2 billion).

Source: Statistics Denmark

Revenue from energy, CO_2 and sulphur taxes



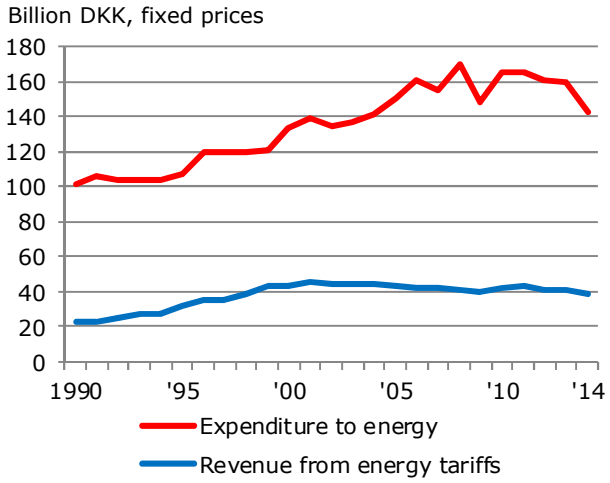
In 2015, revenues from energy taxes calculated in current prices were DKK 37.8 billion, which is a drop of 3.3% compared with 2014. In addition to energy taxes, revenues include CO_2 and sulphur taxes. The largest contributions to revenues in 2015 is from electricity (DKK 11.5 billion), gas/diesel oil (DKK 9.4 billion), motor gasoline (DKK 7.4 billion) and CO_2 taxes (DKK 4.2 billion).

The 2015 revenues in current prices increased by 172% compared with 1990, when there were no CO_2 and sulphur taxes. Gas/diesel oil, electricity and motor gasoline have seen growths of 198%, 167% and 30.4%, respectively, since 1990.

In 2014 and 2015, energy, CO_2 and sulphur taxes amounted to 4.0%, of total tax and VAT revenues in Denmark.

Source: Statistics Denmark

Energy expenditures and tax revenues, fixed prices



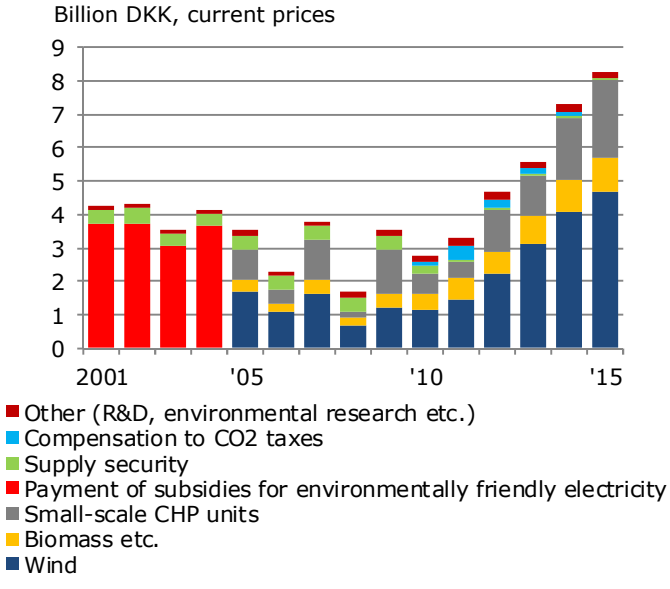
In order to assess changes in energy expenses and tax revenues in relation to general price fluctuations, the figures have been converted to 2014 prices.

Measured as 2014 prices, energy expenses in 2014 were 11.2% lower than in the previous year. Compared with 1990, energy expenses have risen by 39.3%.

Revenues from energy taxes measured in 2014 prices rose by 74% from 1990 to 2013. Since 2005, revenues have remained at the same level.

Source: Statistics Denmark

Expenses for Public Service Obligations (PSO) in the electricity area

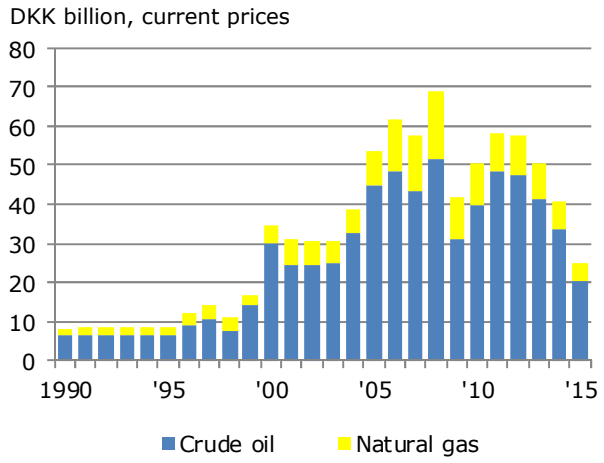


Total expenses for Public Service Obligations (PSO) were DKK 8.3 billion in 2015, compared with DKK 7.3 billion the year before. The increase in PSO expenses from 2014 to 2015 is attributable in particular to low prices on the electricity market and an increased wind power production.

For 2015, total funding support for environmentally friendly electricity production was DKK 8.0 billion, divided between DKK 4.7 billion for wind power, DKK 2.3 billion for small-scale CHP and DKK 1.0 billion for biomass.

In 2010, compensation for CO_2 taxes was introduced, but this compensation was cancelled at the end of 2014.

Value of crude oil and natural gas production



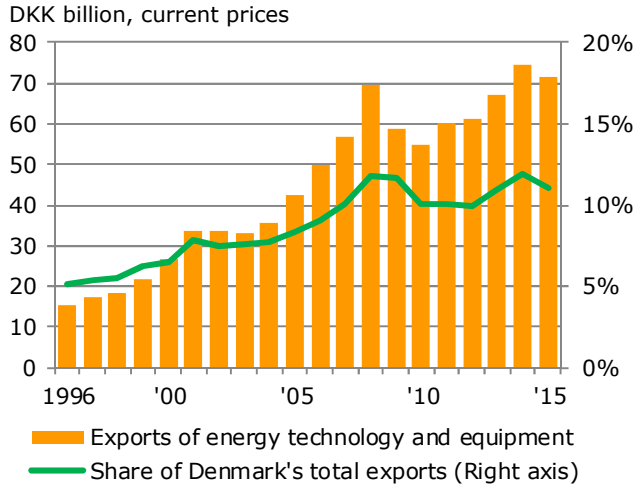
The value of the crude oil and natural gas produced from the North Sea in 2015 was DKK 24.8 billion, compared with DKK 40.7 billion the previous year. The value of crude oil fell from DKK 33.6 billion to DKK 20.1 billion, and the value of natural gas fell from DKK 7.1 billion to DKK 4.8 billion.

The value of the North Sea production depends on the scale of production as well as on world market prices. In 2015, the production of crude oil and natural gas fell by more than the production value. Production of crude oil fell by 5.4% while the production of natural gas was unchanged in 2015.

Compared with 1990, the value of the North Sea production has increased more than threefold.

Source: Danish Energy Agency.

Exports of energy technology and equipment



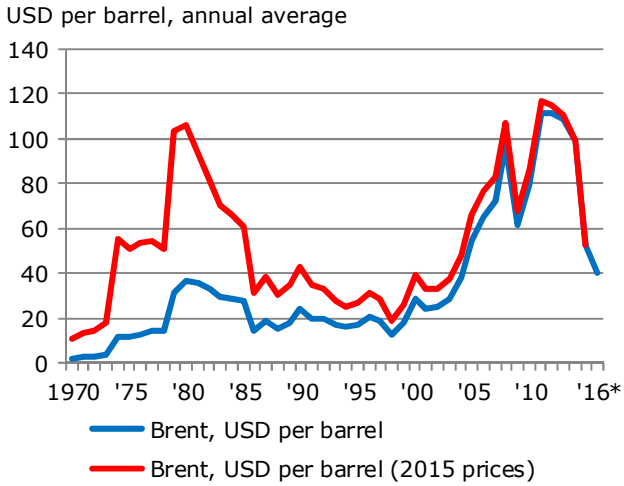
Exports of energy technology and equipment such as wind turbines, district heating pipes, thermostat valves, pumps etc. increased rapidly up to the year 2008.

Following falls in 2009 and 2010, exports increased once more in 2011 and continued until 2014. The exports fell from 2014 to 2015 and were 3.9% lower in 2015 than the year before. In 2015, Denmark exported energy technologies and equipment at a value of DKK 71.4 billion, corresponding to 11.1% of total Danish goods exports.

For more information see the publication on Danish energy technology exports 2015, "Energiteknologieksporten 2015", which is published as collaboration between the Danish Energy Agency, DI Energy and the Ministry of Business and Growth. The publication is available in Danish at the website of the Danish Energy Agency.

Source: Eksport af energiteknologi 2015

Spot market prices for crude oil



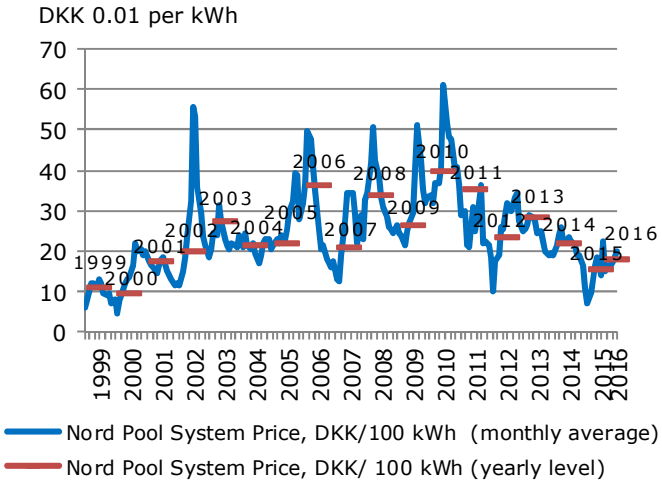
*Prices for 2016 cover only the first six months.

The average crude oil price was USD 52 per barrel in 2015. This is a relatively high price compared with the level in the mid-1980s and 20 years onwards, but it is a relatively low price compared with the level just before and during the economic crisis in 2008 and the period from 2011 to mid-2014.

The current price level established itself in 2014 when, in the second half year up to the start of 2015, the price halved from around USD 100 to about USD 50 per barrel. The reason for the current relatively low price compared with 2011-2014 is the relatively large amount of oil available on global markets compared with demand. This is due to many factors, including low global economic activity, falling demand from China and increased production in the US.

Source: BP and the World Bank (prices for 2016)

Spot market prices for electricity



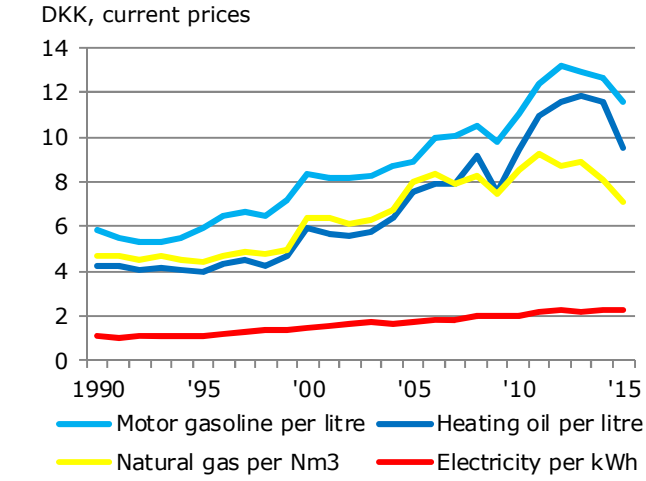
The system price of electricity on NordPool is set hour by hour on the basis of supply and demand. The price is affected by a number of factors, including precipitation and temperature. For example, the winter 2010/2011 was affected by concerns over water shortages and increasing electricity consumption in Norway because of low temperatures, and this resulted in high prices. The market price of electricity in Denmark may deviate from the system price because of restrictions in transfer capacity between areas.

The average system price of electricity per kWh was DKK 0.16 in 2015 as opposed to DKK 0.22 in 2014.

In the first half of 2016, the average system price was DKK 0.18 per kWh.

Source: NordPool

Energy prices for households



The energy prices shown are annual averages of current consumer prices, i.e. including energy and CO_2 taxes and VAT.

The price of heating oil was DKK 9.49 per litre in 2015, as opposed to DKK 11.54 per litre the year before, corresponding to a fall of 17.8%. In the period 1990-2015 the price increased by 124%.

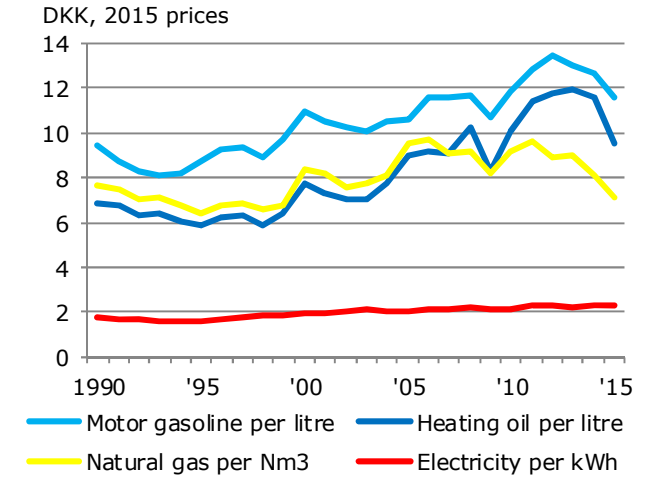
The price of natural gas for households was DKK 7.10 per Nm^3 in 2015, as opposed to DKK 8.10 per Nm^3 the year before, corresponding to a drop of 12.3%.

The price of a litre of motor gasoline was DKK 11.60 in 2015, compared with DKK 12.60 in 2014, corresponding to a drop of 7.9%. The drop in the price is attributable to a lower price of crude oil in 2015 than in the year before. The tax on motor gasoline has varied considerably over time and this has affected the price.

The price of electricity was DKK 2.28 per kWh in 2015, as opposed to DKK 2.27 in 2014, corresponding to a rise of 0.6%.

Source: Eurostat (electricity and natural gas) and EOF (oil products)

Energy prices for households

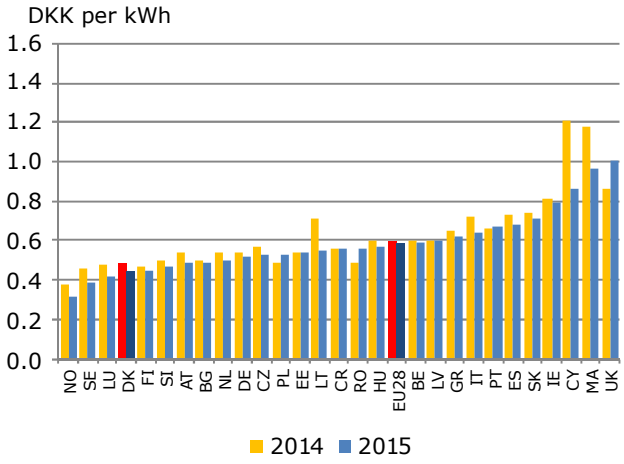


Household energy prices have been calculated at 2015 prices by adjusting current prices for changes in the general price level as stated in the consumer price index. Measured in 2015 prices, the price per litre of motor gasoline dropped 8.3% in 2015 compared with 2014.

Over a period in the 1990's the price of heating oil fluctuated around DKK 6 per litre. Since 2000, however, the price has been above this level and in 2015 it was DKK 9.49 per litre, which is 18.1% lower than in 2014. The price of natural gas was DKK 7.10 per Nm^3 in 2015, which is 12.7% lower than the year before. The price of electricity in 2015 prices was 0.2% higher in 2015 than the year before.

Source: Eurostat (electricity and natural gas) and EOF (oil products), DEA

Electricity prices for industrial customers



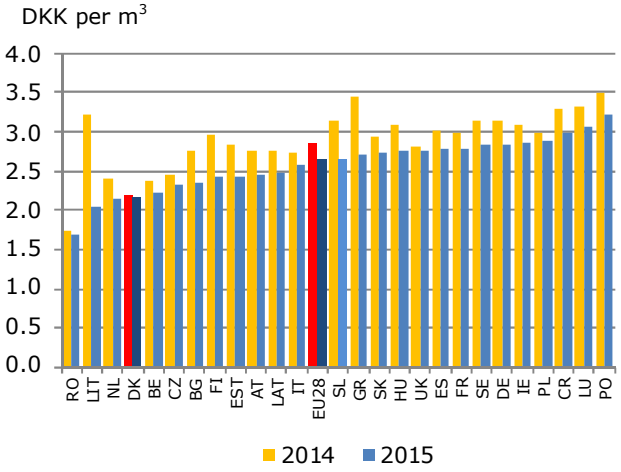
Electricity prices are shown in current prices (DKK per kWh) exclusive of taxes for industry customers with an annual consumption between 2 - 20 GWh.

In 2015, the price of electricity per kWh varied in the EU Member States (EU28) from DKK 0.39 in Sweden to DKK 1.00 in United Kingdom. Norway had an electricity price of DKK 0.32 per kWh.

In 2015 the Danish electricity price was DKK 0.45 per kWh. This was 23.9% lower than the average price in EU28, which was DKK 0.59 per kWh. The Danish electricity price fell by 8.1% in 2015 compared with the year before. In EU28, the average electricity price fell by 1.6% between 2014 and 2015.

Source: Eurostat

Natural gas prices for industrial customers



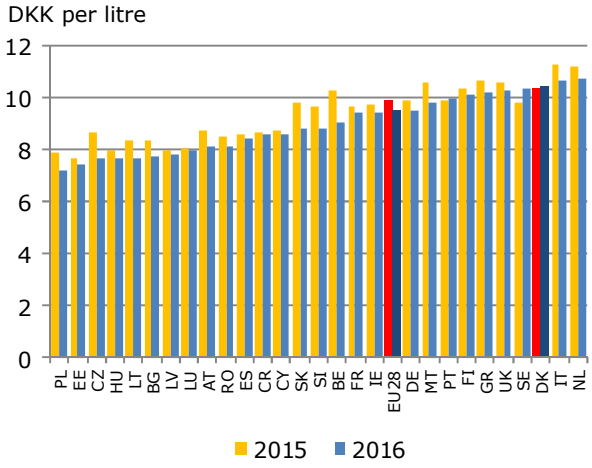
Natural gas prices are shown in current prices (DKK per m^3) exclusive of taxes for industry customers with an annual consumption of 10 TJ to 100 TJ.

In 2015, the price of natural gas per m^3 varied in the EU28 Member States from DKK 1.68 in Romania to DKK 3.22 in Poland. The Danish price in 2015 was DKK 2.17, while the average EU28 price was DKK 2.65.

In 2015, the Danish price of natural gas was 1.2% lower than in 2014, while the average EU28 price was 7.7% lower.

Source: Eurostat

Motor gasoline prices



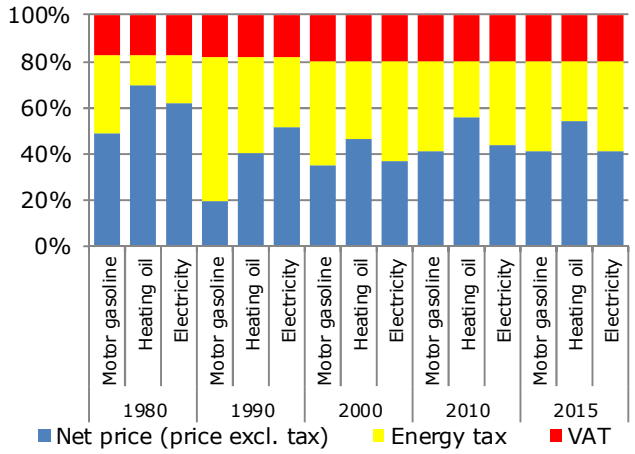
The price of motor gasoline in week 1 in 2015 and 2016, respectively, are shown in current prices (DKK per litre). Prices are for motor gasoline 95 unleaded, including taxes. The average for the EU28 Member States is a weighted average.

In 2016, the lowest price, DKK 7.23 per litre, was in Poland, while the highest price, DKK 10.73, was in Netherlands. In Denmark, the price per litre was DKK 10.43, while the average price in EU28 was DKK 9.54 per litre.

The price of motor gasoline fell from 2015 to 2016 in all EU28 Member States except from in Portugal, Sweden and Denmark. The largest drop was in Belgium, where the price fell by 12.4% within a year. In Denmark, the price of motor gasoline grew by 0.6% during the same period.

Source: Oil Bulletin, European Commission

Composition of energy prices for households



Expenses on taxes increased considerably from 1980 to 1990. Since then, the share of the consumer price which comprises taxes has been falling for motor gasoline and heating oil. For electricity, the tax share continued to increase up to 2000, after which it went down again.

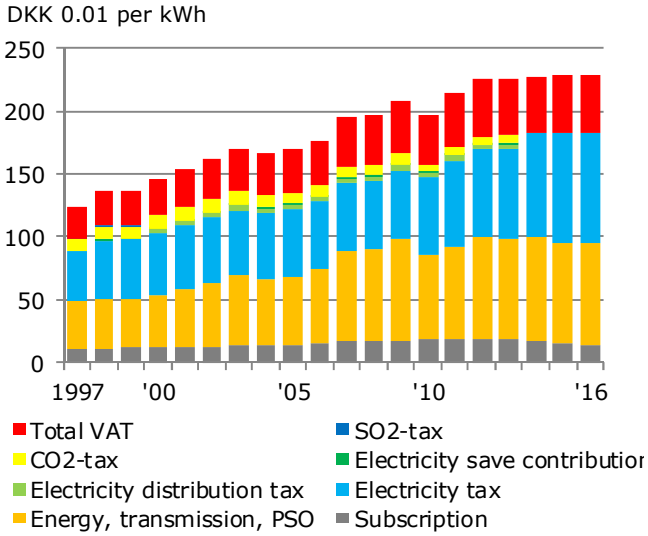
The price of motor gasoline in 2015 of DKK 11.60 per litre was made up as follows: Price exclusive of taxes and VAT 40.7%, taxes 39.3% and VAT 20.0%.

The price of heating oil in 2015 of DKK 9.49 per litre was made up as follows: Price exclusive of taxes and VAT 53.7%, taxes 26.3% and VAT 20.0%.

The price of electricity in 2015 of DKK 2.28 per kWh was made up as follows: Price inclusive of PSO and exclusive of taxes and VAT 41.2%, taxes 38.8% and VAT 20.0%.

Source: Eurostat (electricity) and EOF (oil products)

Electricity prices for households 1997-2016 (as of 1 January), consumption of 4000 kWh



At the beginning of 2016, the average price of electricity for household customers with an annual consumption of 4,000 kWh was DKK 2.29 per kWh, which constitutes a slight decrease of 0.1% from the year before. The price of electricity has increased by 48.8% since 2001.

Total tax revenues for the state per kWh in 2016 were DKK 1.34 compared with DKK 0.96 in 2001. Until 2014 these taxes included: Electricity tax, electricity distribution tax, electricity savings contribution, CO_2 tax (electricity savings tax) and VAT. From 2014 these taxes were changed to include only electricity tax and VAT.

The payment for the actual energy per kWh (inclusive of PSO and electricity transmission) was DKK 0.81 in 2016, as opposed to DKK 0.46 in 2001, while subscription costs per kWh were DKK 0.15 as opposed to DKK 0.13 in 2001.

Source: Danish Energy Association

CO_2 prices (EUR/tonne)

The price of allowances in the EU ETS has varied greatly since the beginning in 2008.

Prices for allowances in the period 2008-12, which also reflect expectations up to 2020, also dropped significantly as of the summer of 2008 in parallel with expectations for lower energy consumption and emissions in the coming years due to the economic slowdown. The allowance price was relatively stable from April 2009 to June 2011. After this time it fell additionally in step with an increasing surplus of allowances due to the continuing economic crisis and a steeply falling price of international climate credits. From mid-2013 the trend in the allowance price is slightly rising, but since the beginning of 2016 the allowance price has been decreasing.

Source: Point Carbon and European Energy Exchange

Energy consumption in EU28 and other countries 2014 - by share of renewable energy

	Energy consumption[1]. PJ	Share in percentage						
		Oil	Natural gas	Coal	Nuclear power	Renewable energy and waste[2]	Of which. biomass and waste	Other
Latvia	186	32	24	1	0	36 (39)	32	6
Sweden	2 017	25	2	4	35	36 (53)	21	-2
Austria	1 368	36	20	9	0	30 (33)	15	5
Finland	1 448	28	7	13	18	29 (39)	24	5
Denmark	**708**	**39**	**17**	**14**	**0**	**26 (29)**	**18**	**4**
Portugal	925	46	16	12	0	25 (27)	12	1
Croatia	343	39	25	8	0	24 (28)	14	4
Lithuania	280	37	31	4	0	19 (24)	17	10
Romania	1 352	27	29	18	9	19 (25)	11	-2
Slovenia	280	35	9	16	25	18 (22)	9	-3
Italy	6 323	37	34	9	0	18 (17)	7	3
Spain	4 885	42	20	10	13	15 (16)	5	0
Estonia	282	16	6	67	0	13 (27)	12	-3
EU28	**67 237**	**34**	**21**	**17**	**14**	**13 (16)**	**7**	**1**
Germany	13 103	35	20	25	8	11 (14)	7	0
Bulgaria	742	22	13	36	23	10 (18)	6	-4
Greece	1 023	49	10	27	0	10 (15)	4	3
Poland	3 949	24	14	52	0	9 (11)	7	1
Slovakia	677	20	23	21	25	9 (12)	5	2
Czech Republic	1 736	22	15	38	19	9 (13)	7	-3
France	10 404	31	13	4	45	9 (14)	4	-2
Hungary	953	28	31	10	18	8 (10)	7	5
Ireland	568	49	27	15	0	7 (9)	3	2
UK	7 927	36	32	16	9	6 (7)	4	1
Belgium	2 234	44	24	6	16	6 (8)	4	4
Cyprus	93	94	0	0	0	6 (9)	1	0
Luxembourg	176	63	20	1	0	5 (5)	2	11
Netherlands	3 216	42	38	12	1	4 (6)	3	3
Malta	37	98	0	0	0	2 (5)	0	0
Norway	1 224	39	17	3	0	45 (69)	4	-4
USA	92 926	40	28	19	10	7	3	-4
Japan	18 495	39	24	27	0	4	2	5

[1] Source: Eurostat (Gross inland consumption). Corresponds to "gross energy consumption". however without e.g. adjustments for conversion loss in connection with foreign trade in electricity.
[2] The statement figures in brackets are according to the EU Directive on renewable energy. The percentage share for other fuels is the Danish Energy Agency's calculation based on figures from Eurostat. For a more detailed explanation. See pages 8 and 9.
Source: Eurostat and IEA (figures for USA and Japan)

Consumption of renewable energy in EU28 and other countries in 2014

		Share in percentage					
	Consumption of renewable energy and waste. PJ	Hydro	Wind	Solar	Geo-thermal	Biomass. incl. waste	Biofuels
Latvia	68	10.6	0.8	0.0	0.0	87.1	1.5
Sweden	723	31.8	5.6	0.1	0.0	57.5	5.0
Austria	410	36.0	3.4	1.9	0.3	51.3	6.4
Finland	425	11.3	0.9	0.0	0.0	83.0	4.7
Denmark	**186**	**0.0**	**25.4**	**0.7**	**0.1**	**66.8**	**5.9**
Portugal	231	24.2	18.8	1.4	3.4	46.2	5.0
Croatia	84	38.6	3.1	0.5	0.5	55.7	1.5
Lithuania	53	2.7	4.3	0.0	0.1	87.4	4.9
Romania	256	26.4	8.7	0.0	0.5	59.4	2.7
Slovenia	51	42.8	0.0	0.9	2.6	48.2	3.7
Italy	1 110	19.0	4.9	0.7	19.7	41.2	7.2
Spain	744	19.0	25.2	13.5	0.1	32.8	5.5
Estonia	36	0.3	6.0	0.0	0.0	93.0	0.7
EU28	**8 426**	**16.0**	**10.8**	**2.0**	**3.1**	**56.5**	**7.6**
Germany	1482	4.8	13.9	1.8	0.5	61.8	8.4
Bulgaria	75	22.1	6.4	1.1	1.9	56.3	6.2
Greece	102	15.7	13.0	7.8	0.5	43.3	6.4
Poland	360	2.2	7.7	0.2	0.2	81.5	8.2
Slovakia	59	25.5	0.0	0.4	0.5	60.5	9.4
Czech Republic	152	4.5	1.1	0.4	0.0	80.1	8.8
France	893	25.3	7.0	0.5	1.0	50.1	13.5
Hungary	80	1.4	2.9	0.3	6.7	79.2	9.2
Ireland	40	6.3	46.0	1.3	0.0	37.1	9.4
UK	507	4.2	22.7	0.4	0.0	60.5	9.3
Belgium	141	0.7	11.8	0.6	0.1	67.0	12.4
Cyprus	6	0.0	11.8	50.4	1.2	23.8	7.4
Luxembourg	8	4.9	3.6	1.6	0.0	48.0	37.7
Netherlands	142	0.3	14.7	0.8	1.1	71.4	9.8
Malta	1	0.0	0.0	24.1	0.0	14.9	27.8
Norway	548	89.2	1.5	0.0	0.0	8.3	1.0
USA	6 131	15.4	10.8	1.9	6.0	41.5	0.0
Japan	807	36.5	2.2	1.9	12.4	47.0	185.8

Source: Eurostat and IEA (figures for USA and Japan)

Key figures 2014 – ranked by degree of self-sufficiency

	Self-sufficiency, %			Energy consumption per capita, GJ		Energy intensity, gross energy consumption in toe per 1 million EUR (2010 prices)	
	Total	Oil	Natural gas	Gross energy consumption	Final energy consumption	2000	2014
Denmark	**93**	**123**	**147**	**126**	**101**	**101**	**67**
Estonia	87	0	0	214	90	629	391
Romania	82	47	94	68	46	606	235
Netherlands	76	5	173	191	118	157	119
Poland	71	4	28	104	68	424	233
Sweden	71	0	0	209	135	187	123
Czech Republic	70	2	3	165	92	481	256
Bulgaria	64	1	7	102	52	1040	445
UK	57	56	55	123	84	143	96
Slovenia	55	0	0	136	94	268	185
France	55	1	0	158	90	162	120
Latvia	53	0	0	93	81	443	216
Croatia	53	17	71	81	62	270	190
Finland	52	0	0	266	188	235	186
EU28	**48**	**12**	**34**	**133**	**88**	**171**	**122**
Hungary	44	9	21	97	65	350	218
Slovakia	39	0	2	125	78	604	220
Germany	38	2	11	162	108	159	114
Austria	37	7	17	161	132	128	106
Greece	36	1	0	94	60	179	132
Spain	30	1	0	105	71	160	113
Portugal	27	0	0	89	63	171	131
Italy	24	11	12	104	78	127	98
Belgium	23	0	0	199	127	211	141
Lithuania	22	3	0	95	69	490	203
Ireland	15	0	3	123	98	111	75
Cyprus	5	0	0	109	79	207	128
Luxembourg	4	0	0	321	305	143	95
Malta	1	0	0	87	54	173	119
Norway	671	671	1 923	240	151	121	85
USA	90	61	97	291	202		
Japan	6	0	2	145	97		

Source: Eurostat and IEA (figures for Norway, USA and Japan)

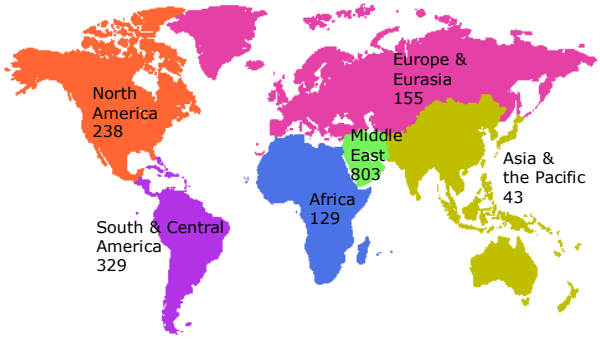
Reserves, production, stocks and consumption of oil by regions

	1980	1990	1995	2000	2005	2010	2014	2015	Change '90 - '15
Oil reserves[1], 1000 million barrels									
The world	**683**	**1028**	**1301**	**1374**	**1636**	**1696**	**1700**	**1698**	**65.2%**
North America	123	125	232	224	222	233	238	238	89.7%
South and Central America	27	72	98	104	324	330	332	329	360%
Europe and Eurasia	84	76	141	139	158	157	155	155	105%
Middle East	362	660	697	756	766	803	804	803	21.8%
Africa	53	59	93	111	125	130	129	129	120%
Asia and the Pacific	34	36	40	41	42	43	43	43	17.3%
Oil production, million tonnes									
The world	**3 092**	**3 175**	**3 618**	**3 938**	**3 979**	**4 126**	**4 228**	**4 362**	**37.4%**
North America	671	655	642	638	639	785	870	910	39.1%
South and Central America	195	234	344	374	376	376	390	396	69.3%
Europe and Eurasia	747	788	729	849	859	833	834	847	7.4%
Middle East	935	852	1 151	1 227	1 221	1 325	1 340	1 412	65.8%
Africa	301	321	371	466	482	414	398	398	24.0%
Asia and the Pacific	245	326	382	383	403	394	397	399	22.3%
Oil stocks*), million tonnes									
The OECD	**271**	**217**	**209**	**208**	**216**	**206**	**209**	**224**	**3.2%**
North America	116	90	73	78	84	77	79	83	-7.7%
Europe	131	106	109	107	109	104	105	114	8.1%
Pacific	23	22	27	22	23	25	25	27	24.3%
Oil consumption, million tonnes									
The world	**2 983**	**3 158**	**3 587**	**3 934**	**4 080**	**4 210**	**4 252**	**4 331**	**37.2%**
North America	928	922	1 061	1 129	1 040	1 025	1 027	1 036	12.4%
South and Central America	173	176	234	249	295	323	330	323	83.4%
Europe and Eurasia	1 200	1 128	933	965	911	865	859	862	-23.6%
Middle East	97	171	243	301	368	402	417	426	148%
Africa	69	96	119	139	164	173	177	183	89.8%
Asia and the Pacific	516	663	997	1 151	1 301	1 422	1 442	1 501	126%
Total energy consumption, Mtoe									
The world	**6 638**	**8 136**	**9 388**	**10 940**	**12 181**	**12 873**	**13 021**	**13 147**	**61.6%**
North America	2 106	2 325	2 758	2 842	2 780	2 796	2 826	2 796	20.2%
South and Central America	262	329	472	531	634	689	698	699	112%
Europe and Eurasia	2 834	3 197	2 814	2 965	2 949	2 898	2 832	2 834	-11.4%
Middle East	130	264	424	568	742	822	849	885	235%
Africa	144	222	274	328	390	414	428	435	95.6%
Asia and the Pacific	1 162	1 798	2 646	3 706	4 687	5 256	5 387	5 499	206%
Oil consumption - total share of energy consumption, %									
The world	**45**	**39**	**38**	**36**	**33**	**33**	**33**	**33**	
North America	44	40	38	40	37	37	36	37	
South and Central America	66	53	50	47	46	47	47	46	
Europe and Eurasia	42	35	33	33	31	30	30	30	
Middle East	75	65	57	53	50	49	49	48	
Africa	48	43	44	42	42	42	41	42	
Asia and the Pacific	44	37	38	31	28	27	27	27	

[1] Crude oil, at the end of the year
*) At the end of the year
Sources: BP Statistical Review of World Energy
IEA, International Energy Agency, Paris

Proved oil reserves at end 2015

Billion barrels



At the end of 2015, the world's total proved oil reserves totalled 1698 billion barrels.

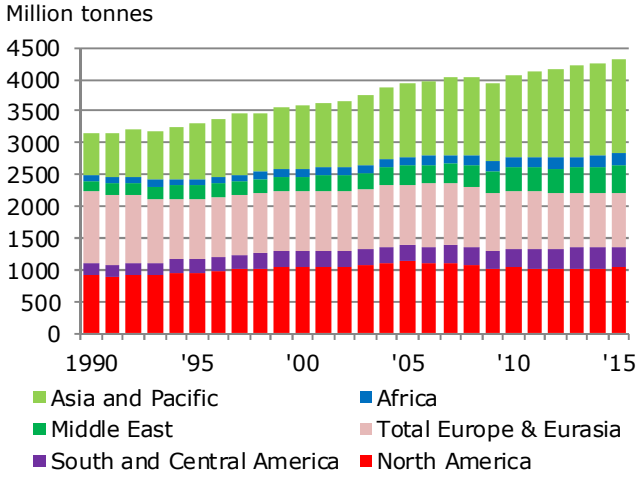
47.3% of crude oil reserves are in the Persian Gulf region, where the fields are relatively large and geologically easily accessible, which means production costs are low.

Comparing proved regional oil reserves with actual regional oil production (reserves-to-production ratio, R/P), shows that Europe and Eurasia have reserves for 24.4 years' unchanged production, while North America has reserves for 33.1 years. The R/P ratio for total world oil reserves is 50.7 years' unchanged production. However, new oil reserves are being discovered continually, and for 2015 oil reserves are almost unchanged compared with 2014.

Source: BP Statistical Review of World Energy

Oil consumption by region

Million tonnes



In 2015, total world oil consumption was 4.331 billion tonnes, which is 1.9% more than the year before. A total of 23.9% of this oil was consumed in North America, which accounted for 20.9% of the world's crude oil production. Europe & Eurasia accounted for 19.9% of oil consumption and 19.4% crude oil production. Neither North America nor Europe & Eurasia are self-sufficient in oil, as their consumption is greater than their production.

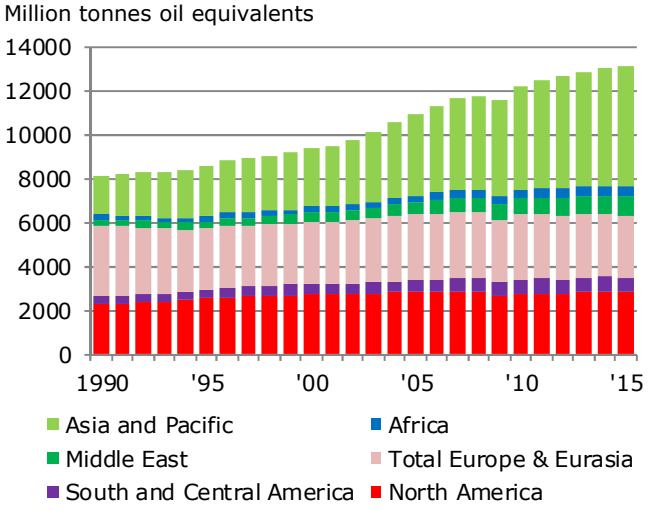
Asia and the Pacific's share of consumption was 34.7% in 2015, the Middle East's share was 9.8%, South and Central America's share was 7.5%, while Africa's share was 4.2%.

Total world oil consumption in 2015 was 32.9% of total world energy consumption compared with 32.7% in 2014. For Europe & Eurasia, this figure was 30.4% compared with 30.3% in 2014.

Source: BP Statistical Review of World Energy

Energy consumption by region

Million tonnes oil equivalents



World energy consumption was 13.147 billion tonnes oil equivalents in 2015, which is 0.97% higher than in 2014. Except for in 2009, world consumption increased steadily over the period 1990-2015. The fall from 2008 to 2009 was due to economic recession, especially in North America and in Europe & Eurasia.

Energy consumption went up in all regions in 2015, except for in North America, where it dropped by 1.1%. In Europe & Eurasia, consumption increased by 0.1% in 2015.

The largest percentage increase in energy consumption from 2014 to 2015 was in the Middle East, where energy consumption went up 4.2%. The Middle East is responsible for 6.7% of total world energy consumption

In 2015, energy consumption increased by 2.1% in the Asia and Pacific region, which was responsible for 41.8% of total world energy consumption.

Source: BP Statistical Review of World Energy

Adjustments for trade in electricity

In the case of net imports of electricity, fuel consumption is added corresponding to the average consumption of a Danish condensation plant if the electricity had been produced in Denmark. For net exports, consumption will be deducted correspondingly.

Agriculture and industry

Includes agriculture, forestry, horticulture, fishing, manufacturing and construction.

Autoproducers

Producers of electricity and/or district heating, whose primary activity is not transformation, e.g. manufacturing companies, horticulture or waste treatment facilities.

Bitumen

A tar-like oil product, the heaviest part of the distillation residue in refining. Bitumen is used as a binding material for the stone material in road asphalt and as a sealing material in construction.

Border trade with oil products

Motor gasoline, gas/diesel oil and petroleum coke purchased by private persons and haulage contractors on one side of the border and consumed on the other side due to differences in consumer prices. Reporting to the IEA and Eurostat does not include border trade.

CO_2 emissions

Emissions of carbon dioxide, mainly from use of energy. There are also a number of other sources, including flaring of gas in the North Sea, incineration of plastic waste and certain industrial processes. Energy statistics only include emissions from the consumption of oil, natural gas and coal.

Calorific value

The amount of energy released when combustible matter is burned. Distinction is made between "net" and "gross" calorific values. Gross calorific value is the amount of heat released if the combusted products are cooled enough for their water vapour content to condense completely. The water vapour comes from the actual content of the fuel itself and the combustion of the hydrogen compounds in the fuel. The "net" calorific value is the amount of energy attained when the water remains as vapour. Net calorific value is used in the national Danish energy statistics.

Climate adjustment

Energy consumption for heating in Denmark is somewhat dependent on outdoor temperature, which varies from year to year. A measurement of climatic variations is "degree days", registered by the Danish Meteorological Institute (DMI). The number of "degree days" is calculated as the sum of the days when the mean outdoor temperature is below 17 degrees Celsius multiplied by the difference between 17 degrees Celsius and the mean temperature of the 24-hour period. The climate-adjusted energy consumption for heating purposes is therefore the consumption that would have taken place, had the year been a normal weather year. From the 2005 statistics, the "degree days" of a normal weather year have been fixed as the moving average of degree days in the last twenty years.
However, some of the fuel consumption for heating purposes is independent of outdoor climate, for example heating of water, heat loss from installations and grids etc. This varies according to types of industry and fuel. As a general rule, it is assumed that 65 % of fuel consumption in households as well as the service sector and 50 % in manufacturing are dependent on "degree days". For each sector, the individual fuels have specific values for heating purposes.

Combined heat and power production (CHP)

Simultaneous production of electricity and heat.

Commercial and public services

Includes wholesale, retail, private services and public services. Public services are limited to administration and services available to society on non-market terms.

Condensing production of electricity

Condensing production of electricity at large-scale power plants is defined as a method of production, where the surplus heat from electricity generation is eliminated. In Denmark, this typically takes place when the heat is released into the sea.

Consumption in distribution

Consumption of electricity in connection with electricity, district heating and gas works gas supply.

Consumption in production/own use

Difference between gross and net production of an energy product. Consumption in production comprises the extraction of natural gas (on platforms), the refining of oil products and the conversion of electricity.

Degree of self-sufficiency

In Danish energy statistics, degree of self-sufficiency is calculated as production of primary energy in relation to climate-adjusted energy consumption. In international statistics, production is in relation to observed energy consumption.

Direct energy content

Amount of energy contained in a product. This is calculated on the basis of calorific value per unit of weight or volume for the different energy products and as the energy delivered in the form of electricity, district heating and gas works gas.

Distribution loss

Difference between supply and final consumption of an energy product. For electricity production, it is calculated as the difference between the supply and sale of electricity. In the case of district heating, distribution loss is estimated to comprise 20% of the district heating supplied to the grid. For gas works gas, the loss is estimated to be 4%. In the case of natural gas, the loss is calculated from year to year.

TERMINOLOGY AND DEFINITIONS

Electricity capacity	The maximum instantaneous electricity production from a power plant, combined heat and power plant, wind turbine etc. Electricity capacity is measured in MW (megawatt) or kW (kilowatt). Electricity capacity does not indicate a plant's actual production; rather, the maximum a plant can produce at a given moment.
Electricity intensity	Electricity consumption in relation to gross domestic product (GDP) or gross value added (GVA) at 2010 prices, chained values.
Electricity plant coal	Hard coal used in Danish power plants.
Energy consumption, observed	Registered energy consumption for a given calendar year.
Energy intensity	Energy consumption in relation to gross domestic product (GDP) or gross value added (GVA) at 2010 prices, chained values.
Extraction and refining	Production of natural gas and crude oil and the processing of crude oil and refinery feedstocks.
Final energy consumption	Sum of the consumption by the final users, i.e. private and public enterprises and households. The energy is used in the production of goods and services, heating, lighting, other usage of appliances and transport. There is also consumption for non-energy purposes, e.g. lubrication, cleaning, and bitumen for roads. Energy consumption in connection with extraction of energy, refining and transformation is not included in final energy consumption. Identification and division of final energy consumption is in accordance with the guidelines from the IEA and Eurostat. Energy consumption for road, rail, sea, air and pipeline transport, irrespective of consumer, is classified in a special main category. Hence, energy used in industry and households is calculated excluding consumption for transportation purposes.
Fuel equivalent	Energy content of a quantity of fuel used for producing a given amount of electricity, district heating or gas works gas. In the case of oil, coal, natural gas and renewable energy etc., there is no difference between the amount of energy measured in direct energy content and in fuel equivalent.
Gas/diesel oil	Gas and diesel oils have the same boiling point interval in the refining process. They can be used for the same purposes to a great extent. No distinction is therefore made between the two products in the Danish energy statistics. There are usually more stringent environmental and safety specifications for automotive diesel oil than for heating gas oil. The requirements for marine diesel are less stringent.
Gas works gas	Gas produced in urban gas stations. Gas works gas was formerly produced from coal and oil, but production since 1990 has almost exclusively been by transforming natural gas.
Geothermal energy	Heat energy from the core of the earth. The energy is used to heat water which then is used to either produce district heating or power. In Denmark, geothermal energy is used only for production of district heating.
Gross domestic product (GDP)	The total market value of all final goods and services produced within the borders of a nation during a specified period.
Gross energy consumption	Observed energy consumption adjusted for fuel consumption related to foreign trade in electricity. See "Adjustments for trade in electricity" above.
Gross energy consumption, adjusted	Observed gross energy consumption adjusted for climatic variations in relation to a normal weather year.
Gross value added (GVA)	Equal to GDP at base prices and calculated for the individual enterprise as production at base prices minus production-related consumption at purchasing prices.
Heat pumps	The volume of energy produced by heat pumps is calculated as the difference between the amount of energy supplied and the electricity consumed by heat pumps. An energy-producing appliance regarded as a form of renewable energy.
Imports and exports	Imports and exports refer to goods that have crossed national borders. Greenland and the Faroe Islands are regarded as abroad.
International marine bunkers	Includes deliveries of energy products (oil) in Denmark to sea-going ships of all flags, including warships and foreign fishing vessels. Deliveries to domestic shipping and Danish fishing vessels are not included. International marine bunkers are not included in national energy consumption.
Joule	Unit of measurement of energy. In Danish energy statistics, the following units are used: 1 PJ (Peta Joule) = 10^3 TJ (Tera) = 10^6 GJ (Giga).
JP1 (Kerosene type jet fuel)	Jet Petroleum 1. Designates a petroleum quality different from other types of petroleum in terms of stringent requirements for low water content and unsaturated compounds. Used in aviation.
Large-scale power plants	Plants at 16 specific power stations. East of the Great Belt are Amager, Asnæs, Avedøre, H.C. Ørsted, Kyndby, Svanemølle, Stigsnæs and Rønne power stations. West of the Great Belt are Ensted, Esbjerg, Fyn, Herning, Randers, Skærbæk, Studstrup and Nordjylland power stations. Earlier Aalborg, Århus and Masnedø have also been defined as large scale power plants.
LPG	Liquefied Petroleum Gas (liquid gas, bottled gas). The term for propane, butane and combinations of the two. Used in industry and heating, food preparation and as a propellant. Previously, LPG was also used as a raw material for producing gas works gas.

LVN	Light Virgin Naphtha (light petrol). Used as a component for petrol production and as a raw material for the petrochemical industry. Previously, LVN was also used to produce gas works gas.
Manufacturing	The Danish Energy Agency defines manufacturing differently than Statistics Denmark. In the Danish Energy Agency's statistics, manufacturing industries do not include refineries which have been separated into a separate consumption category, whereas the sector extraction of gravel and stone has been included under manufacturing industries.
Non-energy use	Energy products included in Total energy consumption, which are not used for energy purposes. This category includes products such as white spirit, lubricants and bitumen.
Orimulsion	Type of heavy oil emulsified in water. It comes from the area around the Orinoco River in Venezuela.
Petroleum coke	A solid oil by-product appearing when refining fuel oil in a so-called coker. Approximately 10 % of the material is deposited in the coker as petroleum coke. Primarily used in industry.
Primary production	Production of crude oil, coal, natural gas, renewable energy etc.
PSO	PSO include costs for public service obligations in connection with electricity supply. Such costs are paid by all electricity consumers. PSO includes support to the production of environment-friendly electricity, grid connection of small-scale combined heat and power plants and wind turbines, security of supply, environmental studies about offshore wind turbines, and research and development related to environment-friendly electricity generation as well as compensation for CO_2 taxes.
Recycling	Understood as energy products included in the energy balance for a second time. Currently includes lubricants that have previously been included in final energy consumption for non-energy purposes and which are subsequently included as waste oil.
Refinery feedstocks	Processed oil destined for further processing, products in a stage between raw materials and finished products.
Refinery gas	The lightest fractions obtained in the distillation of crude oil. Refinery gas is non-condensable at normal atmospheric pressure. Primarily used as refinery fuel.
Renewable energy	Renewable energy is defined as solar energy, wind power, hydropower, geothermal power, biomass (straw, wood chips, firewood, wood pellets, waste wood, liquid biofuels, and renewable wastes unless otherwise stated), biogas and heat pumps.
Renewable energy etc.	Renewable energy etc. is defined as "renewable energy" including non-renewable wastes.
Revision of energy statistics	The energy statistics are based on information from multiple sources and a range of assumptions. Insofar as new data about energy supply or consumption become available for a given year, the energy statistics will be revised accordingly. Every year, energy consumption in manufacturing is revised as the statement is partly based on an estimate, which can be replaced by factual data from Statistics Denmark the following year. Also new information concerning production and consumption of renewable energy, including biomass may be provided. Finally, revision of the statistics may be based on a change in delimitations and calculation assumptions.
Small-scale combined heat power (CHP) plants	Plants not included in the list of large-scale power plants, where the production of power and heat is the main activity.
Statistical difference	The difference between calculations of energy consumption based on different sources, which theoretically ought to produce identical results.
Structure effect	Changes in energy consumption owing to shifts in the structure of industry.
Surplus heat	Residual heat from industrial production. Autoproducers sell a great deal of surplus heat from processing to district heating network. District heating resulting from surplus heat is not added to fuels in the energy statistics. Transformation gains are therefore to be made in the case of district heating from autoproducers.
Thermal electricity generation	Thermal electricity generation is defined as electricity generated by the combustion of fuels. Thus, it is electricity not generated using wind power, hydropower, wave power or photovoltaics.
Total energy supply	Denmark's total energy supply is domestic production of energy adjusted for imports and exports (including cross-border trade) in oil products, international marine bunkers, and stock changes. The difference between *total energy supply* and *energy consumption, observed* is the *statistical difference*.
Transformation	Production of electricity, district heating and gas works gas.
Transformation loss	Difference between total input and output in the transformation process.
Transport	All transport activity with the exception of transport within the company's premises. In the Danish statistics energy consumption for road transport is adjusted for border trade, as opposed to international statistics. International statistics is based solely on data from sales.
Volume weight	The relationship between the weight of a specific volume of liquid and the weight of an equal volume of water at 4 degrees Celsius, measured in tonne/m^3.
Waste oil	Oil used as fuel in industry and transformation, previously included in the energy statistics as lubricants.

Danish key figures for energy and emissions

Denmark	1980	1990	2000	2005	2010	2013	2014	2015	Change '90-'15
Energy intensity, gross energy consumption [TJ per million GDP]	0.776	0.635	0.500	0.474	0.453	0.422	0.410	0.408	-35.8%
Energy intensity, final energy consumption [TJ per million GDP]	0.581	0.468	0.388	0.371	0.352	0.337	0.332	0.331	-29.2%
Gross energy consumption per capita [GJ]	159	160	157	157	147	137	134	134	-16.3%
Final energy consumption per capita [GJ]	119	118	122	123	114	109	108	109	-7.7%
Degree of self-sufficiency [%]	5	52	139	154	120	92	90	89	72.3%
Oil consumption - share of gross energy consumption [%]	67	43	45	41	38	37	37	37	-14.3%
Renewable energy - share of gross energy consumption [%]	2.7	5.8	9.6	14.5	20.0	24.5	26.6	28.3	386%
Refinery capacity [million tonnes per year]	9.0	9.0	9.2	9.0	9.0	9.0	9.0	9.0	•
Electricity capacity [MW]	6 618	9 124	12 598	13 088	13 450	13 795	13 630	14 010	53.6%
Wind turbine capacity – share of total electricity capacity [%]	-	3.6	19.0	23.9	28.3	34.9	35.9	36.2	914%
Net electricity import - share of domestic supply [%]	-5.1	22.5	1.9	3.8	-3.2	3.2	8.5	17.5	•
CHP production - share of total thermal electricity production [%]	18	37	56	64	61	61	61	79	115%
CHP production - share of total district heating production [%]	39	59	82	82	77	73	69	67	14.6%
Renewable electricity - share of total domestic electricity supply [%]	0.1	2.6	15.9	27.4	34.8	46.7	53.4	56.0	2054%
CO_2 emission per capita [tonnes]	12.2	11.9	10.4	9.7	8.5	7.5	7.2	6.9	-41.8%
CO_2 emissions per GDP [tonnes per million GDP]	60	47	33	29	26	23	22	21	-55.4%
CO_2 emissions per fuel unit [kilogram per GJ]	77	75	66	62	58	55	54	52	-30.4%
CO_2 emissions per kWh electricity sold [gram per kWh]	1 025	928	632	537	505	433	385	343	-63.0%
CO_2 emissions per consumed unit of district heating [kilogram per GJ]	95	62	43	39	33	32	34	32	-48.8%

Note: 1: Data on energy consumption and emissions have been adjusted for the fuel consumption linked to foreign trade in electricity and climate variations relative to a normal weather year.

Note: 2: The gross domestic product (GDP) is in 2010 prices, chained values.

The Danish Energy Agency's climate variation adjustment method

The purpose of adjusting for climate variations is to show figures for energy consumption which are independent of climate fluctuations in individual years. Climate adjustment takes place by adjusting - for each of the areas of consumption included in the statistics - the share of the energy consumption that consists of space heating and depends on the climate.

The adjustment takes place by comparing annual degree-day figures to the degree-day figure in a normal weather year. A high number of degree days relative to a normal year indicates a relatively cold year and the annual observed energy consumption is therefore adjusted downward to indicate what the energy consumption would have been had it been a normal weather year. In contrast a low number of degree days lead to an upward adjustment of the observed energy consumption.

Ideally, the degree-days for the various years should distribute fairly evenly around the normal year. Previously, a fixed normal year was used. However, due to an increasingly milder climate, for a considerable number of years with only few exceptions, the degree-day figure was lower than "normal". In order to arrive at an adjustment that takes into account an ever warmer climate, the Danish Energy Agency has decided to use a normal year derived by taking a moving average of the degree-day figures for the last 20 years.

The degree-day figure is calculated by the Danish Meteorological Institute.

The calorific value and CO_2 content in 2015

	Calorific values	CO_2 emissions factors
	GJ/ton	Kg/GJ
Crude oil/ North Sea	43.00	-
Refinery feedstocks	42.70	-
Refinery gas	52.00	58.27
LPG	46.00	63.10
LVN	44.50	65.00
Motor gasoline	43.80	73.00
Aviation gasoline	43.80	73.00
JP4	43.80	72.00
Other kerosene	43.50	71.90
JP1	43.50	72.00
Gas/diesel oil	42.70	74.00
Fuel oil	40.65	78.00
Orimulsion	27.65	80.00
Petroleum coke	31.40	93.00
Waste oil	41.90	73.30
White spirit	43.50	-
Bitumen	39.80	-
Lubricants	41.90	-
Natural gas, GJ/1000 Nm^3	39.64	57.06
Gas works gas/1000 m^3	20.31	-
Coal in electricity plants	24.10	93.95
Other hard coal	24.10	93.95
Coke	29.30	107.00
Brown coal briquettes	18.30	97.50
Straw	14.50	-
Wood chips	9.30	-
Firewood, hard wood GJ/m^3	10.40	-
Firewood, soft wood GJ/m^3	7.60	-
Wood pellets	17.50	-
Wood waste	14.70	-
Wood waste, GJ/m^3 loose volume	3.20	-
Biogas, GJ/1000 m^3	23.00	-
Bio methane (GJ/1000 m^3)	35.58	-
Waste	10.60	37.00
Biodiesel	37.50	-
Bioethanol	26.70	-
Bio oil	37.20	-

Climate adjustments

	Degree days	
Year	Specific year	Normal year
2008	2853	3120
2009	3061	3127
2010	3742	3171
2011	2970	3156
2012	3234	3166
2013	3207	3155
2014	2664	3131
2015	2921	3112

Tax rates in 2015

	Energy taxes	CO_2 taxes
Transport		
Motor gasoline (DKK 0.01 per l)	495.9	40.8
Light diesel oil (DKK 0.01 per l)	299.7	45.1
Low-sulphur diesel oil (DKK 0.01 per l)	413.7	38.8
Other uses		
LPG (DKK 0.01 per l)	181.4	27.4
Other kerosene (DKK 0.01 per l)	195.5	45.1
Heating diesel oil (DKK 0.01 per kg)	199.4	48.5
Fuel oil (DKK 0.01 per kg)	221.5	53.9
Petroleum coke (DKK 0.01 per l)	195.5	45.1
Natural gas (DKK 0.01 per Nm^3)	215.8	38.4
Electricity plant coal (DKK per tonne)	1526	452.1
Coke (DKK per tonne)	1799	516
Brown coal (DKK per tonne)	1036	306.8
Electricity (DKK 0.01 per kWh)	87.8	
Electricity for space heating[1)] (DKK 0.01 per kWh)	38.0	

[1)] *For consumption of more than 4000 kWh per year in households.*

Source: Ministry of Taxation

Volume weights in 2015	
	tonne/m^3
Motor gasoline	0.75
Aviation gasoline	0.71
JP4	0.76
Other kerosene	0.80
JP1	0.80
Gas-/diesel-oil	0.84
Bioethanol	0.79
Biodiesel	0.88

Conversion factors

In order to make comparison easier, all the figures for energy consumption are stated in Tera Joules (TJ) or Peta Joules (PJ).

1 kilo Joule	=	1000 J
1 Mega Joule	=	1000 kJ
1 Giga Joule	=	1000 MJ
1 Tera Joule	=	1000 GJ
1 Peta Joule	=	1000 TJ
1 kWh	=	3.6 MJ
1 MWh	=	3.6 GJ
1 GWh	=	3.6 TJ
1 Btu (British thermal unit)	=	1055.66 J
1 Barrel (barrel, bbl)	=	158.987 litres
1 mtoe (mill. tonne oil equivalent)	=	41.868 PJ

Symbols

- • Not applicable
- - Nil
- 0 Less than half

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Energy Statistics 2015

- Publication as .pdf
- Figures in Powerpoint
- Time series and tables
- Danish energy flows

Data

- Oil and gas production in Denmark
- Monthly energy statistics
- Wind turbine data

Maps

- Key maps showing aspects of the Danish energy sector

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