



ISSN 2363-247X

EU energy

in figures



STATISTICAL
POCKETBOOK
2019

Energy

Manuscript completed in 08/2019

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Print	ISBN 978-92-76-08819-6	ISSN 1977-4559	doi:10.2833/963512	MJ-AB-19-001-EN-C
PDF	ISBN 978-92-76-08818-9	ISSN 2363-247X	doi:10.2833/197947	MJ-AB-19-001-EN-N
Epub	ISBN 978-92-76-08820-2	ISSN 2363-247X	doi:10.2833/869306	MJ-AB-19-001-EN-E

Introduction

The energy sector is one of the pillars of growth, competitiveness and development for modern economies. To keep up with the ongoing transformation of the energy sector in Europe, we need data that is accurate and up-to-date.

This publication provides an overview of the most relevant annual energy-related statistics for the European Union as a whole and for each of its Member States.

The data contained in this pocketbook is drawn from several sources: from the European Commission's services, from international organisations such as the European Environment Agency and the International Energy Agency and also from the European Commission's estimates when other data is unavailable.

The publication is divided into five parts:

- Part 1. Energy overview at global and EU levels.
- Part 2. Main energy indicators, at EU and Member States levels.
- Part 3. Socio-economic indicators in the EU.
- Part 4. Impact of the energy sector on the environment.
- Part 5. Country profiles – Main energy indicators.

Indicators have been calculated using the methodology established by the European Commission – DG Energy. The appendices include a glossary and methodological notes.

This publication was produced using the most recently available data. Corrections and updates will be published at:

<https://ec.europa.eu/energy/en/data/energy-statistical-pocketbook>

Recommended sources of data:

European Commission websites:

DG Energy

Pocketbook and country datasheets:

<https://ec.europa.eu/energy/en/data/energy-statistical-pocketbook>

Energy data and analysis: <http://ec.europa.eu/energy/en/data-analysis>

Eurostat

Eurostat Database: <http://ec.europa.eu/eurostat/data/database>

DG Economic and Financial Affairs

AMECO: http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm

DG Climate Action

Climate strategies, targets and progress reports:

http://ec.europa.eu/clima/policies/strategies/index_en.htm

Websites of other EU bodies and international organisations:

European Environment Agency

Data and maps: <http://www.eea.europa.eu/>

International Energy Agency

Statistics and balances: <http://www.iea.org/statistics/>

Please send your comments on this publication and suggestions for improvement to ENER-A4-STATISTICS@ec.europa.eu, with the word 'Pocketbook' in the subject line.

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Overview

#1



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1.1 Energy in the World (Overview)

1.1.1 World Energy Production by Region

(Mtoe)

	2000	2005	2010	2015	2016	2017
EU-28	951	910	843	771	759	754
China	1 124	1 671	2 236	2 514	2 361	2 450
United States	1 667	1 631	1 724	2 023	1 916	1 993
Middle East	1 324	1 516	1 624	1 885	2 043	2 032
Asia*	1 062	1 254	1 498	1 568	1 609	1 620
Russia	978	1 203	1 280	1 334	1 374	1 429
Africa	875	1 074	1 153	1 095	1 085	1 135
Rest of the World	2 037	2 285	2 430	2 598	2 586	2 622
World	10 019	11 546	12 787	13 789	13 732	14 035

TOTAL 2017: 14 035 Mtoe

EU-28

China

United States

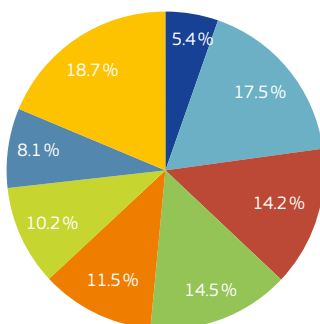
Middle East

Asia*

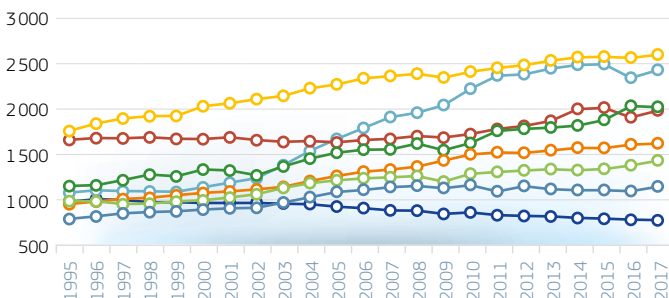
Russia

Africa

Rest of the World



Mtoe



* non OECD and OECD Asia, excluding China.

Source: IEA, August 2019

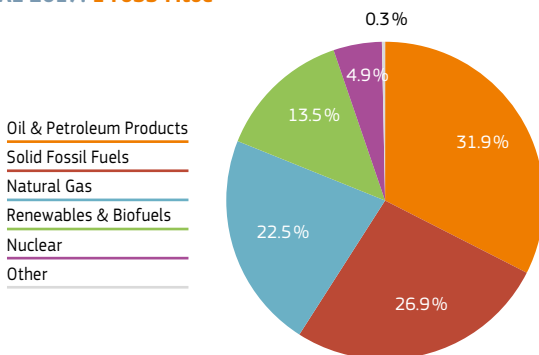
Methodology and Notes: [See Appendices](#)

1.1.2 World Energy Production by Fuel

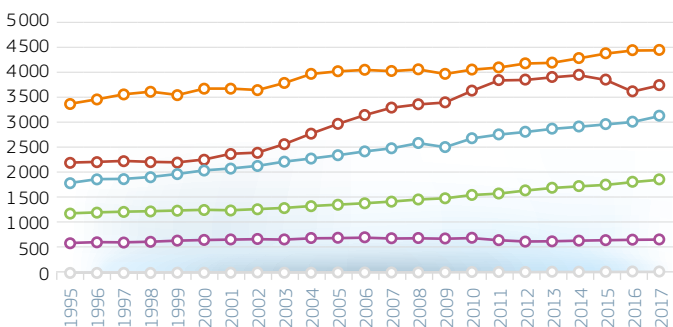
(Mtoe)

	2000	2005	2010	2015	2016	2017
Oil and Petroleum Products	3 703	4 051	4 085	4 413	4 474	4 477
Solid Fossil Fuels	2 278	2 998	3 663	3 886	3 652	3 773
Natural Gas	2 066	2 371	2 713	2 996	3 042	3 163
Renewables and Biofuels	1 275	1 382	1 574	1 784	1 841	1 889
Nuclear	675	722	719	670	680	687
Other	21	23	33	39	43	45
Total	10 019	11 546	12 787	13 789	13 732	14 035

TOTAL 2017: 14 035 Mtoe



Mtoe



Source: IEA, August 2019

Methodology and Notes: [See Appendices](#)

1.1.3 World Total Energy Supply by Region

(Mtoe)

	2000	2005	2010	2015	2016	2017
EU-28	1 695	1 795	1 727	1 589	1 599	1 619
China	1 143	1 794	2 550	3 006	2 987	3 077
United States	2 274	2 319	2 217	2 187	2 163	2 155
Asia*	1 762	1 984	2 294	2 487	2 544	2 615
Russia	619	652	689	693	714	732
Africa	490	583	680	766	786	812
Middle East	354	468	622	732	736	750
Rest of the World	1 689	1 886	2 072	2 170	2 182	2 211
World	10 025	11 480	12 850	13 631	13 712	13 972

TOTAL 2017: 13 972 Mtoe

EU-28

China

United States

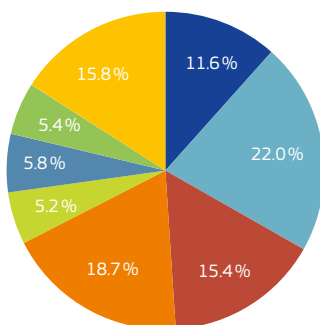
Asia*

Russia

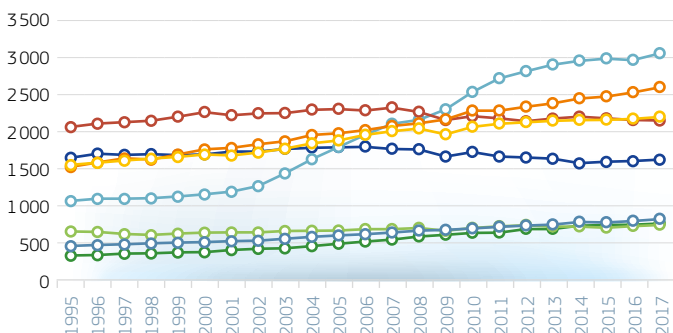
Africa

Middle East

Rest of the World



Mtoe



* non OECD and OECD Asia, excluding China

Source: IEA, August 2019

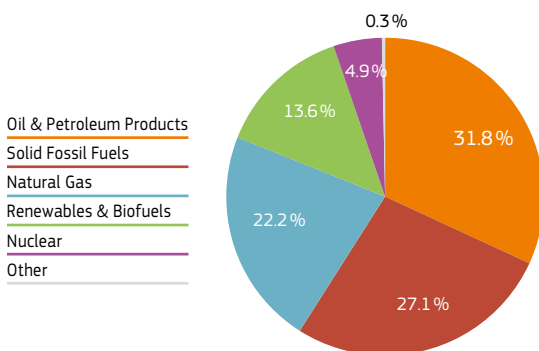
Methodology and Notes: [See Appendices](#)

1.1.4 World Total Energy Supply by Fuel

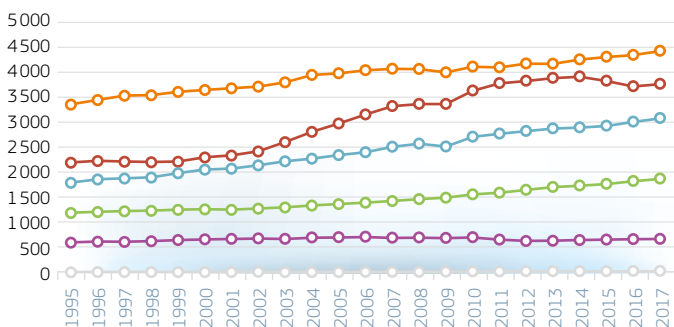
(Mtoe)

	2000	2005	2010	2015	2016	2017
Oil and Petroleum Products	3663	3999	4136	4329	4371	4449
Solid Fossil Fuels	2317	2994	3653	3853	3741	3790
Natural Gas	2072	2361	2733	2950	3032	3107
Renewables and Biofuels	1276	1382	1576	1788	1845	1894
Hydro*	225	252	296	336	349	351
Geothermal*	52	53	62	77	80	86
Solar/Wind/Other*	8	17	48	127	145	171
Biofuels and Waste*	1012	1082	1202	1286	1313	1329
Nuclear	675	722	719	670	680	687
Other	22	22	33	41	43	45
Total	10025	11480	12850	13631	13712	13972

TOTAL 2017: 13972 Mtoe



Mtoe



* Partial disaggregation of the Renewables group. Waste also includes non-RES wastes.

Source: IEA, August 2019

Methodology and Notes: [See Appendices](#)

1.1.5 World Total Final Consumption by Region (Mtoe)

	2000	2005	2010	2015	2016	2017
EU-28	1 178	1 240	1 205	1 117	1 138	1 154
China	791	1 235	1 653	1 970	1 983	2 004
United States	1 546	1 563	1 513	1 512	1 517	1 520
Asia*	1 213	1 360	1 549	1 705	1 742	1 805
Africa	364	432	495	563	575	594
Russia	418	412	447	453	465	488
Middle East	241	313	415	481	481	493
Rest of the World	1 278	1 417	1 557	1 614	1 632	1 659
World	7 030	7 972	8 834	9 414	9 534	9 717

TOTAL 2017: 9 717 Mtoe

EU-28

China

United States

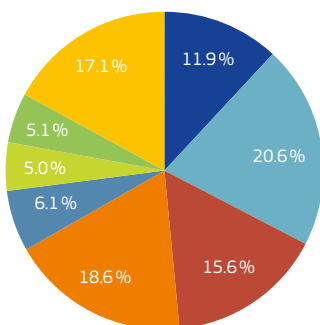
Asia*

Africa

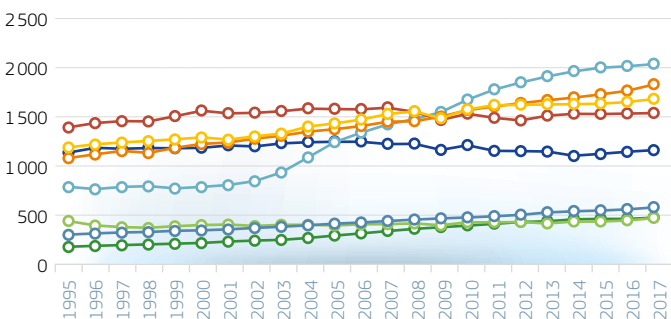
Russia

Middle East

Rest of the World



Mtoe



* non OECD and OECD Asia, excluding China.

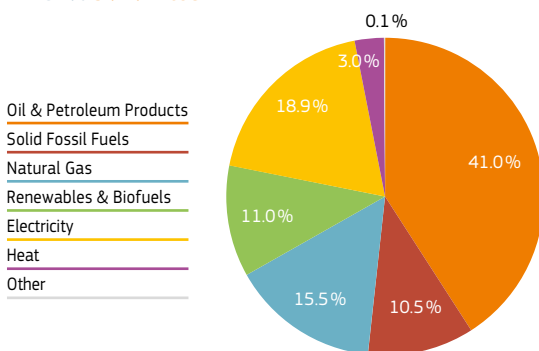
Source: IEA, August 2019

Methodology and Notes: [See Appendices](#)

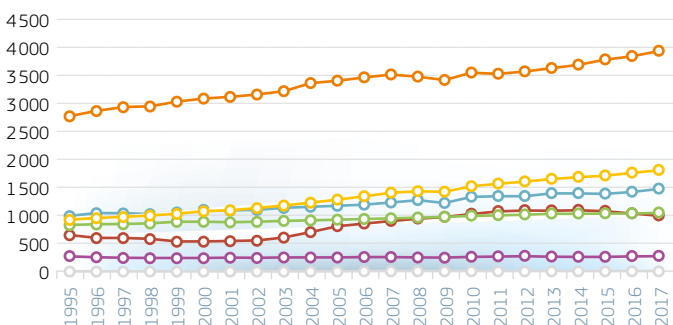
1.1.6 World Total Final Consumption by Fuel (Mtoe)

	2000	2005	2010	2015	2016	2017
Oil and Petroleum Products	3122	3444	3592	3827	3888	3985
Solid Fuels	542	826	1050	1102	1057	1020
Gas	1116	1193	1353	1411	1444	1502
Renewables and Biofuels	903	940	1014	1056	1059	1072
Electricity	1092	1304	1542	1737	1791	1838
Heat	248	259	274	271	283	289
Other	7	7	8	10	11	12
Total	7030	7972	8834	9414	9534	9717

TOTAL 2017: 9717 Mtoe



Mtoe



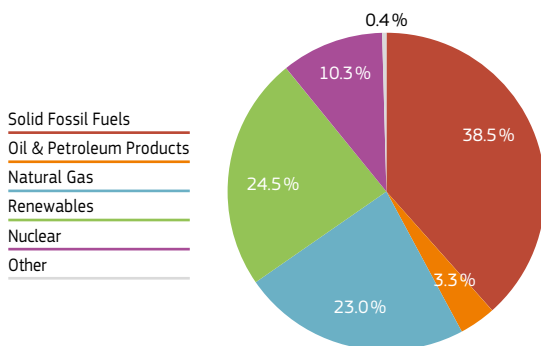
Source: IEA, August 2019

Methodology and Notes: [See Appendices](#)

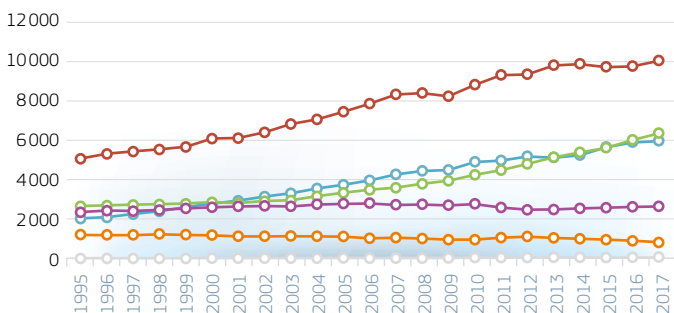
1.1.7 World Electricity Generation by Fuel (TWh)

	2000	2005	2010	2015	2016	2017
Solid Fossil Fuels	5 994	7 322	8 666	9 553	9 587	9 863
Oil and Petroleum Products	1 207	1 135	977	976	926	842
Natural Gas	2 760	3 704	4 839	5 576	5 824	5 883
Renewables	2 830	3 297	4 201	5 537	5 933	6 269
Hydro*	2 613	2 935	3 443	3 902	4 054	4 082
Solar/Wind/Other*	55	140	408	1 131	1 331	1 615
Biofuels and Waste*	164	229	370	519	571	596
Geothermal*	52	58	68	81	82	85
Nuclear	2 591	2 768	2 756	2 570	2 608	2 636
Other	54	67	90	100	108	113
Total	15 436	18 293	21 529	24 313	24 986	25 606

TOTAL 2017: 25 606 TWh



TWh



* Partial disaggregation of the Renewables group. Waste also includes non-RES wastes.

Source: IEA, August 2019

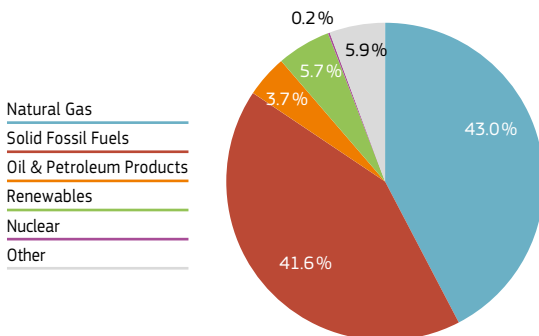
Methodology and Notes: [See Appendices](#)

1.1.8 World Heat Generation by Fuel

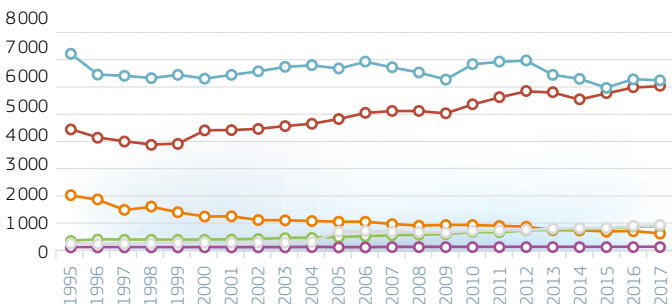
(PJ)

	2000	2005	2010	2015	2016	2017
Natural Gas	6236	6620	6773	5896	6214	6175
Solid Fossil Fuels	4332	4752	5295	5705	5925	5978
Oil and Petroleum Products	1160	965	839	595	615	526
Renewables	296	395	585	721	786	816
Geothermal*	18	24	26	34	44	40
Solar/Wind/Other*	11	386	347	372	404	422
Biofuels and Waste*	414	530	783	953	1045	1082
Nuclear	19	21	27	26	27	27
Other	202	600	634	732	816	846
Total	12245	13353	14154	13675	14383	14368

TOTAL 2017: 14368 PJ



PJ



* Partial disaggregation of the Renewables group. Waste also includes non-RES wastes.

Source: IEA, August 2019

Methodology and Notes: [See Appendices](#)

1.1.9 World CO₂ Emissions* by Region

(Mio ton CO₂)

	2000	2005	2010	2014	2015	2016
EU-28	4036	4207	3898	3429	3478	3475
China	3173	5507	7932	9260	9246	9207
United States	5877	5855	5501	5166	5044	4961
Asia**	3814	4391	5169	5911	5989	6128
Middle East	951	1230	1596	1845	1882	1911
Russian Federation	1488	1497	1553	1551	1524	1487
Africa	700	896	1035	1191	1182	1199
Rest of the World	3185	3487	3806	3975	3932	3948
World	23223	27070	30490	32328	32276	32314

TOTAL 2016: 32 314 Mio ton CO₂

EU-28

China

United States

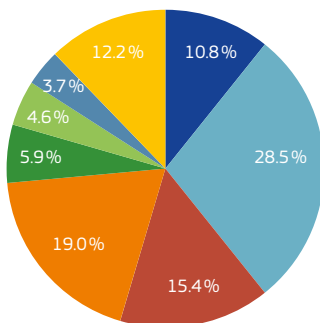
Asia*

Middle East

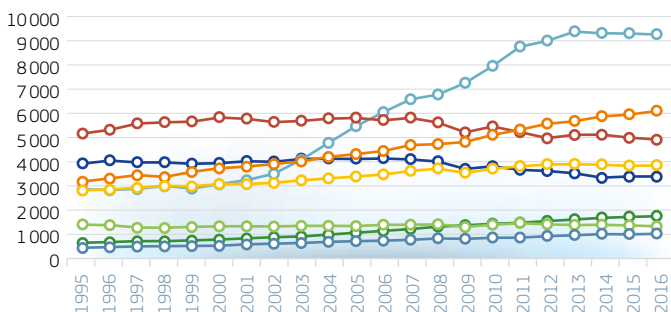
Russian Federation

Africa

Rest of the World



Mio ton CO₂



* Contains CO₂ emissions from fuel combustion, international aviation and maritime bunkers.

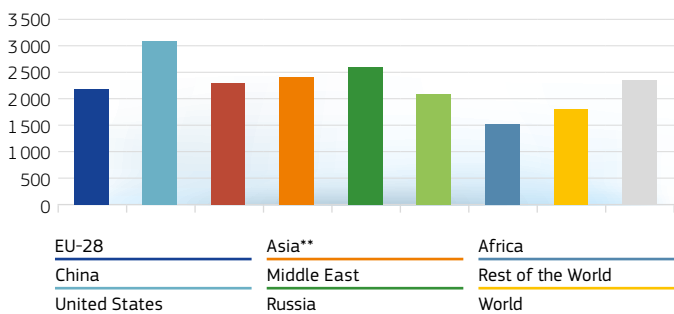
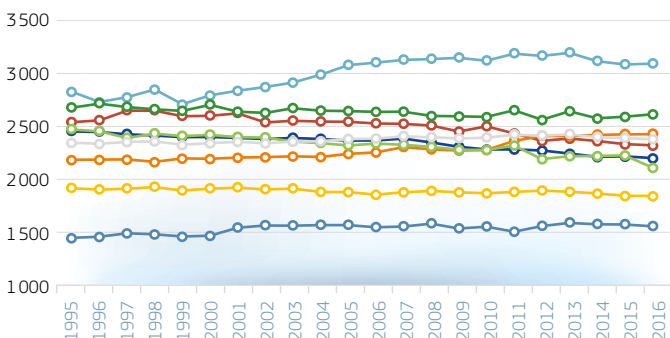
** non OECD and OECD Asia, excluding China.

Source: IEA, July 2019

Methodology and Notes: [See Appendices](#)

1.1.10 World CO₂ Intensity* by Region(Kg CO₂ per toe – Average)

	2000	2005	2010	2014	2015	2016
EU-28	2 382	2 344	2 257	2 183	2 188	2 173
China	2 775	3 070	3 111	3 109	3 076	3 083
United States	2 585	2 525	2 481	2 337	2 306	2 293
Asia**	2 165	2 214	2 254	2 400	2 408	2 409
Middle East	2 689	2 626	2 568	2 553	2 570	2 595
Russia	2 402	2 297	2 254	2 194	2 200	2 081
Africa	1 429	1 537	1 521	1 545	1 543	1 525
Rest of the World	1 885	1 849	1 837	1 834	1 812	1 809
World	2 316	2 358	2 373	2 379	2 368	2 357

WORLD AVERAGE 2016: 2 357 Kg CO₂ per toeKg CO₂ per toe

* Per Unit of Gross Inland Consumption.

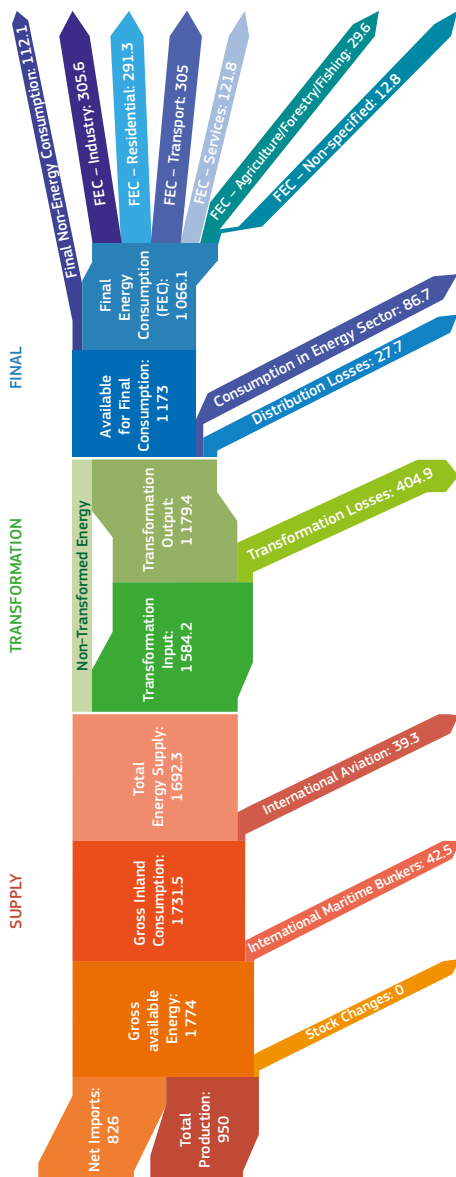
** non OECD and OECD Asia, excluding China and Middle East.

Source: IEA, August 2019

Methodology and Notes: See Appendices

1.2 Energy in the EU (Overview)

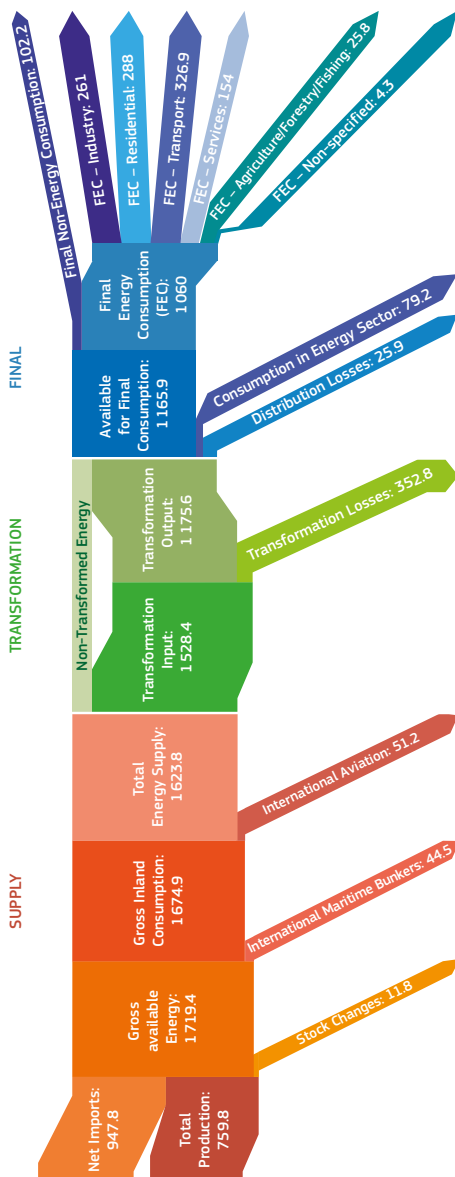
1.2.1 EU-28 Energy Flow – 2000 (Mtoe)



Source: Eurostat, May 2019
Methodology and Notes: [See Appendices](#)

1.2.2 EU-28 Energy Flow – 2017

(Mtoe)



Source: Eurostat, May 2019

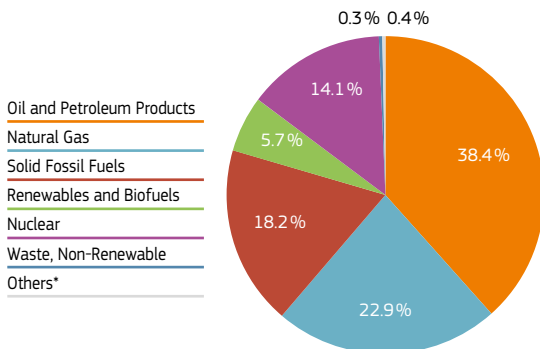
Methodology and Notes: [See Appendices](#)

1.2.3 EU-28 Gross Inland Consumption

ENERGY MIX (%) – PRIMARY PRODUCTS ONLY

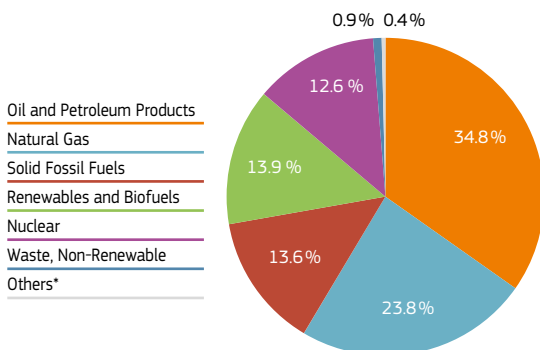
TOTAL PRIMARY PRODUCTS 2000: 1 729.6 Mtoe

(Total Primary and Secondary Products 2000: 1 731.5 Mtoe)



TOTAL PRIMARY PRODUCTS 2017: 1 674 Mtoe

(Total Primary and Secondary Products 2017: 1 674.9 Mtoe)

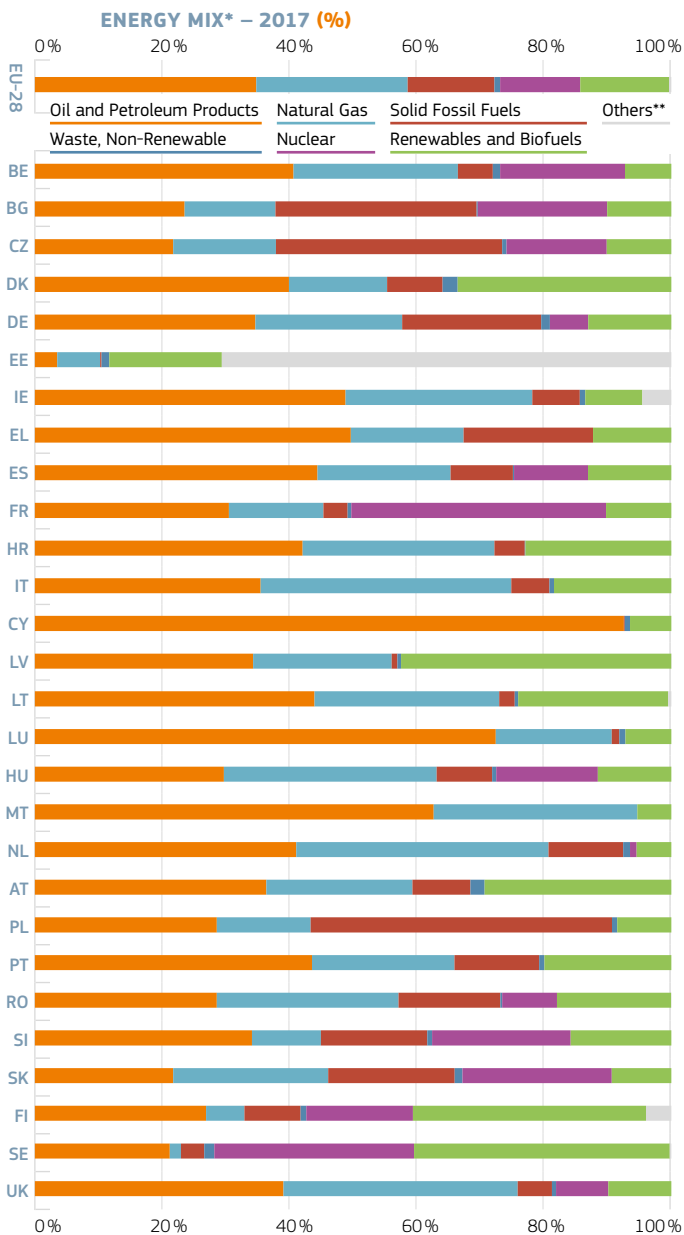


* Others = manufactured gases, peat and peat products, oil shale and oil sands.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

1.2.3 EU-28 Gross Inland Consumption



* Primary Products Only.

**Others = manufactured gases, peat and peat products, oil shale and oil sands.

Source: Eurostat, May 2019

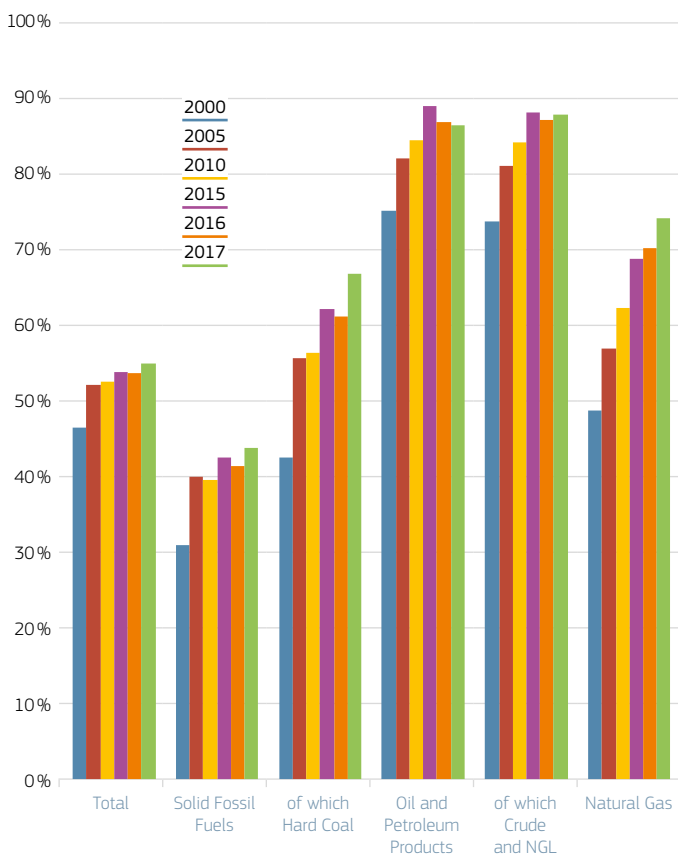
Methodology and Notes: [See Appendices](#)

1.2.4 EU-28 Energy Import Dependency

BY FUEL – (%)

	2000	2005	2010	2015	2016	2017
Total	46.6	52.3	52.7	53.9	53.8	55.1
Solid Fossil Fuels	31.0	40.1	39.6	42.7	41.5	43.9
of which Hard Coal	42.6	55.8	56.5	62.3	61.4	67.0
Oil and Petroleum Products	75.3	82.3	84.7	89.2	87.1	86.7
of which Crude and NGL	73.9	81.3	84.5	88.5	87.4	88.1
Natural Gas	48.9	57.1	62.5	69.0	70.4	74.3

2000-2017 (%)



Source: Eurostat, May 2019

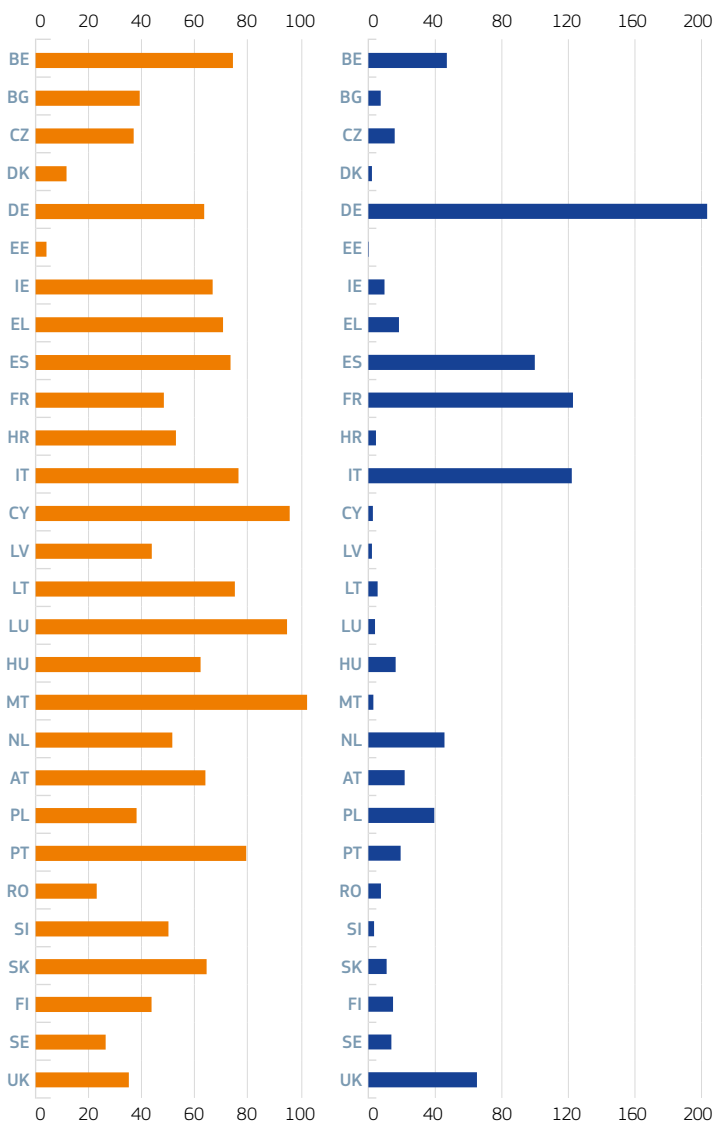
Methodology and Notes: [See Appendices](#)

1.2.5 EU-28 Energy Import Dependency – Net Imports

2017

ENERGY IMPORT DEPENDENCY (%)

NET IMPORTS (Mtoe)



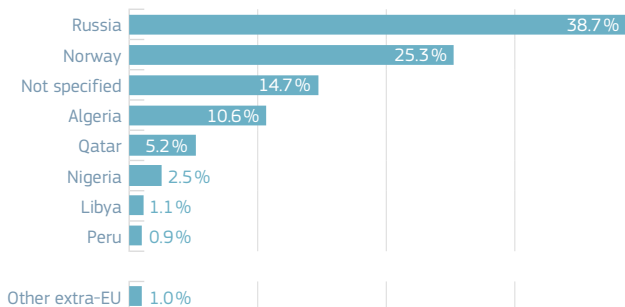
Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

1.2.6 EU-28 Imports by Country of Origin

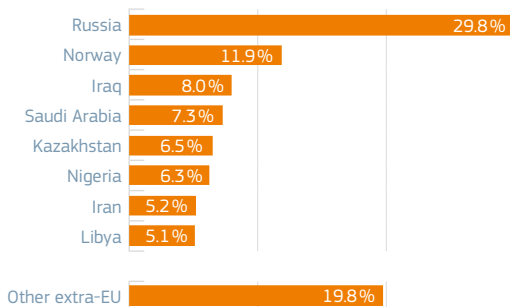
EU-28 IMPORTS* OF NATURAL GAS – 2017

Total extra-EU = 16261447.953 TJ-GCV



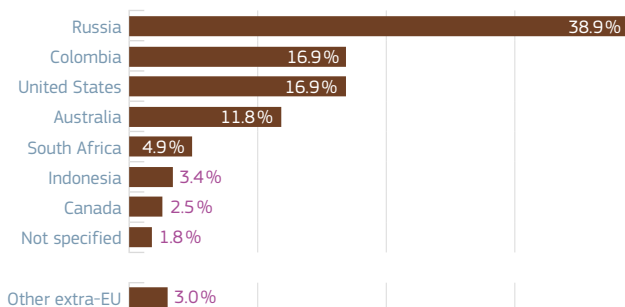
EU-28 IMPORTS* OF CRUDE OIL AND NGL – 2017

Total extra-EU = 547531.72 kton



EU-28 IMPORTS* OF HARD COAL – 2017

Total extra-EU = 157439.139 kton



* From non-EU suppliers and as a share of total non-EU imports.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

1.3 EU 2020 Targets

1.3.1 Renewable Energy Targets*

	2017 Renewable Energy Shares				Indicative 2017/2018	2020 RES Target	2030 RES Target
	RES Transport	RES Electricity	RES Heating and Cooling	Overall RES Share			
%							
EU-28	7.4	30.7	19.5	17.5	n.a.	20.0	32.0
BE	6.6	17.2	8.0	9.1	9.2	13.0	
BG	7.2	19.1	29.9	18.7	13.7	16.0	
CZ	6.6	13.7	19.7	14.8	10.6	13.0	
DK	6.9	60.4	46.6	35.8	25.5	30.0	
DE	7.0	34.4	13.4	15.5	13.7	18.0	
EE	0.4	17.0	51.6	29.2	22.6	25.0	
IE	7.4	30.1	6.9	10.7	11.5	16.0	
EL	1.8	24.5	26.6	16.3	14.1	18.0	
ES	5.9	36.3	17.5	17.5	16.0	20.0	
FR	9.1	19.9	21.4	16.3	18.6	23.0	
HR	1.2	46.4	36.6	27.3	17.4	20.0	
IT	6.5	34.1	20.1	18.3	12.9	17.0	
CY	2.6	8.9	24.5	9.9	9.5	13.0	
LV	2.5	54.4	54.6	39.0	37.4	40.0	
LT	3.7	18.3	46.5	25.8	20.2	23.0	
LU	6.4	8.1	8.1	6.4	7.5	11.0	
HU	6.8	7.5	19.6	13.3	10.0	13.0	
MT	6.8	6.6	19.8	7.2	6.5	10.0	
NL	5.9	13.8	5.9	6.6	9.9	14.0	
AT	9.7	72.2	32.1	32.6	30.3	34.0	
PL	4.2	13.1	14.5	10.9	12.3	15.0	
PT	7.9	54.2	34.4	28.1	27.3	31.0	
RO	6.6	41.6	26.6	24.5	21.8	24.0	
SI	2.7	32.4	33.3	21.6	21.9	25.0	
SK	7.0	21.3	9.8	11.5	11.4	14.0	
FI	18.8	35.2	54.9	41.0	34.7	38.0	
SE	32.1	65.9	69.1	54.5	45.8	49.0	
UK	5.1	28.1	7.5	10.2	10.2	15.0	

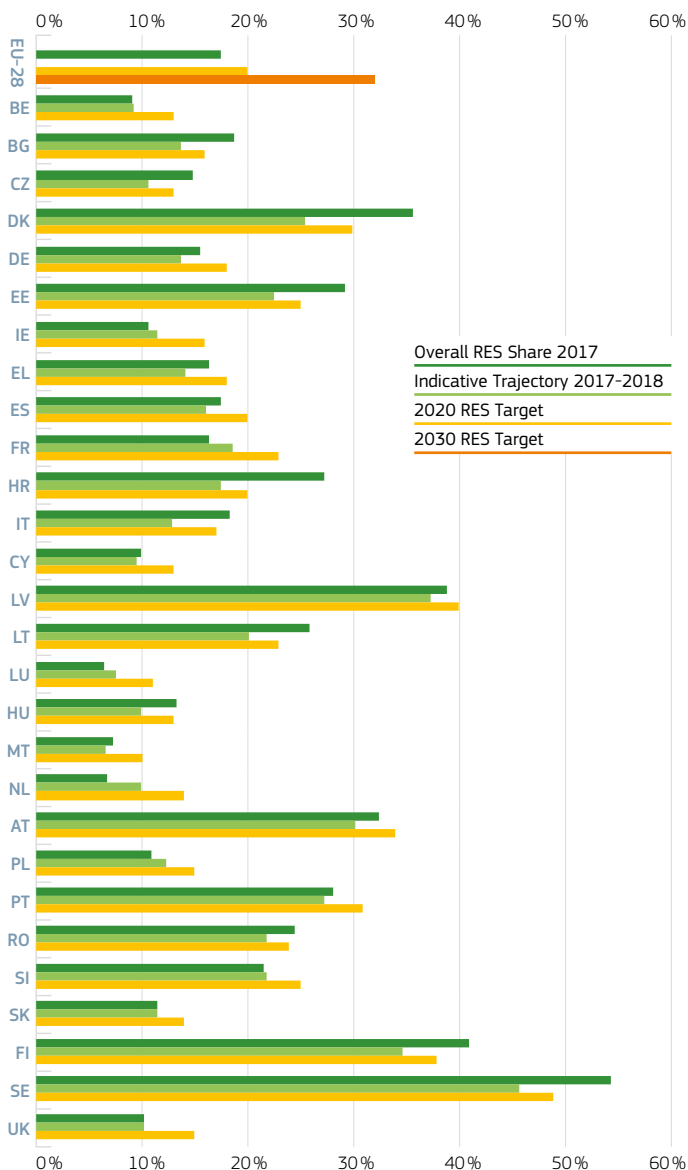
* In % of the Gross Final Energy Consumption.

Source: Eurostat-RES SHARES, March 2019

Methodology and Notes: [See Appendices](#)

1.3.1 Renewable Energy Targets*

OVERALL RENEWABLE ENERGY SHARE 2017 (%)



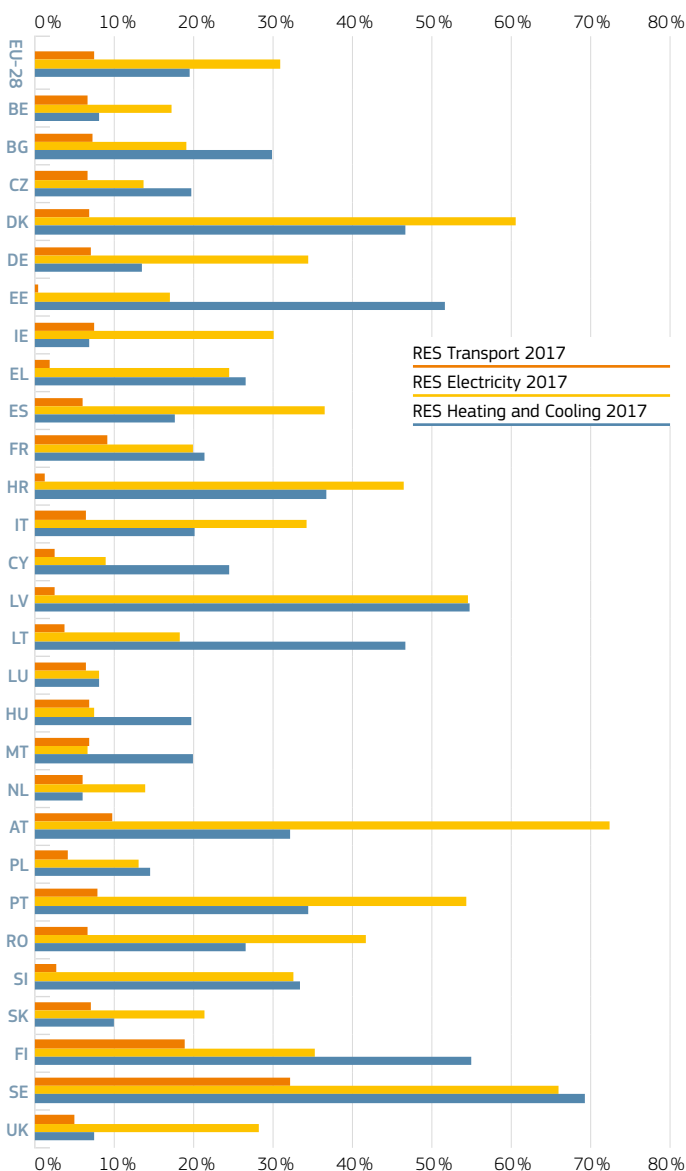
* In Gross Final Energy Consumption.

Source: Eurostat-RES SHARES, March 2019

Methodology and Notes: [See Appendices](#)

1.3.2 Renewable Energy Shares*

RES SHARES IN HEATING AND COOLING, ELECTRICITY, AND TRANSPORT – 2017 (%)



* In Gross Final Energy Consumption.

Source: Eurostat-RES SHARES, March 2019

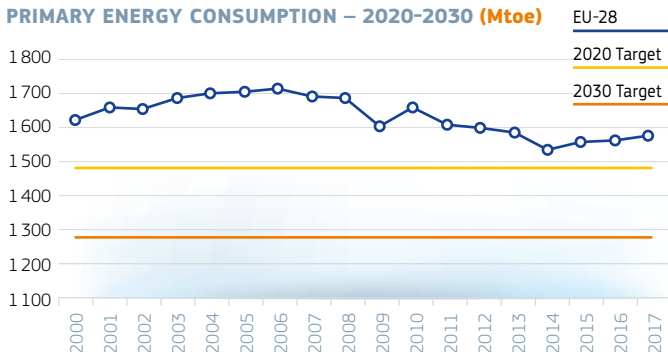
Methodology and Notes: [See Appendices](#)

1.3.3 Energy Efficiency Targets

PRIMARY ENERGY CONSUMPTION 2020-2030 TARGETS (Mtoe)

	TARGETS					
	2005	2010	2015	2016	2017	2020 2030
EU-28	1720.0	1660.2	1537.5	1546.9	1561.6	1483 1273
BE	51.6	54.1	46.1	49.3	49.1	
BG	19.2	17.4	18.0	17.7	18.3	
CZ	42.5	42.7	39.8	40.0	40.4	
DK	19.4	20.0	16.9	17.4	17.7	
DE	320.3	312.0	295.3	297.7	298.3	
EE	5.1	5.6	5.3	5.9	5.6	
IE	14.9	14.8	13.9	14.6	14.4	
EL	30.1	27.1	23.2	22.8	23.1	
ES	136.6	123.3	118.6	119.2	125.6	
FR	260.9	254.4	244.3	240.2	239.5	
HR	9.1	8.9	8.0	8.0	8.3	
IT	180.8	167.3	149.1	148.0	148.9	
CY	2.5	2.7	2.3	2.4	2.5	
LV	4.5	4.6	4.3	4.3	4.5	
LT	8.0	6.2	5.8	6.0	6.2	
LU	4.8	4.6	4.1	4.2	4.3	
HU	26.4	24.6	23.3	23.7	24.5	
MT	0.9	0.9	0.8	0.7	0.8	
NL	70.1	71.7	63.8	64.8	64.5	
AT	32.6	32.4	31.5	31.7	32.5	
PL	88.0	96.6	90.1	94.8	99.1	
PT	24.9	22.6	21.6	21.8	22.8	
RO	36.0	33.0	30.7	30.6	32.4	
SI	7.0	7.0	6.3	6.5	6.6	
SK	17.4	16.7	15.2	15.4	16.1	
FI	33.6	35.5	31.2	32.3	31.9	
SE	49.4	48.6	45.1	46.9	46.5	
UK	223.5	205.1	183.0	179.8	176.8	

PRIMARY ENERGY CONSUMPTION – 2020-2030 (Mtoe)



Source: Eurostat, May 2019

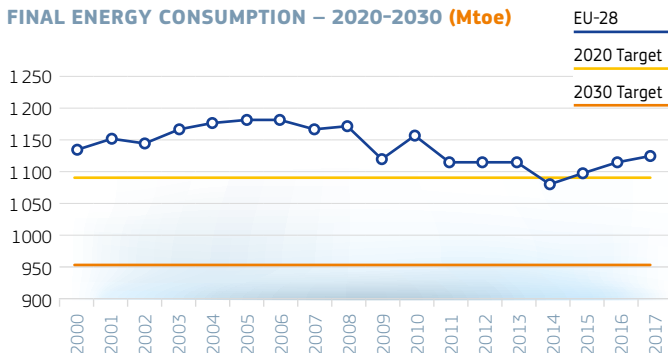
Methodology and Notes: [See Appendices](#)

1.3.3 Energy Efficiency Targets

FINAL ENERGY CONSUMPTION 2020-2030 TARGETS (Mtoe)

							TARGETS
	2005	2010	2015	2016	2017	2020	2030
EU-28	1 192.8	1 163.1	1 088.3	1 110.1	1 122.8	1 086	956
BE	36.6	37.7	35.9	36.5	36.1		
BG	10.1	8.8	9.5	9.6	9.9		
CZ	26.3	25.3	24.2	24.8	25.5		
DK	15.5	15.5	14.0	14.4	14.6		
DE	218.7	220.0	212.0	216.7	218.7		
EE	2.9	2.9	2.8	2.8	2.9		
IE	12.7	12.0	11.2	11.6	11.8		
EL	21.0	19.0	16.5	16.7	16.8		
ES	98.1	89.1	80.4	82.5	84.3		
FR	160.2	154.0	146.7	148.7	148.9		
HR	7.2	7.2	6.6	6.6	6.9		
IT	137.2	128.5	116.2	115.9	115.2		
CY	1.8	1.9	1.7	1.8	1.9		
LV	4.0	4.1	3.8	3.8	4.0		
LT	4.7	4.8	4.9	5.1	5.3		
LU	4.5	4.3	4.0	4.0	4.2		
HU	18.7	17.5	17.4	17.8	18.5		
MT	0.5	0.5	0.6	0.6	0.6		
NL	54.1	55.3	49.2	49.9	50.3		
AT	27.7	27.7	27.4	27.8	28.4		
PL	58.5	66.3	62.3	66.6	70.9		
PT	19.0	18.1	16.0	16.2	16.6		
RO	24.6	22.5	21.8	22.2	23.2		
SI	4.9	5.0	4.7	4.9	4.9		
SK	11.6	11.5	10.1	10.4	11.1		
FI	25.2	26.3	24.2	25.2	25.3		
SE	33.7	34.0	31.5	32.4	32.6		
UK	153.0	143.1	132.6	134.4	133.3		

FINAL ENERGY CONSUMPTION – 2020-2030 (Mtoe)



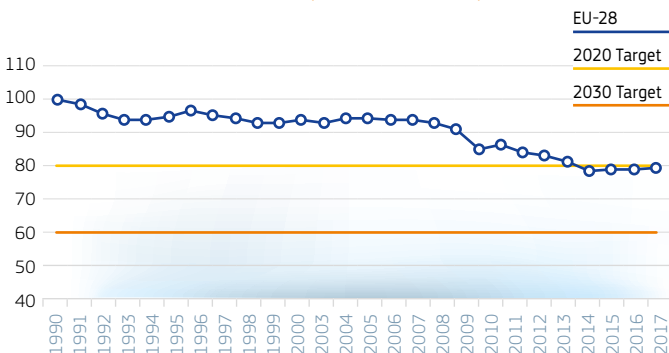
Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

1.3.4 Greenhouse Gas (GHG) Emissions Targets* (index 100=1990)

	TARGETS						
	2000	2005	2010	2016	2017	2020	2030
EU-28	92.4	93.7	85.9	77.8	78.3	80	60
BE	103.2	99.4	91.6	80.3	79.7		
BG	58.3	62.9	59.5	58.2	60.5		
CZ	75.6	74.9	70.9	65.8	65.3		
DK	101.5	95.5	90.8	73.5	70.5		
DE	84.3	80.5	76.5	74.2	74.1		
EE	43.0	47.7	52.6	48.9	52.0		
IE	124.4	127.5	112.3	113.1	112.9		
EL	122.1	131.5	114.6	89.8	93.6		
ES	135.4	154.3	126.2	116.7	121.8		
FR	101.9	102.5	94.9	85.8	86.6		
HR	80.5	93.6	87.7	76.5	78.7		
IT	107.7	112.9	98.6	84.8	84.1		
CY	144.2	159.1	161.0	150.6	155.7		
LV	39.9	43.7	47.7	44.0	44.3		
LT	40.3	47.3	42.9	42.1	42.7		
LU	80.8	108.8	102.3	87.9	90.8		
HU	78.5	80.9	69.7	65.6	68.5		
MT	134.5	138.1	139.7	98.8	112.2		
NL	101.5	99.7	99.0	91.7	90.9		
AT	103.2	118.8	109.1	103.0	106.2		
PL	83.4	85.1	87.0	84.5	87.6		
PT	138.8	145.0	117.9	114.4	122.8		
RO	57.7	61.0	50.0	46.3	46.1		
SI	102.4	110.1	105.4	94.9	93.8		
SK	67.1	69.8	63.2	57.6	59.2		
FI	98.6	98.5	107.0	83.1	79.5		
SE	96.9	94.3	91.4	76.4	76.3		
UK	91.6	89.7	79.3	63.8	62.4		

GHG EMISSIONS – 1990-2017 (index 100=1990)



* Emissions of the Kyoto basket of GHG.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

Energy

in the EU



#2



Summary

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2.1 Energy Supply

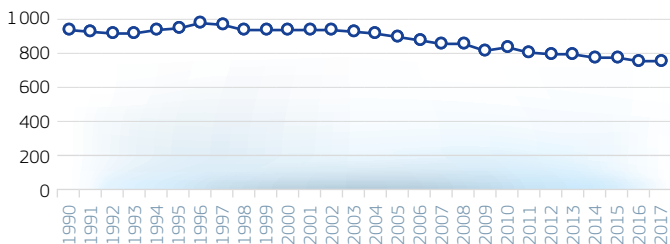
2.1.1 Production*

ALL FUELS

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	950.0	908.8	840.0	773.7	760.2	759.8
Index 2000	100 %	96 %	88 %	81 %	80 %	80 %
BE	13.61	13.72	15.55	10.55	15.16	14.90
BG	9.87	10.65	10.43	12.03	11.28	11.72
CZ	30.81	33.24	32.11	28.98	27.47	27.47
DK	27.83	31.41	23.47	16.26	15.41	15.86
DE	135.47	137.03	128.95	120.11	116.15	116.27
EE	3.18	3.87	4.93	5.60	5.19	5.79
IE	2.16	1.70	1.87	1.93	4.20	4.86
EL	10.01	10.32	9.44	8.49	6.76	7.51
ES	31.40	30.01	34.41	33.98	34.64	34.23
FR	129.72	136.29	136.98	140.72	133.72	132.23
HR	4.26	4.76	5.15	4.40	4.42	4.21
IT	28.35	30.28	32.94	36.10	33.52	36.67
CY	0.04	0.05	0.09	0.13	0.13	0.14
LV	1.41	1.87	1.98	2.35	2.46	2.60
LT	3.36	3.95	1.32	1.59	1.63	1.76
LU	0.06	0.11	0.12	0.15	0.16	0.19
HU	11.61	10.94	11.71	11.10	11.28	11.15
MT	0.00	0.00	0.00	0.02	0.02	0.03
NL	58.76	62.72	71.45	48.40	46.55	42.16
AT	9.81	9.75	11.66	12.07	12.29	12.34
PL	79.40	78.44	67.16	68.00	66.76	64.37
PT	3.85	3.61	5.80	5.30	6.00	5.23
RO	28.53	27.99	27.45	26.44	24.80	25.48
SI	3.09	3.49	3.65	3.26	3.44	3.52
SK	6.28	6.44	6.01	6.39	6.23	6.37
FI	14.82	16.58	17.04	17.09	17.13	18.08
SE	30.01	34.08	32.01	35.86	35.39	36.59
UK	272.33	205.50	146.35	116.36	118.00	118.13

PRODUCTION – ALL FUELS – 1990-2017 (Mtoe)

EU-28



* Primary production, recycled and recovered products.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.1.1 Production*

BY FUEL

Mtoe	2017						
	Nuclear	Solid Fossil Fuels	Renewables & biofuels	Natural Gas	Oil & Petroleum products	Wastes, Non-Renewable	Peat, Oil Shale & Oil Sands
EU-28	210.7	124.9	226.6	103.1	74.5	14.2	5.8
Share (%)	27.7 %	16.4 %	29.8 %	13.6 %	9.8 %	1.9 %	0.0 %
BE	11.00	0.01	3.21	0.00	0.03	0.65	0.00
BG	3.94	5.70	1.94	0.07	0.04	0.04	0.00
CZ	7.02	15.28	4.45	0.19	0.23	0.31	0.00
DK	0.00	0.00	4.20	4.35	6.92	0.38	0.00
DE	19.65	39.44	42.62	6.03	4.01	4.51	0.00
EE	0.00	0.00	1.56	0.00	0.00	0.07	4.15
IE	0.00	0.00	1.14	2.85	0.00	0.13	0.74
EL	0.00	4.57	2.79	0.01	0.15	0.00	0.00
ES	15.13	1.13	17.56	0.02	0.12	0.26	0.00
FR	103.86	0.00	25.87	0.01	0.99	1.49	0.00
HR	0.00	0.00	2.19	1.23	0.77	0.01	0.00
IT	0.00	0.00	26.54	4.54	4.46	1.13	0.00
CY	0.00	0.00	0.13	0.00	0.01	0.00	0.00
LV	0.00	0.00	2.58	0.00	0.01	0.01	0.00
LT	0.00	0.00	1.66	0.00	0.06	0.03	0.01
LU	0.00	0.00	0.16	0.00	0.00	0.04	0.00
HU	4.08	1.28	3.19	1.41	1.05	0.13	0.00
MT	0.00	0.00	0.03	0.00	0.00	0.00	0.00
NL	0.79	0.00	5.61	33.17	1.92	0.68	0.00
AT	0.00	0.00	9.81	1.04	0.75	0.73	0.00
PL	0.00	49.84	9.10	3.51	1.05	0.87	0.00
PT	0.00	0.00	5.07	0.00	0.00	0.15	0.00
RO	2.91	4.47	5.84	8.52	3.64	0.09	0.00
SI	1.49	0.93	1.03	0.01	0.00	0.05	0.00
SK	3.99	0.45	1.62	0.12	0.01	0.20	0.00
FI	5.39	0.00	11.66	0.00	0.01	0.29	0.73
SE	16.35	0.00	19.39	0.00	0.00	0.74	0.11
UK	15.12	1.84	15.63	36.02	48.32	1.19	0.00

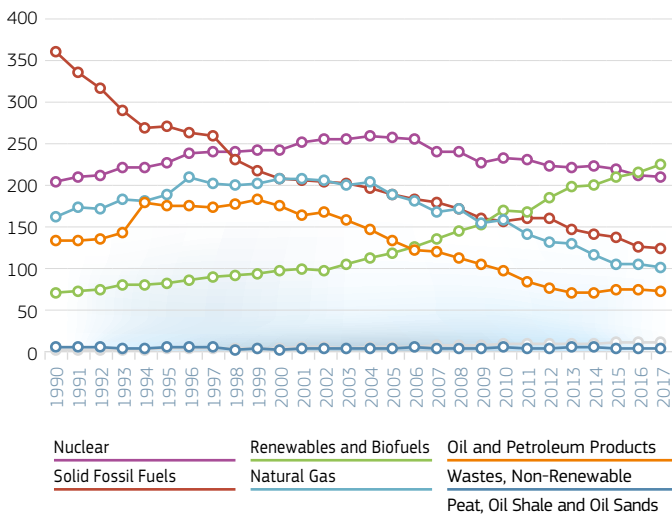
* Primary production. recycled and recovered products.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

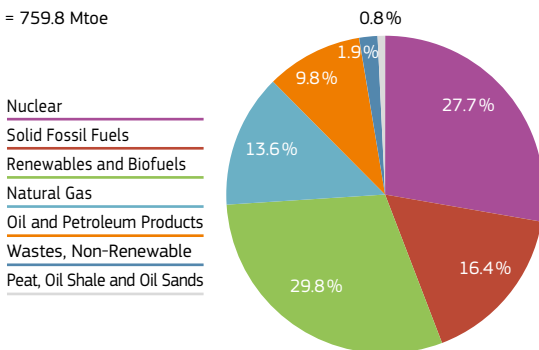
2.1.1 Production*

BY FUEL – EU-28 – 1990-2017 (Mtoe)



PRODUCTION – BY FUEL – EU-28 – 1990-2017 (% OF TOTAL)

Total = 759.8 Mtoe



* Primary production, recycled and recovered products.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

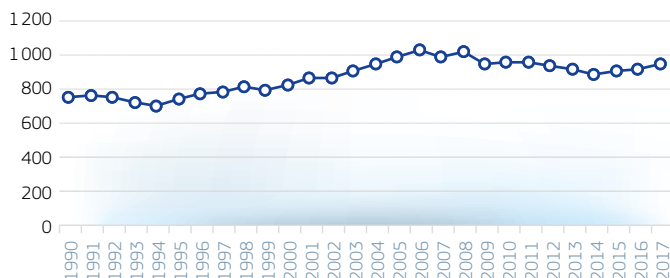
2.1.2 Net Imports

ALL FUELS

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	826.02	985.93	957.61	905.80	910.72	947.78
Index 2000	100%	119%	116%	110%	110%	115%
BE	50.63	53.42	53.63	49.97	47.92	47.99
BG	8.68	9.56	7.23	6.85	7.08	7.50
CZ	9.36	12.68	11.54	13.49	13.66	16.15
DK	-7.47	-10.49	-3.44	2.37	2.49	2.19
DE	204.85	211.52	204.05	198.46	205.11	207.37
EE	1.64	1.52	0.90	0.55	0.50	0.25
IE	12.41	13.95	13.23	12.71	10.39	9.94
EL	21.64	23.01	21.16	18.22	18.33	18.74
ES	100.37	124.77	107.13	95.42	94.53	101.91
FR	132.66	144.63	132.34	120.39	121.90	125.18
HR	4.10	5.17	4.43	4.15	4.16	4.73
IT	152.44	159.77	148.48	121.42	121.52	124.56
CY	2.58	2.86	2.96	2.47	2.64	2.71
LV	2.36	3.10	2.22	2.37	2.22	2.12
LT	4.30	5.05	5.71	5.48	5.62	5.71
LU	3.64	4.68	4.51	4.01	4.03	4.14
HU	13.87	17.73	15.14	13.58	14.28	16.69
MT	1.47	1.59	2.36	2.23	2.50	3.03
NL	34.99	37.53	28.28	42.67	41.14	46.60
AT	19.17	24.69	21.89	20.30	21.12	22.19
PL	9.60	16.47	32.15	28.68	31.00	40.36
PT	22.21	24.81	18.67	18.48	17.54	19.78
RO	8.04	10.50	7.43	5.24	6.88	7.74
SI	3.40	3.85	3.58	3.24	3.35	3.49
SK	11.54	12.34	11.41	9.78	9.90	11.18
FI	18.55	19.25	18.08	15.80	15.68	15.07
SE	19.29	20.31	19.91	14.69	17.02	14.04
UK	-40.31	31.65	62.60	72.78	68.24	66.42

NET IMPORTS – ALL FUELS – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

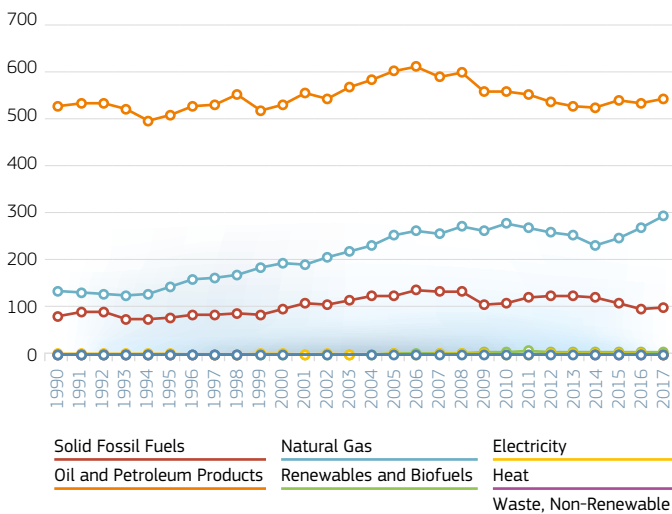
2.1.2 Net Imports

BY FUEL

Mtoe	2017					
	Net Imports	Solid Fossil Fuels	Oil & Petroleum Products	Natural Gas	Renewables & Biofuels	Electricity
EU-28	947.8	100.4	543.3	296.1	6.6	0.9
Share (%)	100 %	10.6 %	57.3 %	31.2 %	0.7 %	0.1 %
BE	47.99	2.94	29.39	14.25	0.88	0.52
BG	7.50	0.57	4.71	2.70	-0.01	-0.47
CZ	16.15	0.47	9.39	7.33	0.08	-1.12
DK	2.19	1.79	-0.29	-1.54	1.79	0.39
DE	207.37	32.30	110.65	68.84	0.09	-4.51
EE	0.25	0.01	0.59	0.41	-0.52	-0.24
IE	9.94	1.22	7.21	1.41	0.17	-0.06
EL	18.74	0.23	13.62	4.23	0.13	0.54
ES	101.91	10.91	63.18	27.62	-0.59	0.79
FR	125.18	10.10	80.08	37.73	0.72	-3.45
HR	4.73	0.40	2.69	1.34	-0.30	0.60
IT	124.56	9.36	52.82	56.82	2.31	3.25
CY	2.71	0.01	2.65	0.00	0.04	0.00
LV	2.12	0.04	1.82	1.01	-0.77	-0.01
LT	5.71	0.18	2.97	1.91	-0.12	0.75
LU	4.14	0.05	2.75	0.69	0.12	0.53
HU	16.69	0.99	6.58	8.22	-0.23	1.11
MT	3.03	0.00	2.69	0.25	0.01	0.07
NL	46.60	9.22	39.50	-1.36	-1.24	0.30
AT	22.19	3.07	11.37	7.01	0.15	0.56
PL	40.36	-1.47	29.80	12.01	-0.18	0.20
PT	19.78	3.41	11.35	5.44	-0.23	-0.23
RO	7.74	0.99	5.85	0.93	0.20	-0.25
SI	3.49	0.20	2.56	0.73	0.05	-0.04
SK	11.18	2.97	3.60	4.37	-0.02	0.26
FI	15.07	2.60	8.67	1.92	0.12	1.76
SE	14.04	1.94	11.31	0.94	1.37	-1.63
UK	66.42	5.86	25.77	30.90	2.62	1.27

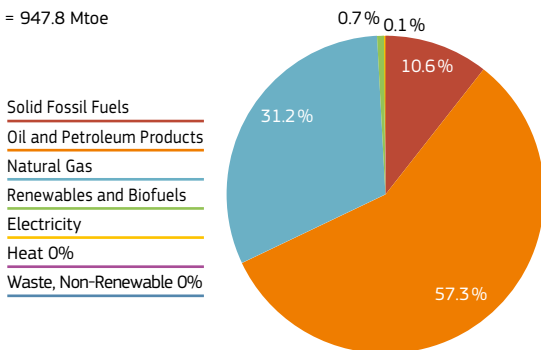
2.1.2 Net Imports

BY FUEL – EU-28 – 1990-2017 (Mtoe)



NET IMPORTS – BY FUEL – EU-28 – 2017 (% TOTAL)

Total = 947.8 Mtoe



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

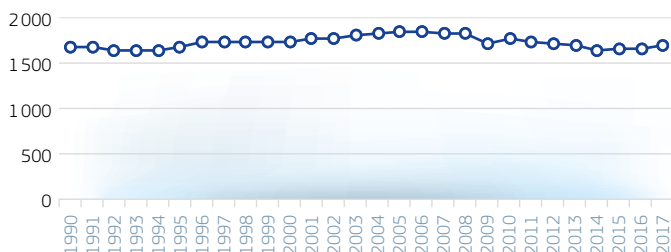
2.1.3 Gross Available Energy

ALL FUELS

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 773.99	1 885.71	1 817.61	1 680.74	1 692.91	1 719.42
Index 2000	100 %	106 %	102 %	95 %	95 %	97 %
BE	64.78	66.68	68.77	59.58	63.52	64.12
BG	18.70	20.20	17.97	18.73	18.34	18.98
CZ	41.28	45.54	45.60	42.35	41.94	43.43
DK	20.79	20.59	21.10	18.14	18.51	18.74
DE	344.63	347.42	337.33	318.94	321.93	324.47
EE	4.84	5.39	5.87	5.71	6.26	6.07
IE	14.52	15.56	15.18	14.30	15.04	14.80
EL	31.35	33.75	30.87	25.65	25.15	26.37
ES	130.54	152.91	138.85	130.82	132.22	137.83
FR	258.87	279.77	271.99	261.76	257.38	257.62
HR	8.46	9.84	9.46	8.49	8.57	8.87
IT	176.19	191.69	179.82	157.63	156.49	161.82
CY	2.61	2.84	2.94	2.53	2.74	2.81
LV	3.87	4.85	4.88	4.63	4.71	4.81
LT	7.30	8.92	6.97	6.99	7.25	7.55
LU	3.66	4.80	4.65	4.18	4.19	4.34
HU	25.23	28.52	26.59	25.20	25.58	26.68
MT	1.47	1.59	2.39	2.29	2.47	2.94
NL	91.44	99.33	100.01	88.10	89.60	89.94
AT	29.23	34.24	34.37	33.51	33.78	34.44
PL	89.51	92.88	101.77	95.93	100.64	105.35
PT	26.05	28.02	24.83	23.62	23.69	24.77
RO	36.76	38.64	35.04	31.90	31.79	33.47
SI	6.45	7.35	7.23	6.51	6.79	6.93
SK	17.73	18.70	17.71	16.27	16.35	17.25
FI	33.34	35.22	36.94	32.78	34.09	34.27
SE	49.07	53.61	52.67	50.14	52.66	52.85
UK	235.34	236.86	215.80	194.07	191.23	187.91

GROSS AVAILABLE ENERGY – ALL FUELS – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

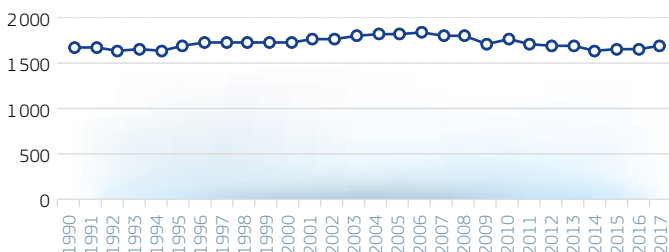
2.1.4 Gross Inland Consumption

ALL FUELS

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 731.53	1 836.47	1 768.19	1 638.72	1 648.85	1 674.92
Index 2000	100 %	106 %	102 %	95 %	95 %	97 %
BE	59.44	59.05	61.17	53.75	56.86	56.63
BG	18.64	20.08	17.87	18.64	18.26	18.90
CZ	41.28	45.54	45.60	42.35	41.94	43.43
DK	19.50	19.82	20.41	17.37	17.84	18.21
DE	342.43	344.93	334.55	316.52	319.11	322.18
EE	4.73	5.27	5.66	5.43	5.99	5.76
IE	14.37	15.46	15.10	14.14	14.89	14.65
EL	27.74	30.88	28.16	23.87	23.43	24.23
ES	124.52	144.99	130.43	123.34	124.70	131.15
FR	256.05	277.21	269.70	260.12	255.90	255.97
HR	8.44	9.81	9.46	8.49	8.56	8.87
IT	174.54	189.45	176.84	155.73	154.28	159.51
CY	2.42	2.55	2.76	2.29	2.46	2.56
LV	3.86	4.59	4.63	4.38	4.39	4.55
LT	7.20	8.78	6.83	6.91	7.08	7.37
LU	3.66	4.80	4.65	4.18	4.19	4.34
HU	25.23	28.52	26.59	25.20	25.58	26.68
MT	0.81	0.94	0.94	0.76	0.72	0.83
NL	78.28	83.71	86.15	76.15	77.74	78.28
AT	29.21	34.21	34.35	33.49	33.76	34.42
PL	89.23	92.56	101.56	95.74	100.46	105.08
PT	25.38	27.44	24.37	22.98	22.92	23.99
RO	36.76	38.64	35.02	31.85	31.76	33.45
SI	6.45	7.32	7.22	6.44	6.67	6.78
SK	17.73	18.70	17.71	16.27	16.35	17.25
FI	32.66	34.71	36.72	32.48	33.80	33.92
SE	47.71	51.68	50.71	48.31	50.66	50.47
UK	233.26	234.83	213.02	191.54	188.56	185.47

GROSS INLAND CONSUMPTION – ALL FUELS –
1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.1.4 Gross Inland Consumption

BY FUEL

Mtoe	2017							
	Oil & Petroleum Products	Natural Gas	Solid Fossil Fuels	Renewables & Biofuels	Nuclear	Waste, Non-Renewable	Electricity	Others*
EU-28	582.1	398.4	228.4	233.5	210.7	14.6	0.9	6.4
Share (%)	34.8%	23.8%	13.6%	13.9%	12.6%	0.9%	0.1%	0.4%
BE	22.8	14.5	3.1	4.1	11.0	0.7	0.5	0.0
BG	4.6	2.8	6.1	2.0	3.9	0.0	-0.5	0.0
CZ	9.7	7.2	15.8	4.5	7.0	0.3	-1.1	0.0
DK	7.1	2.7	1.5	6.0	0.0	0.4	0.4	0.0
DE	113.2	75.3	71.3	42.7	19.7	4.5	-4.5	0.0
EE	0.2	0.4	0.0	1.1	0.0	0.1	-0.2	4.2
IE	7.2	4.3	1.1	1.3	0.0	0.1	-0.1	0.7
EL	11.8	4.2	4.8	2.9	0.0	0.0	0.5	0.0
ES	57.9	27.3	12.7	17.1	15.1	0.3	0.8	0.0
FR	79.1	38.5	9.9	26.6	103.9	1.5	-3.4	0.0
HR	3.5	2.5	0.4	1.9	0.0	0.0	0.6	0.0
IT	55.4	61.5	9.3	28.8	0.0	1.1	3.2	0.0
CY	2.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0
LV	1.6	1.0	0.0	1.9	0.0	0.0	0.0	0.0
LT	2.9	1.9	0.2	1.6	0.0	0.0	0.7	0.0
LU	2.8	0.7	0.0	0.3	0.0	0.0	0.5	0.0
HU	7.6	8.5	2.2	3.0	4.1	0.2	1.1	0.0
MT	0.5	0.2	0.0	0.0	0.0	0.0	0.1	0.0
NL	32.0	30.9	9.1	4.3	0.8	0.9	0.3	0.0
AT	12.3	7.8	3.1	9.9	0.0	0.7	0.6	0.0
PL	30.0	15.4	49.7	8.9	0.0	0.9	0.2	0.0
PT	10.5	5.4	3.2	4.8	0.0	0.2	-0.2	0.0
RO	9.6	9.6	5.4	6.0	2.9	0.1	-0.2	0.0
SI	2.3	0.7	1.1	1.1	1.5	0.1	0.0	0.0
SK	3.7	4.1	3.4	1.6	4.0	0.2	0.3	0.0
FI	8.7	1.9	2.8	11.8	5.4	0.3	1.8	1.3
SE	11.0	0.9	1.9	20.9	16.4	0.8	-1.6	0.1
UK	71.9	67.8	9.9	18.2	15.1	1.2	1.3	0.0

* Others = manufactured gases, peat and peat products, oil shale and oil sands.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.1.4 Gross Inland Consumption

RENEWABLES AND BIOFUELS

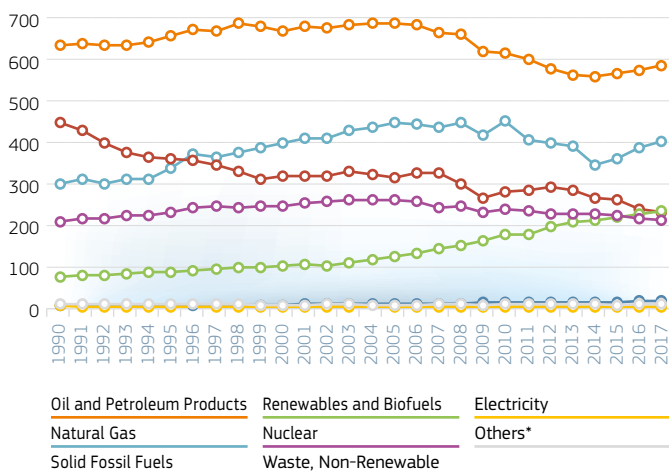
Mtoe	2017								
	Renewables & Biofuels	Hydro	Wind	Solar Photovoltaic	Solar Thermal	Tide, Wave & Ocean	Biofuels & Renewable Waste	Geothermal	Ambient Heat (Heat Pumps)
EU-28	233.5	25.9	31.2	9.8	4.6	0.0	144.1	6.8	11.1
Share (%)	100.0 %	11.1 %	13.3 %	4.2 %	2.0 %	0.0 %	61.7 %	2.9 %	4.8 %
BE	4.09	0.02	0.56	0.28	0.03	0.00	3.14	0.00	0.05
BG	1.95	0.24	0.13	0.12	0.02	0.00	1.31	0.03	0.09
CZ	4.52	0.16	0.05	0.19	0.02	0.00	3.98	0.00	0.12
DK	5.98	0.00	1.27	0.06	0.06	0.00	4.36	0.00	0.22
DE	42.71	1.73	9.09	3.39	0.68	0.00	26.50	0.26	1.07
EE	1.06	0.00	0.06	0.00	0.00	0.00	1.00	0.00	0.00
IE	1.32	0.06	0.64	0.00	0.01	0.00	0.61	0.00	0.00
EL	2.92	0.34	0.48	0.34	0.27	0.00	1.19	0.01	0.29
ES	17.08	1.61	4.22	0.73	2.62	0.00	7.28	0.02	0.59
FR	26.59	4.30	2.12	0.82	0.17	0.04	16.42	0.41	2.29
HR	1.89	0.46	0.10	0.01	0.01	0.00	1.31	0.01	0.00
IT	28.82	3.11	1.53	2.10	0.21	0.00	13.73	5.50	2.65
CY	0.17	0.00	0.02	0.01	0.07	0.00	0.06	0.00	0.00
LV	1.94	0.38	0.01	0.00	0.00	0.00	1.54	0.00	0.00
LT	1.56	0.05	0.12	0.01	0.00	0.00	1.39	0.00	0.00
LU	0.27	0.01	0.02	0.01	0.00	0.00	0.23	0.00	0.00
HU	2.95	0.02	0.07	0.03	0.01	0.00	2.68	0.13	0.01
MT	0.04	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01
NL	4.27	0.01	0.91	0.19	0.03	0.00	2.89	0.07	0.18
AT	9.94	3.30	0.57	0.11	0.18	0.00	5.53	0.04	0.22
PL	8.92	0.22	1.28	0.01	0.05	0.00	7.27	0.02	0.06
PT	4.83	0.51	1.05	0.09	0.09	0.00	2.90	0.20	0.00
RO	6.04	1.25	0.64	0.16	0.00	0.00	3.96	0.04	0.00
SI	1.08	0.33	0.00	0.02	0.01	0.00	0.66	0.05	0.00
SK	1.59	0.37	0.00	0.04	0.01	0.00	1.16	0.01	0.00
FI	11.77	1.27	0.41	0.00	0.00	0.00	9.54	0.00	0.55
SE	20.92	5.60	1.51	0.02	0.01	0.00	12.23	0.00	1.55
UK	18.24	0.51	4.30	0.99	0.05	0.00	11.22	0.00	1.17

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.1.4 Gross Inland Consumption

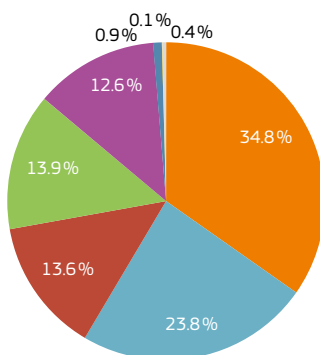
BY FUEL – EU-28 – 1990-2017 (Mtoe)



GROSS INLAND CONSUMPTION – BY FUEL – EU-28 – 2017 (% TOTAL)

Total = 1674.9 Mtoe

Oil and Petroleum Products
Natural Gas
Solid Fossil Fuels
Renewables and Biofuels
Nuclear
Waste, Non-Renewable
Electricity
Others*



* Others = manufactured gases, peat and peat products, oil shale and oil sands.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

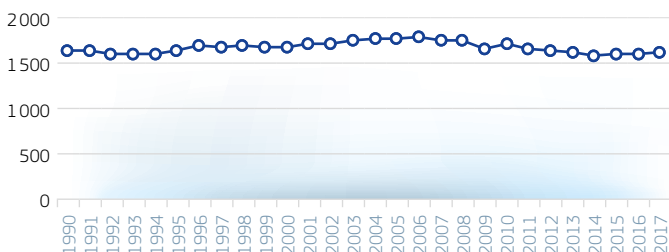
2.1.5 Total Energy Supply

ALL FUELS

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 692.26	1 793.04	1 725.11	1 592.47	1 600.86	1 623.77
Index 2000	100 %	106 %	102 %	94 %	95 %	96 %
BE	57.93	57.89	59.80	52.31	55.42	55.05
BG	18.56	19.90	17.71	18.47	18.05	18.66
CZ	41.11	45.22	45.29	42.05	41.62	43.08
DK	18.72	18.97	19.60	16.48	16.89	17.23
DE	335.81	337.48	326.61	308.51	310.49	312.66
EE	4.71	5.22	5.62	5.38	5.95	5.70
IE	13.77	14.64	14.36	13.30	14.02	13.64
EL	26.91	30.08	27.48	23.04	22.55	23.24
ES	121.74	141.82	127.31	119.38	120.50	126.57
FR	250.83	271.78	264.19	253.78	249.61	249.54
HR	8.38	9.73	9.36	8.37	8.44	8.72
IT	171.71	186.45	173.68	152.56	150.98	156.09
CY	2.14	2.24	2.47	2.05	2.18	2.25
LV	3.84	4.53	4.51	4.27	4.27	4.41
LT	7.18	8.73	6.78	6.83	6.99	7.27
LU	3.34	4.37	4.21	3.72	3.69	3.76
HU	24.99	28.26	26.36	25.03	25.39	26.46
MT	0.68	0.85	0.84	0.64	0.59	0.69
NL	74.98	80.07	82.74	72.35	73.84	74.27
AT	28.65	33.57	33.68	32.79	32.99	33.69
PL	88.95	92.23	101.05	95.09	99.77	104.23
PT	24.71	26.68	23.49	21.93	21.77	22.71
RO	36.63	38.51	34.86	31.62	31.47	33.11
SI	6.42	7.30	7.19	6.42	6.65	6.75
SK	17.70	18.66	17.67	16.22	16.30	17.21
FI	32.31	34.29	36.19	31.84	33.16	33.24
SE	46.99	51.03	50.00	47.55	49.82	49.57
UK	222.56	222.54	202.07	180.47	177.46	173.98

TOTAL ENERGY SUPPLY – ALL FUELS –
1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2 Energy Imports

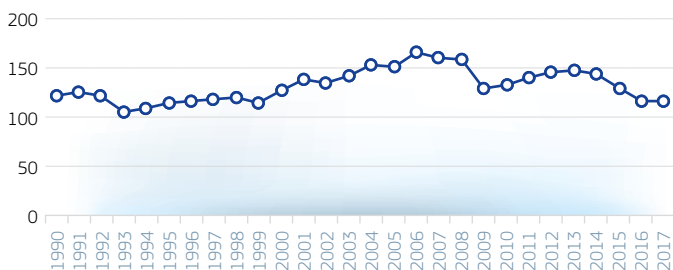
2.2.1 Imports – Solid Fossil Fuels

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	125.4	148.8	130.9	127.7	115.4	115.4
Index 2000	100 %	119 %	104 %	102 %	92 %	92 %
BE	8.43	6.01	4.39	3.31	3.05	3.01
BG	2.38	2.56	1.75	0.76	0.56	0.58
CZ	1.04	1.34	2.36	2.84	2.97	3.01
DK	3.86	3.56	2.68	1.60	1.68	1.79
DE	22.22	26.58	32.59	37.48	39.67	33.80
EE	0.07	0.04	0.05	0.00	0.01	0.02
IE	1.70	1.91	0.96	1.48	1.15	1.23
EL	0.81	0.40	0.40	0.16	0.19	0.23
ES	13.35	14.83	7.85	10.95	8.09	11.15
FR	13.38	13.98	12.25	9.21	8.61	10.11
HR	0.48	0.62	0.70	0.62	0.66	0.40
IT	13.23	16.53	14.00	12.58	10.96	9.59
CY	0.03	0.04	0.01	0.00	0.00	0.01
LV	0.06	0.08	0.11	0.04	0.04	0.04
LT	0.08	0.17	0.19	0.15	0.15	0.18
LU	0.11	0.08	0.07	0.05	0.05	0.05
HU	1.21	1.46	1.41	1.11	1.08	1.26
MT	0.00	0.00	0.00	0.00	0.00	0.00
NL	8.13	8.46	7.76	10.70	10.23	9.41
AT	3.07	4.05	3.38	2.82	2.89	3.11
PL	1.02	2.15	8.27	5.06	5.04	7.88
PT	3.97	3.23	1.63	3.21	2.91	3.41
RO	1.92	2.93	1.22	1.05	1.03	0.99
SI	0.25	0.33	0.28	0.20	0.20	0.20
SK	3.47	3.90	3.22	2.82	2.74	3.02
FI	3.56	3.36	3.99	2.59	2.79	2.70
SE	2.36	2.48	2.46	1.98	2.22	1.96
UK	15.23	27.76	16.92	14.95	6.41	6.23

IMPORTS – SOLID FOSSIL FUELS – TOTAL – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

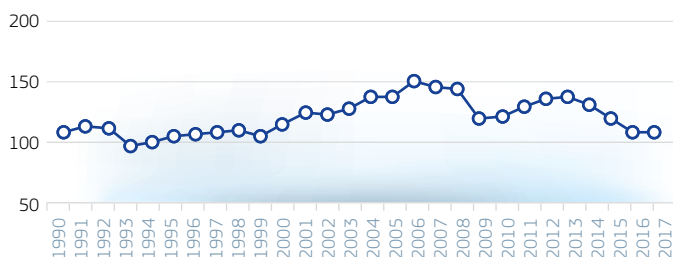
2.2.1 Imports – Solid Fossil Fuels

HARD COAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	114.2	138.4	120.9	119.0	107.4	107.7
Index 2000	100%	121%	106%	104%	94%	94%
BE	7.46	5.70	4.09	2.78	2.46	2.42
BG	2.25	2.49	1.70	0.70	0.50	0.54
CZ	0.63	0.76	1.41	1.96	2.22	2.43
DK	3.82	3.54	2.67	1.59	1.67	1.79
DE	17.39	23.93	29.33	35.35	37.91	32.13
EE	0.06	0.04	0.05	0.00	0.01	0.02
IE	1.68	1.88	0.95	1.47	1.15	1.22
EL	0.81	0.40	0.40	0.16	0.19	0.23
ES	13.25	14.74	7.71	10.73	7.97	10.98
FR	12.33	12.85	11.30	8.79	8.26	9.69
HR	0.44	0.57	0.64	0.58	0.63	0.35
IT	12.87	15.94	13.81	11.92	10.24	9.13
CY	0.03	0.04	0.01	0.00	0.00	0.01
LV	0.05	0.07	0.11	0.04	0.04	0.04
LT	0.01	0.00	0.11	0.14	0.13	0.16
LU	0.10	0.07	0.06	0.04	0.05	0.04
HU	0.88	1.00	1.28	0.97	0.97	1.09
MT	0.00	0.00	0.00	0.00	0.00	0.00
NL	7.74	8.19	7.52	10.63	10.14	9.30
AT	2.32	3.00	2.45	2.10	2.26	2.43
PL	1.01	2.05	8.16	4.91	4.88	7.65
PT	3.97	3.22	1.63	3.20	2.90	3.40
RO	1.65	2.05	0.14	0.08	0.10	0.12
SI	0.01	0.03	0.02	0.01	0.01	0.01
SK	3.15	3.48	2.57	2.53	2.46	2.64
FI	3.21	3.01	3.68	2.28	2.56	2.53
SE	2.14	2.22	2.29	1.92	2.16	1.89
UK	14.90	27.11	16.84	14.14	5.52	5.52

IMPORTS – SOLID FOSSIL FUELS – HARD COAL –
1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.1 Imports – Solid Fossil Fuels

RANKING

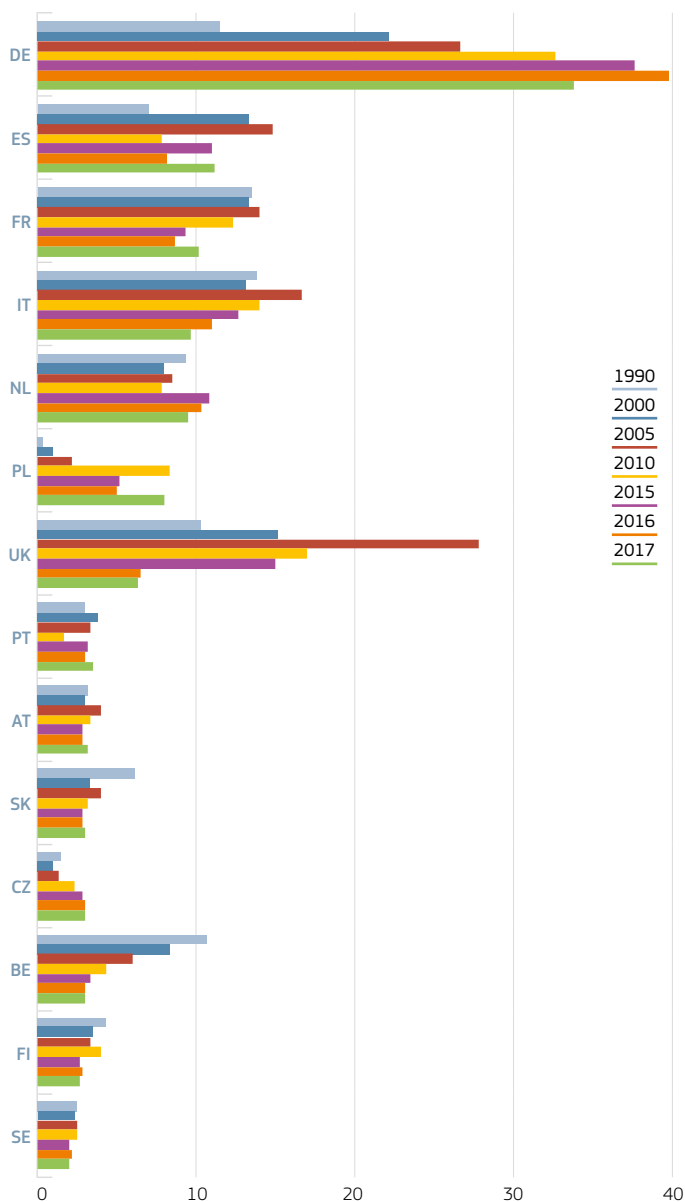
Mtoe and %	2000			2017		
Top 10 Ranking	MS	Imports	EU-28 Share	MS	Imports	EU-28 Share
Solid Fossil Fuels						
1	DE	22.2	17.7 %	DE	33.8	29.3 %
2	UK	15.2	12.1 %	ES	11.2	9.7 %
3	FR	13.4	10.7 %	FR	10.1	8.8 %
4	ES	13.3	10.6 %	IT	9.6	8.3 %
5	IT	13.2	10.5 %	NL	9.4	8.2 %
6	BE	8.4	6.7 %	PL	7.9	6.8 %
7	NL	8.1	6.5 %	UK	6.2	5.4 %
8	PT	4.0	3.2 %	PT	3.4	3.0 %
9	DK	3.9	3.1 %	AT	3.1	2.7 %
10	FI	3.6	2.8 %	SK	3.0	2.6 %
Top 5 Total		77.4	61.7 %		74.1	64.2 %
Total EU-28		125.4	100.0 %		115.4	100.0 %
Of which: Hard Coal						
1	DE	17.4	15.2 %	DE	32.1	29.8 %
2	UK	14.9	13.0 %	ES	11.0	10.2 %
3	ES	13.3	11.6 %	FR	9.7	9.0 %
4	IT	12.9	11.3 %	NL	9.3	8.6 %
5	FR	12.3	10.8 %	IT	9.1	8.5 %
6	NL	7.7	6.8 %	PL	7.7	7.1 %
7	BE	7.5	6.5 %	UK	5.5	5.1 %
8	PT	4.0	3.5 %	PT	3.4	3.2 %
9	DK	3.8	3.3 %	SK	2.6	2.4 %
10	FI	3.2	2.8 %	FI	2.5	2.3 %
Top 5 Total		70.7	62.0 %		71.2	66.1 %
Total EU-28		114.2	100.0 %		107.7	100.0 %

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.1 Imports – Solid Fossil Fuels

BY MEMBER STATE – TOP 14 IMPORTERS
1990-2017 (Mtoe)

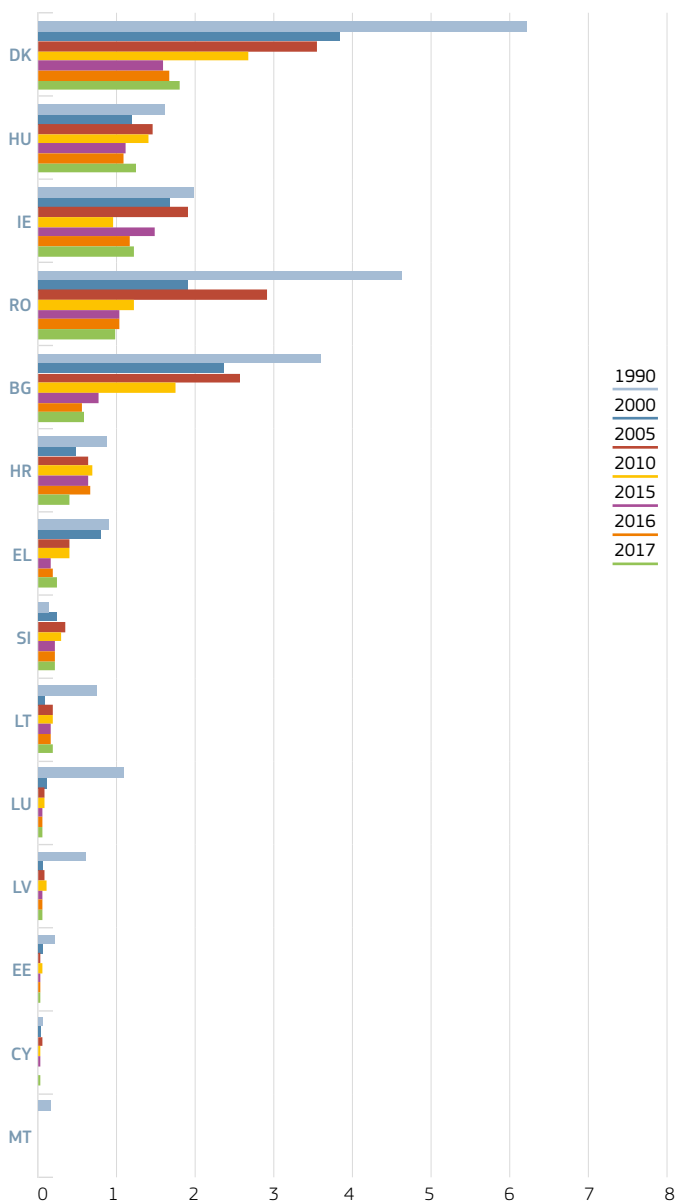


Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.1 Imports – Solid Fossil Fuels

BY MEMBER STATE – LEAST 14 IMPORTERS
1990-2017 (Mtoe)



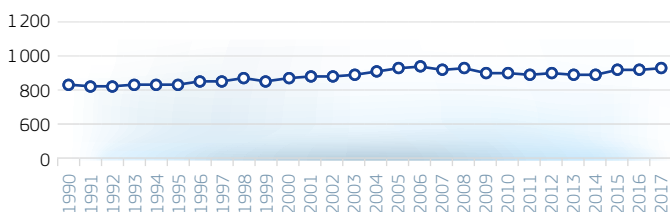
Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.2 Imports – Oil and Petroleum Products

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	870.2	961.4	920.1	943.8	950.3	968.5
Index 2000	100%	110%	106%	108%	109%	111%
BE	52.91	58.44	56.76	59.85	58.81	63.46
BG	6.10	7.85	7.76	8.99	9.08	9.59
CZ	8.57	10.96	10.61	11.17	10.30	11.79
DK	9.93	8.79	9.52	13.99	13.17	10.63
DE	148.18	150.88	130.79	130.77	132.20	133.91
EE	0.93	1.16	1.16	1.68	1.82	1.89
IE	9.63	10.35	9.21	9.27	9.12	9.40
EL	23.32	25.94	26.46	30.77	32.14	32.85
ES	79.21	88.65	81.34	84.78	86.57	90.54
FR	112.87	123.35	106.30	103.14	99.19	100.71
HR	4.20	5.52	4.97	4.54	4.69	5.23
IT	109.73	108.25	96.89	80.73	81.77	84.96
CY	2.54	2.81	2.93	2.46	2.61	2.65
LV	1.35	2.29	1.94	2.76	2.80	2.59
LT	5.46	9.63	10.25	11.17	11.60	11.33
LU	2.39	3.16	2.86	2.62	2.65	2.77
HU	7.00	9.11	8.53	9.33	9.22	9.74
MT	1.47	1.59	2.38	2.67	2.64	2.84
NL	104.61	125.35	146.70	156.61	156.90	153.57
AT	12.45	15.47	13.96	14.03	13.94	14.04
PL	21.78	24.96	29.22	32.54	32.62	35.11
PT	17.62	19.52	15.39	18.10	17.77	18.39
RO	6.36	9.58	8.11	9.54	10.32	11.05
SI	2.69	2.85	3.29	4.09	4.61	4.68
SK	5.56	6.82	6.85	7.57	7.56	7.58
FI	15.65	16.04	16.31	16.53	18.47	17.96
SE	26.83	28.07	28.34	28.43	31.01	29.59
UK	70.90	83.99	81.22	85.69	86.76	89.60

IMPORTS – OIL AND PETROLEUM PRODUCTS – TOTAL – EU-28
1990-2017 (Mtoe)

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

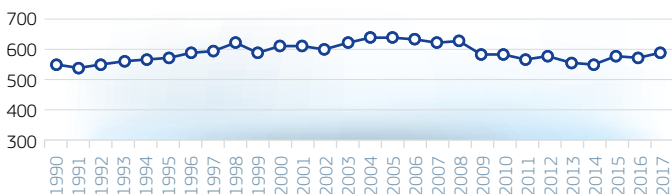
2.2.2 Imports – Oil and Petroleum Products

CRUDE OIL AND NGL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	611.4	642.5	578.8	573.9	565.8	586.2
Index 2000	100 %	105 %	95 %	94 %	93 %	96 %
BE	34.16	31.99	33.48	32.44	32.20	34.41
BG	5.31	6.14	5.52	6.17	6.29	6.97
CZ	5.65	7.76	7.83	7.22	5.39	7.91
DK	3.81	2.79	2.79	4.28	3.94	4.95
DE	104.75	115.21	94.69	92.66	92.63	92.12
EE	0.00	0.00	0.00	0.00	0.00	0.00
IE	3.01	3.34	3.11	3.72	3.27	3.29
EL	19.10	18.41	19.82	21.75	23.10	23.31
ES	58.57	60.68	53.46	65.96	65.39	67.21
FR	85.45	86.00	65.48	59.17	56.89	58.93
HR	3.96	4.05	3.60	2.37	2.56	2.87
IT	83.64	89.30	78.60	62.46	60.88	66.35
CY	1.17	0.00	0.00	0.00	0.00	0.00
LV	0.00	0.00	0.00	0.00	0.00	0.00
LT	4.92	9.08	9.20	8.71	9.42	9.92
LU	0.00	0.00	0.00	0.00	0.00	0.00
HU	5.79	6.57	5.84	6.35	6.04	5.97
MT	0.00	0.00	0.00	0.00	0.00	0.00
NL	61.06	62.48	61.05	60.29	61.79	61.23
AT	7.43	7.95	6.90	8.23	7.44	7.33
PL	18.28	18.18	23.03	26.89	24.94	25.02
PT	11.73	13.42	11.48	14.36	14.12	14.59
RO	4.81	8.56	5.76	6.51	7.37	7.68
SI	0.12	0.00	0.00	0.00	0.00	0.00
SK	5.28	5.37	5.48	5.92	5.81	5.61
FI	11.86	10.84	11.44	11.12	12.41	12.66
SE	20.83	20.24	20.00	20.25	19.83	19.19
UK	50.67	54.14	50.21	47.03	44.07	48.64

IMPORTS – OIL AND PETROLEUM PRODUCTS – CRUDE OIL AND NGL – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.2 Imports – Oil and Petroleum Products

RANKING

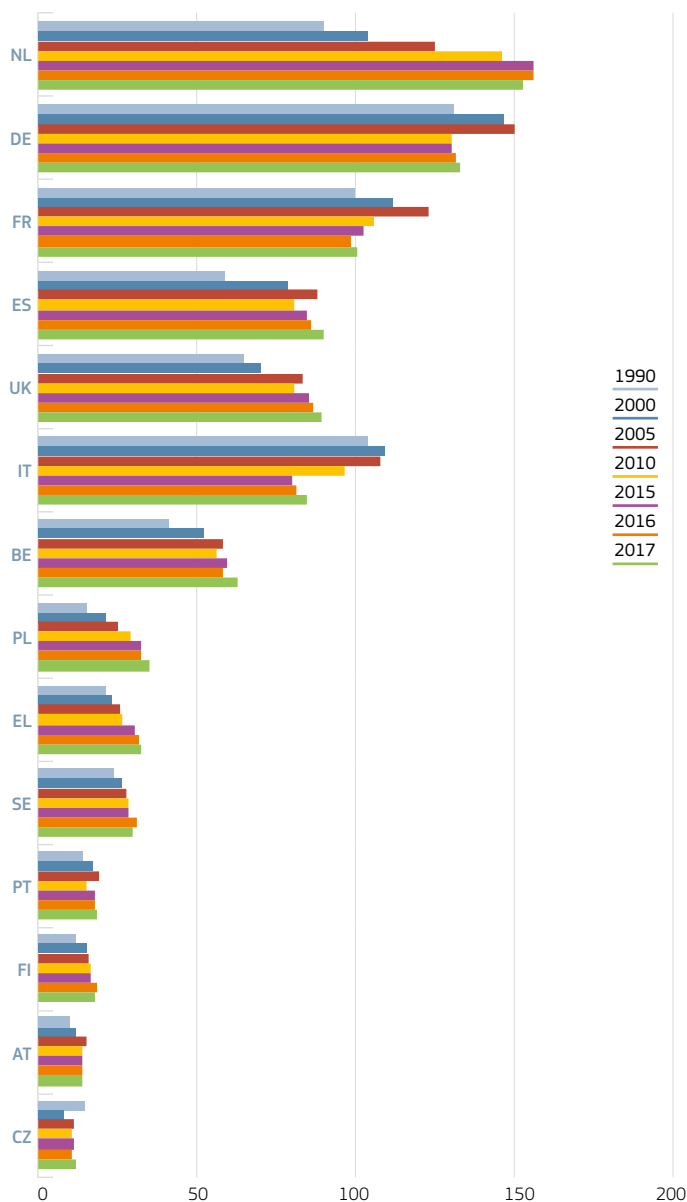
Mtoe and %	2000			2017		
Top 10 Ranking	MS	Imports	EU-28 Share	MS	Imports	EU-28 Share
Oil and Petroleum Products						
1	DE	148.2	17.0%	NL	153.6	15.9%
2	FR	112.9	13.0%	DE	133.9	13.8%
3	IT	109.7	12.6%	FR	100.7	10.4%
4	NL	104.6	12.0%	ES	90.5	9.3%
5	ES	79.2	9.1%	UK	89.6	9.3%
6	UK	70.9	8.1%	IT	85.0	8.8%
7	BE	52.9	6.1%	BE	63.5	6.6%
8	SE	26.8	3.1%	PL	35.1	3.6%
9	EL	23.3	2.7%	EL	32.8	3.4%
10	PL	21.8	2.5%	SE	29.6	3.1%
Top 5 Total		554.6	63.7%		568.3	58.7%
Total		870.2	100.0%		968.5	100.0%
Of which: Crude Oil and NGL						
1	DE	104.8	17.1%	DE	92.1	15.7%
2	FR	85.4	14.0%	ES	67.2	11.5%
3	IT	83.6	13.7%	IT	66.3	11.3%
4	NL	61.1	10.0%	NL	61.2	10.4%
5	ES	58.6	9.6%	FR	58.9	10.1%
6	UK	50.7	8.3%	UK	48.6	8.3%
7	BE	34.2	5.6%	BE	34.4	5.9%
8	SE	20.8	3.4%	PL	25.0	4.3%
9	EL	19.1	3.1%	EL	23.3	4.0%
10	PL	18.3	3.0%	SE	19.2	3.3%
Top 5 Total		393.5	64.4%		345.8	59.0%
Total		611.4	100.0%		586.2	100.0%

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.2 Imports – Oil and Petroleum Products

BY MEMBER STATE – TOP 14 IMPORTERS
1990-2017 (Mtoe)

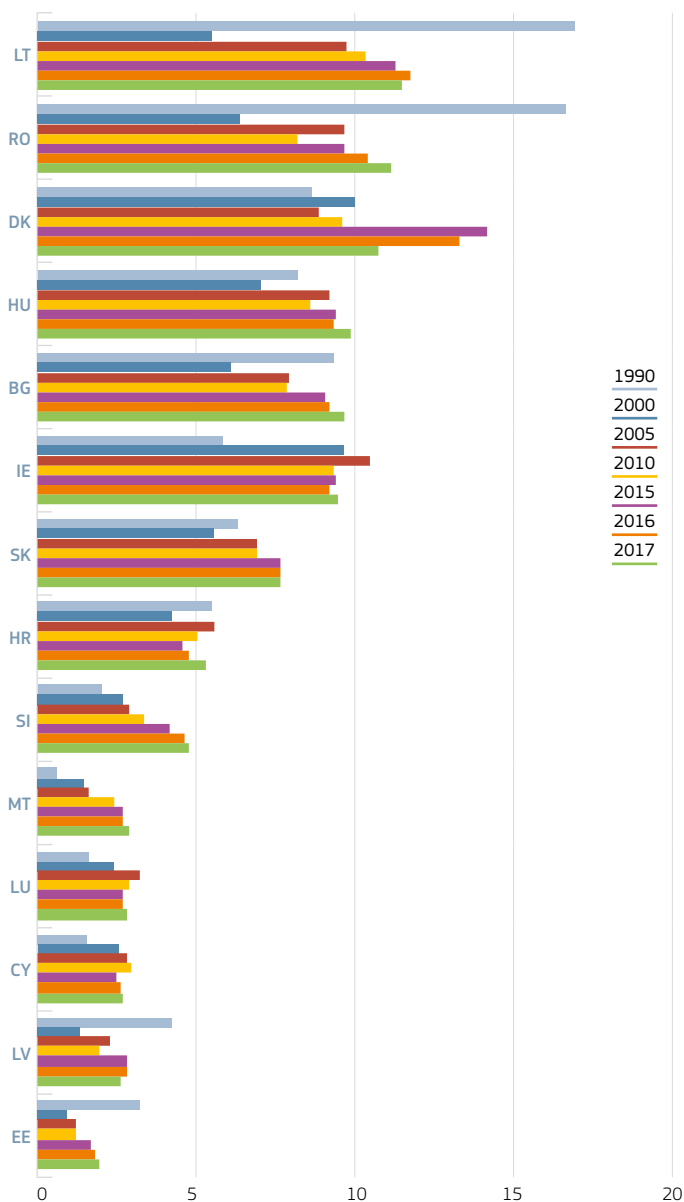


Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.2 Imports – Oil and Petroleum Products

BY MEMBER STATE – LEAST 14 IMPORTERS
1990-2017 (Mtoe)



Source: Eurostat, May 2019

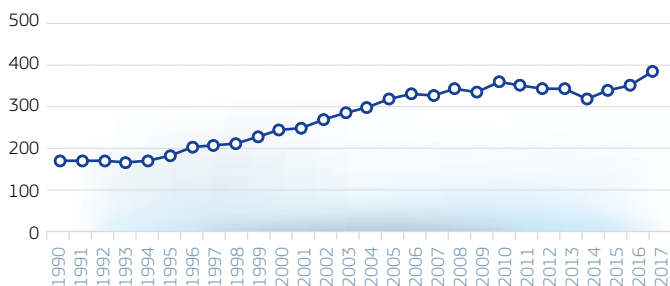
Methodology and Notes: [See Appendices](#)

2.2.3 Imports – Natural Gas

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	242.43	323.75	366.96	344.35	357.27	392.14
Index 2000	100 %	134 %	151 %	142 %	147 %	162 %
BE	13.28	14.82	19.55	15.32	14.96	14.90
BG	2.74	2.46	2.13	2.52	2.59	2.72
CZ	7.48	7.60	6.98	6.16	6.72	7.33
DK	0.00	0.00	0.14	0.59	0.61	0.46
DE	61.09	78.90	78.80	85.92	81.61	95.74
EE	0.66	0.80	0.56	0.39	0.43	0.41
IE	2.48	3.01	4.48	3.62	1.70	1.41
EL	1.69	2.33	3.23	2.67	3.46	4.23
ES	15.47	30.25	31.95	28.18	28.19	30.13
FR	36.46	41.62	42.11	39.38	41.23	43.16
HR	0.91	0.93	0.87	0.87	1.05	1.51
IT	47.05	60.16	61.72	50.18	53.47	57.04
CY	0.00	0.00	0.00	0.00	0.00	0.00
LV	1.11	1.43	0.90	1.08	0.92	1.01
LT	2.06	2.49	2.48	2.14	1.89	2.08
LU	0.67	1.18	1.20	0.77	0.71	0.69
HU	7.35	9.81	7.91	5.68	7.23	11.16
MT	0.00	0.00	0.00	0.00	0.00	0.25
NL	12.47	16.44	18.45	29.24	33.06	38.80
AT	5.32	8.04	10.19	9.77	11.86	11.54
PL	6.64	8.57	8.91	9.99	12.19	13.03
PT	2.04	3.89	4.50	4.07	4.26	5.44
RO	2.71	4.19	1.82	0.16	1.18	0.95
SI	0.82	0.93	0.86	0.66	0.70	0.73
SK	5.71	6.05	5.00	3.69	3.62	4.37
FI	3.43	3.61	3.84	2.24	2.06	1.92
SE	0.78	0.84	1.47	0.72	0.82	0.94
UK	2.01	13.42	46.92	38.34	40.76	40.18

IMPORTS – NATURAL GAS – TOTAL – 1990-2017 (Mtoe) EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.3 Imports – Natural Gas

RANKING

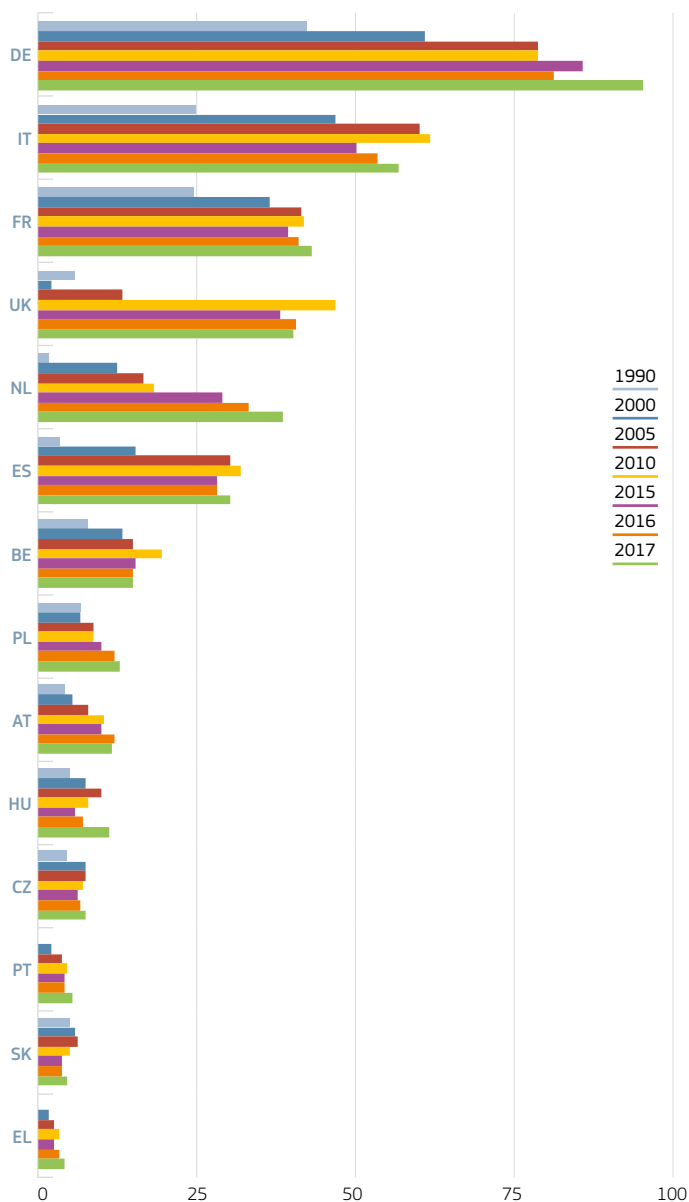
Mtoe and %		2000		2017		
EU-28 Ranking	MS	Imports	EU-28 Share	MS	Imports	EU-28 Share
Natural Gas						
1	DE	61.1	25.2%	DE	95.7	24.4%
2	IT	47.0	19.4%	IT	57.0	14.5%
3	FR	36.5	15.0%	FR	43.2	11.0%
4	ES	15.5	6.4%	UK	40.2	10.2%
5	BE	13.3	5.5%	NL	38.8	9.9%
6	NL	12.5	5.1%	ES	30.1	7.7%
7	CZ	7.5	3.1%	BE	14.9	3.8%
8	HU	7.3	3.0%	PL	13.0	3.3%
9	PL	6.6	2.7%	AT	11.5	2.9%
10	SK	5.7	2.4%	HU	11.2	2.8%
11	AT	5.3	2.2%	CZ	7.3	1.9%
12	FI	3.4	1.4%	PT	5.4	1.4%
13	BG	2.7	1.1%	SK	4.4	1.1%
14	RO	2.7	1.1%	EL	4.2	1.1%
15	IE	2.5	1.0%	BG	2.7	0.7%
16	LT	2.1	0.9%	LT	2.1	0.5%
17	PT	2.0	0.8%	FI	1.9	0.5%
18	UK	2.0	0.8%	HR	1.5	0.4%
19	EL	1.7	0.7%	IE	1.4	0.4%
20	LV	1.1	0.5%	LV	1.0	0.3%
21	HR	0.9	0.4%	RO	1.0	0.2%
22	SI	0.8	0.3%	SE	0.9	0.2%
23	SE	0.8	0.3%	SI	0.7	0.2%
24	LU	0.7	0.3%	LU	0.7	0.2%
25	EE	0.7	0.3%	DK	0.5	0.1%
26	DK	0.0	0.0%	EE	0.4	0.1%
27	CY	0.0	0.0%	MT	0.3	0.1%
28	MT	0.0	0.0%	CY	0.0	0.0%
Top 5 Total		173.3	71.5%	274.9 70.1%		
Total		242.4	100.0%	392.1 100.0%		

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.3 Imports – Natural Gas

BY MEMBER STATE – TOP 14 IMPORTERS
1990-2017 (Mtoe)

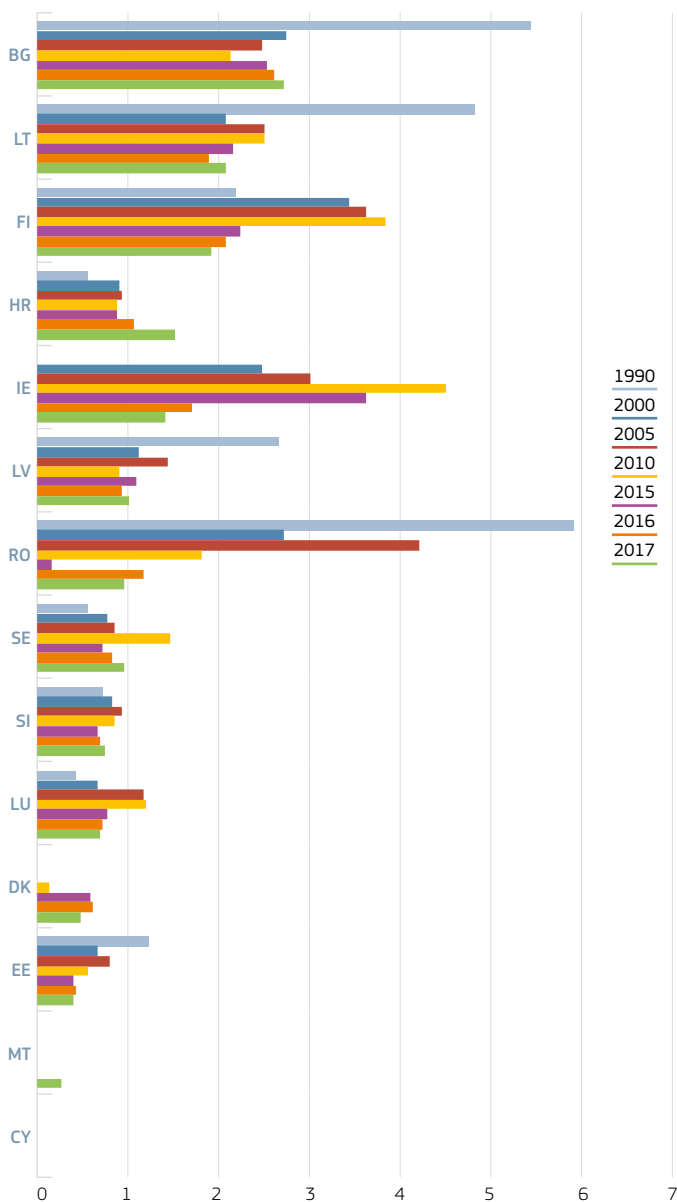


Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.3 Imports – Natural Gas

BY MEMBER STATE – LEAST 14 IMPORTERS
1990-2017 (Mtoe)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

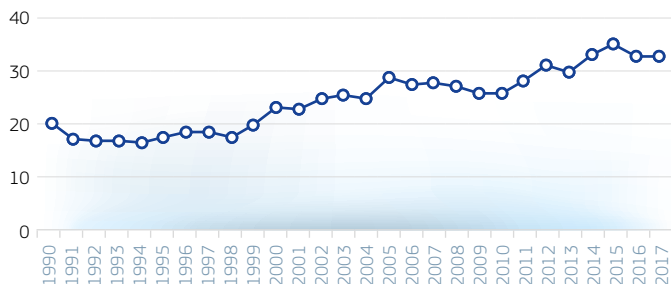
2.2.4 Imports – Electricity

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	22.9	28.8	25.7	35.3	32.9	33.1
Index 2000	100 %	126 %	112 %	154 %	144 %	145 %
BE	1.00	1.23	1.07	2.04	1.26	1.22
BG	0.08	0.07	0.10	0.37	0.39	0.32
CZ	0.75	1.06	0.57	1.39	1.19	1.30
DK	0.72	1.11	0.91	1.35	1.29	1.31
DE	3.88	4.89	3.69	3.18	2.44	2.39
EE	0.03	0.03	0.09	0.47	0.31	0.20
IE	0.01	0.18	0.07	0.15	0.07	0.10
EL	0.15	0.48	0.73	0.95	0.85	0.75
ES	1.05	0.88	0.45	1.29	1.88	2.04
FR	0.32	0.69	1.67	0.86	1.71	1.82
HR	0.38	0.75	1.07	1.13	1.07	1.05
IT	3.85	4.32	3.95	4.37	3.71	3.69
CY	0.00	0.00	0.00	0.00	0.00	0.00
LV	0.18	0.25	0.34	0.45	0.42	0.35
LT	0.44	0.49	0.70	0.68	0.95	1.03
LU	0.55	0.55	0.63	0.65	0.66	0.65
HU	0.82	1.34	0.85	1.71	1.54	1.70
MT	0.00	0.00	0.00	0.09	0.13	0.08
NL	1.97	2.04	1.34	2.64	2.09	1.93
AT	1.19	1.75	1.71	2.53	2.27	2.52
PL	0.28	0.43	0.54	1.24	1.21	1.14
PT	0.40	0.83	0.50	0.69	0.40	0.47
RO	0.07	0.20	0.07	0.39	0.36	0.42
SI	0.36	0.80	0.74	0.78	0.72	0.79
SK	0.51	0.69	0.63	1.29	1.14	1.34
FI	1.05	1.54	1.35	1.85	1.90	1.91
SE	1.57	1.25	1.28	0.80	1.23	1.02
UK	1.23	0.96	0.61	1.97	1.72	1.56

IMPORTS – ELECTRICITY – TOTAL – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

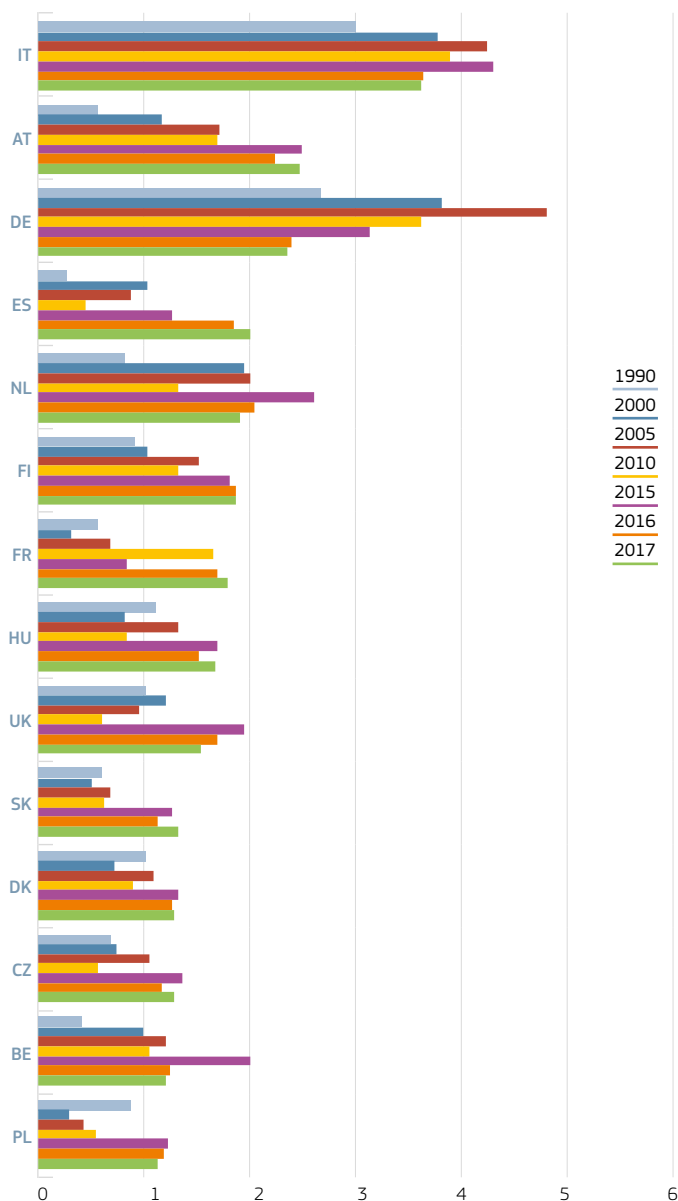
2.2.4 Imports – Electricity

RANKING

Mtoe and %		2000		2017		
EU-28 Ranking	MS	Imports	EU-28 Share	MS	Imports	EU-28 Share
Electricity						
1	DE	3.88	17.0%	IT	3.69	11.1%
2	IT	3.85	16.8%	AT	2.52	7.6%
3	NL	1.97	8.6%	DE	2.39	7.2%
4	SE	1.57	6.9%	ES	2.04	6.2%
5	UK	1.23	5.4%	NL	1.93	5.8%
6	AT	1.19	5.2%	FI	1.91	5.8%
7	ES	1.05	4.6%	FR	1.82	5.5%
8	FI	1.05	4.6%	HU	1.70	5.1%
9	BE	1.00	4.4%	UK	1.56	4.7%
10	HU	0.82	3.6%	SK	1.34	4.0%
11	CZ	0.75	3.3%	DK	1.31	4.0%
12	DK	0.72	3.2%	CZ	1.30	3.9%
13	LU	0.55	2.4%	BE	1.22	3.7%
14	SK	0.51	2.2%	PL	1.14	3.4%
15	LT	0.44	1.9%	HR	1.05	3.2%
16	PT	0.40	1.8%	LT	1.03	3.1%
17	HR	0.38	1.6%	SE	1.02	3.1%
18	SI	0.36	1.6%	SI	0.79	2.4%
19	FR	0.32	1.4%	EL	0.75	2.3%
20	PL	0.28	1.2%	LU	0.65	2.0%
21	LV	0.18	0.8%	PT	0.47	1.4%
22	EL	0.15	0.6%	RO	0.42	1.3%
23	BG	0.08	0.4%	LV	0.35	1.1%
24	RO	0.07	0.3%	BG	0.32	1.0%
25	EE	0.03	0.1%	EE	0.20	0.6%
26	IE	0.01	0.1%	IE	0.10	0.3%
27	CY	0.00	0.0%	MT	0.08	0.2%
28	MT	0.00	0.0%	CY	0.00	0.0%
Top 5 Total		12.5	54.7%		12.6	38.0%
Total		22.9	100.0%		33.1	100.0%

2.2.4 Imports – Electricity

BY MEMBER STATE – TOP 14 IMPORTERS
1990-2017 (Mtoe)

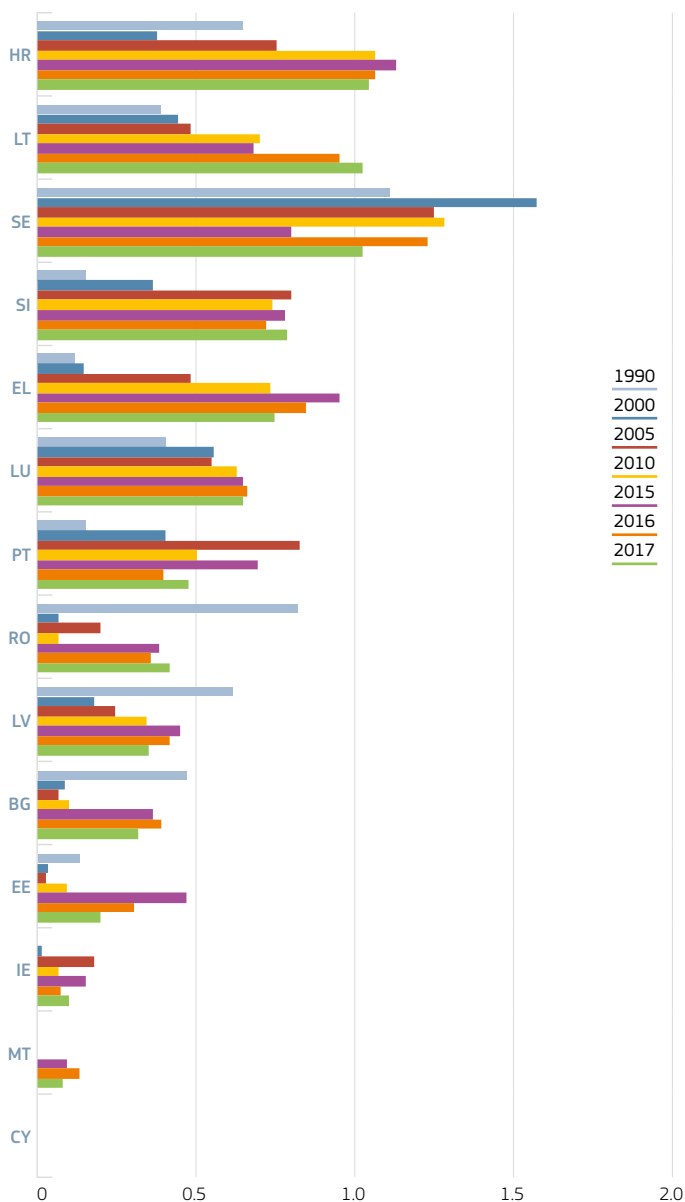


Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.2.4 Imports – Electricity

BY MEMBER STATE – LEAST 14 IMPORTERS
1990-2017 (Mtoe)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

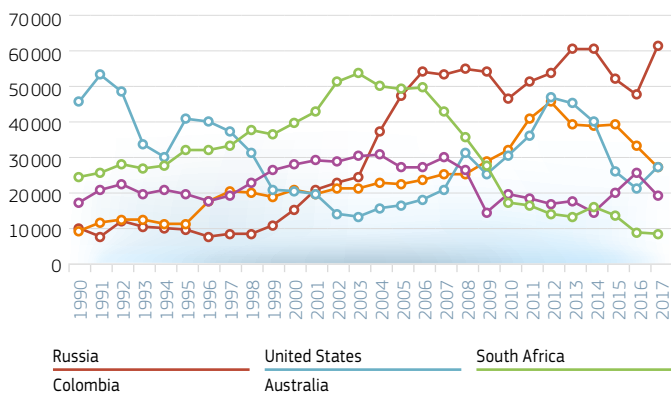
2.2.5 Imports by Country of Origin

EU-28 – HARD COAL

TOP 15 EXTRA-EU – (ORDERED BY 2017 VOLUME)

kton	2000	2005	2010	2015	2016	2017
Russia	14670	46973	46371	51934	47544	61261
Colombia	20215	21651	31731	38721	32664	26626
United States	19723	15572	29870	25637	20455	26582
Australia	27678	26892	19205	19460	25226	18546
South Africa	39222	49206	16525	12980	8151	7644
Indonesia	7242	13996	9322	7005	5189	5332
Canada	6308	6623	3595	3041	3622	3991
Not specified	5193	3356	7594	11559	7895	2790
Mozambique	107	0	0	946	1180	1931
Kazakhstan	0	932	332	1046	1538	1113
Ukraine	2058	4209	3041	817	552	513
Chile	0	0	0	98	45	370
Venezuela	3536	1988	659	337	81	232
Norway	774	1045	1016	571	455	208
China including Hong Kong	1722	520	67	95	55	136
Other extra-EU	527	151	116	214	-21	163
kton						
Extra-EU	148975	193114	169443	174460	154630	157439
Intra-EU	30066	25650	21599	14574	14124	14762
Total Intra-EU and Extra-EU	179041	218764	191042	189034	168754	172201

EU-28 – HARD COAL – IMPORTS FROM EXTRA-EU (1990-2017) TOP 5 ORDERED BY 2017 VOLUME (kton)



Source: Eurostat, May 2019

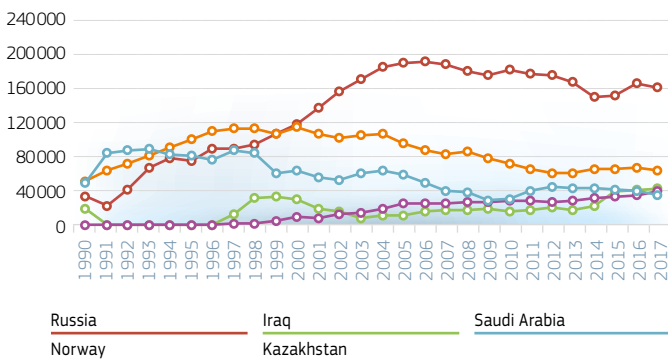
Methodology and Notes: [See Appendices](#)

2.2.5 Imports by Country of Origin

EU-28 – CRUDE OIL AND NGL

TOP 15 EXTRA-EU – (ORDERED BY 2017 VOLUME)

kton	2000	2005	2010	2015	2016	2017
Russia	120 160	191 427	182 844	153 914	166 887	163 430
Norway	115 801	97 566	73 347	66 773	68 136	65 102
Iraq	31 317	12 290	16 945	40 350	42 990	43 952
Kazakhstan	9 993	26 349	29 654	35 185	35 665	40 188
Saudi Arabia	65 089	60 740	30 759	41 728	40 516	35 643
Nigeria	22 530	18 617	21 779	44 191	29 676	34 493
Iran	35 460	35 547	29 671	0	14 975	28 414
Libya	45 881	50 665	53 715	12 816	12 690	28 143
Azerbaijan	3 712	7 255	22 922	27 297	23 694	24 201
Algeria	21 129	22 591	8 160	24 403	16 236	17 135
Mexico	9 770	10 647	6 782	12 980	13 461	11 530
United States	0	0	28	1 920	4 849	10 395
Kuwait	9 741	7 618	3 420	6 649	7 369	8 819
Brazil	133	2 658	4 826	3 009	4 654	6 188
Angola	3 861	7 065	8 479	22 128	13 198	5 525
Other extra-EU	48 029	32 980	37 433	41 681	34 214	24 375
kton						
Extra-EU	542 607	584 015	530 764	535 025	529 208	547 532
Intra-EU	62 250	48 062	39 480	30 266	28 143	29 828
Total Intra-EU and Extra-EU	604 857	632 077	570 244	565 291	557 351	577 359
Mio barrels						
Extra-EU	3 978	4 282	3 891	3 922	3 880	4 014
Intra-EU	456	352	289	222	206	219
Total Intra-EU and Extra-EU	4 434	4 634	4 180	4 144	4 086	4 233

EU-28 – CRUDE OIL AND NGL – IMPORTS FROM EXTRA-EU
(1990-2017) TOP 5 ORDERED BY 2017 VOLUME (kton)

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

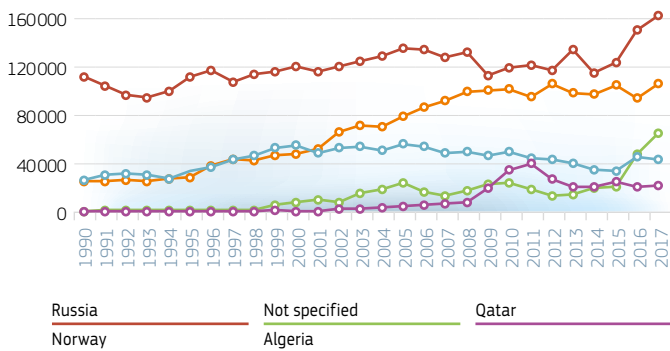
2.2.5 Imports by Country of Origin

EU-28 – NATURAL GAS

TOP 8 EXTRA-EU SUPPLIERS – (ORDERED BY 2017 VOLUME)

TJ (GCV)	2000	2005	2010	2015	2016	2017
Russia	4 582 197	5 207 617	4 555 369	4 779 615	5 832 610	6 285 659
Norway	1 921 076	3 040 082	3 984 437	4 064 455	3 669 894	4 112 605
Not specified	334 765	937 384	957 962	808 806	1 851 491	2 385 472
Algeria	2 203 075	2 256 826	1 986 974	1 369 376	1 825 182	1 731 246
Qatar	12 443	195 713	1 383 263	972 668	829 672	842 628
Nigeria	172 020	436 319	576 236	250 982	294 137	406 607
Libya	33 442	209 499	381 660	269 748	184 404	176 820
Peru	0	0	3 254	42 295	76 773	150 904
Other extra-EU	85 416	505 352	437 988	103 945	77 088	169 509
Extra-EU	9 344 434	12 788 792	14 267 143	12 661 888	14 641 252	16 261 448
Intra-EU	1 933 308	2 272 266	2 803 992	3 357 170	1 978 991	1 980 742
Total Intra-EU and Extra-EU	11 277 742	15 061 058	17 071 135	16 019 058	16 620 242	18 242 190
Mio m ³						
Russia	120 699	136 283	119 665	124 347	151 790	163 200
Norway	47 879	79 256	102 695	105 384	95 085	107 256
Not specified	8 126	23 866	24 111	20 792	47 655	65 607
Algeria	55 513	57 004	50 360	34 217	46 119	43 827
Qatar	309	4 859	34 996	24 752	20 930	21 399
Nigeria	4 385	10 586	14 025	6 213	7 268	10 009
Libya	830	5 445	9 980	7 080	4 840	4 641
Peru	0	0	82	1 042	1 903	3 730
Other extra-EU	2 174	12 713	10 919	2 650	1 951	4 282
Extra-EU	239 915	330 012	366 833	326 476	377 540	423 951
Intra-EU	54 625	60 169	74 336	88 369	53 246	53 871
Total Intra-EU and Extra-EU	294 540	390 181	441 169	414 845	430 786	477 823

EU-28 – NATURAL GAS – IMPORTS FROM EXTRA-EU (1990-2017) TOP 5 BY 2017 VOLUME (Mio m³)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3 Energy Import Dependency

2.3.1 Import Dependency – All Fuels * (%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	46.6	52.3	52.7	53.9	53.8	55.1
Index 2000	100.0	112.3	113.1	115.7	115.5	118.4
Intra and Extra-EU Imports						
BE	78.2	80.1	78.0	83.9	75.4	74.8
BG	46.4	47.3	40.2	36.5	38.6	39.5
CZ	22.7	27.8	25.3	31.9	32.6	37.2
DK	-35.9	-50.9	-16.3	13.0	13.4	11.7
DE	59.4	60.9	60.5	62.2	63.7	63.9
EE	33.8	28.2	15.3	9.6	7.9	4.1
IE	85.4	89.6	87.2	88.9	69.1	67.1
EL	69.0	68.2	68.6	71.0	72.9	71.1
ES	76.9	81.6	77.2	72.9	71.5	73.9
FR	51.2	51.7	48.7	46.0	47.4	48.6
HR	48.5	52.6	46.8	48.9	48.5	53.3
IT	86.5	83.3	82.6	77.0	77.7	77.0
CY	98.6	100.7	100.8	97.7	96.2	96.3
LV	61.0	63.8	45.5	51.2	47.2	44.1
LT	58.9	56.6	81.9	78.4	77.6	75.6
LU	99.6	97.4	97.0	95.9	96.1	95.4
HU	55.0	62.2	56.9	53.9	55.8	62.6
MT	100.2	100.0	99.0	97.3	101.1	102.9
NL	38.3	37.8	28.3	48.4	45.9	51.8
AT	65.6	72.1	63.7	60.6	62.5	64.4
PL	10.7	17.7	31.6	29.9	30.8	38.3
PT	85.3	88.6	75.2	78.2	74.0	79.9
RO	21.9	27.2	21.2	16.4	21.6	23.1
SI	52.8	52.5	49.5	49.7	49.3	50.4
SK	65.1	66.0	64.4	60.1	60.6	64.8
FI	55.6	54.7	48.9	48.2	46.0	44.0
SE	39.3	37.9	37.8	29.3	32.3	26.6
UK	-17.1	13.4	29.0	37.5	35.7	35.3

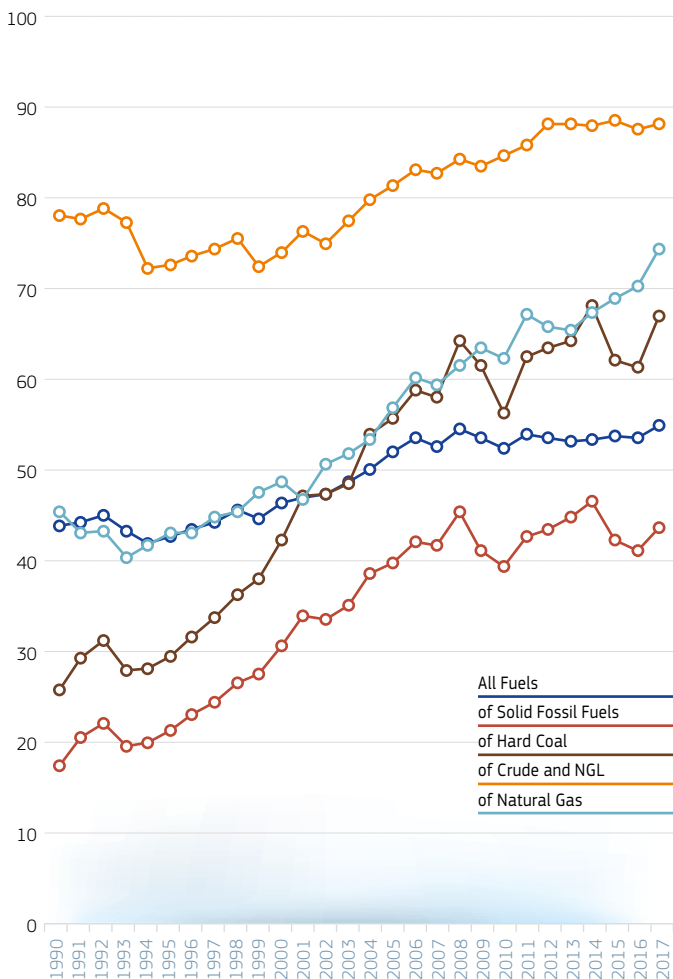
* Negative Rate Indicates a Net Exporter.
Values Over 100 % Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.2 Import Dependency – By Fuel

EU-28 – IMPORTS FROM EXTRA-EU – 1990-2017 (%)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.3 Import Dependency – Solid Fossil Fuels *

(%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	31.0	40.1	39.6	42.7	41.5	43.9
Index 2000	100.0	129.6	127.9	137.8	133.9	141.8
Intra and Extra-EU Imports						
BE	91.2	101.3	97.5	96.9	94.6	95.4
BG	35.2	36.9	24.5	11.2	9.8	9.4
CZ	-22.0	-16.2	-15.3	-1.8	-1.3	3.0
DK	94.9	94.4	69.4	85.0	84.6	115.9
DE	25.6	31.7	40.0	45.4	49.6	45.3
EE	125.2	88.4	132.6	-6.8	70.1	87.2
IE	93.3	100.8	77.7	103.1	83.6	111.0
EL	8.5	4.1	5.1	2.8	4.4	4.8
ES	61.3	70.3	92.8	75.4	71.7	85.6
FR	86.3	94.4	101.0	98.4	93.7	101.9
HR	110.9	91.3	102.5	103.0	102.0	100.7
IT	104.6	99.4	100.8	100.2	97.5	100.2
CY	102.0	121.1	65.6	100.0	0.0	326.4
LV	84.1	97.7	106.5	85.2	85.9	88.5
LT	101.7	101.0	95.7	90.6	91.8	107.8
LU	100.0	100.0	100.0	100.0	100.0	100.0
HU	28.1	42.5	41.9	33.7	32.5	44.1
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	99.4	101.3	101.4	96.5	99.6	100.8
AT	83.9	100.0	100.0	86.5	96.0	99.8
PL	-29.0	-23.8	-5.0	-11.4	-11.7	-3.0
PT	102.9	96.3	98.3	98.5	102.3	105.6
RO	25.5	33.2	16.9	16.7	19.5	18.4
SI	18.8	21.0	19.3	19.1	17.3	17.4
SK	80.2	88.3	75.7	84.5	83.3	87.8
FI	97.6	102.0	86.3	92.4	85.7	91.6
SE	105.4	105.9	113.7	97.4	115.7	101.3
UK	39.6	72.3	50.3	59.2	49.2	59.2

* Negative Rate Indicates a Net Exporter.
Values Over 100% Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.4 Import Dependency – Hard Coal *

(%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	42.6	55.8	56.5	62.3	61.4	67.0
Index 2000	100.0	130.9	132.6	146.1	144.1	157.3
Intra and Extra-EU Imports						
BE	93.5	102.0	100.0	96.1	94.0	94.4
BG	101.0	94.0	86.0	96.1	83.6	96.7
CZ	-56.4	-49.4	-53.9	-8.6	-3.8	17.8
DK	94.8	94.3	69.3	85.0	84.6	116.0
DE	39.2	57.7	73.2	87.6	94.7	93.4
EE	116.1	96.4	118.3	24.1	85.2	93.8
IE	93.1	100.8	77.5	103.1	83.5	111.4
EL	105.8	112.4	100.5	91.5	93.7	109.3
ES	71.5	79.1	95.7	79.6	74.3	89.0
FR	87.2	92.8	100.6	97.0	92.9	100.4
HR	112.8	90.6	102.7	102.4	102.5	100.9
IT	105.7	99.7	101.4	100.5	98.0	100.2
CY	102.0	121.2	65.4	100.0	0.0	326.4
LV	82.5	96.7	106.6	85.2	85.9	88.5
LT	100.0	100.0	109.7	90.1	91.5	109.0
LU	100.0	100.0	100.0	100.0	100.0	100.0
HU	96.4	108.3	99.2	99.2	99.0	101.7
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	98.9	100.0	101.6	96.5	99.2	101.4
AT	91.6	107.1	97.4	84.2	96.6	106.1
PL	-29.9	-21.3	3.7	-2.4	-2.1	7.2
PT	103.4	96.3	98.3	98.5	102.3	105.6
RO	96.3	103.1	88.4	96.9	115.4	102.2
SI	118.2	100.0	135.3	124.2	118.2	100.7
SK	103.8	105.2	91.9	97.5	97.2	100.1
FI	97.7	102.6	85.5	89.8	83.4	90.3
SE	107.7	104.3	115.2	99.6	116.8	105.3
UK	39.4	71.6	50.5	58.0	45.0	56.1

* Negative Rate Indicates a Net Exporter.
Values Over 100 % Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.5 Import Dependency – Oil and Petroleum Products *

(%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	75.3	82.3	84.7	89.2	87.1	86.7
Index 2000	100.0	109.2	112.4	118.4	115.6	115.1
Intra and Extra-EU Imports						
BE	100.2	100.8	101.3	103.8	98.7	97.1
BG	96.0	102.5	101.9	101.8	100.5	101.5
CZ	95.3	97.5	96.5	97.8	97.3	97.1
DK	-84.1	-104.4	-44.3	5.3	2.5	-3.9
DE	94.6	97.3	96.8	96.5	96.4	95.8
EE	101.5	98.8	95.8	101.6	101.5	115.2
IE	98.8	100.0	97.5	104.6	99.1	98.3
EL	100.2	97.7	98.6	105.5	99.6	98.0
ES	101.0	101.2	99.9	102.1	99.2	97.9
FR	99.5	99.5	98.0	98.7	97.7	99.2
HR	61.0	79.4	80.6	81.4	79.0	77.1
IT	96.1	91.8	93.6	89.4	90.9	91.5
CY	100.3	102.3	104.2	102.8	100.7	100.9
LV	94.9	102.2	94.4	102.9	109.1	100.1
LT	101.0	93.4	98.7	100.7	97.9	96.3
LU	102.1	99.4	99.3	99.3	100.0	99.7
HU	75.9	81.6	85.3	93.7	89.7	86.6
MT	100.2	100.0	99.2	97.9	101.8	104.2
NL	97.4	96.2	94.2	101.3	95.2	90.5
AT	89.1	92.1	90.4	93.8	91.8	92.2
PL	99.7	98.4	98.2	99.5	95.0	98.6
PT	99.4	102.3	97.5	101.7	98.7	100.2
RO	34.4	37.5	51.8	53.4	56.5	60.6
SI	101.5	101.2	99.2	99.6	100.3	103.3
SK	92.5	97.3	98.4	100.6	102.0	97.5
FI	104.1	99.1	92.3	109.6	97.6	96.4
SE	100.8	103.9	93.7	103.5	96.2	84.5
UK	-54.4	-3.1	14.1	36.7	34.0	34.7

* Negative Rate Indicates a Net Exporter.
Values Over 100% Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.6 Import Dependency – Crude and NGL *

(%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	73.9	81.3	84.5	88.5	87.4	88.1
Index 2000	100.0	110.0	114.4	119.7	118.3	119.2
Intra and Extra-EU Imports						
BE	100.2	99.5	99.9	100.0	99.7	100.1
BG	98.7	97.7	99.1	100.5	99.0	101.1
CZ	95.3	99.3	97.5	98.4	97.7	99.1
DK	-120.5	-141.3	-68.8	-4.9	-0.6	9.7
DE	93.8	97.3	97.3	97.1	96.7	97.4
EE	0.0	0.0	0.0	0.0	0.0	0.0
IE	89.8	98.9	101.6	108.2	100.1	91.7
EL	99.5	95.2	99.5	101.5	100.5	97.8
ES	100.6	100.1	99.3	99.5	98.7	99.9
FR	98.5	98.2	98.2	98.8	97.1	99.3
HR	72.1	78.9	82.3	79.6	76.4	79.3
IT	95.1	94.0	94.5	92.2	93.3	93.6
CY	98.5	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0	0.0	0.0
LT	94.5	95.3	99.0	99.5	99.4	99.5
LU	0.0	0.0	0.0	0.0	0.0	0.0
HU	78.5	81.4	85.3	91.4	86.2	86.0
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	96.7	96.7	97.6	98.0	98.8	97.6
AT	87.0	88.8	86.5	91.1	89.5	89.1
PL	99.1	97.3	98.4	100.5	94.5	97.2
PT	99.0	100.2	98.8	100.9	98.7	100.4
RO	43.5	61.3	56.5	62.3	65.0	66.7
SI	87.2	0.0	0.0	0.0	0.0	0.0
SK	97.6	97.7	99.9	99.3	100.7	99.5
FI	101.5	97.5	101.1	104.2	100.5	98.9
SE	100.6	100.4	99.0	100.7	100.0	97.2
UK	-47.9	-0.2	12.8	22.9	16.2	17.4

* Negative Rate Indicates a Net Exporter.
Values Over 100 % Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.3.7 Import Dependency – Natural Gas *

(%)

Imports from Extra-EU	2000	2005	2010	2015	2016	2017
EU-28	48.9	57.1	62.5	69.0	70.4	74.3
Index 2000	100.0	116.8	127.9	141.2	144.1	152.1
Intra and Extra-EU Imports						
BE	99.3	100.5	100.3	99.3	100.6	98.4
BG	93.5	87.7	92.6	97.0	96.5	97.6
CZ	99.8	97.8	84.8	95.1	95.7	101.9
DK	-64.8	-113.9	-68.3	-48.2	-44.6	-56.2
DE	79.1	79.6	81.2	90.1	88.6	91.4
EE	100.0	100.0	100.0	100.0	100.0	100.0
IE	72.1	86.1	95.3	96.3	40.0	32.7
EL	99.1	99.1	99.9	99.9	99.2	100.5
ES	101.6	101.4	99.4	96.9	98.7	101.3
FR	100.0	99.3	92.8	98.5	99.0	98.0
HR	41.0	23.7	18.1	27.1	33.5	53.8
IT	81.1	84.7	90.5	90.4	91.8	92.3
CY	0.0	0.0	0.0	0.0	0.0	0.0
LV	101.9	105.6	61.8	98.6	82.9	102.0
LT	100.0	100.7	99.7	99.7	100.6	99.3
LU	100.0	100.0	100.0	100.0	100.0	100.0
HU	75.4	81.1	78.7	69.7	78.9	96.2
MT	0.0	0.0	0.0	0.0	0.0	105.2
NL	-49.1	-59.3	-60.4	-36.7	-32.8	-4.4
AT	80.6	88.5	75.3	72.6	85.8	90.2
PL	66.3	69.7	69.3	72.2	78.4	77.8
PT	100.3	103.8	100.4	100.4	98.6	100.4
RO	19.8	30.1	16.8	1.8	13.0	9.7
SI	99.3	99.6	99.3	99.6	99.4	99.0
SK	98.8	97.5	99.9	95.1	92.8	105.6
FI	100.0	100.0	100.0	100.0	100.0	99.1
SE	100.0	100.0	100.0	100.0	100.0	102.1
UK	-10.7	7.0	40.0	42.8	46.5	45.5

* Negative Rate Indicates a Net Exporter.
Values Over 100% Indicate Stocks Build Up.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

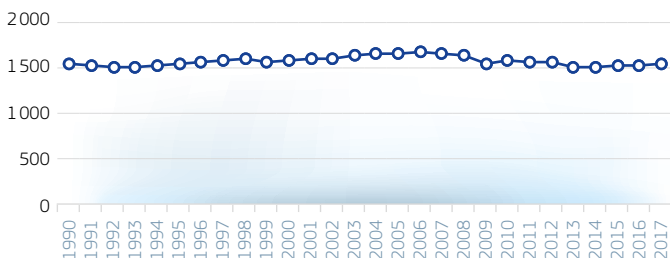
2.4 Energy Transformation

2.4.1 Transformation Input – All Fuels

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 584.2	1 663.9	1 584.5	1 520.0	1 510.0	1 528.4
Index 2000	100 %	105 %	100 %	96 %	95 %	96 %
BE	68.63	67.24	68.48	60.75	62.99	65.13
BG	18.61	20.99	18.78	19.68	19.45	20.11
CZ	31.82	37.02	37.45	34.65	32.36	34.93
DK	18.07	16.33	16.67	17.86	19.06	17.87
DE	292.34	313.05	290.97	280.80	282.10	280.26
EE	3.51	3.84	4.83	4.61	4.78	5.25
IE	8.59	8.85	8.53	8.55	8.70	8.68
EL	35.80	35.59	35.28	40.12	41.62	44.42
ES	115.66	127.33	122.35	133.65	131.20	136.36
FR	234.01	242.41	227.60	212.91	206.11	207.05
HR	7.71	7.88	6.78	5.40	5.99	6.09
IT	163.61	176.39	161.45	136.66	134.47	139.37
CY	2.08	1.09	1.21	0.97	1.06	1.07
LV	1.39	1.66	1.49	1.39	1.53	1.62
LT	9.28	14.58	12.28	11.59	12.44	12.59
LU	0.20	0.69	0.74	0.43	0.34	0.36
HU	19.87	21.66	23.01	18.92	18.19	18.08
MT	0.50	0.61	0.58	0.28	0.19	0.31
NL	104.43	111.74	113.01	118.04	119.57	120.39
AT	20.35	22.52	22.57	23.07	22.43	23.10
PL	72.87	72.56	79.71	83.13	82.26	82.27
PT	20.97	22.98	20.72	25.25	25.59	26.87
RO	29.11	32.20	26.03	26.06	25.54	26.10
SI	3.11	3.41	3.41	2.95	3.10	3.23
SK	16.91	18.73	17.34	17.09	16.80	16.99
FI	32.31	33.98	38.69	32.79	35.45	35.43
SE	52.05	55.51	54.86	56.92	56.99	57.07
UK	200.45	193.08	169.71	145.46	139.71	137.37

TRANSFORMATION INPUT – ALL FUELS – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.4.2 Transformation Input – By Fuel

	2017						
	Transformation Input	Solid Fossil Fuels	Oil & Petroleum Products	Natural Gas	Nuclear	Renewables & Biofuels	Waste, Non-Renewable
Mtoe							
EU-28	1 528.4	231.5	786.3	125.3	210.7	144.6	10.7
Share (%)	100.0 %	15.1 %	51.4 %	8.2 %	13.8 %	9.5 %	0.7 %
BE	65.13	3.23	43.27	3.60	11.00	2.64	0.51
BG	20.11	6.04	8.23	1.05	3.94	0.75	0.00
CZ	34.93	15.16	8.58	1.40	7.02	1.93	0.06
DK	17.87	1.45	10.89	0.76	0.00	4.35	0.40
DE	280.26	75.56	131.12	18.31	19.65	29.01	3.39
EE	5.25	0.00	0.13	0.17	0.00	0.59	0.05
IE	8.68	0.87	3.65	2.47	0.00	0.99	0.06
EL	44.42	4.60	35.76	2.61	0.00	1.43	0.00
ES	136.36	13.64	84.79	9.93	15.13	12.03	0.25
FR	207.05	10.58	67.73	7.29	103.86	15.02	1.34
HR	6.09	0.32	4.19	0.81	0.00	0.75	0.00
IT	139.37	10.22	83.57	25.23	0.00	18.58	0.89
CY	1.07	0.00	1.02	0.00	0.00	0.05	0.00
LV	1.62	0.00	0.00	0.64	0.00	0.97	0.00
LT	12.59	0.00	11.12	0.34	0.00	0.96	0.03
LU	0.36	0.00	0.00	0.07	0.00	0.10	0.02
HU	18.08	2.67	7.91	2.21	4.08	0.96	0.09
MT	0.31	0.00	0.05	0.23	0.00	0.02	0.00
NL	120.39	10.45	94.40	9.78	0.79	3.19	0.82
AT	23.10	3.70	9.37	2.44	0.00	6.22	0.41
PL	82.27	45.28	29.59	2.59	0.00	3.66	0.15
PT	26.87	3.24	16.81	3.59	0.00	2.94	0.10
RO	26.10	4.72	12.85	3.04	2.91	2.52	0.00
SI	3.23	1.09	0.01	0.12	1.49	0.48	0.01
SK	16.99	4.00	6.88	0.83	3.99	1.17	0.02
FI	35.43	3.33	18.24	1.14	5.39	5.77	0.24
SE	57.07	2.23	23.26	0.11	16.35	13.70	0.82
UK	137.37	9.16	72.93	24.47	15.12	13.79	1.04

2.4.3 Transformation Input – By Sector

	2017					
	Total, All Sectors	Electricity Producers	Heat Producers	CHP Producers	Refineries, Petroleum & Sub-Products	Other Transformation Input
Mtoe						
EU-28	1 528.4	474.4	21.5	166.0	769.4	93.3
Share (%)	100.0 %	31.0 %	1.4 %	10.9 %	50.3 %	6.1 %
BE	65.13	15.47	0.00	2.60	43.23	3.70
BG	20.11	9.55	0.25	1.35	8.06	0.81
CZ	34.93	9.45	0.72	11.50	8.53	4.60
DK	17.87	1.34	0.97	4.39	10.80	0.37
DE	280.26	92.23	4.08	28.70	129.39	25.15
EE	5.25	2.59	0.42	0.52	0.09	1.64
IE	8.68	4.46	0.00	0.30	3.62	0.26
EL	44.42	7.55	0.00	2.34	34.34	0.18
ES	136.36	46.12	0.00	4.17	81.55	4.22
FR	207.05	121.63	2.16	5.90	66.05	10.70
HR	6.09	0.89	0.05	0.89	4.13	0.10
IT	139.37	31.12	0.39	24.18	79.41	4.06
CY	1.07	1.05	0.00	0.01	0.00	0.01
LV	1.62	0.39	0.45	0.75	0.00	0.03
LT	12.59	0.24	0.61	0.52	11.09	0.06
LU	0.36	0.07	0.01	0.11	0.00	0.01
HU	18.08	4.38	0.77	3.38	7.88	1.67
MT	0.31	0.30	0.00	0.00	0.00	0.01
NL	120.39	12.28	0.40	9.02	93.77	4.93
AT	23.10	6.22	1.07	2.63	9.11	3.59
PL	82.27	2.38	2.79	35.99	29.17	11.87
PT	26.87	7.98	0.00	1.63	16.56	0.52
RO	26.10	9.42	0.46	3.02	12.56	0.60
SI	3.23	1.85	0.05	1.26	0.00	0.04
SK	16.99	1.57	0.29	5.03	6.66	3.41
FI	35.43	7.93	1.55	5.56	17.99	2.40
SE	57.07	23.49	1.44	5.69	23.15	3.28
UK	137.37	52.48	2.55	4.57	72.32	5.12

Source: Eurostat, May 2019

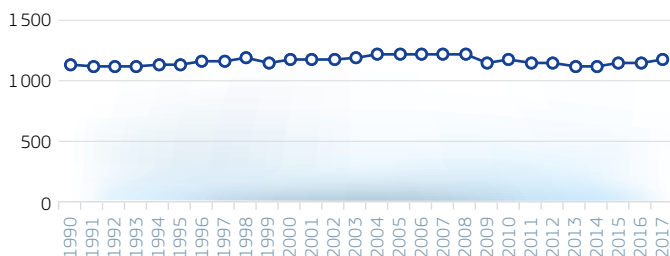
Methodology and Notes: [See Appendices](#)

2.4.4 Transformation Output – All Fuels

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 179.4	1 228.9	1 182.6	1 152.9	1 155.6	1 175.6
Index 2000	100%	104%	100%	98%	98%	100%
BE	54.28	53.70	54.62	52.00	51.27	53.50
BG	11.62	13.30	12.01	12.91	13.02	13.34
CZ	19.91	22.89	23.27	21.58	19.61	22.63
DK	15.60	14.07	14.23	16.85	18.02	16.96
DE	210.06	227.71	209.98	207.49	210.54	211.96
EE	1.87	2.15	2.55	2.42	2.51	2.89
IE	5.62	5.89	5.98	6.47	6.39	6.52
EL	29.13	28.38	28.72	35.62	38.00	40.05
ES	87.19	96.34	96.56	105.15	104.80	107.28
FR	154.54	151.28	139.32	126.20	124.76	125.47
HR	7.00	7.06	6.13	4.85	5.35	5.48
IT	129.85	141.64	131.20	111.22	108.99	114.14
CY	1.47	0.38	0.46	0.39	0.42	0.44
LV	1.18	1.47	1.29	1.12	1.27	1.38
LT	7.38	12.36	11.86	11.46	12.33	12.59
LU	0.11	0.43	0.47	0.30	0.25	0.26
HU	14.07	15.67	17.08	13.98	13.37	13.14
MT	0.16	0.19	0.18	0.12	0.08	0.15
NL	93.36	99.32	100.58	106.61	108.16	109.60
AT	17.16	18.51	18.70	19.51	18.98	19.38
PL	49.29	49.65	57.00	60.84	60.40	60.41
PT	17.04	18.73	17.71	21.38	21.80	22.42
RO	22.32	25.96	20.62	20.65	20.63	20.83
SI	1.57	1.54	1.69	1.53	1.65	1.66
SK	12.09	13.68	12.72	12.48	12.29	12.43
FI	25.53	26.94	31.16	27.25	29.65	30.13
SE	42.33	40.66	42.84	44.06	44.23	44.09
UK	147.60	139.03	123.66	108.48	106.89	106.43

TRANSFORMATION OUTPUT – ALL FUELS –
1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.4.5 Transformation Output – By Fuel

	2017						
	Total, All Products	Solid Fossil Fuels	Oil & Petroleum Products	Natural Gas	Renewables Biofuels	Electricity	Heat
Mtoe							
EU-28	1 175.6	31.3	766.5	0.5	14.3	283.7	59.4
Share (%)	100.0 %	2.7 %	65.2 %	0.0 %	1.2 %	24.1 %	5.1 %
BE	53.50	0.87	43.02	0.00	0.48	7.45	0.80
BG	13.34	0.36	7.83	0.00	0.17	3.92	1.05
CZ	22.63	1.95	8.61	0.00	0.32	7.48	2.94
DK	16.96	0.00	10.70	0.12	0.22	2.67	3.24
DE	211.96	9.80	126.04	0.00	2.78	56.21	11.22
EE	2.89	0.01	1.05	0.00	0.00	1.11	0.58
IE	6.52	0.00	3.69	0.00	0.10	2.65	0.00
EL	40.05	0.00	35.07	0.00	0.17	4.75	0.05
ES	107.28	1.37	80.50	0.01	0.99	23.71	0.00
FR	125.47	2.27	65.63	0.03	3.34	48.34	4.24
HR	5.48	0.00	4.14	0.00	0.01	1.03	0.30
IT	114.14	1.20	80.03	0.01	1.07	25.44	5.58
CY	0.44	0.00	0.00	0.00	0.00	0.43	0.00
LV	1.38	0.00	0.00	0.00	0.02	0.65	0.72
LT	12.59	0.00	11.04	0.00	0.06	0.36	1.12
LU	0.26	0.00	0.00	0.01	0.00	0.19	0.07
HU	13.14	0.72	7.85	0.00	0.10	2.83	1.26
MT	0.15	0.00	0.00	0.00	0.01	0.14	0.00
NL	109.60	1.41	93.51	0.11	0.40	10.08	2.79
AT	19.38	0.96	8.84	0.00	0.26	6.13	2.12
PL	60.41	6.63	29.01	0.00	0.56	14.66	7.16
PT	22.42	0.00	16.59	0.00	0.26	5.11	0.46
RO	20.83	0.00	13.03	0.00	0.27	5.53	1.78
SI	1.66	0.00	0.00	0.00	0.04	1.40	0.23
SK	12.43	1.12	6.94	0.00	0.18	2.39	0.90
FI	30.13	0.64	18.16	0.01	0.40	5.81	4.60
SE	44.09	0.77	22.99	0.00	1.10	14.12	4.54
UK	106.43	1.16	72.21	0.21	0.95	29.09	1.66

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.4.6 Transformation Output – By Sector

	2017					
	Total, All Sectors	Electricity Producers	Heat Producers	CHP Producers	Refineries, Petroleum & Sub-Products	Other Transformation Output
Mtoe						
EU-28	1 175.6	219.7	17.7	101.1	763.7	70.8
Share (%)	100.0 %	18.7 %	1.5 %	8.6 %	65.0 %	6.0 %
BE	53.50	6.03	0.00	1.80	43.02	2.55
BG	13.34	3.54	0.23	1.10	7.61	0.80
CZ	22.63	3.61	0.63	6.03	8.61	3.64
DK	16.96	1.34	0.95	3.53	10.70	0.44
DE	211.96	44.19	3.03	19.37	126.04	18.81
EE	2.89	0.98	0.31	0.39	0.09	1.11
IE	6.52	2.45	0.00	0.19	3.64	0.22
EL	40.05	3.92	0.00	0.87	35.07	0.17
ES	107.28	20.75	0.00	2.75	80.50	3.08
FR	125.47	46.06	1.81	4.11	65.63	7.40
HR	5.48	0.69	0.04	0.58	4.06	0.09
IT	114.14	15.75	0.32	14.72	80.03	3.16
CY	0.44	0.43	0.00	0.01	0.00	0.00
LV	1.38	0.39	0.39	0.59	0.00	0.02
LT	12.59	0.17	0.52	0.43	11.04	0.37
LU	0.26	0.05	0.01	0.09	0.00	0.01
HU	13.14	1.66	0.70	1.65	7.82	1.30
MT	0.15	0.14	0.00	0.00	0.00	0.01
NL	109.60	6.27	0.33	6.13	93.51	3.36
AT	19.38	4.92	0.88	2.12	8.84	2.29
PL	60.41	1.86	2.45	17.44	28.42	10.20
PT	22.42	4.35	0.00	1.07	16.36	0.49
RO	20.83	4.69	0.41	2.18	12.94	0.58
SI	1.66	0.90	0.04	0.66	0.00	0.04
SK	12.43	0.81	0.24	2.20	6.58	2.58
FI	30.13	3.93	1.40	4.70	17.92	2.18
SE	44.09	12.78	1.31	4.57	22.99	2.43
UK	106.43	27.04	1.66	1.80	72.21	3.46

2.5 Final Energy

2.5.1 Available for Final Consumption

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 173.0	1 239.2	1 208.1	1 119.5	1 141.7	1 165.9
Index 2000	100 %	106 %	103 %	95 %	97 %	99 %
BE	40.82	41.57	42.72	40.88	40.93	40.55
BG	9.69	10.52	9.25	10.07	10.06	10.28
CZ	26.40	28.13	27.76	25.88	25.86	27.83
DK	14.33	14.68	15.00	13.56	13.95	14.39
DE	234.79	234.88	229.64	219.42	222.55	228.76
EE	2.69	3.15	2.99	2.83	3.27	2.97
IE	10.37	11.12	11.31	10.75	11.24	11.00
EL	18.31	20.64	18.94	16.32	16.66	16.75
ES	85.38	101.91	91.10	79.00	81.81	85.25
FR	156.67	167.10	161.69	156.01	157.37	157.29
HR	6.59	7.83	7.71	7.00	7.03	7.31
IT	128.77	139.59	131.73	117.63	116.75	121.17
CY	1.47	1.49	1.69	1.43	1.50	1.58
LV	3.26	4.05	4.06	3.79	3.78	3.95
LT	4.25	5.34	5.42	5.90	6.05	6.44
LU	3.24	4.10	3.93	3.57	3.57	3.65
HU	17.22	20.34	18.86	18.62	19.03	19.93
MT	0.32	0.40	0.42	0.46	0.46	0.51
NL	58.81	62.11	64.82	55.14	56.87	58.12
AT	23.57	27.10	27.36	27.06	27.55	27.86
PL	57.14	61.70	70.36	65.09	70.35	74.66
PT	19.54	20.94	18.93	16.26	16.14	16.40
RO	24.12	25.91	24.80	22.79	23.08	24.36
SI	4.68	5.20	5.24	4.79	4.99	4.98
SK	11.68	11.69	11.47	10.03	10.23	11.04
FI	23.73	25.26	26.36	24.30	25.24	25.80
SE	34.91	33.68	35.32	32.31	34.52	33.99
UK	150.27	148.72	139.22	128.60	130.81	129.03

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

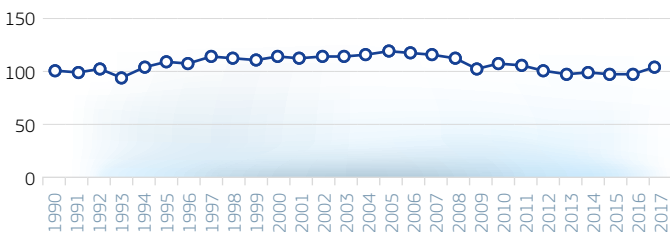
2.5.2 Final Non-Energy Consumption

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	112.1	116.1	106.2	95.6	95.6	102.2
Index 2000	100%	104%	95%	85%	85%	91%
BE	7.00	7.49	7.01	7.65	7.53	7.45
BG	0.98	0.85	0.42	0.60	0.50	0.48
CZ	2.14	3.01	2.88	2.50	1.78	2.95
DK	0.30	0.29	0.26	0.25	0.25	0.25
DE	25.30	24.66	22.58	21.26	21.42	22.80
EE	0.18	0.22	0.09	0.11	0.10	0.12
IE	0.68	0.52	0.34	0.22	0.27	0.24
EL	0.73	0.77	1.11	0.70	0.59	0.82
ES	9.49	8.43	7.11	4.35	4.98	4.93
FR	16.27	16.08	13.93	13.94	13.49	14.16
HR	0.66	0.67	0.60	0.53	0.52	0.53
IT	8.43	8.61	9.56	6.61	6.31	7.91
CY	0.09	0.07	0.09	0.02	0.04	0.04
LV	0.07	0.10	0.07	0.11	0.10	0.09
LT	0.66	0.73	0.66	1.12	1.04	1.21
LU	0.05	0.03	0.03	0.03	0.04	0.03
HU	1.59	2.17	1.97	1.91	1.85	2.19
MT	0.00	0.02	0.01	0.01	0.01	0.01
NL	11.33	13.58	14.37	12.23	12.76	13.57
AT	1.72	1.59	1.81	1.76	1.85	1.65
PL	4.37	4.60	4.97	5.63	5.57	5.91
PT	2.42	2.59	1.73	1.34	1.16	1.20
RO	1.89	2.63	2.06	1.12	1.14	1.07
SI	0.24	0.31	0.21	0.13	0.13	0.14
SK	1.38	1.28	1.05	1.05	0.98	1.10
FI	1.04	1.15	1.22	1.33	1.46	1.44
SE	1.75	2.29	2.12	1.78	2.19	2.44
UK	11.30	11.35	7.90	7.36	7.55	7.48

FINAL NON-ENERGY CONSUMPTION – TOTAL –
1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

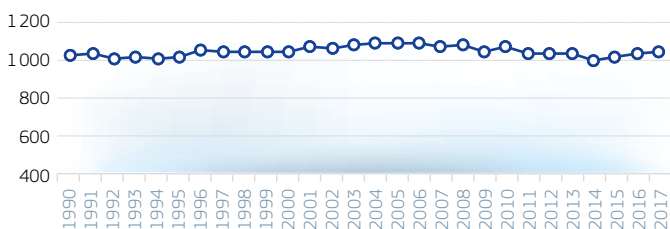
2.5.3 Final Energy Consumption

TOTAL

Mtoe	2000	2005	2010	2015	2016	2017
EU-28	1 066.1	1 123.2	1 098.6	1 024.9	1 046.3	1 060.0
Index 2000	100 %	105 %	103 %	96 %	98 %	99 %
BE	33.64	33.96	35.03	33.11	33.46	32.89
BG	8.59	9.60	8.71	9.39	9.52	9.74
CZ	23.99	25.04	24.12	23.08	23.67	24.41
DK	14.02	14.74	14.85	13.34	13.71	13.86
DE	207.17	206.12	206.43	198.39	202.53	204.60
EE	2.41	2.83	2.87	2.73	2.78	2.81
IE	10.22	11.84	11.27	10.37	10.73	10.74
EL	17.86	20.16	18.28	15.68	15.82	16.05
ES	76.32	93.82	85.16	75.96	78.01	79.40
FR	145.74	150.81	146.31	138.70	141.23	141.00
HR	5.93	7.15	7.11	6.47	6.52	6.78
IT	119.74	131.51	123.05	112.11	111.55	113.61
CY	1.37	1.53	1.64	1.41	1.48	1.54
LV	3.23	3.96	4.00	3.68	3.70	3.88
LT	3.74	4.62	4.76	4.78	5.00	5.24
LU	3.18	4.05	3.90	3.54	3.54	3.61
HU	15.64	18.16	16.88	16.91	17.41	17.98
MT	0.32	0.38	0.40	0.46	0.46	0.50
NL	47.53	48.97	50.75	44.08	44.68	44.95
AT	21.81	25.48	25.55	25.31	25.71	26.21
PL	53.56	57.48	65.24	60.78	65.03	69.14
PT	17.21	18.26	17.22	14.96	15.04	15.28
RO	21.95	23.59	22.02	21.60	21.94	22.86
SI	4.43	4.87	5.01	4.66	4.85	4.84
SK	9.93	10.40	10.37	8.94	9.23	9.90
FI	23.28	24.01	25.09	23.05	23.99	24.64
SE	33.67	32.13	32.51	31.25	32.16	32.37
UK	139.59	137.73	130.08	120.11	122.61	121.22

FINAL ENERGY CONSUMPTION – TOTAL – 1990-2017 (Mtoe)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.5.3 Final Energy Consumption

BY FUEL

Mtoe	2017							
	Oil & Petroleum Products	Natural Gas	Renewables & Biofuels	Solid Fossil Fuels	Waste, Non-Renewable	Electricity	Heat	Manufactured Gases, Peat & Products
EU-28	394.1	239.3	102.4	25.6	3.8	240.6	48.5	5.7
Share (%)	37.2%	22.6%	9.7%	2.4%	0.4%	22.7%	4.6%	0.5%
BE	13.27	9.43	1.93	0.48	0.14	7.04	0.42	0.2
BG	3.37	1.35	1.38	0.37	0.04	2.57	0.66	0.0
CZ	6.63	5.53	2.91	1.75	0.24	4.93	2.13	0.3
DK	5.10	1.51	1.84	0.12	0.02	2.69	2.57	0.0
DE	73.66	52.77	15.87	4.55	1.13	44.62	9.81	2.2
EE	0.99	0.24	0.43	0.02	0.02	0.62	0.48	0.0
IE	5.78	1.80	0.44	0.23	0.07	2.22	0.00	0.2
EL	8.33	1.18	1.66	0.20	0.00	4.64	0.05	0.0
ES	38.81	13.49	6.04	0.65	0.01	20.17	0.00	0.2
FR	54.97	28.67	14.87	1.14	0.11	37.56	3.67	0.0
HR	2.85	1.08	1.15	0.08	0.01	1.37	0.23	0.0
IT	38.27	33.92	11.31	0.49	0.25	25.10	4.11	0.2
CY	1.00	0.00	0.12	0.00	0.02	0.39	0.00	0.0
LV	1.34	0.33	0.98	0.04	0.03	0.56	0.60	0.0
LT	2.02	0.57	0.68	0.16	0.00	0.86	0.92	0.0
LU	2.15	0.62	0.17	0.05	0.01	0.55	0.06	0.0
HU	5.35	5.71	2.08	0.28	0.08	3.31	1.04	0.1
MT	0.27	0.00	0.03	0.00	0.00	0.20	0.00	0.0
NL	14.22	17.43	1.48	0.10	0.03	9.08	2.11	0.5
AT	9.51	4.78	3.99	0.32	0.30	5.40	1.81	0.1
PL	24.13	9.19	5.82	11.27	0.73	11.68	5.82	0.5
PT	7.06	1.74	2.15	0.01	0.10	4.01	0.21	0.0
RO	7.57	5.52	3.78	0.63	0.09	3.84	1.26	0.2
SI	2.17	0.61	0.63	0.04	0.04	1.16	0.18	0.0
SK	2.64	2.75	0.60	0.41	0.19	2.22	0.67	0.4
FI	6.14	0.63	6.36	0.14	0.05	6.97	4.02	0.3
SE	7.75	0.51	8.24	0.37	0.00	10.94	4.37	0.2
UK	48.80	37.91	5.40	1.70	0.15	25.85	1.33	0.1

2.5.3 Final Energy Consumption

BY SECTOR

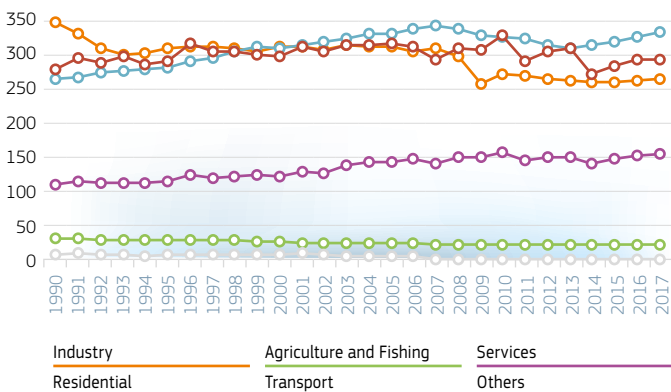
	2017					
	Industry	Transport	Residential	Services	Agriculture & Fishing	Others
Mtoe						
EU-28	261.0	326.9	288.0	154.0	25.8	4.3
Share (%)	24.6 %	30.8 %	27.2 %	14.5 %	2.4 %	0.4 %
BE	10.49	8.86	8.11	4.60	0.79	0.04
BG	2.72	3.33	2.32	1.20	0.17	0.00
CZ	6.70	6.62	7.19	3.19	0.64	0.07
DK	2.34	4.22	4.55	2.01	0.72	0.02
DE	56.27	57.24	56.55	34.45	0.00	0.09
EE	0.46	0.80	0.94	0.47	0.13	0.00
IE	2.51	4.04	2.58	1.37	0.24	0.00
EL	3.10	5.82	4.41	2.19	0.30	0.23
ES	18.97	31.72	15.44	10.41	2.65	0.20
FR	26.54	45.36	40.65	23.83	4.14	0.48
HR	1.18	2.19	2.38	0.80	0.23	0.00
IT	24.93	34.53	32.90	18.24	2.92	0.10
CY	0.23	0.68	0.34	0.23	0.05	0.02
LV	0.79	1.08	1.20	0.61	0.20	0.00
LT	1.07	1.96	1.46	0.63	0.11	0.01
LU	0.64	1.97	0.52	0.46	0.03	0.00
HU	4.35	4.53	6.30	2.16	0.61	0.03
MT	0.06	0.21	0.09	0.13	0.01	0.00
NL	13.84	10.67	9.70	6.83	3.83	0.08
AT	8.05	8.66	6.59	2.39	0.52	0.00
PL	15.84	21.43	19.94	8.05	3.88	0.00
PT	4.53	5.79	2.57	1.90	0.46	0.02
RO	6.39	6.15	7.68	1.84	0.49	0.31
SI	1.30	1.85	1.12	0.48	0.07	0.02
SK	3.45	2.77	2.11	1.43	0.14	0.00
FI	10.72	4.19	5.76	2.97	0.75	0.24
SE	10.82	8.36	7.51	4.07	0.33	1.29
UK	22.75	41.85	37.08	17.11	1.36	1.07

Source: Eurostat, May 2019

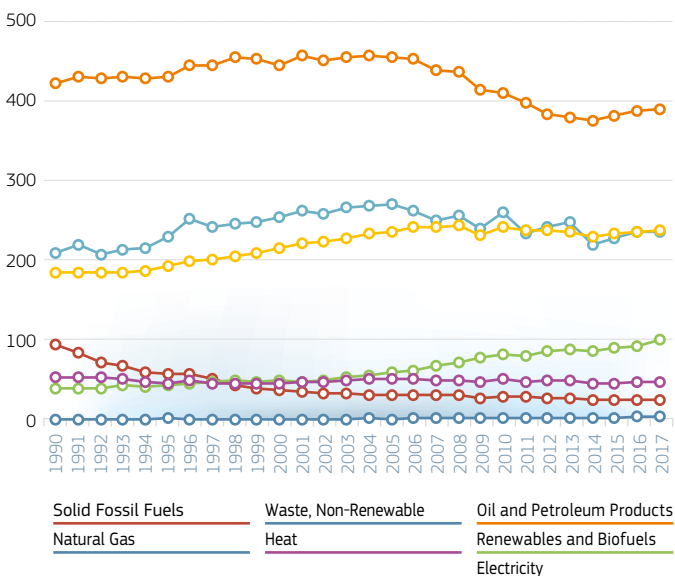
Methodology and Notes: [See Appendices](#)

2.5.3 Final Energy Consumption

BY SECTOR – EU-28 – 1990-2017 (Mtoe)



FINAL ENERGY CONSUMPTION – BY FUEL – EU-28 – 1990-2017 (Mtoe)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.6 Electricity

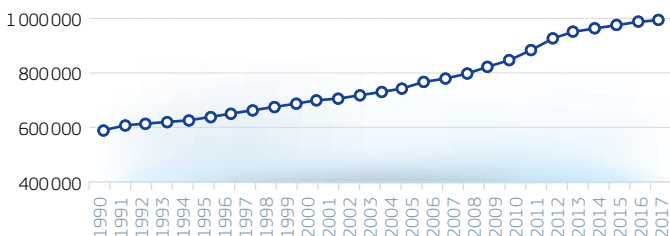
2.6.1 Installed Electricity Capacity

TOTAL

MW	2000	2005	2010	2015	2016	2017
EU-28*	691 626	757 903	883 680	985 808	993 317	1 010 998
Index 2000	100 %	110 %	128 %	143 %	144 %	146 %
BE	15 685	16 096	18 793	21 166	21 666	22 261
BG	11 085	12 260	10 031	10 913	10 739	10 858
CZ	15 323	17 406	20 073	21 866	21 989	22 267
DK	12 316	13 036	13 438	14 002	14 226	14 364
DE	118 884	128 485	162 874	203 419	208 500	215 510
EE	2 800	2 559	2 751	2 857	2 567	2 527
IE	4 709	6 151	8 034	9 567	9 904	10 490
EL	10 904	13 306	15 312	18 942	19 165	19 426
ES	53 922	76 566	101 740	106 753	105 948	103 840
FR	114 518	115 730	124 138	132 180	133 095	133 101
HR	2 079	3 862	4 115	4 779	4 859	4 982
IT	75 510	85 498	106 610	116 964	114 162	114 241
CY	988	1 125	1 560	1 756	1 760	1 785
LV	2 092	2 166	2 557	2 931	2 927	2 941
LT	5 716	4 556	3 570	3 587	3 665	3 326
LU	1 217	1 682	1 712	2 024	1 710	1 697
HU	8 282	8 586	8 993	8 634	8 758	8 858
MT	0	0	572	668	573	707
NL	21 062	21 800	26 688	33 866	34 176	33 815
AT	17 802	18 936	21 158	24 466	25 216	24 919
PL	30 559	32 257	33 360	37 327	38 105	42 850
PT	10 908	13 374	18 932	19 625	20 612	20 933
RO	16 820	18 951	19 912	23 830	23 580	23 574
SI	2 614	2 992	3 193	3 360	3 536	3 618
SK	7 454	8 257	7 873	7 782	7 742	7 671
FI	16 260	16 468	15 554	16 614	16 285	17 166
SE	33 724	33 419	36 452	39 691	40 317	39 798
UK	78 393	82 379	93 685	96 239	97 535	103 473

INSTALLED ELECTRICITY CAPACITY – TOTAL – 1990-2017 (MW)

EU-28



* No complete EU-28 data available for 1990-2004.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.6.1 Installed Electricity Capacity

BY FUEL

MW	2017						
	Installed Electricity Capacity	Combustible Fuels	Wind	Hydro	Nuclear	Solar	Other Sources
EU-28	1 010 998	455 115	168 933	155 118	120 884	109 014	1 934
Share (%)	100.0 %	45.0 %	16.7 %	15.3 %	12.0 %	10.8 %	0.2 %
BE	22 261	8 502	2 806	1 423	5 918	3 610	3
BG	10 858	3 785	698	3 372	1 967	1 036	0
CZ	22 267	13 334	308	2 265	4 290	2 070	0
DK	14 364	7 926	5 522	9	0	906	0
DE	215 510	95 134	55 718	11 120	10 799	42 339	400
EE	2 527	2 208	312	7	0	0	0
IE	10 490	6 628	3 318	529	0	16	0
EL	19 426	10 804	2 624	3 392	0	2 606	0
ES	103 840	46 510	23 100	20 079	7 117	7 029	5
FR	133 101	21 907	13 512	25 706	63 130	8 610	235
HR	4 982	2 141	576	2 205	0	60	0
IT	114 241	61 289	9 737	22 426	0	19 682	1 107
CY	1 785	1 517	158	0	0	110	0
LV	2 941	1 299	77	1 564	0	1	0
LT	3 326	1 832	518	877	0	74	25
LU	1 697	119	120	1 331	0	128	0
HU	8 858	6 088	329	57	2 000	344	40
MT	707	595	0	0	0	112	0
NL	33 815	26 151	4 202	37	485	2 903	37
AT	24 919	6 613	2 887	14 150	0	1 269	1
PL	42 850	34 412	5 758	2 390	0	287	2
PT	20 933	7 975	5 124	7 226	0	579	29
RO	23 574	11 067	3 030	6 692	1 411	1 374	0
SI	3 618	1 332	5	1 347	688	247	0
SK	7 671	2 645	4	2 523	1 940	528	31
FI	17 166	8 997	2 044	3 272	2 779	74	0
SE	39 798	7 442	6 611	16 502	8 999	244	0
UK	103 473	56 864	19 835	4 619	9 361	12 776	18

2.6.1 Installed Electricity Capacity*

RENEWABLES

MW	2017						
	Total Renewables	Hydro	Wind	Solar Thermal	Solar PV	Geothermal	Tide, Wave & Ocean
EU-28	434 156	155 118	168 933	2 306	106 708	848	242
Share (%)	100.0 %	35.7 %	38.9 %	0.5 %	24.6 %	0.2 %	0.1 %
BE	7 838	1 423	2 806	0	3 610	0	0
BG	5 106	3 372	698	0	1 036	0	0
CZ	4 642	2 265	308	0	2 070	0	0
DK	6 438	9	5 522	0	906	0	0
DE	109 209	11 120	55 718	2	42 337	32	0
EE	319	7	312	0	0	0	0
IE	3 863	529	3 318	0	16	0	0
EL	8 622	3 392	2 624	0	2 606	0	0
ES	50 213	20 079	23 100	2 304	4 725	0	5
FR	48 064	25 706	13 512	0	8 610	16	219
HR	2 841	2 205	576	0	60	0	0
IT	52 612	22 426	9 737	0	19 682	767	0
CY	268	0	158	0	110	0	0
LV	1 642	1 564	77	0	1	0	0
LT	1 469	877	518	0	74	0	0
LU	1 578	1 331	120	0	128	0	0
HU	733	57	329	0	344	3	0
MT	112	0	0	0	112	0	0
NL	7 142	37	4 202	0	2 903	0	0
AT	18 307	14 150	2 887	0	1 269	1	0
PL	8 436	2 390	5 758	0	287	0	0
PT	12 959	7 226	5 124	0	579	29	0
RO	11 096	6 692	3 030	0	1 374	0	0
SI	1 598	1 347	5	0	247	0	0
SK	3 055	2 523	4	0	528	0	0
FI	5 390	3 272	2 044	0	74	0	0
SE	23 357	16 502	6 611	0	244	0	0
UK	37 248	4 619	19 835	0	12 776	0	18

* Net maximum capacity.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.6.2 Gross Electricity Generation

TOTAL

TWh	2000	2005	2010	2015	2016	2017
EU-28	3 034.0	3 315.2	3 362.0	3 239.4	3 261.8	3 294.3
Index 2000	100 %	109 %	111 %	107 %	108 %	109 %
BE	84.01	86.76	94.93	69.40	85.30	86.08
BG	40.92	44.36	46.64	49.20	45.24	45.58
CZ	73.46	82.58	85.82	83.81	83.21	86.95
DK	36.01	36.25	38.86	28.93	30.54	31.04
DE	576.54	619.34	630.67	645.07	647.23	652.04
EE	8.51	10.21	12.96	10.42	12.18	12.90
IE	23.98	25.97	28.35	28.39	30.51	30.87
EL	53.84	60.02	57.39	51.87	54.44	55.27
ES	224.47	289.09	301.37	280.70	274.67	275.64
FR	539.95	576.06	569.15	578.48	563.85	561.46
HR	11.28	13.16	14.90	11.40	12.82	11.98
IT	275.86	302.59	301.28	282.40	289.03	295.17
CY	3.37	4.38	5.32	4.53	4.89	5.00
LV	4.14	4.91	6.63	5.53	6.43	7.53
LT	11.33	14.58	5.50	4.67	4.00	3.94
LU	1.17	4.13	4.59	2.77	2.20	2.24
HU	35.19	35.76	37.37	30.30	31.82	32.79
MT	1.92	2.24	2.11	1.30	0.86	1.64
NL	89.38	99.66	119.12	110.23	115.07	117.14
AT	61.24	66.83	71.11	65.18	68.29	71.31
PL	145.18	156.63	157.58	164.83	166.57	170.40
PT	43.76	46.57	54.09	52.41	60.33	59.43
RO	51.56	59.41	60.98	66.29	65.10	64.30
SI	13.62	15.12	16.44	15.10	16.50	16.33
SK	31.16	31.44	27.82	26.80	26.93	27.58
FI	69.78	70.34	80.36	68.35	68.49	67.12
SE	145.27	158.43	148.55	162.11	156.01	164.25
UK	377.07	398.35	382.07	338.88	339.30	338.34

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.6.2 Gross Electricity Generation

BY FUEL

TWh	2017						
	Gross Electricity Generation	Solid Fossil Fuels, Peat, Oil Shale & Sands	Oil & Petroleum Products	Natural Gas & Manufactured Gases	Nuclear	Renewables & Biofuel	Wastes non-RES
EU-28	3 294.3	677.0	60.7	695.9	829.7	1 005.6	25.4
Share (%)	100.0 %	20.6 %	1.8 %	21.1 %	25.2 %	30.5 %	0.8 %
BE	86.08	0.1	0.16	25.24	42.23	16.96	1.40
BG	45.58	20.9	0.40	1.92	15.55	6.80	0.00
CZ	86.95	41.4	0.12	6.16	28.34	10.79	0.09
DK	31.04	6.2	0.28	1.91	0.00	21.92	0.72
DE	652.04	241.9	5.57	98.58	76.32	222.34	7.29
EE	12.90	10.0	0.12	0.82	0.00	1.79	0.14
IE	30.87	5.8	0.14	15.68	0.00	9.08	0.16
EL	55.27	18.8	5.51	17.11	0.00	13.88	0.00
ES	275.64	45.1	15.77	65.26	58.04	90.67	0.77
FR	561.46	12.6	7.39	42.86	398.36	97.74	2.47
HR	11.98	1.4	0.21	3.09	0.00	7.32	0.00
IT	295.17	32.6	11.53	142.82	0.00	105.72	2.47
CY	5.00	0.0	4.57	0.00	0.00	0.44	0.00
LV	7.53	0.0	0.00	2.07	0.00	5.46	0.00
LT	3.94	0.0	0.14	0.60	0.00	3.12	0.08
LU	2.24	0.0	0.00	0.22	0.00	1.94	0.08
HU	32.79	4.9	0.09	8.00	16.10	3.47	0.20
MT	1.64	0.0	0.19	1.29	0.00	0.17	0.00
NL	117.14	31.3	1.18	62.15	3.40	17.43	1.69
AT	71.31	1.8	0.81	13.14	0.00	54.74	0.87
PL	170.40	131.2	2.02	12.31	0.00	24.60	0.31
PT	59.43	14.7	1.28	18.89	0.00	24.31	0.28
RO	64.30	16.8	0.63	10.73	11.51	24.64	0.00
SI	16.33	4.8	0.01	0.47	6.29	4.72	0.01
SK	27.58	3.0	0.44	2.22	15.08	6.83	0.03
FI	67.12	8.6	0.18	3.89	22.48	31.48	0.47
SE	164.25	0.5	0.29	0.98	65.70	95.08	1.68
UK	338.34	22.5	1.61	137.50	70.34	102.20	4.15

2.6.2 Gross Electricity Generation

RENEWABLES

TWh	2017							
	Renewables & Biofuels	Wind	Hydro	Solar	Solid & Liquid Biofuels, Renewable Waste	Biogases	Geothermal	Tide, Wave & Ocean
EU-28	1 005.6	362.4	331.3	119.4	121.8	63.4	6.7	0.5
Share (%)	100.0 %	36.0 %	32.9 %	11.9 %	12.1 %	6.3 %	0.7 %	0.1 %
BE	16.96	6.51	1.40	3.29	4.82	0.94	0.00	0.00
BG	6.80	1.50	3.49	1.40	0.18	0.22	0.00	0.00
CZ	10.79	0.59	3.04	2.19	2.33	2.64	0.00	0.00
DK	21.92	14.78	0.02	0.75	5.68	0.69	0.00	0.00
DE	222.34	105.69	26.16	39.40	17.05	33.88	0.16	0.00
EE	1.79	0.72	0.03	0.00	1.00	0.04	0.00	0.00
IE	9.08	7.44	0.90	0.01	0.53	0.20	0.00	0.00
EL	13.88	5.54	4.04	3.99	0.01	0.30	0.00	0.00
ES	90.67	49.13	21.07	14.40	5.14	0.94	0.00	0.00
FR	97.74	24.71	55.11	9.57	5.61	2.09	0.13	0.52
HR	7.32	1.20	5.51	0.08	0.22	0.31	0.00	0.00
IT	105.72	17.74	38.02	24.38	11.08	8.30	6.20	0.00
CY	0.44	0.21	0.00	0.17	0.00	0.05	0.00	0.00
LV	5.46	0.15	4.38	0.00	0.53	0.41	0.00	0.00
LT	3.12	1.36	1.18	0.07	0.38	0.13	0.00	0.00
LU	1.94	0.23	1.42	0.11	0.10	0.07	0.00	0.00
HU	3.47	0.76	0.22	0.35	1.81	0.33	0.00	0.00
MT	0.17	0.00	0.00	0.16	0.00	0.01	0.00	0.00
NL	17.43	10.57	0.06	2.20	3.68	0.92	0.00	0.00
AT	54.74	6.57	42.25	1.27	4.01	0.63	0.00	0.00
PL	24.60	14.91	3.03	0.17	5.39	1.10	0.00	0.00
PT	24.31	12.25	7.63	0.99	2.93	0.29	0.22	0.00
RO	24.64	7.41	14.85	1.86	0.46	0.07	0.00	0.00
SI	4.72	0.01	4.14	0.28	0.16	0.13	0.00	0.00
SK	6.83	0.01	4.62	0.51	1.10	0.59	0.00	0.00
FI	31.48	4.80	14.77	0.04	11.46	0.41	0.00	0.00
SE	95.08	17.61	65.17	0.23	12.07	0.01	0.00	0.00
UK	102.20	50.00	8.80	11.52	24.15	7.72	0.00	0.00

2.6.2 Gross Electricity Generation

BY FUEL – EU-28

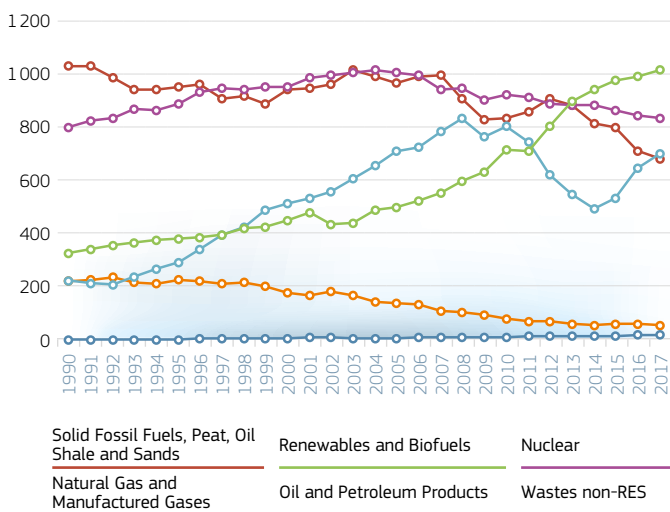
Share of Total (%)	2017					
	Solid Fossil Fuels, Peat, Oil Shale & Sands	Oil & Petroleum Products	Natural Gas & Manufactured Gases	Nuclear	Renewables & Biofuels	Others
1990	39.3	8.6	8.6	30.6	12.6	0.2
1991	38.7	8.8	8.2	31.1	12.9	0.2
1992	37.2	9.2	8.1	31.5	13.6	0.3
1993	35.5	8.3	9.1	32.8	13.9	0.3
1994	35.1	8.1	10.2	32.2	14.2	0.3
1995	34.5	8.4	10.7	32.1	13.9	0.3
1996	33.6	8.0	12.0	32.5	13.6	0.4
1997	31.6	7.5	13.8	32.8	13.9	0.4
1998	31.2	7.5	14.6	31.9	14.4	0.4
1999	29.8	6.9	16.6	31.9	14.4	0.4
2000	30.8	6.0	16.9	31.1	14.8	0.4
2001	30.2	5.6	17.0	31.4	15.3	0.5
2002	30.4	5.9	17.7	31.5	13.9	0.5
2003	31.1	5.3	18.7	30.8	13.7	0.4
2004	29.9	4.5	19.8	30.6	14.8	0.4
2005	29.0	4.3	21.2	30.1	15.0	0.4
2006	29.2	4.0	21.4	29.4	15.5	0.5
2007	29.2	3.4	23.0	27.7	16.3	0.5
2008	26.6	3.2	24.4	27.7	17.6	0.5
2009	25.5	3.1	23.6	27.8	19.5	0.6
2010	24.7	2.6	23.8	27.3	21.1	0.6
2011	25.8	2.4	22.4	27.4	21.4	0.6
2012	27.4	2.3	18.7	26.7	24.3	0.6
2013	26.8	2.0	16.6	26.8	27.2	0.6
2014	25.3	2.0	15.4	27.4	29.2	0.7
2015	24.5	2.0	16.4	26.5	29.9	0.7
2016	21.6	2.0	19.7	25.7	30.2	0.8
2017	20.6	1.8	21.1	25.2	30.5	0.8

Source: Eurostat, May 2019

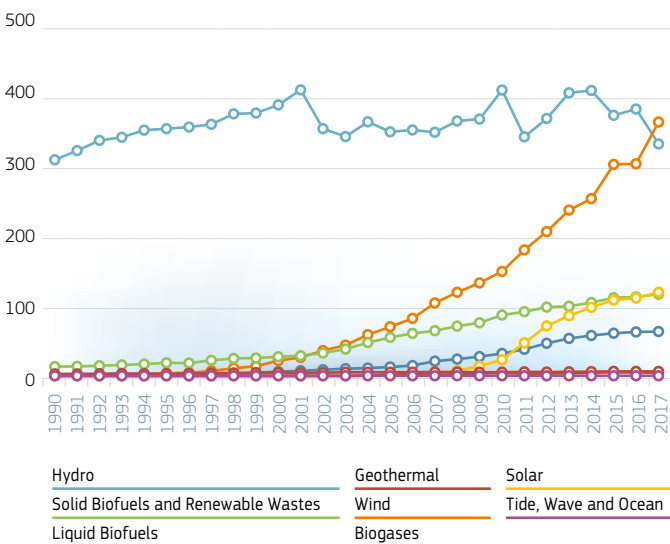
Methodology and Notes: [See Appendices](#)

2.6.2 Gross Electricity Generation

BY FUEL – EU-28 – ALL FUELS – 1990-2017 (TWh)



GROSS ELECTRICITY GENERATION – EU-28 – RENEWABLES – 1990-2017 (TWh)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.6.3 Market Share of the Largest Electricity Producer

%	2000	2005	2010	2015	2016	2017
BE	91.1	85.0	79.1	48.5	62.6	60.7
BG						
CZ	69.2	72.0	73.0	55.4	52.4	62.2
DK	36.0	33.0	46.0	33.0	35.2	33.3
DE	34.0	31.0	28.4	32.0	33.5	32.2
EE	91.0	92.0	89.0	79.8	80.8	82.5
IE	97.0	71.0	34.0	55.0	47.0	43.0
EL	97.0	97.0	85.1	70.7	72.0	58.7
ES	42.4	35.0	24.0	24.5	25.4	22.5
FR	90.2	89.1	86.5	85.7	82.5	79.9
HR		87.0	88.0	77.8	80.7	86.1
IT	46.7	38.6	28.0	27.0	24.0	19.0
CY	99.6	100.0	100.0	100.0	100.0	100.0
LV	95.8	92.7	88.0	57.4	58.6	47.1
LT	72.8	70.3	35.4	22.7	14.3	14.2
LU			85.4	43.8	18.0	17.8
HU	41.3	38.7	42.1	53.1	52.9	51.3
MT	100.0	100.0	100.0	100.0	100.0	61.0
NL						
AT	32.6					
PL	19.5	18.5	17.4	17.4	16.0	17.7
PT	58.5	53.9	47.2	42.5	47.0	39.5
RO		36.4	33.6	25.7	28.5	23.1
SI		50.1	56.3	51.3	53.9	48.5
SK	85.1	83.6	80.9	73.1	71.3	71.4
FI	23.3	23.0	26.6	25.9	25.6	25.6
SE	49.5	47.0	42.0	40.6	42.0	42.4
UK	20.6	20.5	21.0			

2.7 Solar and Wind Energy

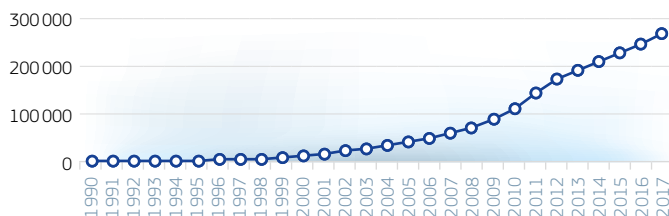
2.7.1 Solar and Wind Energy – Cumulative Capacity

TOTAL

MW	2000	2005	2010	2015	2016	2017
EU-28	12886	42605	115071	238733	257618	277947
BE	14	169	1919	5307	5695	6415
BG	0	8	513	1728	1727	1734
CZ	1	23	1940	2356	2350	2378
DK	2391	3131	3809	5859	6097	6429
DE	6209	20304	44910	83825	90308	98057
EE	0	31	108	300	310	312
IE	117	493	1391	2454	2792	3334
EL	226	492	1500	4695	4974	5230
ES	2216	9970	25298	29951	30010	30129
FR	45	703	6956	17396	19213	22123
HR	0	6	79	466	539	636
IT	382	1669	9386	28038	28667	29419
CY	0	1	89	234	242	268
LV	2	26	30	68	71	78
LT	0	1	133	505	579	592
LU	14	58	73	180	242	248
HU	0	17	295	501	564	673
MT	0	0	1	75	93	112
NL	460	1275	2327	4906	6306	7105
AT	55	846	1105	3426	3826	4156
PL	4	121	1108	4994	5934	6046
PT	84	1066	3930	5384	5637	5703
RO	0	1	389	4456	4397	4404
SI	0	0	12	244	237	252
SK	0	5	22	536	536	532
FI	40	86	204	1020	1600	2118
SE	212	526	2028	5923	6588	6855
UK	414	1576	5516	23907	28086	32611

SOLAR AND WIND ENERGY – CUMULATIVE CAPACITY – TOTAL – 1990-2017 (MW)

EU-28



Source: Eurostat, May 2019

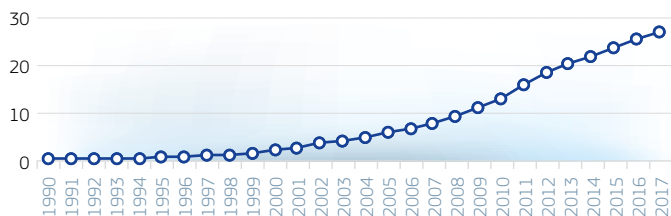
Methodology and Notes: [See Appendices](#)

2.7.1 Solar and Wind Energy – Cumulative Capacity

SHARE OF TOTAL INSTALLED ELECTRICITY CAPACITY

%	2000	2005	2010	2015	2016	2017
EU-28	1.9	5.6	13.0	24.2	25.9	27.5
BE	0.09	1.05	10.21	25.07	26.29	28.82
BG	0.00	0.07	5.11	15.83	16.08	15.97
CZ	0.01	0.13	9.66	10.77	10.69	10.68
DK	19.41	24.02	28.34	41.85	42.86	44.75
DE	5.22	15.80	27.57	41.21	43.31	45.50
EE	0.00	1.21	3.93	10.50	12.08	12.34
IE	2.47	8.02	17.32	25.64	28.19	31.78
EL	2.07	3.70	9.80	24.79	25.95	26.92
ES	4.11	13.02	24.87	28.06	28.33	29.01
FR	0.04	0.61	5.60	13.16	14.44	16.62
HR	0.00	0.16	1.92	9.75	11.09	12.77
IT	0.51	1.95	8.80	23.97	25.11	25.75
CY	0.00	0.11	5.72	13.31	13.74	15.00
LV	0.10	1.20	1.17	2.33	2.41	2.65
LT	0.00	0.02	3.73	14.08	15.80	17.80
LU	1.15	3.48	4.27	8.90	14.13	14.60
HU	0.00	0.20	3.28	5.80	6.44	7.60
MT	0.00	0.00	0.17	11.23	16.24	15.90
NL	2.18	5.85	8.72	14.49	18.45	21.01
AT	0.31	4.47	5.22	14.00	15.17	16.68
PL	0.01	0.38	3.32	13.38	15.57	14.11
PT	0.77	7.97	20.76	27.43	27.35	27.25
RO	0.00	0.01	1.95	18.70	18.65	18.68
SI	0.00	0.00	0.38	7.26	6.70	6.96
SK	0.00	0.06	0.28	6.89	6.92	6.94
FI	0.25	0.52	1.31	6.14	9.82	12.34
SE	0.63	1.57	5.56	14.92	16.34	17.22
UK	0.53	1.91	5.89	24.84	28.80	31.52

SOLAR AND WIND ENERGY – CUMULATIVE CAPACITY – SHARE OF TOTAL – 1990-2017 (%)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

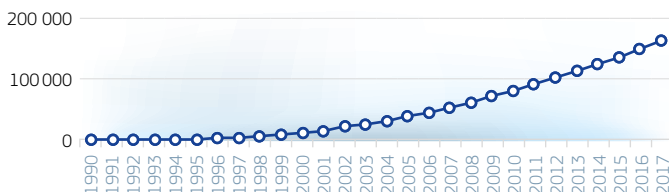
2.7.2 Wind Cumulative Installed Capacity

TOTAL

MW	2000	2005	2010	2015	2016	2017
EU-28	12 709	40 325	84 358	141 436	154 273	168 933
BE	14	167	912	2 176	2 370	2 806
BG	0	8	488	699	699	698
CZ	1	22	213	281	282	308
DK	2 390	3 128	3 802	5 077	5 246	5 522
DE	6 095	18 248	26 903	44 580	49 592	55 718
EE	0	31	108	300	310	312
IE	117	493	1 390	2 451	2 786	3 318
EL	226	491	1 298	2 091	2 370	2 624
ES	2 206	9 918	20 693	22 943	22 990	23 100
FR	38	690	5 912	10 258	11 511	13 512
HR	0	6	79	418	483	576
IT	363	1 635	5 794	9 137	9 384	9 737
CY	0	0	82	158	158	158
LV	2	26	30	68	70	77
LT	0	1	133	436	509	518
LU	14	35	44	64	120	120
HU	0	17	293	329	329	329
MT	0	0	0	0	0	0
NL	447	1 224	2 237	3 391	4 257	4 202
AT	50	825	1 016	2 489	2 730	2 887
PL	4	121	1 108	4 886	5 747	5 758
PT	83	1 064	3 796	4 937	5 124	5 124
RO	0	1	389	3 130	3 025	3 030
SI	0	0	0	5	5	5
SK	0	5	3	3	3	4
FI	38	82	197	1 005	1 565	2 044
SE	209	522	2 017	5 819	6 435	6 611
UK	412	1 565	5 421	14 306	16 174	19 835

WIND CUMULATIVE INSTALLED CAPACITY – TOTAL –
1990-2017 (MW)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.7.2 Wind Cumulative Installed Capacity

SHARE OF TOTAL INSTALLED ELECTRICITY CAPACITY

%	2000	2005	2010	2015	2016	2017
EU-28	1.8	5.3	9.5	14.3	15.5	16.7
BE	0.1	1.0	4.9	10.3	10.9	12.6
BG	0.0	0.1	4.9	6.4	6.5	6.4
CZ	0.0	0.1	1.1	1.3	1.3	1.4
DK	19.4	24.0	28.3	36.3	36.9	38.4
DE	5.1	14.2	16.5	21.9	23.8	25.9
EE	0.0	1.2	3.9	10.5	12.1	12.3
IE	2.5	8.0	17.3	25.6	28.1	31.6
EL	2.1	3.7	8.5	11.0	12.4	13.5
ES	4.1	13.0	20.3	21.5	21.7	22.2
FR	0.0	0.6	4.8	7.8	8.6	10.2
HR	0.0	0.2	1.9	8.7	9.9	11.6
IT	0.5	1.9	5.4	7.8	8.2	8.5
CY	0.0	0.0	5.3	9.0	9.0	8.8
LV	0.1	1.2	1.2	2.3	2.4	2.6
LT	0.0	0.0	3.7	12.2	13.9	15.6
LU	1.2	2.1	2.6	3.2	7.0	7.1
HU	0.0	0.2	3.3	3.8	3.8	3.7
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	2.1	5.6	8.4	10.0	12.5	12.4
AT	0.3	4.4	4.8	10.2	10.8	11.6
PL	0.0	0.4	3.3	13.1	15.1	13.4
PT	0.8	8.0	20.1	25.2	24.9	24.5
RO	0.0	0.0	2.0	13.1	12.8	12.9
SI	0.0	0.0	0.0	0.1	0.1	0.1
SK	0.0	0.1	0.0	0.0	0.0	0.1
FI	0.2	0.5	1.3	6.0	9.6	11.9
SE	0.6	1.6	5.5	14.7	16.0	16.6
UK	0.5	1.9	5.8	14.9	16.6	19.2

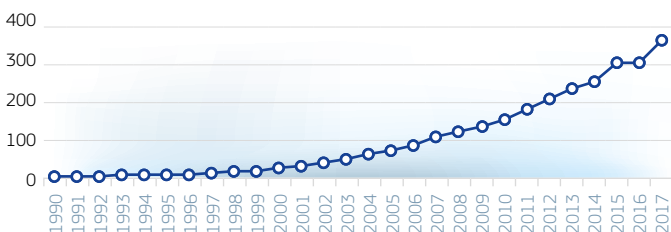
2.7.3 Wind Gross Electricity Production

TOTAL

TWh	2000	2005	2010	2015	2016	2017
EU-28	22.2	70.5	149.4	302.0	302.9	362.4
BE	0.0	0.2	1.3	5.6	5.4	6.5
BG	0.0	0.0	0.7	1.5	1.4	1.5
CZ	0.0	0.0	0.3	0.6	0.5	0.6
DK	4.2	6.6	7.8	14.1	12.8	14.8
DE	9.4	27.2	37.8	79.2	78.6	105.7
EE	0.0	0.1	0.3	0.7	0.6	0.7
IE	0.2	1.1	2.8	6.6	6.1	7.4
EL	0.5	1.3	2.7	4.6	5.1	5.5
ES	4.7	21.2	44.3	49.3	48.9	49.1
FR	0.0	1.0	9.9	21.3	21.5	24.7
HR	0.0	0.0	0.1	0.8	1.0	1.2
IT	0.6	2.3	9.1	14.8	17.7	17.7
CY	0.0	0.0	0.0	0.2	0.2	0.2
LV	0.0	0.0	0.0	0.1	0.1	0.2
LT	0.0	0.0	0.2	0.8	1.1	1.4
LU	0.0	0.1	0.1	0.1	0.1	0.2
HU	0.0	0.0	0.5	0.7	0.7	0.8
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	0.8	2.1	4.0	7.5	8.2	10.6
AT	0.1	1.3	2.1	4.8	5.2	6.6
PL	0.0	0.1	1.7	10.9	12.6	14.9
PT	0.2	1.8	9.2	11.6	12.5	12.2
RO	0.0	0.0	0.3	7.1	6.6	7.4
SI	0.0	0.0	0.0	0.0	0.0	0.0
SK	0.0	0.0	0.0	0.0	0.0	0.0
FI	0.1	0.2	0.3	2.3	3.1	4.8
SE	0.5	0.9	3.5	16.3	15.5	17.6
UK	0.9	2.9	10.3	40.3	37.3	50.0

WIND GROSS ELECTRICITY PRODUCTION – TOTAL –
1990-2017 (TWh)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.7.4 Wind Penetration Level

IN TOTAL GROSS ELECTRICITY GENERATION

%	2000	2005	2010	2015	2016	2017
EU-28	0.7	2.1	4.4	9.3	9.3	11.0
BE	0.0	0.3	1.4	8.0	6.4	7.6
BG	0.0	0.0	1.5	3.0	3.1	3.3
CZ	0.0	0.0	0.4	0.7	0.6	0.7
DK	11.8	18.2	20.1	48.8	41.9	47.6
DE	1.6	4.4	6.0	12.3	12.1	16.2
EE	0.0	0.5	2.1	6.9	4.9	5.6
IE	1.0	4.3	9.9	23.2	20.2	24.1
EL	0.8	2.1	4.7	8.9	9.5	10.0
ES	2.1	7.3	14.7	17.6	17.8	17.8
FR	0.0	0.2	1.7	3.7	3.8	4.4
HR	0.0	0.1	0.9	7.0	7.9	10.0
IT	0.2	0.8	3.0	5.3	6.1	6.0
CY	0.0	0.0	0.6	4.9	4.6	4.2
LV	0.1	1.0	0.7	2.7	2.0	2.0
LT	0.0	0.0	4.1	17.4	28.4	34.6
LU	2.1	1.3	1.2	3.7	4.6	10.5
HU	0.0	0.0	1.4	2.3	2.1	2.3
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	0.9	2.1	3.4	6.8	7.1	9.0
AT	0.1	2.0	2.9	7.4	7.7	9.2
PL	0.0	0.1	1.1	6.6	7.6	8.7
PT	0.4	3.8	17.0	22.1	20.7	20.6
RO	0.0	0.0	0.5	10.7	10.1	11.5
SI	0.0	0.0	0.0	0.0	0.0	0.0
SK	0.0	0.0	0.0	0.0	0.0	0.0
FI	0.1	0.2	0.4	3.4	4.5	7.1
SE	0.3	0.6	2.3	10.1	9.9	10.7
UK	0.3	0.7	2.7	11.9	11.0	14.8

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.7.5 Wind Capacity Factor

ANNUAL AVERAGE

%	2000	2005	2010	2015	2016	2017
EU-28	21.9	21.8	22.1	26.7	24.5	26.8
BE	14.3	17.0	17.7	32.0	28.7	29.0
BG	0.0	7.2	17.5	26.0	25.5	26.9
CZ	11.1	12.1	19.7	25.5	22.0	24.0
DK	22.2	26.4	25.7	34.8	30.5	33.5
DE	19.2	18.7	17.6	22.2	19.8	23.7
EE	0.0	21.8	32.1	29.8	24.0	29.0
IE	26.2	28.2	25.3	33.5	27.6	28.0
EL	24.9	32.2	26.1	27.6	27.1	26.4
ES	26.8	26.7	26.7	26.9	26.6	26.6
FR	15.8	17.4	21.0	26.0	23.3	22.9
HR	0.0	20.8	22.0	23.8	26.2	26.1
IT	19.4	17.9	19.7	20.3	23.6	22.8
CY	0.0	19.7	4.8	17.6	18.0	16.8
LV	27.6	22.5	20.4	27.0	22.9	24.3
LT	0.0	22.2	21.1	23.2	27.9	32.9
LU	22.1	18.7	15.7	20.0	10.6	24.5
HU	0.0	7.4	22.8	26.3	26.0	28.8
MT	0.0	0.0	0.0	0.0	7.3	7.3
NL	23.2	21.1	22.3	27.8	24.0	31.4
AT	16.7	20.2	25.4	24.3	24.0	28.5
PL	15.6	14.0	18.8	27.8	27.4	32.4
PT	25.3	20.8	30.2	29.4	30.4	29.9
RO	0.0	2.8	9.8	28.2	27.2	30.6
SI	0.0	0.0	0.0	15.1	14.4	14.4
SK	0.0	15.0	25.0	25.0	25.0	18.8
FI	25.7	25.9	18.7	28.9	24.5	29.3
SE	27.3	22.4	21.6	35.1	30.1	33.3
UK	28.7	23.2	23.7	35.2	28.8	31.5

Source: Eurostat, May 2019

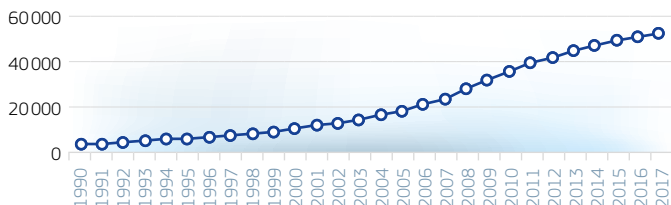
Methodology and Notes: [See Appendices](#)

2.7.6 Solar Collectors' Surface

1 000 m ²	2000	2005	2010	2015	2016	2017
EU-28	11 055	18 289	35 658	49 141	50 953	52 008
BE	41	77	371	677	721	751
BG			194	344	354	378
CZ		85	309	538	569	593
DK	243	286	480	1 016	1 369	1 542
DE	3 251	7 099	14 044	18 625	19 122	19 109
EE	0	0	0	0	0	0
IE	4	13	185	320	343	311
EL	2 941	3 047	4 100	4 390	4 477	4 596
ES	406	795	2 376	3 582	3 796	3 997
FR	513	583	1 447	2 917	3 006	3 094
HR	20	41	92	183	204	227
IT	271	680	2 415	3 724	3 891	4 051
CY		730	909	1 009	1 025	1 044
LV	0	0	0	0	0	0
LT	0	0	0	0	0	0
LU		6	29	56	60	63
HU	36	45	140	280	292	308
MT			40	70	72	72
NL	276	422	576	647	652	649
AT	2 202	3 083	4 559	5 261	5 289	5 272
PL		95	656	1 900	2 016	2 131
PT	238	289	752	1 121	1 176	1 231
RO			104	159	174	189
SI			178	239	239	239
SK		64	123	171	177	201
FI	10	16	31	50	55	60
SE	207	371	510	478	475	472
UK	396	462	1 038	1 383	1 400	1 428

**SOLAR COLLECTORS' SURFACE – TOTAL –
1990-2017 (1 000 m²)**

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

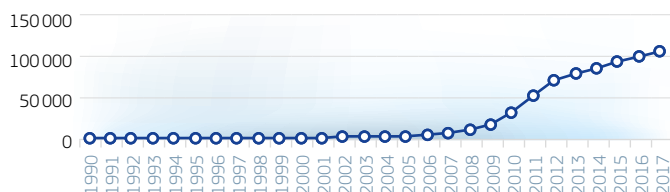
2.7.7 Solar Installed Capacity

TOTAL

MW	2000	2005	2010	2015	2016	2017
EU-28	177	2 280	30 713	97 296	103 345	109 014
BE	0	2	1 007	3 131	3 325	3 610
BG	0	0	25	1 029	1 028	1 036
CZ	0	1	1 727	2 075	2 068	2 070
DK	1	3	7	782	851	906
DE	114	2 056	18 007	39 245	40 716	42 339
EE	0	0	0	0	0	0
IE	0	0	1	2	6	16
EL	0	1	202	2 604	2 604	2 606
ES	10	52	4 605	7 008	7 020	7 029
FR	7	13	1 044	7 138	7 702	8 610
HR	0	0	0	48	56	60
IT	19	34	3 592	18 901	19 283	19 682
CY	0	1	7	76	84	110
LV	0	0	0	0	1	1
LT	0	0	0	69	70	74
LU	0	24	29	116	122	128
HU	0	0	2	172	235	344
MT	0	0	1	75	93	112
NL	13	51	90	1 515	2 049	2 903
AT	5	21	89	937	1 096	1 269
PL	0	0	0	108	187	287
PT	1	2	134	447	513	579
RO	0	0	0	1 326	1 372	1 374
SI	0	0	12	239	232	247
SK	0	0	19	533	533	528
FI	2	4	7	15	35	74
SE	3	4	11	104	153	244
UK	2	11	95	9 601	11 912	12 776

SOLAR INSTALLED CAPACITY – TOTAL –
1990-2017 (MW)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

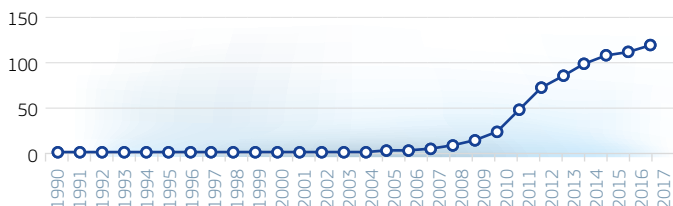
2.7.8 Solar Gross Electricity Production

TOTAL

TWh	2000	2005	2010	2015	2016	2017
EU-28	0.1	1.5	23.3	108.4	111.4	119.4
BE	0.0	0.0	0.6	3.1	3.1	3.3
BG	0.0	0.0	0.0	1.4	1.4	1.4
CZ	0.0	0.0	0.6	2.3	2.1	2.2
DK	0.0	0.0	0.0	0.6	0.7	0.8
DE	0.1	1.3	11.7	38.7	38.1	39.4
EE	0.0	0.0	0.0	0.0	0.0	0.0
IE	0.0	0.0	0.0	0.0	0.0	0.0
EL	0.0	0.0	0.2	3.9	3.9	4.0
ES	0.0	0.0	7.2	13.9	13.6	14.4
FR	0.0	0.0	0.6	7.8	8.7	9.6
HR	0.0	0.0	0.0	0.1	0.1	0.1
IT	0.0	0.0	1.9	22.9	22.1	24.4
CY	0.0	0.0	0.0	0.1	0.1	0.2
LV	0.0	0.0	0.0	0.0	0.0	0.0
LT	0.0	0.0	0.0	0.1	0.1	0.1
LU	0.0	0.0	0.0	0.1	0.1	0.1
HU	0.0	0.0	0.0	0.1	0.2	0.3
MT	0.0	0.0	0.0	0.1	0.1	0.2
NL	0.0	0.0	0.1	1.1	1.6	2.2
AT	0.0	0.0	0.1	0.9	1.1	1.3
PL	0.0	0.0	0.0	0.1	0.1	0.2
PT	0.0	0.0	0.2	0.8	0.9	1.0
RO	0.0	0.0	0.0	2.0	1.8	1.9
SI	0.0	0.0	0.0	0.3	0.3	0.3
SK	0.0	0.0	0.0	0.5	0.5	0.5
FI	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.1	0.1	0.2
UK	0.0	0.0	0.0	7.5	10.4	11.5

SOLAR GROSS ELECTRICITY PRODUCTION – TOTAL –
1990-2017 (TWh)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.7.9 Solar Penetration Level

IN TOTAL GROSS ELECTRICITY GENERATION

%	2000	2005	2010	2015	2016	2017
EU-28	0.0	0.0	0.7	3.3	3.4	3.6
BE	0.0	0.0	0.6	4.4	3.6	3.8
BG	0.0	0.0	0.0	2.8	3.1	3.1
CZ	0.0	0.0	0.7	2.7	2.6	2.5
DK	0.0	0.0	0.0	2.1	2.4	2.4
DE	0.0	0.2	1.9	6.0	5.9	6.0
EE	0.0	0.0	0.0	0.0	0.0	0.0
IE	0.0	0.0	0.0	0.0	0.0	0.0
EL	0.0	0.0	0.3	7.5	7.2	7.2
ES	0.0	0.0	2.4	4.9	5.0	5.2
FR	0.0	0.0	0.1	1.3	1.5	1.7
HR	0.0	0.0	0.0	0.5	0.5	0.7
IT	0.0	0.0	0.6	8.1	7.6	8.3
CY	0.0	0.0	0.1	2.8	3.0	3.4
LV	0.0	0.0	0.0	0.0	0.0	0.0
LT	0.0	0.0	0.0	1.6	1.7	1.7
LU	0.0	0.4	0.5	3.7	4.6	4.9
HU	0.0	0.0	0.0	0.5	0.8	1.1
MT	0.0	0.0	0.0	7.3	14.8	9.4
NL	0.0	0.0	0.0	1.0	1.4	1.9
AT	0.0	0.0	0.1	1.4	1.6	1.8
PL	0.0	0.0	0.0	0.0	0.1	0.1
PT	0.0	0.0	0.4	1.5	1.4	1.7
RO	0.0	0.0	0.0	3.0	2.8	2.9
SI	0.0	0.0	0.1	1.8	1.6	1.7
SK	0.0	0.0	0.1	1.9	2.0	1.8
FI	0.0	0.0	0.0	0.0	0.0	0.1
SE	0.0	0.0	0.0	0.1	0.1	0.1
UK	0.0	0.0	0.0	2.2	3.1	3.4

2.8 CHP

2.8.1 CHP Electricity

GENERATION AND CAPACITY

	CHP Electricity Generation			CHP Electrical Capacity		
	TWh			GW		
	2015	2016	2017	2015	2016	2017
EU-28	362.9	359.7	371.7	119.7	119.9	122.0
BE	12.5	12.2	12.5	2.4	2.2	2.3
BG	2.9	3.6	3.5	1.1	1.5	1.2
CZ	11.8	8.4	8.0	4.6	9.0	8.0
DK	11.6	12.0	11.8	6.1	5.9	5.8
DE	78.8	87.9	94.4	37.1	37.2	39.6
EE	1.2	0.9	1.1	0.4	0.2	0.0
IE	2.1	2.2	2.2	0.3	0.3	0.3
EL	2.0	2.6	2.2	0.6	0.5	0.3
ES	22.7	27.5	28.8	3.5	4.2	4.6
FR	13.9	15.0	16.6	5.6	6.1	6.3
HR	0.8	1.5	2.0	0.6	0.8	0.8
IT	39.5	40.3	41.0	9.0	8.5	8.4
CY	0.0	0.0	0.0	0.0	0.0	0.0
LV	2.5	3.1	2.8	1.1	1.3	1.3
LT	1.5	1.1	1.1	1.0	0.6	0.6
LU	0.4	0.3	0.3	0.1	0.1	0.1
HU	4.1	4.8	4.6	1.6	1.5	1.5
MT	0.0	0.2	0.2	0.0	0.1	0.1
NL	29.8	30.8	31.4	9.2	9.1	9.4
AT	9.0	10.9	9.5	2.8	3.4	2.9
PL	26.5	27.6	28.4	8.6	8.7	9.2
PT	6.5	6.2	6.4	1.3	1.2	1.2
RO	5.6	5.3	5.8	1.8	1.9	1.8
SI	1.2	1.2	1.3	0.4	0.4	0.4
SK		3.0	3.5		1.0	1.7
FI	21.7	21.8	21.7	5.8	5.9	6.5
SE	13.7	9.2	9.0	4.9	3.9	3.0
UK	19.4	19.8	21.6	5.9	4.6	4.5

Source: Eurostat July 2019

Methodology and Notes: [See Appendices](#)

2.8.2 CHP Heat

PRODUCTION AND CAPACITY

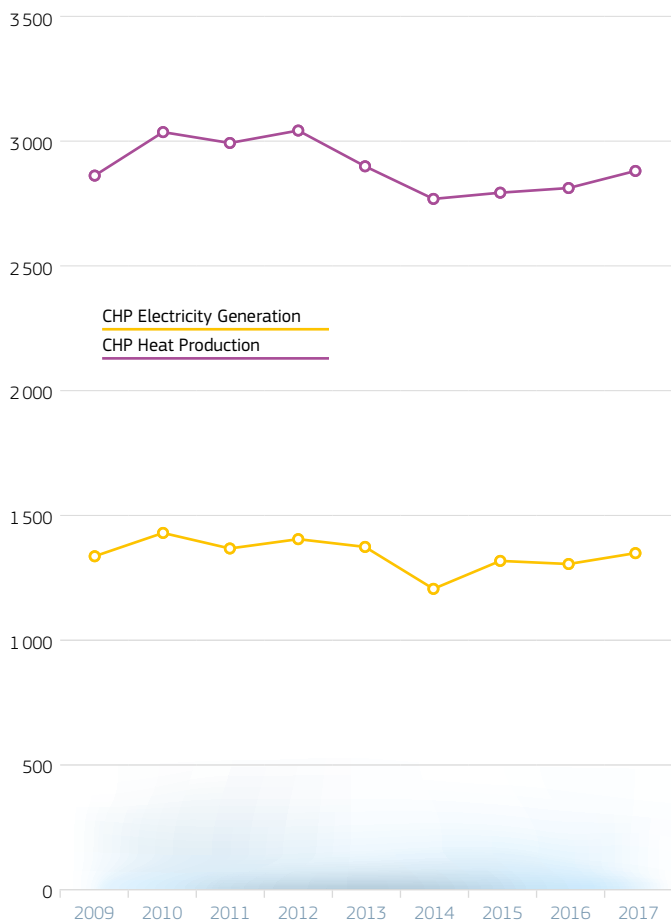
	CHP Heat Production			CHP Heat Capacity		
	PJ			GW		
	2015	2016	2017	2015	2016	2017
EU-28	2 791.7	2 812.5	2 881.2	303.8	273.0	285.8
BE	104.4	104.4	108.7	5.1	5.0	5.1
BG	31.9	39.3	40.1	3.7	4.7	4.6
CZ	106.0	101.6	103.5	21.0	20.8	22.1
DK	93.3	94.9	94.4	9.5	8.8	8.8
DE	669.9	698.0	703.2	95.1	94.6	101.3
EE	12.5	3.3	13.6	1.3	0.7	0.5
IE	12.6	11.2	11.8	0.6	0.6	0.6
EL	10.9	18.9	14.6	0.7	1.3	0.9
ES	120.3	138.8	139.2	5.0	6.4	9.8
FR	154.9	163.9	177.6	14.1	14.9	15.3
HR	10.0	16.3	18.8	1.6	2.2	2.2
IT	213.2	219.8	219.9	14.2	14.0	13.2
CY	0.2	0.1	0.1	0.0	0.0	0.0
LV	12.4	14.5	14.2	1.2	1.2	1.2
LT	12.4	9.5	10.4	1.9	1.2	1.5
LU	2.4	2.3	2.6	0.2	0.2	0.2
HU	24.4	24.7	25.2	3.2	2.8	2.9
MT	0.0	0.1	0.1	0.0	0.0	0.0
NL	189.6	174.3	180.5	18.1	16.0	16.6
AT	105.9	114.9	116.0	8.6	8.9	9.0
PL	238.6	246.5	253.3	23.9	23.8	24.2
PT	59.3	61.7	60.0	4.3	3.8	3.7
RO	51.0	45.9	47.0	9.8	6.3	5.5
SI	10.4	10.8	11.1	0.7	0.8	0.8
SK		34.4	36.9		4.0	3.4
FI	242.4	241.6	246.5	15.2	14.6	16.9
SE	151.3	91.1	92.0	12.8	8.4	7.9
UK	124.2	129.8	139.8	7.6	7.1	7.4

Source: source: Eurostat July 2019

Methodology and Notes: [See Appendices](#)

2.8.3 CHP Electricity and Heat

CHP ELECTRICITY AND HEAT GENERATION EU-28 (PJ)*



* Data before 2009 is not consistent across the EU-28.

Source: Eurostat July 2019

Methodology and Notes: [See Appendices](#)

2.9 Heat*

2.9.1 Gross Heat Generation

TOTAL

PJ	2000	2005	2010	2015	2016	2017
EU-28	2 146.8	2 548.8	2 644.0	2 325.6	2 419.6	2 412.8
Index 2000	100 %	119 %	123 %	108 %	113 %	112 %
BE	23.2	19.5	35.6	27.8	26.7	22.2
BG	50.8	52.1	57.1	48.7	46.3	42.3
CZ	139.2	138.9	147.0	119.4	125.7	121.6
DK	115.5	125.8	149.5	126.9	131.4	131.8
DE	315.9	489.9	508.6	448.8	461.9	462.3
EE	27.0	26.8	25.5	21.2	23.9	24.3
IE	0.0	0.0	0.0	0.0	0.0	0.0
EL	1.2	2.0	1.9	2.1	2.1	2.1
ES	0.0	0.0	0.0	0.0	0.0	0.0
FR	135.5	178.3	152.9	150.3	168.3	173.7
HR	11.5	13.3	12.5	11.1	11.4	12.4
IT	0.0	193.1	205.3	216.9	223.9	233.4
CY	0.0	0.0	0.0	0.1	0.1	0.1
LV	31.9	31.1	28.7	25.5	29.0	30.0
LT	42.8	42.9	40.0	31.9	33.7	35.0
LU	0.5	3.2	3.1	2.4	2.4	2.8
HU	69.2	63.6	53.0	50.4	51.6	50.1
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	172.4	178.5	159.9	123.2	116.0	111.2
AT	47.7	59.0	82.6	83.1	87.7	88.9
PL	340.7	335.5	335.1	280.1	292.3	299.0
PT	5.6	13.7	21.1	19.5	18.8	19.1
RO	189.7	127.7	99.1	76.6	76.8	74.6
SI	9.4	10.1	9.8	8.7	9.0	9.5
SK	36.8	52.5	48.5	36.6	37.5	37.8
FI	147.4	175.4	205.7	168.7	185.7	173.8
SE	131.0	158.8	204.6	179.1	189.3	185.4
UK	102.1	57.2	57.0	66.5	68.2	69.6

* Only Heat sold, as considered currently in the energy balances.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.9.1 Gross Heat Generation

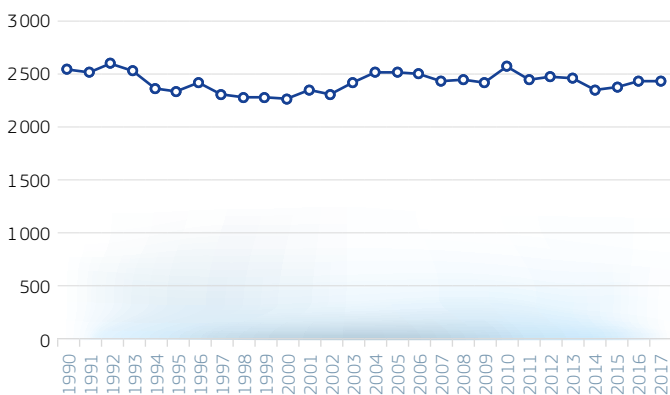
BY FUEL

PJ	2017						
	Gross Heat Generation	Solid Fossil Fuels, Peat, Oil Shale & Sands	Oil & Petroleum Products	Natural Gas & Manufactured Gases	Nuclear	Renewables & Biofuels	Wastes non-RES & Others
EU-28	2 412.8	592.3	98.1	946.5	4.5	639.4	132.1
Share (%)	100.0 %	24.5 %	4.1 %	39.2 %	0.2 %	26.5 %	5.5 %
BE	22.2	0.0	0.4	18.3	0.0	1.8	1.6
BG	42.3	14.2	3.7	22.9	0.7	0.7	0.0
CZ	121.6	68.7	1.2	39.6	0.9	9.7	1.5
DK	131.8	19.2	1.2	20.6	0.0	77.2	13.5
DE	462.3	130.9	4.6	220.0	0.0	67.6	39.2
EE	24.3	2.6	0.8	7.3	0.0	12.4	1.1
IE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EL	2.1	2.1	0.0	0.0	0.0	0.0	0.0
ES	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FR	173.7	8.8	10.1	62.6	0.0	73.7	18.5
HR	12.4	0.0	0.7	9.9	0.0	1.8	0.0
IT	233.4	1.9	32.3	153.5	0.0	40.2	5.6
CY	0.1	0.0	0.0	0.0	0.0	0.1	0.0
LV	30.0	0.1	0.0	16.6	0.0	13.2	0.0
LT	35.0	0.3	0.3	9.9	0.0	23.6	0.8
LU	2.8	0.0	0.0	1.7	0.0	1.1	0.0
HU	50.1	0.9	0.2	39.4	0.8	8.0	0.8
MT	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NL	111.2	2.6	11.5	70.7	0.0	16.1	10.3
AT	88.9	3.1	4.7	33.2	0.0	41.6	6.4
PL	299.0	240.9	4.1	38.6	0.0	13.0	2.3
PT	19.1	0.0	0.0	19.1	0.0	0.0	0.0
RO	74.6	16.5	4.9	50.0	0.0	3.2	0.0
SI	9.5	5.1	0.2	2.5	0.0	1.5	0.1
SK	37.8	8.6	4.9	15.7	2.1	6.3	0.1
FI	173.8	58.5	8.3	21.7	0.0	79.4	5.8
SE	185.4	7.0	2.4	8.9	0.0	143.2	23.9
UK	69.6	0.1	1.4	63.8	0.0	3.9	0.5

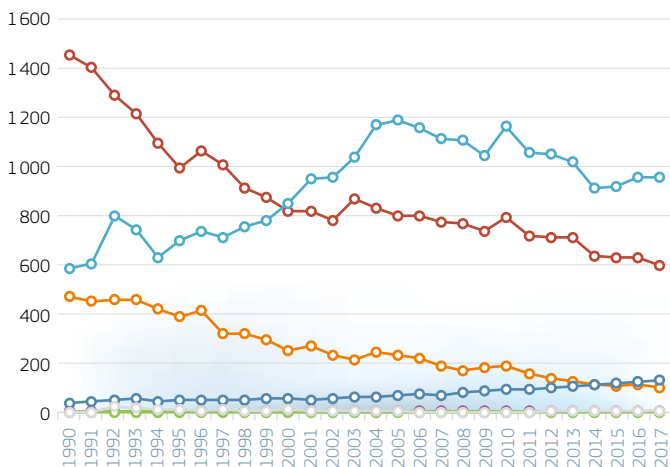
2.9.1 Gross Heat Generation

TOTAL – EU-28 – 1990-2017 (PJ)

EU-28



GROSS HEAT GENERATION – BY FUEL – 1990-2017 (PJ)

Solid Fossil Fuels, Peat,
Oil Shale and Sands

Oil and Petroleum Products

Natural Gas and
Manufactured Gases

Nuclear

Renewables and Biofuels

Wastes non-RES

Others

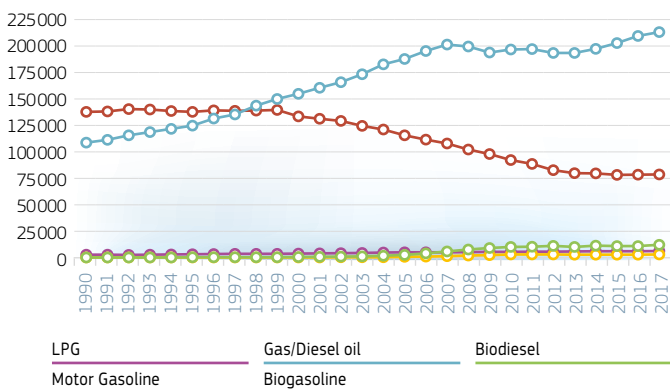
2.10 Transport

2.10.1 Fuels Final Consumption

PETROLEUM PRODUCTS AND BIOFUELS – EU-28

ktoe	Final Consumption Petroleum Products	LPG	Motor Gasoline	Gas / Diesel Oil	Final Consumption Biofuels	Biogasoline	Biodiesel
1990	254 322	2 710.8	136 565.1	107 853.4	5.7	0	6
1995	269 493	3 058.0	136 520.8	123 648.6	181.7	25	153
1996	278 394	3 196.2	138 057.3	130 254.4	266.5	39	223
1997	282 454	3 491.0	137 570.0	134 170.3	368.1	55	304
1998	291 703	3 575.4	137 865.5	142 480.6	356.3	64	283
1999	298 686	3 560.7	138 453.3	148 725.2	400.3	60	328
2000	297 536	3 684.7	132 463.2	153 516.0	619.8	59	547
2001	301 034	3 911.5	130 143.0	159 178.6	744.1	66	660
2002	304 138	4 180.9	128 141.2	164 346.6	1 015.9	159	835
2003	307 303	4 342.7	123 459.7	171 831.6	1 394.5	243	1 141
2004	313 962	4 679.1	119 970.1	181 265.9	1 902.1	306	1 577
2005	313 915	4 824.0	114 530.2	186 124.4	3 202.8	594	2 454
2006	318 188	4 989.9	110 619.6	193 750.8	5 357.5	902	3 865
2007	320 962	4 953.3	106 926.2	199 747.9	7 493.9	1 188	5 683
2008	312 830	5 103.6	101 256.2	197 962.1	9 501.3	1 806	7 435
2009	302 816	5 267.3	97 118.2	192 326.2	11 259.4	2 243	8 959
2010	299 831	5 313.1	91 430.2	195 146.5	12 719.0	2 810	9 871
2011	296 357	5 509.5	87 863.1	195 582.0	13 111.3	2 879	10 220
2012	285 978	5 478.0	81 938.2	191 792.8	13 702.0	2 826	10 864
2013	283 196	5 788.6	79 182.7	191 917.2	12 688.9	2 679	10 006
2014	286 729	5 859.1	78 952.4	195 675.0	13 767.5	2 665	11 094
2015	291 089	5 982.4	77 452.9	201 102.7	13 511.4	2 699	10 808
2016	298 626	5 987.3	77 711.9	207 890.2	13 297.6	2 650	10 643
2017	303 031	6 080.0	77 942.2	211 512.7	14 740.0	2 778	11 961

EU-28 – FUELS CONSUMPTION IN THE TRANSPORT SECTOR – 1990-2017 (ktoe)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

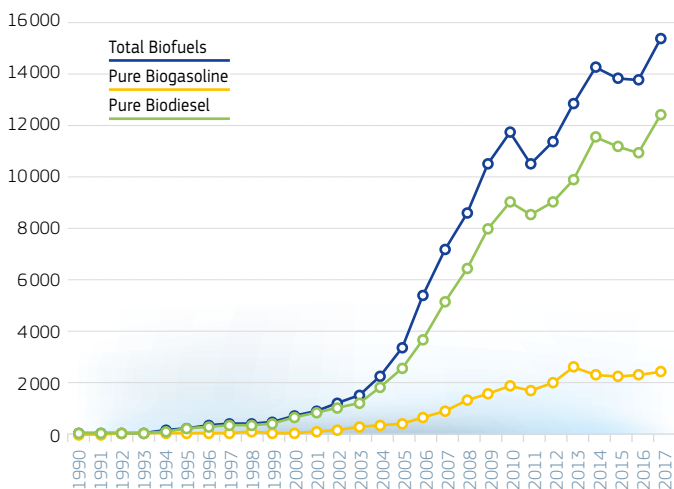
2.10.2 Biofuels

BY FUEL – EU-28

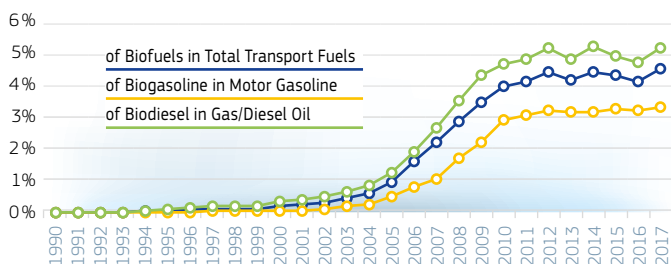
	Production			Share in Transport Fuels		
	Total Biofuels	Pure Biogasoline	Pure Biodiesel	of Biofuels in Total Transport Fuels	of Biogasoline in Motor Gasoline	of Biodiesel in Gas/Diesel Oil
	ktoe			%		
1990	6	0	6	0.0 %	0.0 %	0.0 %
1991	7	0	7	0.0 %	0.0 %	0.0 %
1992	19	2	15	0.0 %	0.0 %	0.0 %
1993	46	18	24	0.0 %	0.0 %	0.0 %
1994	131	25	93	0.0 %	0.0 %	0.1 %
1995	219	25	185	0.1 %	0.0 %	0.1 %
1996	309	39	265	0.1 %	0.0 %	0.2 %
1997	396	54	333	0.1 %	0.0 %	0.2 %
1998	381	63	308	0.1 %	0.0 %	0.2 %
1999	442	59	371	0.1 %	0.0 %	0.2 %
2000	710	60	635	0.2 %	0.0 %	0.4 %
2001	886	71	791	0.2 %	0.1 %	0.4 %
2002	1 187	160	998	0.3 %	0.1 %	0.5 %
2003	1 496	263	1 185	0.5 %	0.2 %	0.7 %
2004	2 190	311	1 773	0.6 %	0.3 %	0.9 %
2005	3 290	382	2 516	1.0 %	0.5 %	1.3 %
2006	5 294	634	3 591	1.7 %	0.8 %	2.0 %
2007	7 079	871	5 084	2.3 %	1.1 %	2.8 %
2008	8 477	1 316	6 349	2.9 %	1.8 %	3.6 %
2009	10 334	1 574	7 825	3.6 %	2.3 %	4.5 %
2010	11 554	1 868	8 874	4.1 %	3.0 %	4.8 %
2011	10 344	1 645	8 378	4.2 %	3.2 %	5.0 %
2012	11 167	1 957	8 891	4.6 %	3.3 %	5.4 %
2013	12 661	2 571	9 708	4.3 %	3.3 %	5.0 %
2014	14 014	2 282	11 381	4.6 %	3.3 %	5.4 %
2015	13 581	2 192	10 984	4.4 %	3.4 %	5.1 %
2016	13 553	2 255	10 780	4.3 %	3.3 %	4.9 %
2017	15 104	2 416	12 239	4.6 %	3.4 %	5.4 %

2.10.2 Biofuels

PRODUCTION BIOFUELS – EU-28 – 1990-2017 (ktoe)



BIOFUELS SHARE IN TRANSPORT FUELS – EU-28 – 1990-2017 (%)



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.11 Energy Efficiency

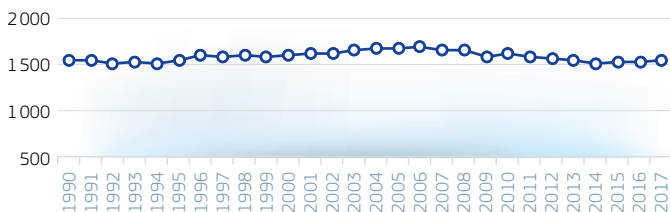
2.11.1 Primary Energy Consumption 2020-2030*

ALL FUELS

toe/M€ '2010	2000	2005	2010	2015	2016	2017
EU-28	1 619	1 720	1 660	1 537	1 547	1 562
Index 2000	100 %	106 %	103 %	95 %	96 %	96 %
BE	52	52	54	46	49	49
BG	18	19	17	18	18	18
CZ	39	43	43	40	40	40
DK	19	19	20	17	17	18
DE	317	320	312	295	298	298
EE	5	5	6	5	6	6
IE	14	15	15	14	15	14
EL	27	30	27	23	23	23
ES	115	137	123	119	119	126
FR	240	261	254	244	240	240
HR	8	9	9	8	8	8
IT	166	181	167	149	148	149
CY	2	2	3	2	2	3
LV	4	4	5	4	4	4
LT	7	8	6	6	6	6
LU	4	5	5	4	4	4
HU	24	26	25	23	24	24
MT	1	1	1	1	1	1
NL	67	70	72	64	65	65
AT	27	33	32	32	32	33
PL	85	88	97	90	95	99
PT	23	25	23	22	22	23
RO	35	36	33	31	31	32
SI	6	7	7	6	7	7
SK	16	17	17	15	15	16
FI	32	34	36	31	32	32
SE	46	49	49	45	47	46
UK	222	223	205	183	180	177

PRIMARY ENERGY CONSUMPTION 2020-2030 – ALL FUELS – 1990-2017 (toe/M€ '2010)

EU-28



* This indicator should be used also for tracking progress towards Europe 2020-2030 energy efficiency targets. This indicator is in line to the previous Eurostat methodology, which was used to calculate the targets.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

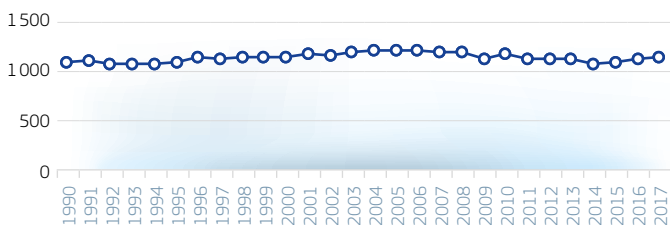
2.11.2 Final Energy Consumption 2020-2030*

ALL FUELS

toe/M€ '2010	2000	2005	2010	2015	2016	2017
EU-28	1 133	1 193	1 163	1 088	1 110	1 123
Index 2000	100 %	105 %	103 %	96 %	98 %	99 %
BE	38	37	38	36	36	36
BG	9	10	9	9	10	10
CZ	25	26	25	24	25	25
DK	15	16	16	14	14	15
DE	220	219	220	212	217	219
EE	2	3	3	3	3	3
IE	11	13	12	11	12	12
EL	19	21	19	17	17	17
ES	80	98	89	80	82	84
FR	155	160	154	147	149	149
HR	6	7	7	7	7	7
IT	125	137	129	116	116	115
CY	2	2	2	2	2	2
LV	3	4	4	4	4	4
LT	4	5	5	5	5	5
LU	4	4	4	4	4	4
HU	16	19	17	17	18	19
MT	0	0	1	1	1	1
NL	52	54	55	49	50	50
AT	24	28	28	27	28	28
PL	55	58	66	62	67	71
PT	18	19	18	16	16	17
RO	23	25	23	22	22	23
SI	4	5	5	5	5	5
SK	11	12	12	10	10	11
FI	24	25	26	24	25	25
SE	35	34	34	32	32	33
UK	153	153	143	133	134	133

FINAL ENERGY CONSUMPTION 2020-2030 –
ALL FUELS – 1990-2017 (toe/M€ '2010)

EU-28



* This indicator should be used also for tracking progress towards Europe 2020-2030 energy efficiency targets. This indicator is in line to the previous Eurostat methodology, which was used to calculate the targets.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

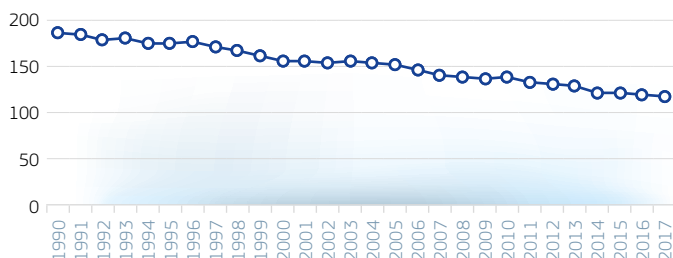
2.11.3 Energy Intensity

ALL FUELS

toe/M€ '2010	2000	2005	2010	2015	2016	2017
EU-28	159	154	142	124	122	121
Index 2000	100%	97%	89%	78%	77%	76%
BE	208	196	188	155	163	162
BG	766	628	470	454	428	426
CZ	360	328	291	249	240	239
DK	92	86	87	70	70	69
DE	146	143	131	114	112	111
EE	454	359	399	324	343	317
IE	115	95	91	59	60	55
EL	165	147	137	139	136	141
ES	150	149	128	122	119	121
FR	147	146	136	125	121	119
HR	240	224	210	190	185	186
IT	113	118	112	101	99	101
CY	187	166	152	142	147	144
LV	315	266	274	219	218	213
LT	398	338	249	207	210	210
LU	119	135	116	91	89	90
HU	312	285	269	231	230	230
MT	272	267	362	266	271	302
NL	164	166	156	133	132	129
AT	115	123	116	107	106	105
PL	364	324	281	228	233	232
PT	156	161	138	137	135	137
RO	444	353	279	220	209	206
SI	231	221	200	176	178	173
SK	423	349	262	212	207	211
FI	211	196	197	175	177	173
SE	164	157	143	122	125	123
UK	149	131	117	95	92	88

ENERGY INTENSITY – ALL FUELS – 1990-2017
(toe/M€ '2010)

EU-28



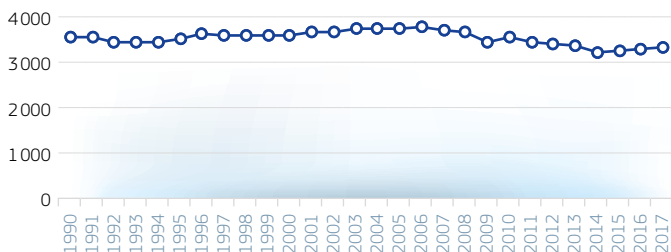
2.11.4 Energy Consumption per Capita

GROSS INLAND CONSUMPTION – ALL FUELS

kgoe/cap	2000	2005	2010	2015	2016	2017
EU-28	3554	3713	3514	3223	3232	3275
Index 2000	100 %	104 %	99 %	91 %	91 %	92 %
BE	5805	5653	5643	4784	5027	4989
BG	2275	2612	2408	2589	2553	2661
CZ	4016	4465	4358	4018	3973	4106
DK	3658	3663	3687	3069	3126	3167
DE	4168	4181	4090	3898	3883	3904
EE	3379	3880	4243	4128	4554	4382
IE	3804	3759	3319	3023	3149	3063
EL	2575	2815	2532	2198	2173	2250
ES	3077	3349	2806	2655	2685	2819
FR	4229	4416	4171	3914	3840	3832
HR	1877	2277	2198	2009	2044	2134
IT	3066	3273	2988	2562	2543	2633
CY	3511	3476	3365	2704	2896	2996
LV	1623	2040	2183	2205	2231	2334
LT	2051	2617	2174	2365	2452	2589
LU	8433	10411	9254	7425	7278	7343
HU	2468	2825	2655	2557	2603	2723
MT	2080	2324	2266	1721	1595	1801
NL	4934	5134	5198	4506	4578	4583
AT	3650	4171	4113	3901	3880	3924
PL	2332	2425	2671	2519	2646	2767
PT	2476	2614	2305	2215	2217	2327
RO	1637	1807	1726	1603	1607	1703
SI	3244	3667	3525	3124	3232	3282
SK	3284	3480	3286	3000	3012	3173
FI	6315	6629	6863	5936	6159	6163
SE	5384	5735	5429	4956	5143	5049
UK	3968	3902	3408	2953	2884	2817

ENERGY CONSUMPTION PER CAPITA – ALL FUELS – 1990-2017 (kgoe/cap)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

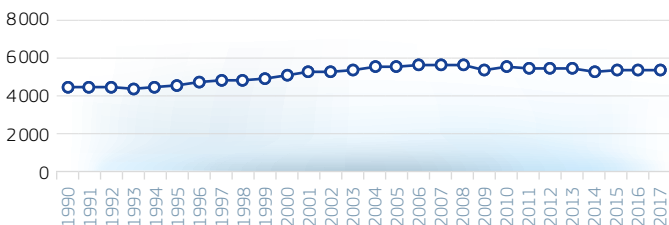
2.11.5 Final Electricity Consumption per Capita

ALL FUELS

kWh/cap	2000	2005	2010	2015	2016	2017
EU-28	5 187	5 629	5 640	5 409	5 453	5 472
Index 2000	100 %	109 %	109 %	104 %	105 %	105 %
BE	7 573	7 678	7 686	7 271	7 260	7 217
BG	2 961	3 345	3 652	3 933	4 040	4 211
CZ	4 804	5 421	5 183	5 169	5 292	5 420
DK	6 089	6 184	5 792	5 451	5 450	5 445
DE	5 884	6 330	6 509	6 339	6 296	6 289
EE	3 579	4 445	5 181	5 211	5 547	5 486
IE	5 371	5 923	5 588	5 360	5 411	5 403
EL	4 005	4 640	4 777	4 677	4 948	5 012
ES	4 657	5 595	5 266	4 995	5 007	5 041
FR	6 357	6 735	6 868	6 507	6 595	6 539
HR	2 631	3 344	3 686	3 631	3 651	3 846
IT	4 795	5 199	5 057	4 729	4 715	4 819
CY	4 339	5 402	5 960	4 830	5 186	5 313
LV	1 880	2 547	2 931	3 253	3 292	3 325
LT	1 764	2 377	2 652	3 198	3 375	3 532
LU	13 319	13 340	13 132	11 056	11 050	10 825
HU	2 880	3 203	3 416	3 682	3 779	3 928
MT	4 031	4 614	4 406	4 808	4 693	5 066
NL	5 993	6 403	6 501	6 175	6 244	6 185
AT	6 441	7 011	7 164	7 115	7 130	7 157
PL	2 563	2 751	3 122	3 363	3 499	3 576
PT	3 744	4 414	4 718	4 416	4 486	4 524
RO	1 511	1 817	2 036	2 166	2 189	2 275
SI	5 293	6 379	5 835	6 199	6 310	6 549
SK	4 077	4 253	4 477	4 495	4 605	4 747
FI	14 636	15 420	15 603	14 341	14 731	14 726
SE	14 526	14 504	14 048	12 810	12 942	12 732
UK	5 604	5 794	5 263	4 681	4 648	4 567

FINAL ELECTRICITY CONSUMPTION PER CAPITA –
ALL FUELS – 1990-2017 (kWh/cap)

EU-28



Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

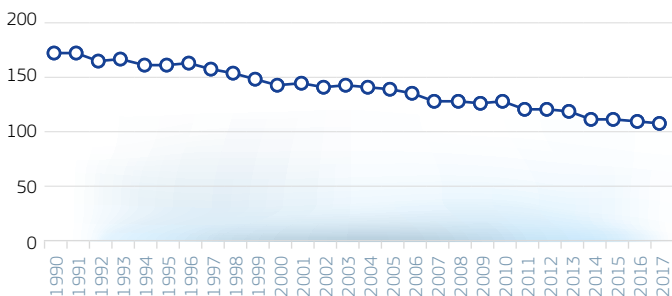
2.11.6 Primary Energy Intensity 2020-2030*

ALL FUELS

toe/M€ '2010	2000	2005	2010	2015	2016	2017
EU-28	145	140	129	113	112	110
Index 2000	100 %	97 %	89 %	78 %	77 %	76 %
BE	169	152	148	120	126	124
BG	723	597	455	435	412	412
CZ	341	306	272	233	229	222
DK	85	81	82	65	65	65
DE	134	132	121	105	104	102
EE	427	336	378	302	322	295
IE	108	91	88	58	58	53
EL	142	131	120	125	124	124
ES	133	133	114	111	108	110
FR	136	136	128	116	113	110
HR	221	208	196	178	174	175
IT	107	111	104	96	94	93
CY	167	145	138	127	129	129
LV	308	246	256	202	199	198
LT	357	304	220	172	175	171
LU	117	134	115	90	88	90
HU	292	264	249	214	213	211
MT	150	153	141	87	78	83
NL	120	117	112	96	96	93
AT	108	117	110	101	100	100
PL	345	307	267	214	219	218
PT	137	142	126	126	124	126
RO	422	329	263	212	201	199
SI	223	211	193	171	172	166
SK	390	325	247	198	194	198
FI	200	187	190	166	168	161
SE	153	145	132	110	111	108
UK	141	123	111	89	86	83

PRIMARY ENERGY INTENSITY – ALL FUELS –
1990-2017 (toe/M€ '2010)

EU-28



* Ratio between primary energy consumption 2020-2030 and GDP chain linked 2010.

Source: Eurostat, DG Economic and Financial Affairs, May 2019

Methodology and Notes: [See Appendices](#)

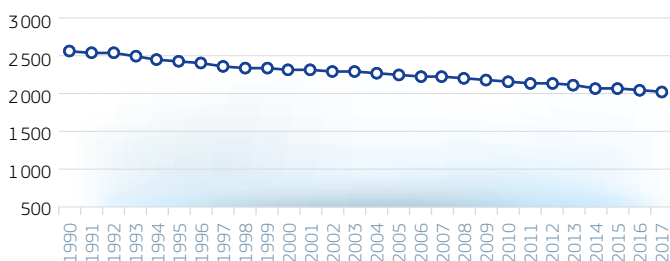
2.11.7 Greenhouse Gas (GHG) Intensity of Fuel Combustion

ALL FUELS

kg CO ₂ /toe	2000	2005	2010	2015	2016	2017
EU-28	2 322	2 245	2 148	2 059	2 035	2 011
Index 2000	100%	97%	93%	89%	88%	87%
BE	1 784	1 787	1 614	1 595	1 478	1 470
BG	2 187	2 274	2 576	2 439	2 319	2 361
CZ	2 960	2 649	2 466	2 332	2 388	2 278
DK	2 745	2 560	2 406	1 989	2 027	1 858
DE	2 542	2 413	2 395	2 424	2 416	2 376
EE	3 163	3 184	3 348	2 925	2 918	3 215
IE	2 958	2 958	2 676	2 588	2 548	2 509
EL	3 485	3 469	3 306	2 976	2 852	2 895
ES	2 328	2 369	2 036	2 063	1 955	1 974
FR	1 539	1 453	1 365	1 238	1 268	1 278
HR	2 161	2 200	2 088	1 956	1 981	1 957
IT	2 630	2 532	2 367	2 266	2 270	2 168
CY	2 630	2 800	2 719	2 655	2 638	2 584
LV	1 892	1 755	1 825	1 637	1 650	1 587
LT	1 501	1 486	1 886	1 600	1 601	1 538
LU	2 212	2 406	2 311	2 128	2 054	2 024
HU	2 167	1 962	1 834	1 720	1 737	1 730
MT	3 135	2 784	2 707	2 269	1 968	1 951
NL	2 134	2 067	2 077	2 134	2 091	2 046
AT	1 897	1 963	1 734	1 595	1 608	1 635
PL	3 611	3 579	3 357	3 326	3 275	3 256
PT	2 394	2 331	2 000	2 099	2 055	2 134
RO	2 719	2 653	2 458	2 472	2 406	2 259
SI	2 365	2 258	2 262	2 079	2 135	2 065
SK	2 055	1 977	1 858	1 736	1 743	1 707
FI	1 646	1 547	1 640	1 250	1 284	1 210
SE	1 030	929	930	784	728	726
UK	2 412	2 381	2 368	2 156	2 076	2 041

GHG INTENSITY OF FUEL COMBUSTION – ALL FUELS – 1990-2017 (kg CO₂/toe)

EU-28



Sources: EEA_UNFCCC v_22 May 2019, Eurostat 2019

Methodology and Notes: [See Appendices](#)

2.12 Renewable Energy (RES) Indicators

2.12.1 Renewable Energy (RES) Shares*

OVERALL AND HEATING & COOLING

	Overall RES with Aviation Cap**				RES-H&C – Renewable Heating & Cooling			
%	2005	2010	2016	2017	2005	2010	2016	2017
EU-28	9.1	13.1	17.0	17.5	11.1	15.4	19.0	19.5
BE	2.3	5.7	8.7	9.1	3.4	6.1	8.1	8.0
BG	9.4	14.1	18.8	18.7	14.3	24.4	30.0	29.9
CZ	7.1	10.5	14.9	14.8	10.9	14.1	19.8	19.7
DK	16.0	22.2	32.6	35.8	22.8	31.0	42.2	46.6
DE	7.1	11.7	14.9	15.5	7.7	12.1	13.1	13.4
EE	17.4	24.6	28.6	29.2	32.2	43.3	51.2	51.6
IE	2.8	5.8	9.3	10.7	3.5	4.3	6.3	6.9
EL	7.0	9.8	15.1	16.3	12.8	17.9	24.6	26.6
ES	8.4	13.8	17.4	17.5	9.4	12.6	17.1	17.5
FR	9.6	12.7	15.9	16.3	12.4	16.2	21.1	21.4
HR	23.7	25.1	28.3	27.3	30.0	32.8	37.6	36.6
IT	7.6	13.0	17.4	18.3	8.2	15.6	18.9	20.1
CY	3.1	6.0	9.3	9.9	10.0	18.2	23.0	24.5
LV	32.3	30.4	37.1	39.0	42.7	40.7	51.8	54.6
LT	16.8	19.6	25.6	25.8	29.3	32.5	46.6	46.5
LU	1.4	2.9	5.4	6.4	3.6	4.8	7.3	8.1
HU	6.9	12.7	14.3	13.3	9.9	18.1	20.9	19.6
MT	0.1	1.0	6.2	7.2	1.0	7.5	16.1	19.8
NL	2.5	3.9	5.9	6.6	2.4	3.1	5.4	5.9
AT	23.7	29.9	33.0	32.6	21.9	28.7	32.2	32.1
PL	6.9	9.3	11.3	10.9	10.2	11.7	14.7	14.5
PT	19.5	24.2	28.4	28.1	32.1	33.9	35.1	34.4
RO	17.2	23.2	25.0	24.5	17.9	27.2	26.9	26.6
SI	16.0	20.4	21.3	21.6	18.9	28.1	34.0	33.3
SK	6.4	9.1	12.0	11.5	5.0	7.9	9.9	9.8
FI	28.8	32.4	39.1	41.0	39.1	44.2	53.8	54.9
SE	40.5	47.2	53.8	54.5	51.8	60.9	68.5	69.1
UK	1.3	3.7	9.2	10.2	0.8	2.7	7.0	7.5

* Of the Gross Final Energy.

** Break in Series between 2010 and 2011 due to the Application of the Biofuels Compliance Rules.

Source: Eurostat-RES SHARES, March 2019

Methodology and Notes: [See Appendices](#)

2.12.1 Renewable Energy (RES) Shares*

ELECTRICITY AND TRANSPORT

%	RES-E – Electricity Generation				RES-T – Transport**			
	2005	2010	2016	2017	2005	2010	2016	2017
EU-28	14.8	19.7	29.6	30.7	1.8	5.2	7.1	7.4
BE	2.4	7.1	15.8	17.2	0.6	4.7	6.0	6.6
BG	9.3	12.7	19.2	19.1	0.8	1.4	7.2	7.2
CZ	3.8	7.5	13.6	13.7	0.9	5.1	6.4	6.6
DK	24.7	32.7	53.9	60.4	0.4	1.2	6.8	6.9
DE	10.5	18.2	32.2	34.4	4.0	6.4	7.0	7.0
EE	1.0	10.2	15.2	17.0	0.2	0.4	0.4	0.4
IE	7.2	15.6	26.8	30.1	0.1	2.5	5.2	7.4
EL	8.2	12.3	22.7	24.5	0.1	1.9	1.6	1.8
ES	19.1	29.8	36.6	36.3	1.3	5.0	5.3	5.9
FR	13.7	14.8	19.2	19.9	2.1	6.5	8.7	9.1
HR	35.4	37.5	46.6	46.4	1.0	1.1	1.3	1.2
IT	16.3	20.1	34.0	34.1	1.1	4.7	7.4	6.5
CY	0.0	1.4	8.6	8.9		2.0	2.7	2.6
LV	43.0	42.1	51.3	54.4	2.4	4.0	2.8	2.5
LT	3.8	7.4	16.9	18.3	0.6	3.8	3.6	3.7
LU	3.2	3.8	6.7	8.1	0.2	2.1	5.9	6.4
HU	4.4	7.1	7.3	7.5	0.9	6.1	7.6	6.8
MT		0.0	5.7	6.6			5.4	6.8
NL	6.3	9.6	12.6	13.8	0.5	3.4	4.9	5.9
AT	61.9	65.6	73.3	72.2	5.1	10.7	10.6	9.7
PL	2.7	6.7	13.4	13.1	1.6	6.6	3.9	4.2
PT	27.7	40.6	54.0	54.2	0.5	5.6	7.7	7.9
RO	26.9	30.4	42.7	41.6	1.7	3.4	6.2	6.6
SI	28.7	32.2	32.1	32.4	0.8	3.1	1.6	2.7
SK	15.7	17.8	22.5	21.3	1.6	5.3	7.7	7.0
FI	26.9	27.7	32.9	35.2	0.9	4.4	9.0	18.8
SE	50.9	56.0	64.9	65.9	6.2	9.2	31.1	32.1
UK	4.1	7.5	24.6	28.1	0.5	3.3	5.0	5.1

* Of the Gross Final Energy.

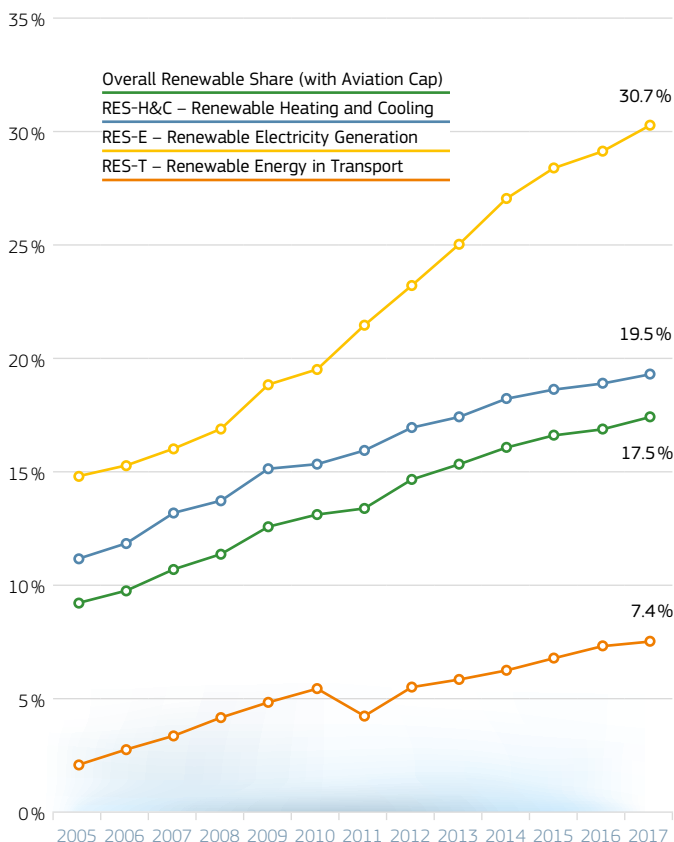
** Break in Series between 2010 and 2011 due to the Application of the Biofuels Compliance Rules.

Source: Eurostat-RES SHARES, March 2019

Methodology and Notes: [See Appendices](#)

2.12.1 Renewable Energy (RES) Shares*

IN THE GROSS FINAL ENERGY CONSUMPTION – EU-28 (%)



* Break in Series between 2010 and 2011 due to the Application of the Biofuels Compliance Rules.

Source: Eurostat-RES SHARES, March 2019

Methodology and Notes: [See Appendices](#)

2.13 Energy Prices and Taxes

2.13.1 Prices of Transport Fuels

AUTOMOTIVE DIESEL OIL – ALL TAXES INCLUDED*

Current Prices (€/litre)	2009	2010	2015	2017	2018	2019
EU-28	1.01	1.17	1.24	1.21	1.33	1.34
BE	0.95	1.14	1.16	1.25	1.42	1.44
BG	0.84	0.98	1.13	1.01	1.11	1.11
CZ	0.99	1.21	1.15	1.12	1.23	1.23
DK	1.05	1.21	1.28	1.25	1.37	1.39
DE	1.07	1.20	1.18	1.17	1.28	1.26
EE	0.91	1.10	1.08	1.17	1.31	1.32
IE	1.02	1.22	1.26	1.24	1.34	1.33
EL	0.97	1.24	1.18	1.26	1.39	1.38
ES	0.91	1.07	1.12	1.10	1.21	1.22
FR	1.00	1.14	1.15	1.23	1.44	1.45
HR			1.16	1.17	1.31	1.31
IT	1.08	1.21	1.41	1.38	1.49	1.48
CY	0.83	1.00	1.23	1.20	1.31	1.23
LV	0.92	1.06	1.06	1.05	1.19	1.20
LT	0.89	1.02	1.07	1.03	1.15	1.14
LU	0.85	0.99	1.02	0.99	1.10	1.09
HU	0.96	1.16	1.16	1.16	1.24	1.23
MT	0.96	1.04	1.27	1.18	1.20	1.23
NL	1.00	1.15	1.24	1.22	1.34	1.35
AT	0.97	1.10	1.12	1.11	1.22	1.21
PL	0.84	1.06	1.08	1.04	1.15	1.19
PT	1.00	1.15	1.19	1.24	1.35	1.37
RO	0.83	1.03	1.20	1.04	1.22	1.21
SI	1.01	1.15	1.18	1.18	1.28	1.25
SK	1.10	1.11	1.14	1.13	1.25	1.23
FI	0.99	1.13	1.31	1.30	1.40	1.42
SE	1.04	1.25	1.37	1.43	1.51	1.51
UK	1.17	1.39	1.59	1.37	1.47	1.51

* First semester 2019 (07/01/19 – 24/06/19).

Sources: DG Energy, Member States, Weekly Oil Bulletin 2019
Methodology and Notes: [See Appendices](#)

2.13.1 Prices of Transport Fuels

EURO-SUPER 95 – ALL TAXES INCLUDED*

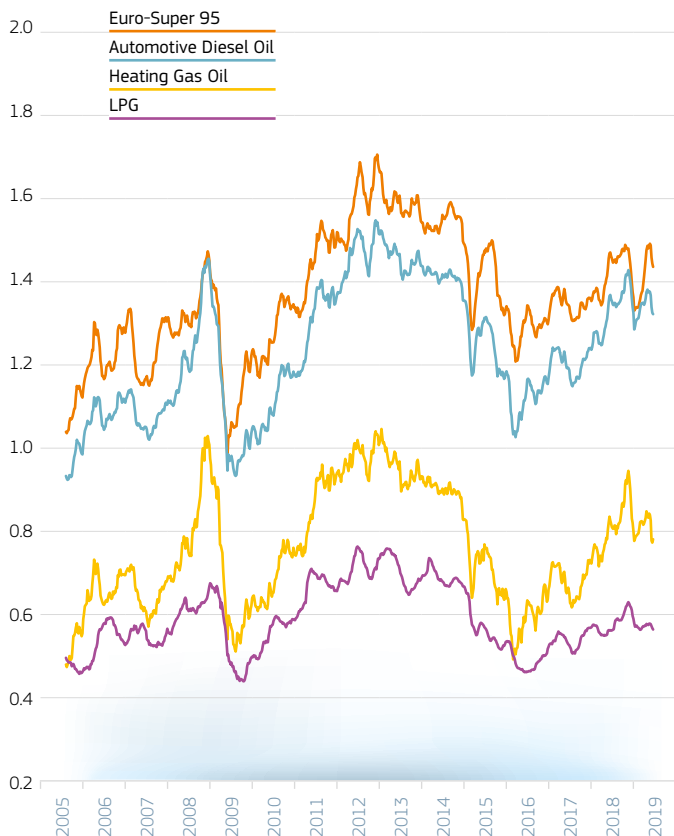
Current Prices (€/litre)	2009	2010	2015	2017	2018	2019
EU-28	1.16	1.33	1.40	1.35	1.43	1.41
BE	1.24	1.40	1.37	1.35	1.40	1.39
BG	0.88	1.02	1.10	1.03	1.10	1.06
CZ	1.03	1.25	1.15	1.15	1.25	1.23
DK	1.28	1.44	1.50	1.50	1.59	1.60
DE	1.26	1.39	1.40	1.37	1.44	1.42
EE	0.92	1.11	1.11	1.19	1.33	1.33
IE	1.11	1.30	1.37	1.36	1.44	1.38
EL	1.00	1.43	1.48	1.51	1.60	1.57
ES	1.01	1.16	1.23	1.22	1.29	1.28
FR	1.21	1.34	1.36	1.38	1.51	1.50
HR			1.26	1.27	1.36	1.33
IT	1.23	1.36	1.54	1.53	1.60	1.56
CY	0.88	1.04	1.23	1.21	1.28	1.17
LV	0.96	1.09	1.13	1.15	1.27	1.24
LT	1.02	1.18	1.16	1.13	1.22	1.18
LU	1.03	1.16	1.18	1.16	1.22	1.20
HU	1.00	1.22	1.16	1.15	1.20	1.17
MT	1.12	1.19	1.36	1.31	1.33	1.36
NL	1.35	1.49	1.56	1.55	1.62	1.64
AT	1.04	1.19	1.20	1.18	1.26	1.23
PL	0.96	1.13	1.11	1.08	1.16	1.16
PT	1.23	1.37	1.43	1.46	1.54	1.49
RO	0.84	1.06	1.20	1.05	1.19	1.15
SI	1.05	1.20	1.29	1.27	1.33	1.27
SK	1.11	1.25	1.29	1.28	1.36	1.32
FI	1.28	1.43	1.47	1.46	1.52	1.51
SE	1.12	1.34	1.41	1.46	1.50	1.49
UK	1.12	1.36	1.54	1.34	1.42	1.41

* First semester 2019 (07/01/19 -24/06/19).

Sources: DG Energy, Member States, Weekly Oil Bulletin 2019
Methodology and Notes: [See Appendices](#)

2.13.1 Prices of Transport Fuels

CONSUMER PRICES OF PETROLEUM PRODUCTS EU-28 WEIGHTED AVERAGE * (€ per LITRE)



*First semester 2019 (07/01/19 -24/06/19).

All Taxes Included, weekly prices.

Incomplete EU-28 series for the period 2005-2013 due to later accession to the EU of Bulgaria, Croatia and Romania.

Sources: DG Energy, Member States, Weekly Oil Bulletin 2019

Methodology and Notes: [See Appendices](#)

2.13.2 Fuel Prices* – Domestic Consumers

GAS – BAND D2

20GJ < CONSUMPTION < 200GJ – 2ND SEMESTER**

€/GJ (GCV)	2009	2010	2015	2016	2017	2018
EU-28	14.62	15.86	19.77	17.65	17.60	18.61
BE	14.33	16.78	17.24	14.83	15.32	17.36
BG	9.67	11.98	10.86	8.65	10.42	12.15
CZ	13.11	14.35	16.21	15.65	15.73	15.80
DK	23.64	26.81	24.48	23.83	24.30	25.37
DE	16.35	15.86	18.93	17.83	16.93	16.88
EE	10.07	11.14	10.68	9.10	11.46	11.80
IE	15.29	14.63	20.11	18.83	18.04	21.14
EL			20.83	18.12		18.18
ES	14.88	15.00	26.57	23.82	24.03	24.29
FR	16.20	15.98	20.35	18.79	19.31	21.19
HR	9.10	10.54	12.76	10.28	10.16	9.99
IT	14.84	21.86	25.13	23.29	24.28	26.43
CY						
LV	10.52	11.28	13.47	11.29	10.91	12.50
LT	11.29	12.59	12.12	10.76	10.98	11.24
LU	12.82	13.13	13.40	11.62	11.06	11.91
HU	13.23	15.38	9.78	9.99	10.14	9.64
MT						
NL	18.73	19.99	22.30	22.45	22.65	23.91
AT	17.23	16.71	19.75	18.71	19.40	19.48
PL	12.78	14.04	13.84	12.26	12.27	12.50
PT	16.52	17.49	27.28	22.63	22.19	21.77
RO	7.45	7.73	9.45	8.98	8.55	9.83
SI	14.96	18.68	16.91	15.64	14.76	16.02
SK	13.21	12.39	13.74	12.37	12.36	12.76
FI						
SE	26.12	29.48	32.58	31.73	31.26	33.97
UK	11.84	11.72	18.56	13.93	13.32	14.38

* All Taxes and Levies Included.

** Prices from second semester each year.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.13.2 Fuel Prices* – Domestic Consumers**ELECTRICITY – BAND DC****2 500 kWh < CONSUMPTION < 5 000 kWh****2ND SEMESTER****

€/100 kWh	2009	2010	2015	2016	2017	2018
EU-28	16.38	17.31	21.02	20.38	20.42	21.13
BE	18.64	19.74	23.52	27.45	28.77	29.37
BG	8.18	8.30	9.57	9.38	9.83	10.05
CZ	15.33	15.49	14.08	14.21	14.88	15.86
DK	25.55	27.08	30.42	30.84	30.10	31.23
DE	22.94	24.38	29.46	29.77	30.48	30.00
EE	9.20	10.04	12.91	12.38	13.19	14.18
IE	18.55	18.75	24.54	23.38	23.55	25.39
EL	10.32	12.11	17.71	17.23	16.20	16.46
ES	16.84	18.51	23.70	22.84	21.77	24.77
FR	12.07	13.50	16.82	17.11	17.56	17.99
HR	11.64	11.53	13.12	13.31	12.36	13.21
IT	19.97	19.20	24.28	22.61	20.80	21.61
CY	16.42	20.21	18.38	16.21	18.26	21.83
LV	10.54	10.48	16.50	16.24	15.82	15.11
LT	9.26	12.16	12.43	11.71	11.07	10.97
LU	18.82	17.47	17.67	16.98	16.18	16.91
HU	16.62	15.74	11.45	11.25	11.34	11.18
MT	15.13	16.53	12.69	12.74	12.98	13.06
NL	19.06	17.89	18.46	15.92	15.56	17.07
AT	19.09	19.30	19.83	20.10	19.78	20.12
PL	12.91	13.82	14.18	13.52	14.51	13.96
PT	15.94	16.66	22.85	22.98	22.30	22.93
RO	9.79	10.52	13.19	12.33	12.89	13.17
SI	13.41	14.26	16.31	16.29	16.13	16.38
SK	15.60	16.37	15.17	15.37	14.42	14.62
FI	12.89	13.70	15.30	15.45	15.99	16.98
SE	16.46	19.58	18.74	19.62	19.93	19.90
UK	14.07	14.49	21.83	18.31	18.56	20.24

* All Taxes and Levies Included.

** Prices from second semester each year.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.13.3 Fuel Prices* – Industrial Consumers

GAS – BAND I3

10000 GJ < CONSUMPTION < 100000 GJ

2ND SEMESTER**

€/GJ (GCV)	2009	2010	2015	2016	2017	2018
EU-28	8.31	9.06	9.56	8.31	7.84	8.69
BE	8.50	8.20	7.94	7.15	6.36	6.99
BG	5.96	8.41	7.49	5.34	7.02	8.03
CZ	7.56	10.07	8.17	7.16	6.82	7.41
DK	6.85	10.72	10.19	9.01	9.30	10.67
DE	9.61	11.09	10.47	9.21	8.51	8.76
EE	6.39	7.85	7.54	6.50	7.69	9.04
IE	7.31	8.80	10.28	9.43	8.96	10.78
EL			10.00	7.85	7.64	9.32
ES	7.53	8.08	8.81	7.22	7.40	8.29
FR	8.80	9.69	10.19	10.51	9.59	10.85
HR	7.43	10.95	9.74	7.63	6.87	7.87
IT	7.83	8.34	8.87	7.58	7.02	8.13
CY						
LV	7.69	8.84	8.17	6.89	7.92	9.00
LT	7.55	9.40	6.05	6.81	9.19	10.74
LU	10.03	11.72	10.33	9.17	8.71	9.22
HU	10.06	9.93	9.38	7.63	6.84	7.91
MT						
NL	9.72	8.62	8.91	7.91	7.48	8.25
AT	9.07	9.78	10.50	9.48	9.22	9.44
PL	8.36	9.02	9.39	7.26	7.66	8.66
PT	7.22	9.28	10.52	7.68	7.52	8.21
RO	5.93	6.11	8.05	7.27	7.10	7.81
SI	9.61	11.81	10.57	9.07	8.88	9.53
SK	8.91	10.22	9.63	8.67	8.07	8.56
FI	8.00	9.13	11.73	12.21	14.79	16.28
SE	12.47	13.43	11.61	10.67	12.95	13.35
UK	6.06	6.33	9.75	6.91	6.22	7.70

* Excluding VAT and other recoverable Taxes and Levies.

** Prices from second semester each year.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

2.13.3 Fuel Prices* – Industrial Consumers**ELECTRICITY – BAND IC****500 MWh < CONSUMPTION < 2000 MWh****2ND SEMESTER****

€/100 kWh	2009	2010	2015	2016	2017	2018
EU-28	10.11	10.38	11.81	11.29	11.18	11.49
BE	10.79	10.54	10.81	11.58	10.87	11.42
BG	6.39	6.64	7.82	7.88	7.90	8.46
CZ	11.22	10.81	7.83	7.32	7.10	7.21
DK	9.20	9.61	8.99	9.36	8.46	7.88
DE	11.34	11.90	14.93	14.92	15.14	15.16
EE	6.45	7.27	9.58	8.96	8.46	9.24
IE	11.75	11.31	13.57	12.45	12.41	13.49
EL	9.36	10.26	11.50	11.15	11.90	10.59
ES	11.20	10.93	11.33	10.29	10.32	10.98
FR	6.48	7.16	9.51	9.03	9.20	8.89
HR	9.04	9.04	9.28	8.77	9.20	10.13
IT	13.70	14.43	15.97	15.56	14.49	14.34
CY	14.94	17.30	14.12	12.95	13.92	18.11
LV	8.93	9.07	11.83	12.01	11.59	10.47
LT	7.90	10.46	9.97	8.82	8.25	8.99
LU	11.58	10.24	8.93	8.58	8.03	8.46
HU	12.97	10.53	8.70	7.96	7.79	8.22
MT	12.91	18.10	14.05	13.99	13.64	13.56
NL	10.61	9.70	8.46	8.05	7.64	8.09
AT	11.62	11.28	10.47	10.04	9.97	10.11
PL	9.33	9.87	8.61	8.15	8.62	8.84
PT	9.44	9.20	11.54	11.32	11.47	11.70
RO	8.28	8.08	8.02	7.71	7.86	8.66
SI	9.62	10.05	8.70	8.32	7.84	8.66
SK	14.03	11.98	11.22	11.12	11.13	12.01
FI	6.83	6.83	7.06	6.94	6.76	7.07
SE	6.89	8.41	5.90	6.56	6.47	7.27
UK	10.12	10.00	15.20	12.78	12.46	14.23

* Excluding VAT and other recoverable Taxes and Levies.

** Prices from second semester each year.

Source: Eurostat, May 2019

Methodology and Notes: [See Appendices](#)

Socio-Economic Indicators in the EU



#3



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3.1 Classification of the Energy Sector*

3.1.1 Comparative Table

EUROSTAT (NACE) AND UN (ISIC) CLASSIFICATIONS

NACE rev 2	ISIC 4
B05: Mining of Coal and Lignite	
05.10: Mining of Hard Coal	05.10
05.20: Mining of Lignite	05.20
B06: Extraction of Crude Petroleum and Natural Gas	
06.10: Extraction of Crude Petroleum	06.10
06.20: Extraction of Natural Gas	06.20
B07: Mining of Metal Ores	
07.21: Mining of Uranium and Thorium Ores	07.21
B08: Other Mining and Quarrying	
08.92: Extraction of Peat	08.92
B09: Mining Support Service Activities	
09.10: Support Activities for Petroleum and Natural Gas Extraction	09.10
C19: Manufacture of Coke and Refined Petroleum Products	
19.10: Manufacture of Coke Oven Products	19.10
19.20: Manufacture of Refined Petroleum Products	19.20
D35: Electricity, Gas, Steam and Air Conditioning Supply	
35.11: Production of Electricity	35.10
Power Generation, Hydroelectric	
Power Generation, Fossil Fuel	
Power Generation, Nuclear	
Electric Power Generation, Solar	
Electric Power Generation, Wind	
Electric Power Generation, Geothermal	
Electric Power Generation, Biomass	
Electric Power Generation, Tidal	
35.12: Transmission of Electricity	
35.13: Distribution of Electricity	
35.14: Trade of Electricity	
35.21: Manufacture of Gas	35.20
35.22: Distribution of Gaseous Fuels through Mains	
35.23: Trade of Gas through Mains	
35.30: Steam and Air Conditioning Supply	35.30

* Broad Definition, The Narrow Definition only Includes Division D35.

Sources: Eurostat, UN, July 2019

Methodology and Notes: [See Appendices](#)

3.2 Enterprises in the Energy Sector

3.2.1 Number of Enterprises in the Energy Sector

ENTERPRISES SURVEY – EU-28

	2015	2016	2017
B05: Mining of Coal and Lignite	260	242	<i>256</i>
B06: Extraction of Crude Petroleum and Natural Gas	463	417	<i>413</i>
B07.21: Mining of Uranium and Thorium Ores		<i>4</i>	<i>4</i>
B08.92: Extraction of Peat	1 000	947	<i>893</i>
B09.1: Support Activities for Petroleum and Natural Gas Extraction		1 151	1 150
C19: Manufacture of Coke and Refined Petroleum Products	1 050	1 075	1 065
D35: Electricity, Gas, Steam and Air Conditioning Supply	101 172	110 065	106 094
D35.1: Electricity Power Generation, Transmission and Distribution	90 000	100 000	100 000
35.11: Production of Electricity	86 842	95 561	
35.12: Transmission of Electricity			
35.13: Distribution of Electricity	2 235	2 188	
35.14: Trade of Electricity	4 450	4 627	
D35.2: Manufacture of Gas; Distribution of Gaseous Fuels through Mains	2 000	2 000	2 000
35.21: Manufacture of Gas	400		
35.22: Distribution of Gaseous Fuels through Mains	715	712	
35.23: Trade of Gas through Mains	874	874	
D35.3: Steam and Air Conditioning Supply	5 379	5 390	5 135
35.30: Steam & Air Conditioning Supply	5 379	5 390	5 135
Broad Sector – no. of Enterprises Reported	103 945	113 901	<i>109 875</i>

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019
Methodology and Notes: [See Appendices](#)

3.2.1 Number of Enterprises in the Energy Sector

ENTERPRISES SURVEY

	Mining of Coal and Lignite (B05)				Extraction of Crude Petroleum and Natural Gas (B06)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	228	260	242	256	322	463	417	413
BE		0	0	0	0	0	0	0
BG	23	22	22	20	7	4	4	4
CZ	12	12	12	10	5	5	5	5
DK	0	0	0	0	9	12	11	19
DE	6	7	7	7	4	4	4	4
EE	0	0	0	0	1	2	2	2
IE								
EL		12		14				3
ES	48	81	77		4	19	22	19
FR	6	1	1	0	32			42
HR	1	0	0	0	4	4	5	3
IT		0	0		3	12	8	
CY	0	0	0	0	0	0	0	0
LV	0	0	0	0	1	2	2	2
LT	0	0	0	0	4	4	5	5
LU	0	0	0	0	0	0	0	0
HU	9	14	11	10	13	8	13	15
MT	0	0	0	0	0	0	0	0
NL	0	0	0	0	48	41	42	41
AT	0	0	0	0	2	2	2	2
PL	48	62	59	57	54	62	57	52
PT	0	0	0	0	0	0	0	0
RO	35	27	23	20	21	38	35	30
SI	2	1	1	1	1	1	3	3
SK					0			
FI	0	0	0	0	0	0	0	0
SE		0	0	0		0	0	2
UK	23				98	140	138	146

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.1 Number of Enterprises in the Energy Sector

ENTERPRISES SURVEY

	Extraction of Peat (B08.92)				Support Activities for Petroleum and Natural Gas Extraction (B09.1)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	<i>1 010</i>	1 000	947	<i>893</i>	<i>810</i>		1 100	1 150
BE	0	0	0					
BG	10	4	3		6	14	12	10
CZ		17	13		7	6	6	6
DK	4	2	2		35	55	57	58
DE	74	91	97	72				
EE	39	41	37	34	0	0	1	0
IE					34	35	35	37
EL	0		0			9	9	9
ES	6	7	7	7		46	43	
FR	23	39	12	9	36	54	45	38
HR	0	0	0	0	7	4	4	5
IT	12	4	4			52	49	
CY	0	0	0		0			
LV	49	91	95	84	0	2	2	1
LT	24	26	23	24	0	0	0	0
LU	0	0	0		0	0	0	0
HU	15	13	14	15	40	37	34	36
MT	0	0	0	0				
NL	7	6	5	5	116	251	256	280
AT	7	5	5	5	8	7	7	7
PL	45	32	31		90	104	109	128
PT	1	1	1	1	1	4	6	8
RO	8	5	4		91	106	109	93
SI	0	0	0	0	3	2	2	3
SK		42						
FI	463	450	417		0	0	0	0
SE	82	70	69		45	63	63	61
UK	25	19	18		270	251	237	214

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.1 Number of Enterprises in the Energy Sector

ENTERPRISES SURVEY

Mio EUR	Manufacture of Coke and Refined Petroleum Products (C19)				Electricity, Gas, Steam and Air Conditioning Supply (D35)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	<i>1 189</i>	1 050	1 075	1 065	<i>52 106</i>	101 172	110 065	106 094
BE	22		11	12	301	851	727	816
BG	17	11	10	9	1 091	1 745	1 704	1 677
CZ	28	25	29	28	3 267	10 996	11 026	11 296
DK	5	3	5	5	1 681	1 745	1 600	1 604
DE	95	54	73	84	1 722	2 059	1 974	2 028
EE	5	5	6	4	223	230	235	236
IE					403	515	551	537
EL	7	40	41	43	10	7 036	6 920	6 975
ES	18	14	18	17	13 098	14 044	14 077	14 787
FR	52	43	37	25	14 337	27 062	29 687	26 333
HR	17	14	15	13	234	573	670	681
IT	328	281	291		4 028	10 775	11 523	
CY					4	58	61	70
LV	13	16	11	14	381	533	567	574
LT	6	9	5	7	253	1 488	1 441	1 439
LU	0	0	0	0	67	80	83	73
HU	9	8	8	9	611	610	678	780
MT						3	14	11
NL	42	45	29	31	678	1 130	1 201	1 256
AT	4	5	5	5	1 878	2 390	2 430	2 475
PL	165	176	203	195	2 047	3 192	3 670	4 313
PT	10	18	15	17	745	1 209	3 977	4 062
RO	54	44	37	44	885	1 460	1 350	1 206
SI	3	4	2	4	648	1 530	1 503	1 483
SK					294	451	551	547
FI	15	17	16	14	736	907	934	936
SE	45	34	37	38	1 828	4 221	5 910	3 364
UK	170	132	120	115	651	4 279	5 001	5 372

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.2 Turnover in the Energy Sector

ENTERPRISES SURVEY – EU-28

Mio EUR	2015	2016	2017
B05: Mining of Coal and Lignite	11 102.3	9 594.6	11 078.0
B06: Extraction of Crude Petroleum and Natural Gas	118 176.1	90 689.2	97 021.3
B07.21: Mining of Uranium and Thorium Ores			
B08.92: Extraction of Peat	1 698.4	1 679.3	<i>1 600.0</i>
B09.1: Support Activities for Petroleum and Natural Gas Extraction	20 196.9	13 767.0	11 489.4
C19: Manufacture of Coke and Refined Petroleum Products	422 998.2	416 144.2	443 774.5
D35: Electricity, Gas, Steam and Air Conditioning Supply	1 460 000.0	1 340 000.0	1 390 000.0
D35.1: Electricity Power Generation, Transmission and Distribution	1 203 380.0	1 102 084.5	1 128 013.4
35.11: Production of Electricity	321 171.0	295 567.0	
35.12: Transmission of Electricity	73 471.4	68 563.9	
35.13: Distribution of Electricity	244 506.9	236 071.4	
35.14: Trade of Electricity	564 230.8	501 882.2	
D35.2: Manufacture of Gas; Distribution of Gaseous Fuels through Mains	220 145.5	200 806.8	
35.21: Manufacture of Gas	6 230.8	10 579.4	
35.22: Distribution of Gaseous Fuels through Mains	50 008.1	46 267.3	
35.23: Trade of Gas through Mains	163 893.1	143 956.9	
D35.3: Steam and Air Conditioning Supply		<i>36 000.0</i>	34 325.1
35.30: Steam and Air Conditioning Supply		<i>36 000.0</i>	34 325.1
Broad Sector – Turnover Reported	2 034 171.9	1 871 874.3	<i>1 954 963.0</i>

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.2 Turnover in the Energy Sector

ENTERPRISES SURVEY

Mio EUR	Mining of Coal and Lignite (B05)				Extraction of Crude Petroleum and Natural Gas (B06)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	15 960.0	11 102.3	9 594.6	11 078.0	145 432.0	118 176.1	90 689.2	97 021.3
BE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
BG	331.1	348.8	301.0	345.0	25.5	30.4	30.4	
CZ	2 811.7	1 578.0	1 391.8	1 559.7				
DK	0.0	0.0	0.0	0.0	7 049.9	3 896.0	3 010.9	3 692.5
DE	3 921.4	2 161.5	1 968.0	2 113.2	2 762.1	2 978.4	2 479.0	2 599.6
EE	0.0	0.0	0.0	0.0				
IE								
EL		92.7		28.8				28.6
ES	595.6	235.6	187.7		79.7	126.2	225.6	621.4
FR		0.3	0.1	0.0	728.4			
HR		0.0	0.0	0.0				52.0
IT		0.0	0.0	0.0	46 241.0	46 394.8	39 719.4	39 719.4
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0				
LT	0.0	0.0	0.0	0.0	68.5	38.6	29.3	29.2
LU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HU	7.0	8.6	4.3	5.1	81.1	33.2	36.5	58.6
MT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NL	0.0	0.0	0.0	0.0	34 861.9	26 734.8	17 614.2	17 170.9
AT	0.0	0.0	0.0	0.0				
PL	5 974.2	5 754.9		6 204.5			124.0	
PT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RO	357.9	20.5	18.1	15.0	4 191.4	4 246.2	3 657.7	4 340.3
SI								
SK					0.0			
FI	0.0	0.0	0.0		0.0	0.0	0.0	
SE				0.0		0.0	0.0	
UK	1 112.4				44 979.9	28 916.7	21 299.1	25 712.5

* Provisional data.

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.2 Turnover in the Energy Sector

ENTERPRISES SURVEY

Mio EUR	Extraction of Peat (B08.92)				Support Activities for Petroleum and Natural Gas Extraction (B09.1)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	<i>1 700.0</i>	1 698.4	1 679.3	<i>1 600.0</i>	<i>14 500.0</i>	20 196.9	13 767.0	11 489.4
BE	0.0	0.0	0.0					
BG	0.6					0.2		
CZ		6.7	6.8		46.3			
DK					633.0			
DE	417.5	399.6	334.5	312.0				
EE	77.3	83.5	85.8	92.5	0.0	0.0		0.0
IE					73.6	10.0	12.8	4.2
EL	0.0		0.0			28.9	23.2	20.2
ES	10.5	9.9	10.0	11.0		98.6	57.8	
FR	74.2	51.9	44.1	38.9	301.7	266.1	240.3	289.8
HR	0.0	0.0	0.0	0.0				147.5
IT	11.8	4.7	5.1			2 238.1	945.4	920.4
CY	0.0	0.0	0.0		0.0			
LV	101.4	150.7	167.2		0.0			
LT	39.9	61.1			0.0	0.0	0.0	0.0
LU	0.0	0.0	0.0		0.0	0.0	0.0	0.0
HU	3.2	5.3	5.0	5.5	94.8	133.4	100.9	140.7
MT	0.0	0.0	0.0	0.0				
NL								
AT					13.6			
PL			50.5		377.7	325.5	190.7	206.2
PT								
RO	0.3	0.7	0.8		874.0	637.5	425.5	379.7
SI	0.0	0.0	0.0	0.0				
SK		12.3						
FI	554.4	472.0	214.2		0.0	0.0	0.0	
SE	30.7	29.3	25.9			83.8		135.0
UK		101.6	108.8		8 374.6	9 776.7	6 545.2	5 839.5

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.2 Turnover in the Energy Sector

ENTERPRISES SURVEY

Mio EUR	Manufacture of Coke and Refined Petroleum Products (C19)				Electricity, Gas, Steam and Air Conditioning Supply (D35)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	522 200.0	422 998.2	416 144.2	443 774.5	1 225 837.0	1 460 000.0	1 340 000.0	1 390 000.0
BE	48 074.1		35 665.9	42 643.5	43 772.3	36 969.2	31 311.1	31 244.6
BG					7 279.0	8 357.4	7 751.6	8 233.4
CZ	4 558.3				37 371.0	40 927.3	36 571.0	41 956.0
DK					20 377.5	21 487.0	21 750.9	24 890.4
DE	120 831.6	107 407.8	97 982.7	95 949.5	426 881.7	537 677.0	491 909.7	536 534.9
EE	178.0	253.8		193.7	1 833.5	1 764.7	1 772.2	2 020.9
IE					7 186.3	8 012.8	8 212.8	8 660.1
EL	15 339.6	14 818.1	11 320.4	13 069.3	5 942.7	19 683.8	18 328.2	18 574.8
ES	34 773.4	36 051.4	30 810.1	38 156.4	59 705.8	93 787.0	83 242.0	88 248.3
FR	61 248.1	39 383.1	33 732.1		109 648.6	110 123.2	109 833.4	126 595.0
HR					3 684.4	4 358.9	4 270.5	5 031.4
IT	46 037.6	35 595.7	31 269.9	34 297.5	160 950.4	195 056.2	168 758.3	169 154.3
CY					782.3	630.0	579.1	683.4
LV	0.6	7.5			2 310.5	2 081.6	2 011.2	2 070.8
LT					3 279.1	2 375.8	2 305.3	2 280.2
LU	0.0	0.0	0.0	0.0	1 951.3	4 646.6	3 961.0	3 769.9
HU	8 297.8	6 529.2	5 860.7	6 854.6	22 059.2	16 726.6	14 392.5	15 608.2
MT								
NL	37 272.3	34 361.9	26 441.9	30 283.7	41 196.8	31 408.8	28 410.2	27 085.5
AT		7 225.8	6 400.0	7 460.7	29 297.1	35 906.3	33 871.1	40 334.9
PL	27 575.0	27 045.0	24 091.8	30 333.4	42 566.6	47 825.8	44 374.7	46 699.2
PT	6 767.0	7 130.6	5 736.0	7 168.5	17 842.1	21 119.1	20 571.5	21 317.9
RO	3 272.0	3 374.3	3 100.0	3 672.2	12 077.5	13 174.7	12 752.0	12 412.2
SI					4 034.3	6 075.6	5 583.3	7 305.1
SK					11 351.0	11 283.9	11 486.6	12 683.3
FI					14 454.6	12 422.2	12 902.4	12 860.8
SE		11 224.9			28 485.9	26 219.6	25 319.1	25 358.2
UK	44 763.5	40 197.8	68 984.1	72 907.9	109 515.1	148 344.2	136 043.3	130 290.1

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019
Methodology and Notes: [See Appendices](#)

3.2.3 Number of Persons Declared as Employed in the Energy Sector

ENTERPRISES SURVEY – EU-28

	2015	2016	2017
B05: Mining of Coal and Lignite	156 135	150 229	129 748
B06: Extraction of Crude Petroleum and Natural Gas	77 025	65 834	60 623
B07.21: Mining of Uranium and Thorium Ores			
B08.92: Extraction of Peat	11 114	9 947	<i>9 650</i>
B09.1: Support Activities for Petroleum and Natural Gas Extraction	56 816	47 988	41 384
C19: Manufacture of Coke and Refined Petroleum Products	124 733	129 808	126 499
D35: Electricity, Gas, Steam and Air Conditioning Supply	1 231 808	1 230 000	1 242 274
D35.1: Electricity Power Generation, Transmission and Distribution	941 130	947 202	953 336
35.11: Production of Electricity	450 642	450 003	
35.12: Transmission of Electricity	57 236	65 320	
35.13: Distribution of Electricity	337 511	331 383	
35.14: Trade of Electricity	95 743	100 496	
D35.2: Manufacture of Gas; Distribution of Gaseous Fuels through Mains	146 357		150 000
35.21: Manufacture of Gas	7 801		
35.22: Distribution of Gaseous Fuels through Mains	70 172	67 600	
35.23: Trade of Gas through Mains	68 370	69 670	
D35.3: Steam and Air Conditioning Supply	144 321	141 767	140 000
35.30: Steam and Air Conditioning Supply	144 321	141 767	
Broad Sector – Employment Reported	1 657 631	1 633 806	1 610 178

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.3 Number of Persons Declared as Employed in the Energy Sector

ENTERPRISES SURVEY

	Mining of Coal and Lignite (B05)				Extraction of Crude Petroleum and Natural Gas (B06)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	236 000	156 135	150 229	129 748	73 000	77 025	65 834	60 623
BE		0	0	0	0	0	0	0
BG	13 269	11 995	11 332	10 300				
CZ	24 265	18 716	17 299	15 145				
DK	0	0	0	0	566	1 051	699	1 049
DE	33 672	17 468	16 729	13 011	3 754	3 927	3 679	3 526
EE	0	0	0	0				
IE								
EL		316		194				61
ES	6 105	1 684	1 690		242	368	908	995
FR	28	2	1	0	814			
HR		0	0	0		7 852	63	63
IT		0	0	0	12 116	12 681	12 899	12 899
CY	0	0	0	0	0	0	0	0
LV	0	0	0	0	1	20	15	12
LT	0	0	0	0	252	212	154	149
LU	0	0	0	0	0	0	0	0
HU	111	124	97	76	75	68	134	125
MT	0	0	0	0	0	0	0	0
NL	0	0	0	0	3 173	3 913	3 764	3 252
AT	0	0	0	0				
PL	124 925	96 076		82 036			653	
PT	0	0	0	0	0	0	0	0
RO	18 011	1 843	1 246	953	30 546	23 486	20 823	19 752
SI								
SK					0			
FI	0	0	0		0	0	0	
SE				0		0	0	
UK	6 023	2 844	1 420		15 300	17 127	16 953	13 540

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.3 Number of Persons Declared as Employed in the Energy Sector

ENTERPRISES SURVEY

	Extraction of Peat (B08.92)				Support Activities for Petroleum and Natural Gas Extraction (B09.1)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	<i>11 144</i>	11 114	9 947	<i>9 650</i>	<i>47 730</i>	56 816	47 988	41 384
BE	0	0	0					
BG	52	55			14	25	24	
CZ		71	48		421			
DK						1 587		
DE	2 003	1 762	1 585	1 599				
EE	1 153	963	859	781	0	0		0
IE					35	29	28	32
EL	0		0			276	282	280
ES	48	36	39	38		191	176	
FR	248	130	123	130	110	386	411	524
HR	0	0	0	0		2 273	2 005	1 842
IT	12	21	23			2 188	1 876	1 824
CY	0	0	0		0			
LV	1 977	2 158	2 157	2 061	0	2	2	1
LT	1 126	1 149			0	0	0	0
LU	0	0	0		0	0	0	0
HU	116	97	94	89	1 089	1 062	877	848
MT	0	0	0	0				
NL	22	104	107	223				
AT					27			
PL			523		4 082	4 638	3 345	2 780
PT								
RO	26	25	20		6 267	6 771	5 202	4 776
SI	0	0	0	0				
SK		114						
FI	1 845	1 977	1 436		0	0	0	
SE	306	165	162			75		62
UK	355		101		22 879			

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.2.3 Number of Persons Declared as Employed in the Energy Sector

ENTERPRISES SURVEY

	Manufacture of Coke and Refined Petroleum Products (C19)				Electricity, Gas, Steam and Air Conditioning Supply (D35)			
	2010	2015	2016	2017	2010	2015	2016	2017
EU-28	152 705	124 733	129 808	126 499	1 234 450	1 231 808	1 230 000	1 242 274
BE	4 091		4 650	4 559	19 193	20 293	18 394	18 166
BG		2 078	1 989	2 449	34 191	31 751	32 137	31 845
CZ	2 747				31 480	34 536	34 799	37 095
DK					11 235	13 815	11 373	11 537
DE	19 452	22 302	22 251	21 715	221 264	224 669	227 843	234 461
EE	1 406	1 679		1 297	5 681	4 949	4 930	5 121
IE					9 117	8 846	9 206	9 224
EL	4 333	3 588	3 405	3 608	22 834	25 764	30 677	32 581
ES	8 954	8 453	8 918	8 755	48 687	39 764	41 022	41 844
FR	15 095				170 194	190 364	189 412	239 570
HR		262	5 018	4 616	16 619	14 893	15 076	15 218
IT	16 493	11 065	11 006	10 998	86 414	89 109	88 287	88 000
CY					2 470	2 130	2 102	2 084
LV	12	65	56	58	10 907	11 344	11 320	10 981
LT					15 876	13 522	12 692	12 185
LU	0	0	0	0	1 196	1 529	1 611	1 672
HU	6 329	5 691	5 648	5 711	25 715	24 601	24 712	24 991
MT						10		
NL	5 908	5 299	5 416	5 577	22 882	27 969	27 721	27 216
AT		1 180	1 217	1 268	28 685	29 168	29 340	28 847
PL	13 623	13 495	13 587	13 886	162 409	128 183	125 805	125 569
PT	1 971	1 830	1 790	1 778	9 496	9 589	12 343	12 709
RO	3 960	2 560	2 382	2 091	81 111	72 333	70 559	66 385
SI		26			8 207	8 958	8 861	8 797
SK					20 034	17 873	17 525	17 364
FI					13 463	13 368	13 847	13 921
SE		2 879			31 115	31 379	31 788	32 118
UK					123 965	141 099	134 716	147 788

Italics: DG Energy Estimates.

Sources: Eurostat, Structural Business Statistics Survey (SBS), August 2019

Methodology and Notes: [See Appendices](#)

3.3 Economy

3.3.1 GDP at Current Market Prices

Mrd EUR*	2005	2010	2015	2016	2017	2018
EU-28	11 605.4	12 841.5	14 828.7	14 958.3	15 382.3	15 872.3
BE	311.5	365.1	411.0	424.7	439.1	450.6
BG	23.9	38.2	45.3	48.1	51.7	54.9
CZ	109.6	156.7	168.5	176.4	191.7	207.4
DK	212.8	243.2	273.0	282.1	292.8	297.3
DE	2 300.9	2 580.1	3 048.9	3 159.8	3 277.3	3 386.0
EE	11.3	14.7	20.7	21.7	23.6	25.7
IE	170.2	167.7	262.5	273.2	294.1	322.5
EL	199.2	226.0	177.3	176.5	180.2	184.9
ES	930.6	1 080.9	1 081.2	1 118.7	1 166.3	1 206.9
FR	1 765.9	1 995.3	2 198.4	2 228.6	2 291.7	2 349.0
HR	36.5	45.2	44.6	46.6	49.0	51.5
IT	1 489.7	1 604.5	1 652.1	1 689.8	1 724.2	1 753.9
CY	15.0	19.3	17.7	18.5	19.6	20.8
LV	13.7	17.8	24.3	25.0	27.0	29.5
LT	21.0	28.0	37.4	38.8	42.2	45.1
LU	30.0	40.2	51.6	53.3	55.3	58.1
HU	90.9	98.8	110.9	113.9	124.0	131.9
MT	5.1	6.6	9.6	10.3	11.3	12.2
NL	550.9	639.2	690.0	708.3	737.0	772.7
AT	254.1	295.9	344.3	356.2	369.9	386.1
PL	246.2	361.8	430.3	426.5	467.2	494.7
PT	158.7	179.9	179.8	186.5	194.6	201.5
RO	80.2	125.4	160.3	170.4	187.5	203.1
SI	29.2	36.3	38.9	40.4	43.0	45.9
SK	39.3	67.6	79.1	81.2	84.9	90.5
FI	164.4	187.1	210.0	216.1	223.9	232.4
SE	313.6	369.5	449.2	463.1	475.2	467.0
UK	2 030.9	1 850.5	2 611.9	2 403.4	2 338.0	2 390.2

* Units in Milliard – Long Scale = €1 000 Million.

Source: DG Economic and Financial Affairs, AMECO, July 2019

Methodology and Notes: [See Appendices](#)

3.3.2 GDP per Capita at Current Market Prices

Thousand EUR/cap*	2005	2010	2015	2016	2017	2018
EU-28	23.5	25.5	29.2	29.3	30.1	31.0
BE	29.8	33.7	36.6	37.5	38.7	39.5
BG	3.1	5.2	6.3	6.7	7.3	7.8
CZ	10.7	15.0	16.0	16.7	18.1	19.5
DK	39.3	43.9	48.2	49.4	50.9	51.4
DE	27.9	31.5	37.5	38.5	39.7	40.9
EE	8.3	11.0	15.7	16.5	17.9	19.4
IE	41.4	36.9	56.1	57.8	61.5	66.8
EL	18.2	20.3	16.3	16.4	16.7	17.2
ES	21.5	23.3	23.3	24.1	25.1	25.9
FR	28.1	30.9	33.1	33.4	34.3	35.1
HR	8.5	10.5	10.6	11.1	11.8	12.5
IT	25.7	27.1	27.2	27.9	28.5	29.0
CY	20.5	23.6	21.0	21.8	22.9	24.0
LV	6.1	8.4	12.2	12.7	13.9	15.3
LT	6.3	8.9	12.8	13.4	14.8	16.1
LU	65.1	80.0	91.6	92.5	93.6	96.6
HU	9.0	9.9	11.3	11.6	12.7	13.5
MT	12.8	15.9	21.9	23.0	24.5	25.6
NL	33.8	38.6	40.8	41.7	43.1	45.0
AT	31.0	35.4	40.1	40.9	42.2	43.8
PL	6.4	9.5	11.3	11.2	12.3	13.0
PT	15.1	17.0	17.3	18.0	18.9	19.6
RO	3.8	6.2	8.1	8.6	9.5	10.4
SI	14.6	17.7	18.8	19.6	20.8	22.2
SK	7.3	12.5	14.6	15.0	15.6	16.6
FI	31.4	35.0	38.4	39.4	40.7	42.2
SE	34.8	39.6	46.1	47.0	47.5	46.1
UK	33.7	29.6	40.3	36.8	35.5	36.1

* €1 000¹ per Capita.

Sources: DG Economic and Financial Affairs, AMECO, July 2019;
Eurostat, Demography and Migration, July 2019

Methodology and Notes: [See Appendices](#)

3.3.3 GDP at 2010 Market Prices

Mrd EUR*	2005	2010	2015	2016	2017	2018
EU-28	12270.9	12841.5	13593.3	13870.6	14211.2	14491.7
BE	340.2	365.1	384.5	390.2	396.8	402.5
BG	32.2	38.2	41.3	42.9	44.5	46.1
CZ	138.9	156.7	170.3	174.5	182.1	187.6
DK	240.6	243.2	259.3	265.5	271.5	274.8
DE	2426.5	2580.1	2807.6	2870.6	2932.5	2974.3
EE	15.0	14.7	17.7	18.3	19.2	19.9
IE	163.8	167.7	240.4	252.4	270.6	291.8
EL	229.8	226.0	184.8	184.4	187.2	191.0
ES	1025.4	1080.9	1072.9	1106.9	1139.9	1168.8
FR	1915.4	1995.3	2100.0	2124.6	2170.5	2203.5
HR	43.9	45.2	44.8	46.3	47.7	49.0
IT	1629.9	1604.5	1557.2	1574.6	1599.8	1613.9
CY	17.0	19.3	17.8	18.7	19.5	20.2
LV	18.2	17.8	21.2	21.6	22.6	23.7
LT	26.4	28.0	33.7	34.5	36.0	37.2
LU	35.6	40.2	46.1	47.2	48.0	49.5
HU	99.9	98.8	108.9	111.4	116.0	121.7
MT	6.0	6.6	8.6	9.1	9.7	10.2
NL	596.9	639.2	663.5	678.0	697.5	715.2
AT	277.3	295.9	312.3	318.6	326.7	335.7
PL	286.7	361.8	420.0	432.8	453.6	475.5
PT	174.5	179.9	172.2	175.5	180.4	184.2
RO	109.4	125.4	145.2	152.2	162.8	168.6
SI	33.3	36.3	37.0	38.1	40.0	41.8
SK	53.6	67.6	76.7	79.1	81.7	84.9
FI	179.6	187.1	187.5	192.7	197.8	203.5
SE	341.5	369.5	410.4	421.4	430.3	440.4
UK	1813.1	1850.5	2051.7	2088.4	2126.5	2156.4

* Units in Milliard – Long Scale = €1 000 Million.

Sources: DG Economic and Financial Affairs, AMECO, July 2019;
Eurostat, Demography and Migration, July 2019

Methodology and Notes: [See Appendices](#)

3.3.4 GDP per Capita at 2010 Market Prices

Thousand EUR/cap*	2005	2010	2015	2016	2017	2018
EU-28	24.8	25.5	26.7	27.2	27.8	28.3
BE	32.6	33.7	34.2	34.5	35.0	35.3
BG	4.2	5.2	5.7	6.0	6.3	6.5
CZ	13.6	15.0	16.2	16.5	17.2	17.7
DK	44.5	43.9	45.8	46.5	47.2	47.5
DE	29.4	31.5	34.6	34.9	35.5	35.9
EE	11.1	11.0	13.4	13.9	14.6	15.1
IE	39.8	36.9	51.4	53.4	56.6	60.4
EL	20.9	20.3	17.0	17.1	17.4	17.8
ES	23.7	23.3	23.1	23.8	24.5	25.0
FR	30.5	30.9	31.6	31.9	32.5	32.9
HR	10.2	10.5	10.6	11.1	11.5	11.9
IT	28.2	27.1	25.6	26.0	26.4	26.7
CY	23.2	23.6	21.1	22.0	22.8	23.4
LV	8.1	8.4	10.6	11.0	11.6	12.2
LT	7.9	8.9	11.5	12.0	12.6	13.2
LU	77.2	80.0	81.9	82.0	81.2	82.2
HU	9.9	9.9	11.0	11.3	11.8	12.4
MT	14.8	15.9	19.6	20.2	21.1	21.5
NL	36.6	38.6	39.3	39.9	40.8	41.6
AT	33.8	35.4	36.4	36.6	37.2	38.0
PL	7.5	9.5	11.0	11.4	11.9	12.5
PT	16.6	17.0	16.6	17.0	17.5	17.9
RO	5.1	6.2	7.3	7.7	8.3	8.6
SI	16.7	17.7	17.9	18.5	19.4	20.2
SK	10.0	12.5	14.2	14.6	15.0	15.6
FI	34.3	35.0	34.3	35.1	35.9	36.9
SE	37.9	39.6	42.1	42.8	43.0	43.5
UK	30.1	29.6	31.6	31.9	32.3	32.5

* €1 000' 2010 per Capita.

Sources: DG Economic and Financial Affairs, AMECO, July 2019;
Eurostat, Demography and Migration, July 2019

Methodology and Notes: [See Appendices](#)

3.4 Demography

3.4.1 Population

ON 1ST JANUARY

Thousand Inhabitants	2005	2010	2015	2016	2017	2018
EU-28	494 598.3	503 170.6	508 520.2	510 181.9	511 373.3	512 379.2
BE	10 445.9	10 839.9	11 237.3	11 311.1	11 351.7	11 398.6
BG	7 688.6	7 421.8	7 202.2	7 153.8	7 101.9	7 050.0
CZ	10 198.9	10 462.1	10 538.3	10 553.8	10 578.8	10 610.1
DK	5 411.4	5 534.7	5 659.7	5 707.3	5 748.8	5 781.2
DE	82 500.8	81 802.3	81 197.5	82 175.7	82 521.7	82 792.4
EE	1 358.9	1 333.3	1 314.9	1 315.9	1 315.6	1 319.1
IE	4 111.7	4 549.4	4 677.6	4 726.3	4 784.4	4 830.4
EL	10 969.9	11 119.3	10 858.0	10 783.7	10 768.2	10 741.2
ES	43 296.3	46 486.6	46 449.6	46 440.1	46 528.0	46 658.4
FR	62 772.9	64 658.9	66 458.2	66 638.4	66 804.1	66 926.2
HR	4 310.9	4 302.8	4 225.3	4 190.7	4 154.2	4 105.5
IT	57 874.8	59 190.1	60 795.6	60 665.6	60 589.4	60 484.0
CY	733.1	819.1	847.0	848.3	854.8	864.2
LV	2 249.7	2 120.5	1 986.1	1 969.0	1 950.1	1 934.4
LT	3 355.2	3 142.0	2 921.3	2 888.6	2 847.9	2 808.9
LU	461.2	502.1	563.0	576.2	590.7	602.0
HU	10 097.5	10 014.3	9 855.6	9 830.5	9 797.6	9 778.4
MT	402.7	414.0	439.7	450.4	460.3	475.7
NL	16 305.5	16 575.0	16 900.7	16 979.1	17 081.5	17 181.1
AT	8 201.4	8 351.6	8 584.9	8 700.5	8 772.9	8 822.3
PL	38 173.8	38 022.9	38 005.6	37 967.2	37 973.0	37 976.7
PT	10 494.7	10 573.5	10 374.8	10 341.3	10 309.6	10 291.0
RO	21 382.4	20 294.7	19 870.6	19 760.6	19 644.4	19 530.6
SI	1 997.6	2 047.0	2 062.9	2 064.2	2 065.9	2 066.9
SK	5 372.7	5 390.4	5 421.3	5 426.3	5 435.3	5 443.1
FI	5 236.6	5 351.4	5 471.8	5 487.3	5 503.3	5 513.1
SE	9 011.4	9 340.7	9 747.4	9 851.0	9 995.2	10 120.2
UK	60 182.1	62 510.2	64 853.4	65 379.0	65 844.1	66 273.6

3.5 Employment

3.5.1 Total Persons Employed in the Energy Sector (15-64 years)

MEMBER STATES DATA – EU-28

Thousands	2010	2015	2016	2017	2018
B05: Mining of Coal and Lignite	331.2	294.5	274.1	258.9	247.6
B06: Extraction of Crude Petroleum and Natural Gas	103.8	88.9	81.4	70.0	60.7
B0892: Extraction of Peat*	11.1	11.1	9.9	9.7	9.7
B091: Support Activities for Petroleum and Natural Gas Extraction*	47.7	56.8	48.0	41.4	41.4
C19: Manufacture of Coke and refined Petroleum Products	218.7	190.0	186.5	188.6	193.6
D35: Electricity, Gas, Steam and Air Conditioning Supply	1 645.3	1 550.5	1 553.0	1 546.0	1 569.1
Broad Sector Total Employment**	2 357.9	2 191.8	2 152.9	2 114.5	2 122.0

* According to the Structural Business Survey (SBS), August 2019.

** Estimate of total employment as a sum of available figures presented in the table.

Italics: DG Energy Estimates.

Sources: Eurostat, Labour Force Survey (LFS), July 2019

Methodology and Notes: [See Appendices](#)

3.5.2 Employment Rate in all Economic Sectors

MEMBER STATES' DATA – ALL SECTORS (15-64 YEARS)

%	2005	2010	2015	2016	2017	2018
EU-28	63.3	64.1	65.7	66.7	67.7	68.6
BE	61.1	62.0	61.8	62.3	63.1	64.5
BG	55.8	59.8	62.9	63.4	66.9	67.7
CZ	64.8	65.0	70.2	72.0	73.6	74.8
DK	75.9	73.3	73.5	74.9	74.2	75.4
DE	65.5	71.3	74.0	74.7	75.2	75.9
EE	64.8	61.2	71.9	72.1	74.1	74.8
IE	70.4	61.0	64.8	66.4	67.7	68.6
EL	59.6	59.1	50.8	52.0	53.5	54.9
ES	63.6	58.8	57.8	59.5	61.1	62.4
FR	63.8	64.0	64.3	64.6	65.2	65.9
HR	55.0	57.4	56.0	56.9	58.9	60.6
IT	57.6	56.8	56.3	57.2	58.0	58.5
CY	68.5	68.9	62.7	63.7	65.6	68.6
LV	62.1	58.5	68.1	68.7	70.1	71.8
LT	62.9	57.6	67.2	69.4	70.4	72.4
LU	63.6	65.2	66.1	65.6	66.3	67.1
HU	56.9	54.9	63.9	66.5	68.2	69.2
MT	53.6	56.2	65.1	67.2	69.2	71.4
NL	70.6	73.9	74.1	74.8	75.8	77.2
AT	67.4	70.8	71.1	71.5	72.2	73.0
PL	52.8	58.9	62.9	64.5	66.1	67.4
PT	67.3	65.3	63.9	65.2	67.8	69.7
RO	57.6	60.2	61.4	61.6	63.9	64.8
SI	66.0	66.2	65.2	65.8	69.3	71.1
SK	57.7	58.8	62.7	64.9	66.2	67.6
FI	68.4	68.1	68.5	69.1	70.0	72.1
SE	72.3	72.1	75.5	76.2	76.9	77.5
UK	71.8	69.4	72.7	73.5	74.1	74.7

3.5.3 Unemployment Rate in all Economic Sectors *

MEMBER STATES' DATA – ALL SECTORS

%	2005	2010	2015	2016	2017	2018
EU-28	9.0	9.6	9.4	8.6	7.6	6.8
BE	8.5	8.3	8.5	7.8	7.1	6.0
BG	10.1	10.3	9.2	7.6	6.2	5.2
CZ	7.9	7.3	5.1	4.0	2.9	2.2
DK	4.8	7.5	6.2	6.2	5.7	5.0
DE	11.2	7.0	4.6	4.1	3.8	3.4
EE	8.0	16.7	6.2	6.8	5.8	5.4
IE	4.6	14.6	10.0	8.4	6.7	5.8
EL	10.0	12.7	24.9	23.6	21.5	19.3
ES	9.2	19.9	22.1	19.6	17.2	15.3
FR	8.9	9.3	10.4	10.1	9.4	9.1
HR	13.0	11.8	16.1	13.4	11.0	8.4
IT	7.7	8.4	11.9	11.7	11.2	10.6
CY	5.3	6.3	15.0	13.0	11.1	8.4
LV	10.0	19.5	9.9	9.6	8.7	7.4
LT	8.3	17.8	9.1	7.9	7.1	6.2
LU	4.6	4.6	6.5	6.3	5.6	5.5
HU	7.2	11.2	6.8	5.1	4.2	3.7
MT	6.9	6.8	5.4	4.7	4.0	3.7
NL	5.9	5.0	6.9	6.0	4.9	3.8
AT	5.6	4.8	5.7	6.0	5.5	4.9
PL	17.9	9.7	7.5	6.2	4.9	3.9
PT	8.8	12.0	12.6	11.2	9.0	7.0
RO	7.1	7.0	6.8	5.9	4.9	4.2
SI	6.5	7.3	9.0	8.0	6.6	5.1
SK	16.4	14.5	11.5	9.7	8.1	6.5
FI	8.4	8.4	9.4	8.8	8.6	7.4
SE	7.7	8.6	7.4	6.9	6.7	6.3
UK	4.8	7.8	5.3	4.8	4.3	4.0

* Percentage of active population.

Sources: Eurostat, Labour Force Survey (LFS), July 2019

Methodology and Notes: [See Appendices](#)

Environment Indicators in the EU



#4

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4.1 Gases Emissions

4.1.1 Greenhouse Gas (GHG) Emissions*

EU-28 AND MEMBER STATES – TOTAL

Million ton CO ₂ equiv.	2000	2005	2010	2015	2016	2017
EU-28	5 287.2	5 362.0	4 917.5	4 470.3	4 453.1	4 483.1
Index 2000	100.0 %	101.4 %	93.0 %	84.5 %	84.2 %	84.8 %
BE	154.5	148.9	137.1	121.6	120.2	119.4
BG	59.8	64.5	61.1	62.2	59.7	62.1
CZ	151.1	149.5	141.7	129.5	131.5	130.5
DK	73.2	68.8	65.5	50.8	53.0	50.8
DE	1 064.7	1 016.5	967.0	931.8	937.7	936.0
EE	17.4	19.3	21.3	18.3	19.8	21.1
IE	70.3	72.0	63.4	61.7	63.9	63.8
EL	128.9	138.9	121.0	98.2	94.8	98.9
ES	397.1	452.6	370.1	351.8	342.2	357.3
FR	567.0	570.7	528.0	477.3	477.8	482.0
HR	26.1	30.3	28.4	24.6	24.8	25.5
IT	562.1	589.2	514.7	443.7	442.5	439.0
CY	9.2	10.2	10.3	9.1	9.6	10.0
LV	10.6	11.6	12.7	11.6	11.7	11.8
LT	19.6	23.0	20.9	20.5	20.5	20.7
LU	10.6	14.3	13.4	11.6	11.6	11.9
HU	73.9	76.2	65.7	61.3	61.7	64.5
MT	3.1	3.2	3.2	2.5	2.3	2.6
NL	229.8	225.8	224.1	207.5	207.6	205.8
AT	82.1	94.5	86.8	81.0	81.9	84.5
PL	396.3	404.3	413.1	392.3	401.1	416.3
PT	84.3	88.1	71.7	71.1	69.5	74.6
RO	143.6	151.7	124.4	117.2	115.2	114.8
SI	19.1	20.6	19.7	16.9	17.7	17.5
SK	49.2	51.3	46.4	41.8	42.3	43.5
FI	71.3	71.2	77.4	57.2	60.1	57.5
SE	70.4	68.6	66.4	55.7	55.5	55.5
UK	741.9	726.2	642.1	541.5	517.0	505.4

* GHG emissions without LULUCF, with indirect CO₂ and including international aviation.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

4.1.1 Greenhouse Gas (GHG) Emissions

EU-28 AND MEMBER STATES – FUEL COMBUSTION

Million ton CO ₂ equiv.	2017								
	Fuel Combustion Activities	Energy Industries	Manufacturing Industries & Construction	Transport	Commercial/ Institutional	Residential	Agriculture/ Forestry/ Fisheries	Other Sectors	Other Combustion & Fugitive Emissions
EU-28	3 367.8	1 179.3	499.8	945.9	161.8	407.1	80.9	6.8	86.2
Share (%)	100.0 %	35.0 %	14.8 %	28.1 %	4.8 %	12.1 %	2.4 %	0.2 %	2.6 %
BE	83.3	20.2	13.5	25.8	5.5	15.2	2.3	0.1	0.7
BG	44.6	27.7	3.6	9.5	0.4	1.2	0.5	0.0	1.9
CZ	98.9	51.8	10.4	18.7	3.0	9.8	1.2	0.5	3.6
DK	33.8	11.6	4.0	13.2	0.7	2.1	1.5	0.3	0.4
DE	765.7	313.4	135.6	168.0	38.2	92.9	6.8	0.9	9.9
EE	18.5	14.7	0.6	2.4	0.1	0.3	0.3	0.1	0.0
IE	36.8	11.6	4.7	12.0	2.0	5.7	0.6	0.0	0.1
EL	70.2	39.9	5.8	17.2	0.7	4.8	0.5	0.2	1.0
ES	258.9	81.2	43.5	88.8	10.7	17.8	11.8	0.5	4.6
FR	327.3	49.6	51.4	134.7	28.7	48.1	10.6	0.0	4.0
HR	17.3	4.5	2.4	6.6	0.6	2.0	0.7	0.0	0.5
IT	345.9	104.8	51.1	99.5	23.7	51.5	7.8	0.3	7.1
CY	6.6	3.3	0.7	2.1	0.1	0.4	0.1	0.0	0.0
LV	7.2	1.5	0.7	3.3	0.4	0.6	0.5	0.0	0.2
LT	11.3	2.6	1.2	5.8	0.3	0.9	0.2	0.0	0.3
LU	8.8	0.2	1.1	5.6	0.6	1.1	0.0	0.0	0.0
HU	46.2	14.0	4.9	13.1	3.1	8.6	1.4	0.0	1.0
MT	1.6	0.7	0.0	0.6	0.2	0.0	0.0	0.0	0.0
NL	160.2	63.5	29.1	31.2	7.7	17.0	10.0	0.2	1.7
AT	56.3	11.2	11.1	24.3	1.2	7.2	0.9	0.1	0.4
PL	342.1	164.9	31.2	63.4	7.4	38.8	12.1	0.0	24.3
PT	51.2	20.8	7.6	17.1	1.2	2.0	1.2	0.0	1.3
RO	75.5	23.9	11.7	18.0	2.2	7.7	1.3	0.7	10.1
SI	14.0	4.9	1.7	5.5	0.4	0.8	0.2	0.0	0.4
SK	29.4	7.5	7.1	7.7	1.6	3.3	0.4	0.1	1.7
FI	41.0	17.6	6.9	11.5	1.0	1.4	1.4	1.1	0.2
SE	36.6	9.2	6.9	16.6	0.8	0.7	1.4	0.2	0.9
UK	378.6	102.6	51.4	123.7	19.3	65.2	4.9	1.6	10.1

4.1.1 Greenhouse Gas (GHG) Emissions

EU-28 AND MEMBER STATES – OTHER THAN FUEL COMBUSTION

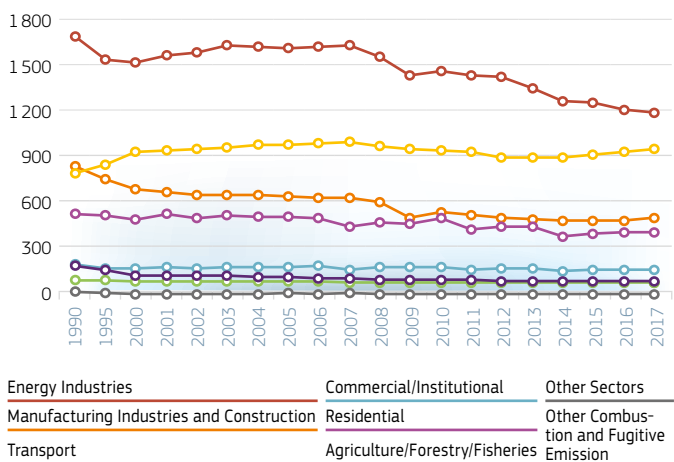
Million ton CO ₂ equiv.	2017					
	GHG Emissions other than Fuel Combustion	Industrial Processes & Product Use	Agriculture	Waste & Others	Indirect CO ₂	International aviation
EU-28	1 115.3	377.5	439.0	138.9	1.7	158.3
Share (%)	100.0%	33.8%	39.4%	12.5%	0.2%	14.2%
BE	36.1	19.7	10.1	1.5	0.0	4.8
BG	17.5	6.4	6.6	3.8	0.0	0.7
CZ	31.5	15.7	8.4	5.6	0.7	1.1
DK	17.0	2.0	10.6	1.1	0.3	2.9
DE	170.3	64.5	66.3	10.2	0.0	29.4
EE	2.5	0.6	1.4	0.3	0.0	0.2
IE	27.0	3.5	19.6	0.9	0.0	3.1
EL	28.7	12.8	7.9	4.6	0.0	3.5
ES	98.4	28.2	39.5	13.5	0.0	17.1
FR	154.7	43.9	76.2	17.2	0.0	17.4
HR	8.1	2.7	2.8	2.1	0.0	0.5
IT	93.1	32.8	30.8	18.2	0.0	11.3
CY	3.3	1.3	0.5	0.6	0.0	1.0
LV	4.5	0.7	2.8	0.6	0.0	0.4
LT	9.4	3.6	4.4	1.0	0.0	0.3
LU	3.2	0.7	0.7	0.1	0.0	1.7
HU	18.3	7.2	7.1	3.4	0.0	0.7
MT	1.0	0.3	0.1	0.2	0.0	0.4
NL	45.7	11.1	18.9	3.1	0.5	12.1
AT	28.3	17.2	7.3	1.5	0.0	2.3
PL	74.2	27.0	31.7	13.0	0.0	2.5
PT	23.4	7.8	6.9	4.7	0.2	3.9
RO	39.3	13.1	19.3	5.9	0.0	1.0
SI	3.5	1.2	1.7	0.6	0.0	0.1
SK	14.0	9.6	2.5	1.7	0.0	0.2
FI	16.5	5.9	6.5	1.9	0.1	2.1
SE	18.8	7.6	7.2	1.3	0.0	2.8
UK	126.8	30.2	41.2	20.4	0.0	34.9

4.1.1 Greenhouse Gas (GHG) Emissions

EU-28 – TOTAL AND FUEL COMBUSTION

Million ton CO ₂ equiv.	GHG Emissions - National Total *	Fuel Combustion Activities	Energy Industries	Manufacturing Industries & Construction	Transport	Commercial/Institutional	Residential	Agriculture/Forestry/Fisheries	Other Sectors	Other Combustion & Fugitive Emission
1990	5 723	4 348.7	1 675.7	836.1	793.2	201.0	527.5	98.4	23.7	193.0
1995	5 398	4 090.1	1 524.1	747.7	847.3	176.0	519.6	97.1	14.0	164.3
2000	5 287	4 020.6	1 511.2	685.0	926.9	174.6	491.6	91.0	9.9	130.3
2001	5 340	4 100.3	1 553.5	667.3	940.0	187.8	525.3	91.1	9.1	126.2
2002	5 296	4 074.8	1 570.5	647.6	951.3	178.2	504.8	88.9	9.1	124.3
2003	5 383	4 153.9	1 620.7	653.0	960.3	179.4	518.4	89.2	9.7	123.1
2004	5 391	4 144.9	1 609.2	645.0	979.6	184.3	510.8	89.8	10.8	115.4
2005	5 362	4 122.6	1 599.2	638.6	978.8	184.1	507.0	90.1	11.3	113.5
2006	5 354	4 119.7	1 610.2	628.8	986.0	190.3	497.2	86.8	10.8	109.7
2007	5 306	4 060.6	1 619.7	632.2	995.4	168.7	444.3	83.7	11.1	105.6
2008	5 191	3 981.1	1 548.1	603.8	970.7	185.6	475.4	84.3	10.2	103.1
2009	4 815	3 702.1	1 424.2	501.0	943.2	179.3	466.0	82.5	9.0	96.8
2010	4 918	3 798.1	1 450.9	533.0	937.6	187.3	499.6	84.8	8.7	96.2
2011	4 764	3 650.6	1 425.2	518.0	925.5	165.8	429.2	83.1	8.5	95.3
2012	4 699	3 606.2	1 417.9	497.0	896.0	169.9	442.2	81.5	7.5	94.2
2013	4 605	3 517.2	1 342.3	488.4	888.7	171.7	445.0	81.3	7.3	92.3
2014	4 436	3 337.9	1 258.2	481.1	896.1	151.1	374.5	80.3	7.0	89.5
2015	4 470	3 373.6	1 245.2	483.5	913.3	161.2	395.2	79.6	6.8	88.9
2016	4 453	3 354.7	1 197.9	484.0	932.5	161.2	406.1	80.6	6.7	85.7
2017	4 483	3 367.8	1 179.3	499.8	945.9	161.8	407.1	80.9	6.8	86.2

GHGs EMISSIONS – EU-28 – FUEL COMBUSTION (MILLION ton CO₂ EQUIV.)



* GHG emissions without LULUCF, with indirect CO₂ and including international aviation.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

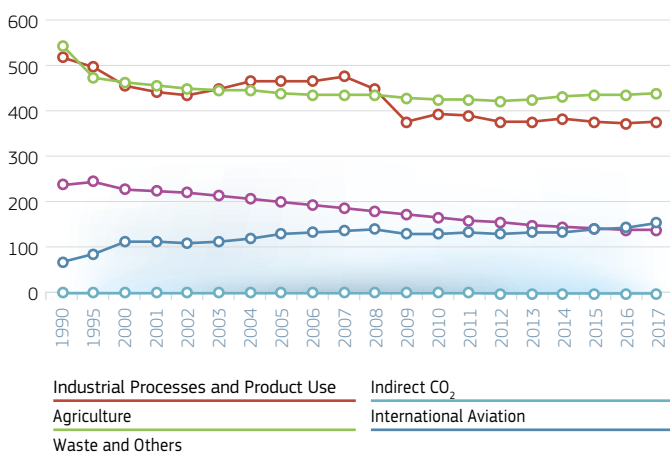
4.1.1 Greenhouse Gas (GHG) Emissions

EU-28 – OTHER THAN FUEL COMBUSTION

Million ton CO ₂ equiv.	GHG Emissions - National Total *	GHG Emissions other than Fuel Combustion	Industrial Processes & Product Use	Agriculture	Waste & Others	Indirect CO ₂	International aviation
1990	5 723	1 374.2	517.2	543.3	240.4	4.2	69.1
1995	5 398	1 307.7	498.4	472.6	247.4	3.5	85.8
2000	5 287	1 266.6	455.6	461.3	231.5	2.9	115.4
2001	5 340	1 239.4	440.4	455.0	227.4	2.7	113.8
2002	5 296	1 221.5	436.6	448.0	223.5	2.6	110.8
2003	5 383	1 229.5	450.4	444.0	217.4	2.6	115.2
2004	5 391	1 245.9	466.9	444.7	208.9	2.5	123.0
2005	5 362	1 239.4	465.8	438.0	202.0	2.5	131.1
2006	5 354	1 233.8	464.7	434.3	195.8	2.5	136.5
2007	5 306	1 245.3	476.0	436.7	189.1	2.4	141.1
2008	5 191	1 209.9	450.8	433.9	181.1	2.3	141.8
2009	4 815	1 113.0	376.8	427.8	175.1	2.1	131.1
2010	4 918	1 119.4	394.3	423.4	167.8	2.2	131.7
2011	4 764	1 113.3	389.8	423.9	162.1	2.1	135.4
2012	4 699	1 092.4	377.3	421.7	157.9	2.0	133.5
2013	4 605	1 088.3	375.3	425.2	151.2	1.8	134.7
2014	4 436	1 098.3	381.3	432.9	145.5	1.8	136.9
2015	4 470	1 096.7	376.7	433.8	143.2	1.8	141.2
2016	4 453	1 098.4	373.7	434.8	140.1	1.7	148.0
2017	4 483	1 115.3	377.5	439.0	138.9	1.7	158.3

GHGs EMISSIONS – EU-28 – OTHER THAN FUEL COMBUSTION

(MILLION ton CO₂ EQUIV.)



* GHG emissions without LULUCF, with indirect CO₂ and including international aviation.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

4.1.2 CO₂ Emissions *

EU-28 AND MEMBER STATES – TOTAL

Million ton CO ₂	2000	2005	2010	2015	2016	2017
EU-28	4 298.1	4 438.9	4 073.9	3 656.3	3 646.0	3 674.1
Index 2000	100.0 %	103.3 %	94.8 %	85.1 %	84.8 %	85.5 %
BE	131.5	129.1	118.0	104.1	102.8	102.4
BG	45.5	51.2	48.3	48.6	45.9	48.1
CZ	128.8	127.7	119.4	106.5	108.3	107.4
DK	57.4	54.7	52.0	38.1	40.1	38.0
DE	919.7	889.6	856.6	820.4	828.0	827.1
EE	15.4	17.3	19.1	16.0	17.6	18.8
IE	47.0	50.6	44.0	40.9	42.5	41.8
EL	105.5	116.5	99.9	77.8	74.4	78.3
ES	320.4	379.5	295.4	285.2	276.0	291.4
FR	430.3	442.7	405.7	358.3	359.9	363.7
HR	19.9	23.6	21.4	18.2	18.5	19.2
IT	478.2	502.9	435.2	365.4	363.8	360.2
CY	8.0	8.9	8.9	7.7	8.2	8.5
LV	7.2	8.0	8.9	7.6	7.6	7.7
LT	11.9	14.2	13.9	13.4	13.4	13.7
LU	9.7	13.4	12.5	10.7	10.6	10.9
HU	59.3	61.3	52.8	47.2	48.0	50.3
MT	2.9	2.9	2.8	2.1	1.8	2.0
NL	182.4	188.9	192.9	178.3	178.5	176.9
AT	68.0	81.4	74.3	68.9	69.6	72.2
PL	319.0	323.4	334.9	314.2	325.0	339.1
PT	68.4	72.0	55.8	55.5	53.9	58.7
RO	95.9	103.0	84.5	78.5	76.7	76.0
SI	15.5	17.0	16.4	13.7	14.5	14.3
SK	41.3	43.0	38.6	34.6	35.0	36.2
FI	58.2	58.4	65.8	46.1	49.3	46.9
SE	56.6	55.7	55.0	45.2	45.1	44.8
UK	594.5	601.9	540.9	453.0	430.8	419.5

* CO₂ emissions without LULUCF, with indirect CO₂ and including international aviation.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

4.1.2 CO₂ EmissionsEU-28 AND MEMBER STATES –
FUEL COMBUSTION

Million ton CO ₂	2017								
	Fuel Combustion Activities	Energy Industries	Manufacturing Industries & Construction	Transport	Commercial/ Institutional	Residential	Agriculture/ Forestry/ Fisheries	Other Sectors	Other Combustion & Fugitive Emissions
EU-28	3 253.7	1 167.3	493.7	934.9	160.4	388.8	75.2	6.6	26.5
Share (%)	100.0 %	35.9 %	15.2 %	28.7 %	4.9 %	12.0 %	2.3 %	0.2 %	0.8 %
BE	81.6	20.0	13.3	25.5	5.5	14.9	2.1	0.1	0.1
BG	42.9	27.6	3.6	9.4	0.3	0.8	0.4	0.0	0.8
CZ	93.7	51.5	10.3	18.4	3.0	8.8	1.2	0.4	0.1
DK	33.1	11.4	4.0	13.1	0.7	1.9	1.5	0.3	0.2
DE	747.9	307.9	134.4	166.2	38.1	91.8	6.4	0.8	2.4
EE	18.2	14.6	0.6	2.4	0.1	0.2	0.2	0.1	0.0
IE	36.1	11.5	4.6	11.9	2.0	5.6	0.6	0.0	0.0
EL	68.5	39.8	5.7	16.9	0.7	4.7	0.5	0.2	0.0
ES	254.0	80.5	42.4	87.8	10.6	16.8	11.7	0.5	3.8
FR	320.6	49.2	50.7	133.0	28.6	46.4	9.7	0.0	2.9
HR	16.6	4.5	2.4	6.6	0.6	1.6	0.6	0.0	0.3
IT	333.4	104.2	50.1	98.4	23.2	47.8	7.0	0.3	2.4
CY	6.6	3.3	0.7	2.1	0.1	0.4	0.1	0.0	0.0
LV	6.7	1.5	0.6	3.3	0.4	0.5	0.4	0.0	0.0
LT	10.7	2.5	1.2	5.7	0.3	0.8	0.2	0.0	0.0
LU	8.7	0.2	1.1	5.6	0.6	1.1	0.0	0.0	0.0
HU	44.3	13.9	4.9	13.0	3.1	7.9	1.4	0.0	0.1
MT	1.6	0.7	0.0	0.6	0.2	0.0	0.0	0.0	0.0
NL	157.3	63.1	29.0	30.9	7.6	16.5	9.0	0.1	1.1
AT	55.1	11.1	10.9	24.0	1.2	6.8	0.8	0.1	0.1
PL	315.9	164.0	30.8	62.5	7.3	35.7	10.9	0.0	4.7
PT	50.2	20.6	7.4	17.0	1.2	1.7	1.1	0.0	1.2
RO	64.3	23.8	11.6	17.7	2.2	6.5	1.2	0.6	0.5
SI	13.4	4.9	1.7	5.5	0.4	0.7	0.2	0.0	0.1
SK	27.2	7.4	7.1	7.6	1.6	3.1	0.4	0.1	0.0
FI	40.2	17.3	6.7	11.4	1.0	1.2	1.4	1.1	0.1
SE	35.7	8.9	6.8	16.4	0.7	0.6	1.3	0.2	0.8
UK	369.1	101.4	51.0	122.3	19.2	64.1	4.9	1.6	4.6

4.1.2 CO₂ Emissions

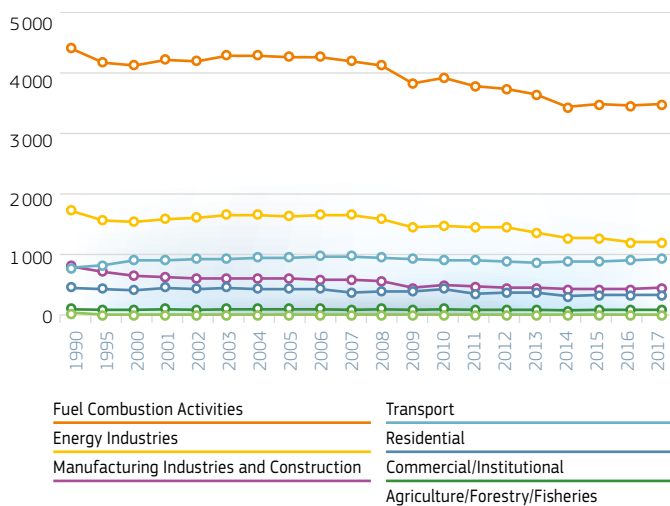
EU-28 AND MEMBER STATES – OTHER THAN FUEL COMBUSTION

Million ton CO ₂	2017					
	CO ₂ Emissions other than Fuel Combustion	Industrial Processes & Product Use	Agriculture	Waste & Others	Indirect CO ₂	International aviation
EU-28	420.4	248.3	10.4	3.2	1.7	156.9
Share (%)	100.0%	59.1%	2.5%	0.8%	0.4%	37.3%
BE	20.8	15.5	0.2	0.3	0.0	4.8
BG	5.2	4.5	0.0	0.0	0.0	0.7
CZ	13.6	11.4	0.3	0.1	0.7	1.1
DK	4.9	1.5	0.2	0.0	0.3	2.9
DE	79.2	47.1	2.9	0.0	0.0	29.1
EE	0.6	0.4	0.0	0.0	0.0	0.2
IE	5.6	2.2	0.4	0.0	0.0	3.0
EL	9.8	6.3	0.0	0.0	0.0	3.4
ES	37.3	19.8	0.6	0.0	0.0	16.9
FR	43.1	22.3	1.9	1.6	0.0	17.2
HR	2.6	2.1	0.1	0.0	0.0	0.4
IT	26.7	15.0	0.4	0.1	0.0	11.2
CY	2.0	1.0	0.0	0.0	0.0	1.0
LV	1.0	0.5	0.0	0.0	0.0	0.4
LT	3.0	2.7	0.0	0.0	0.0	0.3
LU	2.3	0.6	0.0	0.0	0.0	1.7
HU	6.0	5.1	0.2	0.0	0.0	0.7
MT	0.4	0.0	0.0	0.0	0.0	0.4
NL	19.7	7.1	0.0	0.0	0.5	12.0
AT	17.2	14.8	0.1	0.0	0.0	2.2
PL	23.1	19.1	0.9	0.6	0.0	2.5
PT	8.5	4.4	0.1	0.0	0.2	3.8
RO	11.7	10.6	0.1	0.0	0.0	1.0
SI	0.9	0.8	0.0	0.0	0.0	0.1
SK	9.0	8.7	0.1	0.0	0.0	0.2
FI	6.7	4.3	0.2	0.0	0.1	2.1
SE	9.1	6.1	0.1	0.1	0.0	2.8
UK	50.4	14.3	1.3	0.3	0.0	34.6

4.1.2 CO₂ Emissions

EU-28 – TOTAL AND FUEL COMBUSTION

Million ton CO ₂	CO ₂ Emissions - National Total (including international aviation)	Fuel Combustion Activities	Energy Industries	Manufacturing Industries & Construction	Transport	Commercial/ Institutional	Residential	Agriculture/ Forestry/ Fisheries	Other Sectors	Other Combustion and Fugitive Emissions
1990	4542	4123.6	1666.1	829.4	778.7	198.4	504.2	93.7	23.2	29.9
1995	4305	3896.5	1514.8	741.6	830.8	174.6	499.1	92.0	13.8	29.9
2000	4298	3862.4	1501.9	678.8	911.7	173.3	474.1	86.0	9.7	26.8
2001	4367	3945.4	1543.9	660.9	925.6	186.5	507.8	86.1	8.9	25.7
2002	4342	3924.3	1560.6	641.1	937.9	176.9	488.8	84.0	8.9	26.1
2003	4437	4003.8	1610.2	646.2	947.3	178.1	501.3	84.3	9.6	26.8
2004	4454	4001.7	1598.5	638.0	966.9	183.0	494.3	84.8	10.6	25.6
2005	4439	3982.3	1588.4	631.6	966.9	182.7	489.9	85.0	11.0	26.8
2006	4449	3984.3	1598.9	622.1	974.3	188.9	479.9	81.8	10.5	27.9
2007	4403	3929.0	1608.2	625.4	984.0	167.3	426.6	78.5	10.8	28.0
2008	4305	3849.5	1536.5	597.2	959.8	184.1	456.5	78.8	10.0	26.7
2009	3957	3576.9	1413.0	495.4	933.0	177.7	446.9	77.0	8.8	25.1
2010	4074	3671.3	1439.2	527.0	927.4	185.7	479.1	79.1	8.5	25.4
2011	3933	3527.6	1413.3	512.0	915.4	164.2	411.4	77.4	8.3	25.5
2012	3872	3482.4	1405.9	491.1	886.0	168.4	422.9	75.7	7.4	25.1
2013	3785	3397.0	1330.3	482.6	878.7	170.3	425.6	75.7	7.2	26.6
2014	3618	3222.7	1246.5	475.4	886.0	149.8	357.4	74.8	6.9	26.0
2015	3656	3257.6	1233.2	477.6	902.9	159.8	377.3	74.1	6.6	26.1
2016	3646	3241.1	1186.1	478.2	921.8	159.8	388.0	75.1	6.5	25.6
2017	3674	3253.7	1167.3	493.7	934.9	160.4	388.8	75.2	6.6	26.5

CO₂ EMISSIONS – EU-28 – TOTAL AND FUEL COMBUSTION
(MILLION ton CO₂)

Source: EEA_UNFCCC v_22 May 2019

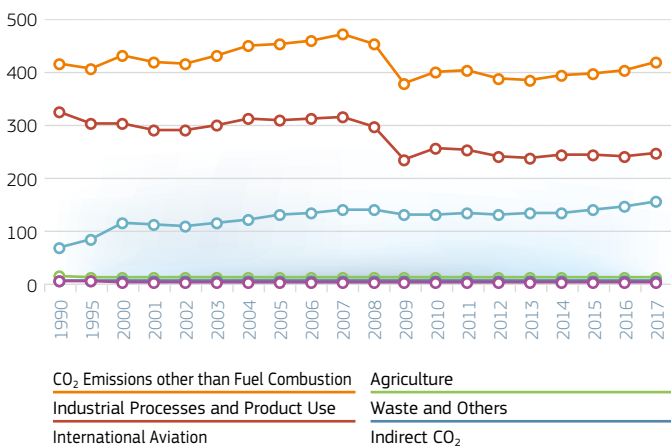
Methodology and Notes: See Appendices

4.1.2 CO₂ Emissions

EU-28 – OTHER THAN FUEL COMBUSTION

Million ton CO ₂	CO ₂ Emissions – National Total *	CO ₂ Emissions other than Fuel Combustion	Industrial Processes & Product Use	Agriculture	Waste & Others	Indirect CO ₂	International aviation
1990	4 541.8	418.2	325.5	14.7	5.2	4.2	68.5
1995	4 304.9	408.4	304.5	10.7	4.7	3.5	85.0
2000	4 298.1	435.7	304.9	10.2	3.4	2.9	114.4
2001	4 367.4	422.0	293.2	9.8	3.5	2.7	112.8
2002	4 342.4	418.1	292.1	9.8	3.7	2.6	109.8
2003	4 437.1	433.3	302.2	10.4	4.0	2.6	114.2
2004	4 454.3	452.7	314.4	10.3	3.7	2.5	121.9
2005	4 438.9	456.6	310.5	9.9	3.8	2.5	129.9
2006	4 448.8	464.5	313.4	9.6	3.8	2.5	135.3
2007	4 403.0	474.0	318.3	9.7	3.8	2.4	139.9
2008	4 304.8	455.3	299.2	9.6	3.7	2.3	140.5
2009	3 957.1	380.2	234.9	9.6	3.6	2.1	130.0
2010	4 073.9	402.6	257.0	9.3	3.7	2.2	130.5
2011	3 932.7	405.1	255.7	9.7	3.5	2.1	134.2
2012	3 871.8	389.5	242.1	9.6	3.5	2.0	132.3
2013	3 785.4	388.5	239.8	10.0	3.3	1.8	133.5
2014	3 618.1	395.4	244.2	10.5	3.4	1.8	135.7
2015	3 656.3	398.6	243.6	10.3	3.0	1.8	140.0
2016	3 646.0	404.8	242.7	10.6	3.1	1.7	146.7
2017	3 674.1	420.4	248.3	10.4	3.2	1.7	156.9

CO₂ EMISSIONS – EU-28 – OTHER THAN FUEL COMBUSTION (MILLION ton CO₂)



* CO₂ emissions without LULUCF, with indirect CO₂ and including international aviation.

Source: EEA_UNFCCC v_22 May 2019

Methodology and Notes: [See Appendices](#)

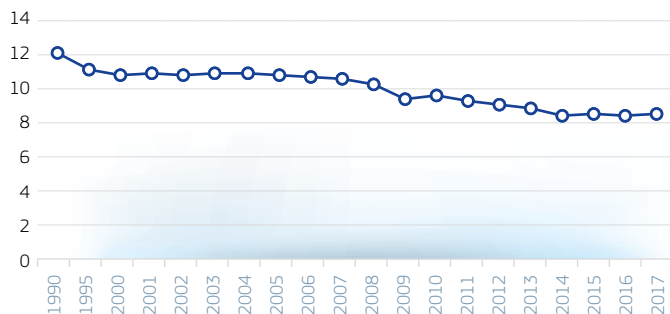
4.2 Main Emissions Indicators

4.2.1 Greenhouse Gas (GHG) Emissions per Capita

ton CO ₂ /cap	2000	2005	2010	2015	2016	2017
EU-28	10.9	10.8	9.8	8.8	8.7	8.8
Index 2000	100.0%	99.9%	90.1%	81.0%	80.4%	80.8%
BE	15.1	14.3	12.7	10.8	10.6	10.5
BG	7.3	8.4	8.2	8.6	8.3	8.7
CZ	14.7	14.7	13.5	12.3	12.5	12.3
DK	13.7	12.7	11.8	9.0	9.3	8.8
DE	13.0	12.3	11.8	11.5	11.4	11.3
EE	12.4	14.2	16.0	13.9	15.0	16.0
IE	18.6	17.5	13.9	13.2	13.5	13.3
EL	12.0	12.7	10.9	9.0	8.8	9.2
ES	9.8	10.5	8.0	7.6	7.4	7.7
FR	9.4	9.1	8.2	7.2	7.2	7.2
HR	5.8	7.0	6.6	5.8	5.9	6.1
IT	9.9	10.2	8.7	7.3	7.3	7.2
CY	13.4	13.9	12.6	10.7	11.3	11.6
LV	4.4	5.2	6.0	5.8	5.9	6.0
LT	5.6	6.9	6.6	7.0	7.1	7.3
LU	24.5	31.0	26.8	20.7	20.0	20.2
HU	7.2	7.5	6.6	6.2	6.3	6.6
MT	8.0	7.9	7.8	5.8	5.0	5.6
NL	14.5	13.8	13.5	12.3	12.2	12.0
AT	10.3	11.5	10.4	9.4	9.4	9.6
PL	10.4	10.6	10.9	10.3	10.6	11.0
PT	8.2	8.4	6.8	6.9	6.7	7.2
RO	6.4	7.1	6.1	5.9	5.8	5.8
SI	9.6	10.3	9.6	8.2	8.6	8.5
SK	9.1	9.5	8.6	7.7	7.8	8.0
FI	13.8	13.6	14.5	10.4	10.9	10.4
SE	7.9	7.6	7.1	5.7	5.6	5.5
UK	12.6	12.1	10.3	8.3	7.9	7.7

GHG PER CAPITA – EU-28 – ton CO₂/cap

EU-28



Source: EEA_UNFCCC v_22 May 2019, Eurostat 2019

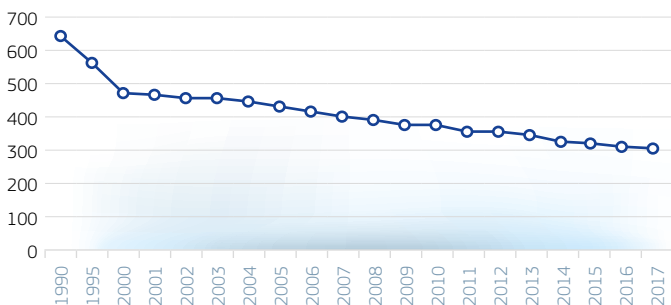
Methodology and Notes: [See Appendices](#)

4.2.2 Greenhouse Gas (GHG) Emissions to GDP Intensity

ton CO ₂ /M€'10	2000	2005	2010	2015	2016	2017
EU-28	473.9	437.0	382.9	328.9	321.0	315.5
Index 2000	100.0 %	92.2 %	80.8 %	69.4 %	67.7 %	66.6 %
BE	496.8	437.7	375.6	316.2	308.1	300.9
BG	2 450.1	2 003.9	1 597.0	1 508.1	1 392.4	1 394.2
CZ	1 317.3	1 076.3	904.0	760.1	753.4	716.5
DK	324.8	286.0	269.2	195.9	199.7	187.2
DE	451.4	418.9	374.8	331.9	326.7	319.2
EE	1 634.2	1 287.9	1 448.4	1 035.5	1 084.1	1 099.5
IE	555.0	439.5	378.2	256.8	253.1	235.8
EL	678.7	604.5	535.5	531.6	514.1	528.2
ES	457.6	441.4	342.4	327.9	309.2	313.4
FR	321.8	298.0	264.6	227.3	224.9	222.1
HR	738.7	689.9	628.6	549.7	534.3	534.0
IT	361.4	361.5	320.8	284.9	281.0	274.4
CY	659.4	597.0	533.4	507.9	514.8	510.7
LV	861.8	635.9	711.5	548.6	540.3	520.5
LT	1 068.4	869.6	744.8	606.3	593.0	576.7
LU	345.1	401.7	334.8	252.6	244.6	248.8
HU	913.8	762.2	664.5	563.2	554.5	556.1
MT	574.0	532.2	487.3	294.5	249.3	265.6
NL	411.6	378.2	350.6	312.7	306.2	295.1
AT	323.3	340.9	293.4	259.6	257.2	258.7
PL	1 609.3	1 410.4	1 141.8	934.2	926.8	917.7
PT	504.5	505.0	398.3	412.7	395.9	413.5
RO	1 735.6	1 386.6	992.0	807.1	756.7	705.2
SI	686.5	618.5	543.4	456.8	465.5	438.5
SK	1 175.4	956.9	687.0	544.6	534.7	532.5
FI	451.1	396.4	413.5	304.9	311.8	290.7
SE	234.8	200.7	179.8	135.6	131.7	128.9
UK	470.5	400.5	347.0	263.9	247.5	237.7

GHG TO GDP INTENSITY – EU-28 – ton CO₂/M€'10

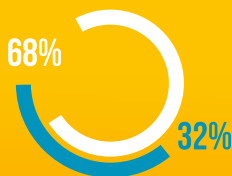
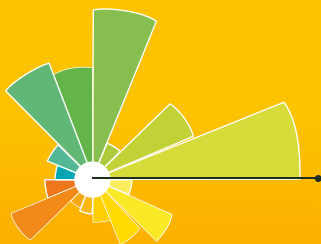
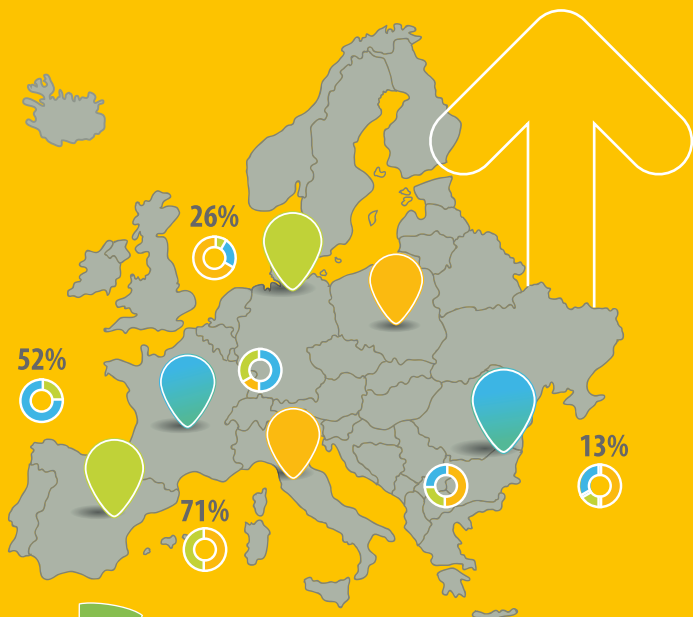
EU-28



Source: EEA_UNFCCC v_22 May 2019, Eurostat 2019

Methodology and Notes: [See Appendices](#)

Country Profiles



#5



Summary

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Sources: ESTAT – Database – May 2019; EEA – UNFCCC Database – June 2019; ECFIN – AMECO Database – May 2019; ESTAT – SHARES – March 2019; ESTAT – CHP Survey, data 2016 – March 2019; ESTAT – Market Survey – May 2019

5.0 European Union 28

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	950.0	908.8	840.0	773.7	760.2	759.8
Solid Fossil Fuels	209.6	189.9	158.2	139.4	127.6	124.9
of which Hard Coal	119.4	99.3	74.3	57.7	51.1	46.3
of which Brown Coal	90.2	90.6	83.8	81.7	76.5	78.6
Oil and Petroleum Products	177.3	135.6	99.4	76.5	75.7	74.5
of which Crude Oil	174.0	131.3	96.4	73.4	72.5	71.2
Natural Gas	209.8	190.5	159.3	107.3	107.3	103.1
Nuclear	244.0	257.8	234.6	220.1	213.5	210.7
Renewables and Biofuels	98.3	120.6	170.6	211.4	216.7	226.6
Wastes, Non-Renewable	6.1	7.9	11.0	13.0	14.2	14.2
Net Imports	826.0	985.9	957.6	905.8	910.7	947.8
Solid Fossil Fuels	97.7	125.2	109.8	110.3	98.2	100.4
of which Hard Coal	93.4	121.5	108.3	109.6	98.4	100.7
Oil and Petroleum Products	532.2	603.6	561.3	540.9	535.0	543.3
of which Crude Oil and NGL	499.7	569.9	527.2	534.2	525.5	541.2
Natural gas	193.5	254.1	279.7	247.0	269.4	296.1
Renewables and Biofuels	0.3	1.6	6.0	5.9	6.1	6.6
Electricity	2.0	1.3	0.7	1.2	1.6	0.9
Gross Inland Consumption	1 731.5	1 836.5	1 768.2	1 638.7	1 648.9	1 674.9
Solid Fossil Fuels	315.5	312.0	276.9	258.4	236.8	228.4
of which Hard Coal	219.3	217.8	191.7	176.0	160.2	150.3
of which Brown Coal	91.9	92.5	84.9	82.6	77.6	79.2
Oil and Petroleum Products	664.0	684.2	613.5	564.2	570.1	582.1
of which Crude and NGL	676.2	701.2	623.8	603.9	601.0	614.4
Natural Gas	396.0	445.1	447.6	357.9	382.7	398.4
Nuclear	244.0	257.8	234.6	220.1	213.5	210.7
Renewables and Biofuels	98.6	122.2	176.7	217.4	222.9	233.5
Electricity	2.0	1.3	0.7	1.2	1.6	0.9
Waste, Non-Renewable	6.1	7.9	11.0	13.4	14.6	14.6
Available for Final Consumption	1 173.0	1 239.2	1 208.1	1 119.5	1 141.7	1 165.9
Final Non-Energy Consumption	112.1	116.1	106.2	95.6	95.6	102.2
Final Energy Consumption	1 066.1	1 123.2	1 098.6	1 024.9	1 046.3	1 060.0
by Fuel/Product						
Solid Fossil Fuels	37.2	31.0	29.6	25.7	25.6	25.6
Oil and Petroleum Products	450.2	458.8	414.7	385.6	391.3	394.1
Natural Gas	256.5	272.6	264.2	229.5	238.1	239.3
Renewables and Biofuels	49.1	59.7	84.1	91.8	94.4	102.4
Solid Biofuels and Renewable Waste	47.2	54.3	65.8	67.5	69.2	70.6
Solar Thermal	0.4	0.7	1.5	2.1	2.1	2.3
Geothermal	0.4	0.4	0.4	0.5	0.5	0.6
Liquid Biofuels	0.6	3.3	13.1	13.8	13.6	15.0
Biogases	0.4	0.6	1.4	2.6	2.9	3.0
Waste, Non-Renewable	1.0	1.5	2.7	3.4	3.8	3.8
Electricity	217.3	239.4	244.0	236.5	239.2	240.6
Heat	45.3	52.6	53.0	46.3	48.1	48.5
by Sector						
Industry	305.6	305.4	267.9	254.5	257.1	261.0
Transport	305.0	325.3	320.4	313.3	320.8	326.9
Residential	291.3	310.1	321.9	278.6	287.6	288.0
Services	121.8	144.0	157.3	148.7	151.1	154.0
Agriculture and Fishing	29.6	29.0	26.3	25.0	25.3	25.8
Others	12.8	9.3	4.7	4.7	4.4	4.3

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	691.6	757.9	883.7	985.8	993.3	1011.0
Combustible Fuels	401.3	435.1	487.7	470.5	457.2	455.1
Nuclear	137.3	135.0	131.7	122.0	122.1	120.9
Hydro	139.0	143.4	147.3	152.7	154.5	155.1
Solar	0.2	2.3	30.7	97.3	103.3	109.0
Geothermal	0.6	0.7	0.8	0.8	0.8	0.8
Tide, Wave and Ocean	0.2	0.2	0.2	0.2	0.2	0.2
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	3 034.0	3 315.2	3 362.0	3 239.4	3 261.8	3 294.3
Solid Fossil Fuels, Peat & Products, Oil Shale	933.9	960.3	829.2	794.8	704.9	677.0
Oil and Petroleum Products	181.3	142.8	86.9	65.4	63.9	60.7
Natural Gas	513.1	704.0	799.4	531.1	643.6	695.9
Nuclear	945.0	997.7	916.6	857.0	839.7	829.7
Renewables and Biofuels	448.6	496.0	710.8	967.8	983.7	1 005.6
Wastes non-RES	12.1	14.4	19.0	23.2	25.9	25.4
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			107.6	119.7	119.9	122.0
CHP Electricity Generation (TWh)			394.6	362.9	359.7	371.7
CHP in Total Electricity Generation (%)			11.8	11.2	11.0	11.3
CHP Heat Production (PJ)			3 038.4	2 791.7	2 812.5	2 881.2
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	297 536	313 915	299 831	291 089	298 626	303 031
of which LPG	3 685	4 824	5 313	5 982	5 987	6 080
of which Motor Gasoline	132 463	114 530	91 430	77 453	77 712	77 942
of which Gas/Diesel Oil	153 516	186 124	195 146	201 103	207 890	211 513
Final Consumption Biofuels	620	3 203	12 719	13 511	13 298	14 740
Pure and Blended Biogasoline	59	594	2 810	2 699	2 650	2 778
Pure and Blended Biodiesel	547	2 454	9 871	10 808	10 643	11 961
Main Energy Indicators						
Primary Energy Consumption 2020-2030	1 619.4	1 720.0	1 660.2	1 537.5	1 546.9	1 561.6
Final Energy Consumption 2020-2030	1 133.2	1 192.8	1 163.1	1 088.3	1 110.1	1 122.8
Primary Energy Intensity 2020-2030 (toe/M€'10)	145	140	129	113	112	110
Energy Intensity GAE/GDP2010 (toe/M€'10)	159	154	142	124	122	121
Energy per Capita - GIC/pop (kgoe/cap)	3 554	3 713	3 514	3 223	3 232	3 275
Final Electricity per Capita (KWh/cap)	5 187	5 629	5 640	5 409	5 453	5 472
Import Dependency (%)	46.6	52.3	52.7	53.9	53.8	55.1
of Solid Fossil Fuels	31.0	40.1	39.6	42.7	41.5	43.9
of Hard Coal	42.6	55.8	56.5	62.3	61.4	67.0
of Oil and Petroleum Products	75.3	82.3	84.7	89.2	87.1	86.7
of Crude and NGL	73.9	81.3	84.5	88.5	87.4	88.1
of Natural Gas	48.9	57.1	62.5	69.0	70.4	74.3
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		9.1	13.1	16.7	17.0	17.5
RE-T – Transport		1.8	5.2	6.6	7.1	7.4
RES-E – Electricity Generation		14.8	19.7	28.8	29.6	30.7
RES-H&C – Heating and Cooling		11.1	15.4	18.8	19.0	19.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	4 298.1	4 438.9	4 073.9	3 656.3	3 646.0	3 674.1
GHG Emissions – National total*	5 287.2	5 362.0	4 917.5	4 470.3	4 453.1	4 483.1
Main Emissions Indicators						
GHG National Total Emissions/index 1990	92.4	93.7	85.9	78.1	77.8	78.3
Total GHG per Capita (t CO ₂ eq/cap)	10.9	10.8	9.8	8.8	8.7	8.8

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.1 Belgium

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	13.6	13.7	15.5	10.6	15.2	14.9
Solid Fossil Fuels	0.2	0.1	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.2	0.1	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	12.4	12.3	12.5	6.8	11.3	11.0
Renewables and Biofuels	0.5	0.9	2.3	3.0	3.1	3.2
Wastes, Non-Renewable	0.4	0.5	0.7	0.7	0.7	0.7
Net Imports	50.6	53.4	53.6	50.0	47.9	48.0
Solid Fossil Fuels	7.3	5.2	3.7	3.3	3.0	2.9
of which Hard Coal	6.6	5.0	3.7	2.7	2.4	2.4
Oil and Petroleum Products	29.6	32.5	32.5	30.4	29.2	29.4
of which Crude Oil and NGL	34.2	32.0	33.5	32.4	32.2	34.4
Natural gas	13.3	14.8	16.8	13.9	14.4	14.3
Renewables and Biofuels	0.1	0.3	0.6	0.7	0.9	0.9
Electricity	0.4	0.5	0.0	1.8	0.5	0.5
Gross Inland Consumption	59.4	59.0	61.2	53.8	56.9	56.6
Solid Fossil Fuels	8.0	5.2	3.8	3.4	3.2	3.1
of which Hard Coal	7.0	4.9	3.7	2.8	2.6	2.5
of which Brown Coal	0.2	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	24.2	24.7	24.5	23.4	22.9	22.8
of which Crude and NGL	34.1	32.1	33.5	32.4	32.3	34.4
Natural Gas	13.4	14.7	16.7	14.0	14.3	14.5
Nuclear	12.4	12.3	12.5	6.8	11.3	11.0
Renewables and Biofuels	0.6	1.2	2.9	3.7	4.0	4.1
Electricity	0.4	0.5	0.0	1.8	0.5	0.5
Waste, Non-Renewable	0.4	0.5	0.7	0.7	0.7	0.7
Available for Final Consumption	40.8	41.6	42.7	40.9	40.9	40.6
Final Non-Energy Consumption	7.0	7.5	7.0	7.6	7.5	7.5
Final Energy Consumption	33.6	34.0	35.0	33.1	33.5	32.9
by Fuel/Product						
Solid Fossil Fuels	0.9	0.6	0.5	0.5	0.5	0.5
Oil and Petroleum Products	15.1	15.3	14.8	14.1	13.8	13.3
Natural Gas	9.3	9.4	10.0	8.9	9.4	9.4
Renewables and Biofuels	0.4	0.6	1.5	1.6	1.9	1.9
Solid Biofuels and Renewable Waste	0.4	0.6	1.1	1.2	1.3	1.3
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.4	0.3	0.4	0.5
Biogases	0.0	0.0	0.0	0.1	0.1	0.1
Waste, Non-Renewable	0.1	0.1	0.1	0.2	0.2	0.1
Electricity	6.7	6.9	7.2	7.0	7.1	7.0
Heat	0.5	0.4	0.6	0.5	0.5	0.4
by Sector						
Industry	11.6	10.3	10.8	10.6	10.7	10.5
Transport	8.2	8.7	9.0	8.9	9.0	8.9
Residential	9.5	10.0	9.5	8.3	8.3	8.1
Services	3.5	4.1	4.9	4.6	4.7	4.6
Agriculture and Fishing	0.8	0.8	0.8	0.7	0.8	0.8
Others	0.1	0.1	0.1	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	15.7	16.1	18.8	21.2	21.7	22.3
Nuclear	8.5	8.7	9.5	8.5	8.6	8.5
Hydro	5.7	5.8	5.9	5.9	5.9	5.9
Solar	1.4	1.4	1.4	1.4	1.4	1.4
Solar	0.0	0.0	1.0	3.1	3.3	3.6
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	84.0	86.8	94.9	69.4	85.3	86.1
Oil and Petroleum Products	12.9	8.2	4.2	2.2	0.4	0.1
Natural Gas	0.8	1.7	0.4	0.2	0.2	0.2
Nuclear	19.1	25.1	33.2	24.1	24.4	25.2
Nuclear	48.2	47.6	47.9	26.1	43.5	42.2
Renewables and Biofuels	2.3	3.4	7.9	15.6	15.5	17.0
Wastes non-RES	0.8	0.7	1.4	1.3	1.4	1.4
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			2.6	2.4	2.2	2.3
CHP Electricity Generation (TWh)			15.2	12.5	12.2	12.5
CHP in Total Electricity Generation (%)			16.0	17.7	14.2	14.4
CHP Heat Production (PJ)				104.4	104.4	108.7
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	8051	8536	8374	8475	8389	8197
of which LPG	98	84	53	64	65	59
of which Motor Gasoline	2323	1847	1235	1324	1432	1432
of which Gas/Diesel Oil	5486	6534	7072	7081	6885	6700
Final Consumption Biofuels	0	0	365	261	441	479
Pure and Blended Biogasoline	0	0	57	41	43	97
Pure and Blended Biodiesel	0	0	309	221	398	382
Main Energy Indicators						
Primary Energy Consumption 2020-2030	52.4	51.6	54.1	46.1	49.3	49.1
Final Energy Consumption 2020-2030	37.7	36.6	37.7	35.9	36.5	36.1
Primary Energy Intensity 2020-2030 (toe/M€'10)	169	152	148	120	126	124
Energy Intensity GAE/GDP2010 (toe/M€'10)	208	196	188	155	163	162
Energy per Capita - GIC/pop (kgoe/cap)	5805	5653	5643	4784	5027	4989
Final Electricity per Capita (KWh/cap)	7573	7678	7686	7271	7260	7217
Import Dependency (%)						
of Solid Fossil Fuels	78.2	80.1	78.0	83.9	75.4	74.8
of Hard Coal	91.2	101.3	97.5	96.9	94.6	95.4
of Oil and Petroleum Products	93.5	102.0	100.0	96.1	94.0	94.4
of Crude and NGL	100.2	100.8	101.3	103.8	98.7	97.1
of Natural Gas	100.2	99.5	99.9	100.0	99.7	100.1
of Natural Gas	99.3	100.5	100.3	99.3	100.6	98.4
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		2.3	5.6	7.9	8.6	9.1
RE-T – Transport		0.6	4.7	3.9	6.0	6.6
RES-E – Electricity Generation		2.4	7.1	15.5	15.8	17.2
RES-H&C – Heating and Cooling		3.4	6.1	7.7	8.1	8.0
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	131.5	129.1	118.0	104.1	102.8	102.4
GHG Emissions – National total*	154.5	148.9	137.1	121.6	120.2	119.4
Main Emissions Indicators						
GHG National Total Emissions/index 1990	103.2	99.4	91.6	81.2	80.3	79.7
Total GHG per Capita (t CO ₂ eq/cap)	15.1	14.3	12.7	10.8	10.6	10.5

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.2 Bulgaria

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	9.9	10.6	10.4	12.0	11.3	11.7
Solid Fossil Fuels	4.3	4.2	4.9	5.9	5.1	5.7
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	4.2	4.2	4.9	5.8	5.1	5.7
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.4	0.1	0.1	0.1	0.1
Nuclear	4.7	4.9	3.8	3.9	4.0	3.9
Renewables and Biofuels	0.8	1.1	1.5	2.1	2.0	1.9
Wastes, Non-Renewable	0.0	0.1	0.0	0.0	0.0	0.0
Net Imports	8.7	9.6	7.2	6.8	7.1	7.5
Solid Fossil Fuels	2.3	2.6	1.7	0.7	0.6	0.6
of which Hard Coal	2.2	2.5	1.7	0.7	0.5	0.5
Oil and Petroleum Products	4.1	5.2	4.2	4.5	4.5	4.7
of which Crude Oil and NGL	5.3	6.1	5.5	6.2	6.3	7.0
Natural gas	2.7	2.5	2.1	2.5	2.6	2.7
Renewables and Biofuels	0.0	0.0	-0.1	0.0	0.0	0.0
Electricity	-0.4	-0.7	-0.7	-0.9	-0.5	-0.5
Gross Inland Consumption	18.6	20.1	17.9	18.6	18.3	18.9
Solid Fossil Fuels	6.4	6.9	6.9	6.6	5.7	6.1
of which Hard Coal	2.2	2.6	1.9	0.7	0.6	0.6
of which Brown Coal	4.2	4.2	4.9	5.8	5.0	5.6
Oil and Petroleum Products	4.2	5.0	4.0	4.3	4.4	4.6
of which Crude and NGL	5.4	6.3	5.6	6.1	6.4	6.9
Natural Gas	2.9	2.8	2.3	2.6	2.7	2.8
Nuclear	4.7	4.9	3.8	3.9	4.0	3.9
Renewables and Biofuels	0.8	1.1	1.5	2.1	2.0	2.0
Electricity	-0.4	-0.7	-0.7	-0.9	-0.5	-0.5
Waste, Non-Renewable	0.0	0.1	0.0	0.0	0.0	0.0
Available for Final Consumption	9.7	10.5	9.3	10.1	10.1	10.3
Final Non-Energy Consumption	1.0	0.8	0.4	0.6	0.5	0.5
Final Energy Consumption	8.6	9.6	8.7	9.4	9.5	9.7
by Fuel/Product						
Solid Fossil Fuels	0.6	0.7	0.4	0.3	0.3	0.4
Oil and Petroleum Products	3.0	3.5	3.0	3.2	3.2	3.4
Natural Gas	1.4	1.4	1.1	1.3	1.3	1.4
Renewables and Biofuels	0.5	0.7	1.0	1.3	1.3	1.4
Solid Biofuels and Renewable Waste	0.5	0.7	0.9	1.0	1.0	1.1
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.1	0.2	0.2
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.1	0.0	0.0	0.0	0.0
Electricity	2.1	2.2	2.3	2.4	2.5	2.6
Heat	0.9	0.9	1.0	0.8	0.8	0.7
by Sector						
Industry	3.6	3.6	2.6	2.7	2.6	2.7
Transport	1.9	2.7	2.7	3.2	3.3	3.3
Residential	2.1	2.1	2.2	2.2	2.3	2.3
Services	0.7	0.8	1.0	1.1	1.2	1.2
Agriculture and Fishing	0.3	0.3	0.2	0.2	0.2	0.2
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	11.1	12.3	10.0	10.9	10.7	10.9
Nuclear	3.5	2.7	1.9	2.0	2.0	2.0
Hydro	1.9	2.8	3.0	3.2	3.2	3.4
Solar	0.0	0.0	0.0	1.0	1.0	1.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	16.9	18.5	22.6	22.5	19.4	20.9
Oil and Petroleum Products	0.7	0.6	0.4	0.2	0.3	0.4
Natural Gas	2.2	1.9	2.0	1.9	2.1	1.9
Nuclear	18.2	18.7	15.2	15.4	15.8	15.5
Renewables and Biofuels	3.0	4.7	6.4	9.3	7.7	6.8
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			1.0	1.1	1.5	1.2
CHP Electricity Generation (TWh)			3.7	2.9	3.6	3.5
CHP in Total Electricity Generation (%)			8.0	6.0	8.0	7.7
CHP Heat Production (PJ)			40.4	31.9	39.3	40.1
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1 722	2 439	2 440	2 811	2 856	2 881
of which LPG	223	434	374	463	496	479
of which Motor Gasoline	697	571	611	520	492	505
of which Gas/Diesel Oil	781	1 419	1 441	1 815	1 849	1 876
Final Consumption Biofuels	0	0	13	146	163	166
Pure and Blended Biogasoline	0	0	0	32	33	27
Pure and Blended Biodiesel	0	0	10	114	130	140
Main Energy Indicators						
Primary Energy Consumption 2020-2030	17.7	19.2	17.4	18.0	17.7	18.3
Final Energy Consumption 2020-2030	9.1	10.1	8.8	9.5	9.6	9.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	723	597	455	435	412	412
Energy Intensity GAE/GDP2010 (toe/M€'10)	766	628	470	454	428	426
Energy per Capita - GIC/pop (kgoe/cap)	2 275	2 612	2 408	2 589	2 553	2 661
Final Electricity per Capita (KWh/cap)	2 961	3 345	3 652	3 933	4 040	4 211
Import Dependency (%)						
of Solid Fossil Fuels	35.2	36.9	24.5	11.2	9.8	9.4
of Hard Coal	101.0	94.0	86.0	96.1	83.6	96.7
of Oil and Petroleum Products	96.0	102.5	101.9	101.8	100.5	101.5
of Crude and NGL	98.7	97.7	99.1	100.5	99.0	101.1
of Natural Gas	93.5	87.7	92.6	97.0	96.5	97.6
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		9.4	14.1	18.2	18.8	18.7
RE-T – Transport		0.8	1.4	6.4	7.2	7.2
RES-E – Electricity Generation		9.3	12.7	19.1	19.2	19.1
RES-H&C – Heating and Cooling		14.3	24.4	28.6	30.0	29.9
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	45.5	51.2	48.3	48.6	45.9	48.1
GHG Emissions – National total*	59.8	64.5	61.1	62.2	59.7	62.1
Main Emissions Indicators						
GHG National Total Emissions/index 1990	58.3	62.9	59.5	60.7	58.2	60.5
Total GHG per Capita (t CO ₂ eq/cap)	7.3	8.4	8.2	8.6	8.3	8.7

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.3 Czechia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	30.8	33.2	32.1	29.0	27.5	27.5
Solid Fossil Fuels	25.0	23.6	20.8	16.9	16.1	15.3
of which Hard Coal	9.4	8.4	7.5	5.4	4.6	3.6
of which Brown Coal	15.6	15.2	13.3	11.5	11.5	11.7
Oil and Petroleum Products	0.4	0.6	0.3	0.2	0.2	0.2
of which Crude Oil	0.2	0.3	0.2	0.1	0.1	0.1
Natural Gas	0.2	0.2	0.2	0.2	0.2	0.2
Nuclear	3.5	6.5	7.3	7.0	6.3	7.0
Renewables and Biofuels	1.6	2.3	3.3	4.4	4.4	4.4
Wastes, Non-Renewable	0.1	0.2	0.2	0.3	0.3	0.3
Net Imports	9.4	12.7	11.5	13.5	13.7	16.2
Solid Fossil Fuels	-4.7	-3.3	-2.9	-0.3	-0.2	0.5
of which Hard Coal	-3.5	-2.8	-2.7	-0.4	-0.2	0.8
Oil and Petroleum Products	7.5	9.7	9.0	8.7	8.1	9.4
of which Crude Oil and NGL	5.5	7.7	7.8	7.2	5.4	7.9
Natural gas	7.5	7.5	6.8	6.2	6.7	7.3
Renewables and Biofuels	0.0	-0.2	-0.1	0.0	0.0	0.1
Electricity	-0.9	-1.1	-1.3	-1.1	-0.9	-1.1
Gross Inland Consumption	41.3	45.5	45.6	42.3	41.9	43.4
Solid Fossil Fuels	21.6	20.2	18.8	16.4	16.6	15.8
of which Hard Coal	6.2	5.6	5.1	4.9	4.9	4.4
of which Brown Coal	15.6	14.8	13.5	11.2	11.3	11.4
Oil and Petroleum Products	7.9	10.0	9.3	8.9	8.3	9.7
of which Crude and NGL	5.8	7.8	8.0	7.3	5.5	8.0
Natural Gas	7.5	7.7	8.1	6.5	7.0	7.2
Nuclear	3.5	6.5	7.3	7.0	6.3	7.0
Renewables and Biofuels	1.6	2.1	3.2	4.4	4.4	4.5
Electricity	-0.9	-1.1	-1.3	-1.1	-0.9	-1.1
Waste, Non-Renewable	0.1	0.2	0.2	0.3	0.3	0.3
Available for Final Consumption	26.4	28.1	27.8	25.9	25.9	27.8
Final Non-Energy Consumption	2.1	3.0	2.9	2.5	1.8	2.9
Final Energy Consumption	24.0	25.0	24.1	23.1	23.7	24.4
by Fuel/Product						
Solid Fossil Fuels	4.2	2.9	1.9	1.6	1.6	1.7
Oil and Petroleum Products	5.2	6.5	6.3	6.4	6.5	6.6
Natural Gas	5.9	6.2	6.1	5.0	5.3	5.5
Renewables and Biofuels	1.2	1.7	2.3	2.8	2.9	2.9
Solid Biofuels and Renewable Waste	1.1	1.6	2.0	2.3	2.3	2.3
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.1	0.0	0.2	0.3	0.3	0.3
Biogases	0.0	0.0	0.1	0.1	0.2	0.2
Waste, Non-Renewable	0.1	0.1	0.2	0.2	0.2	0.2
Electricity	4.2	4.8	4.7	4.7	4.8	4.9
Heat	2.6	2.5	2.4	2.0	2.1	2.1
by Sector						
Industry	9.2	8.7	6.9	6.5	6.4	6.7
Transport	4.2	5.8	5.9	6.2	6.4	6.6
Residential	6.4	6.7	7.4	6.8	7.1	7.2
Services	3.0	3.1	3.3	3.0	3.1	3.2
Agriculture and Fishing	0.7	0.5	0.5	0.6	0.6	0.6
Others	0.5	0.3	0.1	0.1	0.0	0.1

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	15.3	17.4	20.1	21.9	22.0	22.3
Combustible Fuels	11.5	11.5	12.0	13.0	13.1	13.3
Nuclear	1.8	3.8	3.9	4.3	4.3	4.3
Hydro	2.1	2.2	2.2	2.3	2.3	2.3
Solar	0.0	0.0	1.7	2.1	2.1	2.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	73.5	82.6	85.8	83.8	83.2	86.9
Solid Fossil Fuels, Peat & Products, Oil Shale	52.8	49.5	46.9	41.1	42.0	41.4
Oil and Petroleum Products	0.4	0.3	0.2	0.1	0.1	0.1
Natural Gas	3.9	4.2	4.2	5.0	6.4	6.2
Nuclear	13.6	24.7	28.0	26.8	24.1	28.3
Renewables and Biofuels	2.8	3.8	6.5	10.7	10.6	10.8
Wastes non-RES	0.0	0.0	0.0	0.1	0.1	0.1
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			4.8	4.6	9.0	8.0
CHP Electricity Generation (TWh)			12.2	11.8	8.4	8.0
CHP in Total Electricity Generation (%)			14.2	14.0	10.1	9.2
CHP Heat Production (PJ)			135.7	106.0	101.6	103.5
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	3915	5551	5470	5693	5920	6086
of which LPG	68	74	81	104	104	100
of which Motor Gasoline	1922	2125	1868	1570	1617	1600
of which Gas/Diesel Oil	1886	3322	3492	3981	4156	4332
Final Consumption Biofuels	62	3	231	297	301	314
Pure and Blended Biogasoline	0	0	58	63	48	59
Pure and Blended Biodiesel	62	3	173	233	253	255
Main Energy Indicators						
Primary Energy Consumption 2020-2030	39.1	42.5	42.7	39.8	40.0	40.4
Final Energy Consumption 2020-2030	25.1	26.3	25.3	24.2	24.8	25.5
Primary Energy Intensity 2020-2030 (toe/M€'10)	341	306	272	233	229	222
Energy Intensity GAE/GDP2010 (toe/M€'10)	360	328	291	249	240	239
Energy per Capita - GIC/pop (kgoe/cap)	4016	4465	4358	4018	3973	4106
Final Electricity per Capita (KWh/cap)	4804	5421	5183	5169	5292	5420
Import Dependency (%)	22.7	27.8	25.3	31.9	32.6	37.2
of Solid Fossil Fuels	-22.0	-16.2	-15.3	-1.8	-1.3	3.0
of Hard Coal	-56.4	-49.4	-53.9	-8.6	-3.8	17.8
of Oil and Petroleum Products	95.3	97.5	96.5	97.8	97.3	97.1
of Crude and NGL	95.3	99.3	97.5	98.4	97.7	99.1
of Natural Gas	99.8	97.8	84.8	95.1	95.7	101.9
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		7.1	10.5	15.0	14.9	14.8
RE-T – Transport		0.9	5.1	6.5	6.4	6.6
RES-E – Electricity Generation		3.8	7.5	14.1	13.6	13.7
RES-H&C – Heating and Cooling		10.9	14.1	19.7	19.8	19.7
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	128.8	127.7	119.4	106.5	108.3	107.4
GHG Emissions – National total*	151.1	149.5	141.7	129.5	131.5	130.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	75.6	74.9	70.9	64.8	65.8	65.3
Total GHG per Capita (t CO ₂ eq/cap)	14.7	14.7	13.5	12.3	12.5	12.3

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.4 Denmark

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	27.8	31.4	23.5	16.3	15.4	15.9
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	18.3	19.0	12.5	7.9	7.1	6.9
of which Crude Oil	18.3	19.0	12.5	7.9	7.1	6.9
Natural Gas	7.4	9.4	7.3	4.1	4.1	4.4
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.8	2.6	3.2	3.8	3.9	4.2
Wastes, Non-Renewable	0.3	0.4	0.4	0.4	0.4	0.4
Net Imports	-7.5	-10.5	-3.4	2.4	2.5	2.2
Solid Fossil Fuels	3.8	3.5	2.6	1.5	1.7	1.8
of which Hard Coal	3.8	3.5	2.6	1.5	1.7	1.8
Oil and Petroleum Products	-8.5	-9.4	-3.8	0.4	0.2	-0.3
of which Crude Oil and NGL	-10.0	-11.2	-5.1	-0.4	0.0	0.7
Natural gas	-2.9	-5.0	-3.0	-1.4	-1.3	-1.5
Renewables and Biofuels	0.1	0.3	0.8	1.2	1.4	1.8
Electricity	0.1	0.1	-0.1	0.5	0.4	0.4
Gross Inland Consumption	19.5	19.8	20.4	17.4	17.8	18.2
Solid Fossil Fuels	4.0	3.7	3.8	1.8	2.0	1.5
of which Hard Coal	4.0	3.7	3.8	1.8	2.0	1.5
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	8.8	8.3	7.8	6.7	6.8	7.1
of which Crude and NGL	8.3	7.9	7.4	7.5	7.1	7.7
Natural Gas	4.4	4.4	4.4	2.9	2.9	2.7
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.9	2.9	4.0	5.1	5.3	6.0
Electricity	0.1	0.1	-0.1	0.5	0.4	0.4
Waste, Non-Renewable	0.3	0.4	0.4	0.4	0.4	0.4
Available for Final Consumption	14.3	14.7	15.0	13.6	14.0	14.4
Final Non-Energy Consumption	0.3	0.3	0.3	0.3	0.3	0.2
Final Energy Consumption	14.0	14.7	14.8	13.3	13.7	13.9
by Fuel/Product						
Solid Fossil Fuels	0.3	0.3	0.1	0.1	0.1	0.1
Oil and Petroleum Products	6.3	6.4	5.9	5.0	5.1	5.1
Natural Gas	1.7	1.7	1.7	1.4	1.5	1.5
Renewables and Biofuels	0.7	1.0	1.4	1.7	1.8	1.8
Solid Biofuels and Renewable Waste	0.6	0.9	1.2	1.2	1.3	1.3
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.2	0.2	0.2
Biogases	0.0	0.0	0.0	0.0	0.1	0.1
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	2.8	2.9	2.8	2.7	2.7	2.7
Heat	2.3	2.4	2.8	2.5	2.6	2.6
by Sector						
Industry	2.9	2.9	2.4	2.2	2.2	2.3
Transport	4.0	4.5	4.4	4.1	4.1	4.2
Residential	4.2	4.5	5.0	4.4	4.6	4.5
Services	1.8	2.0	2.1	1.9	2.0	2.0
Agriculture and Fishing	1.0	0.9	0.9	0.8	0.8	0.7
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	12.3	13.0	13.4	14.0	14.2	14.4
Nuclear	9.9	9.9	9.6	8.1	8.1	7.9
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.8	0.9	0.9
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	16.7	15.5	17.0	7.1	8.9	6.2
Oil and Petroleum Products	4.4	1.4	0.8	0.3	0.3	0.3
Natural Gas	8.8	8.8	7.9	1.8	2.2	1.9
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	5.6	9.8	12.4	18.9	18.5	21.9
Wastes non-RES	0.6	0.8	0.7	0.8	0.7	0.7
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			5.8	6.1	5.9	5.8
CHP Electricity Generation (TWh)			19.1	11.6	12.0	11.8
CHP in Total Electricity Generation (%)			49.2	40.0	39.4	38.1
CHP Heat Production (PJ)			124.7	93.3	94.9	94.4
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	4007	4437	4308	3803	3886	3963
of which LPG	10	8	0	0	0	0
of which Motor Gasoline	2019	1922	1574	1317	1306	1312
of which Gas/Diesel Oil	1863	2372	2649	2437	2532	2589
Final Consumption Biofuels	0	0	27	214	217	215
Pure and Blended Biogasoline	0	0	27	0	0	0
Pure and Blended Biodiesel	0	0	0	214	217	215
Main Energy Indicators						
Primary Energy Consumption 2020-2030	19.1	19.4	20.0	16.9	17.4	17.7
Final Energy Consumption 2020-2030	14.7	15.5	15.5	14.0	14.4	14.6
Primary Energy Intensity 2020-2030 (toe/M€'10)	85	81	82	65	65	65
Energy Intensity GAE/GDP2010 (toe/M€'10)	92	86	87	70	70	69
Energy per Capita - GIC/pop (kgoe/cap)	3658	3663	3687	3069	3126	3167
Final Electricity per Capita (KWh/cap)	6089	6184	5792	5451	5450	5445
Import Dependency (%)						
of Solid Fossil Fuels	-35.9	-50.9	-16.3	13.0	13.4	11.7
of Hard Coal	94.9	94.4	69.4	85.0	84.6	115.9
of Oil and Petroleum Products	94.8	94.3	69.3	85.0	84.6	116.0
of Crude and NGL	-84.1	-104.4	-44.3	5.3	2.5	-3.9
of Natural Gas	-120.5	-141.3	-68.8	-4.9	-0.6	9.7
of Natural Gas	-64.8	-113.9	-68.3	-48.2	-44.6	-56.2
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		16.0	22.1	31.4	32.6	35.8
RE-T – Transport		0.4	1.2	6.7	6.8	6.8
RES-E – Electricity Generation		24.6	32.7	51.4	53.9	60.4
RES-H&C – Heating and Cooling		22.8	31.0	40.7	42.2	46.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	57.4	54.7	52.0	38.1	40.1	38.0
GHG Emissions – National total*	73.2	68.8	65.5	50.8	53.0	50.8
Main Emissions Indicators						
GHG National Total Emissions/index 1990	101.5	95.5	90.8	70.5	73.5	70.5
Total GHG per Capita (t CO ₂ eq/cap)	13.7	12.7	11.8	9.0	9.3	8.8

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.5 Germany

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	135.5	137.0	128.9	120.1	116.2	116.3
Solid Fossil Fuels	60.6	56.5	45.9	43.0	39.7	39.4
of which Hard Coal	24.2	18.0	9.2	4.6	2.8	2.7
of which Brown Coal	36.4	38.4	36.7	38.4	36.9	36.8
Oil and Petroleum Products	4.6	5.5	4.1	4.0	4.1	4.0
of which Crude Oil	3.2	3.6	2.5	2.5	2.4	2.3
Natural Gas	15.8	14.3	11.1	6.3	6.6	6.0
Nuclear	43.8	42.1	36.2	23.6	21.8	19.7
Renewables and Biofuels	9.0	16.9	27.7	38.9	39.5	42.6
Wastes, Non-Renewable	1.7	1.8	3.9	4.3	4.5	4.5
Net Imports	204.9	211.5	204.1	198.5	205.1	207.4
Solid Fossil Fuels	21.7	26.0	31.6	36.1	38.3	32.3
of which Hard Coal	17.2	23.8	29.1	35.2	37.7	32.0
Oil and Petroleum Products	126.1	123.7	112.2	108.4	109.5	110.7
of which Crude Oil and NGL	101.5	114.5	94.0	92.3	92.5	92.1
Natural gas	56.9	61.9	61.6	58.7	62.3	68.8
Renewables and Biofuels	0.0	0.4	-0.1	-0.5	-0.6	0.1
Electricity	0.3	-0.4	-1.3	-4.2	-4.3	-4.5
Gross Inland Consumption	342.4	344.9	334.6	316.5	319.1	322.2
Solid Fossil Fuels	84.8	81.8	79.1	79.4	77.1	71.3
of which Hard Coal	43.8	41.2	39.8	40.2	39.8	34.2
of which Brown Coal	37.2	38.4	36.7	38.1	36.8	36.8
Oil and Petroleum Products	131.1	124.6	113.2	109.9	110.8	113.2
of which Crude and NGL	108.2	117.7	96.6	95.1	95.7	94.6
Natural Gas	71.9	77.8	75.9	65.2	70.3	75.3
Nuclear	43.8	42.1	36.2	23.6	21.8	19.7
Renewables and Biofuels	9.0	17.2	27.6	38.4	38.9	42.7
Electricity	0.3	-0.4	-1.3	-4.2	-4.3	-4.5
Waste, Non-Renewable	1.7	1.8	3.9	4.3	4.5	4.5
Available for Final Consumption	234.8	234.9	229.6	219.4	222.5	228.8
Final Non-Energy Consumption	25.3	24.7	22.6	21.3	21.4	22.8
Final Energy Consumption	207.2	206.1	206.4	198.4	202.5	204.6
by Fuel/Product						
Solid Fossil Fuels	5.6	4.0	4.4	4.7	4.6	4.5
Oil and Petroleum Products	92.3	82.2	74.9	73.0	73.6	73.7
Natural Gas	53.0	52.6	54.0	49.3	52.4	52.8
Renewables and Biofuels	4.8	8.8	12.7	14.0	14.3	15.9
Solid Biofuels and Renewable Waste	4.4	6.4	8.2	9.1	9.3	9.8
Solar Thermal	0.1	0.3	0.5	0.7	0.7	0.7
Geothermal	0.0	0.0	0.1	0.1	0.1	0.1
Liquid Biofuels	0.2	1.9	3.2	2.7	2.7	2.7
Biogases	0.1	0.2	0.8	1.5	1.5	1.5
Waste, Non-Renewable	0.0	0.3	1.0	1.0	1.1	1.1
Electricity	41.6	44.9	45.8	44.3	44.5	44.6
Heat	6.8	10.8	11.3	9.6	9.8	9.8
by Sector						
Industry	51.4	54.2	55.3	55.2	55.8	56.3
Transport	60.0	54.9	53.2	55.2	56.6	57.2
Residential	65.3	63.5	62.5	53.2	56.0	56.6
Services	25.8	33.2	35.4	34.7	34.0	34.5
Agriculture and Fishing	0.3	0.0	0.0	0.0	0.0	0.0
Others	4.3	0.3	0.2	0.1	0.1	0.1

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	118.9	128.5	162.9	203.4	208.5	215.5
Combustible Fuels	80.8	76.4	85.8	97.0	95.7	95.1
Nuclear	22.4	20.4	20.5	10.8	10.8	10.8
Hydro	9.5	10.9	11.2	11.4	11.3	11.1
Solar	0.1	2.1	18.0	39.2	40.7	42.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	576.5	619.3	630.7	645.1	647.2	652.0
Solid Fossil Fuels, Peat & Products, Oil Shale	296.7	288.1	262.9	272.2	261.7	241.9
Oil and Petroleum Products	4.8	12.0	8.7	6.2	5.8	5.6
Natural Gas	60.0	83.6	100.9	74.5	93.7	98.6
Nuclear	169.6	163.1	140.6	91.8	84.6	76.3
Renewables and Biofuels	39.7	69.3	111.2	193.3	193.9	222.3
Wastes non-RES	5.8	3.3	6.4	7.1	7.3	7.3
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			24.6	37.1	37.2	39.6
CHP Electricity Generation (TWh)			83.2	78.8	87.9	94.4
CHP in Total Electricity Generation (%)			13.2	12.2	13.5	14.4
CHP Heat Production (PJ)			675.8	669.9	698.0	703.2
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	58362	51045	48714	51194	52530	53158
of which LPG	71	122	619	594	536	497
of which Motor Gasoline	30241	23722	18859	16926	16938	17187
of which Gas/Diesel Oil	27110	26364	28449	32944	34278	34801
Final Consumption Biofuels	236	1859	2884	2537	2539	2561
Pure and Blended Biogasoline	0	153	749	744	745	733
Pure and Blended Biodiesel	222	1552	2104	1792	1792	1827
Main Energy Indicators						
Primary Energy Consumption 2020-2030	317.1	320.3	312.0	295.3	297.7	298.3
Final Energy Consumption 2020-2030	220.2	218.7	220.0	212.0	216.7	218.7
Primary Energy Intensity 2020-2030 (toe/M€'10)	134	132	121	105	104	102
Energy Intensity GAE/GDP2010 (toe/M€'10)	146	143	131	114	112	111
Energy per Capita - GIC/pop (kgoe/cap)	4168	4181	4090	3898	3883	3904
Final Electricity per Capita (KWh/cap)	5884	6330	6509	6339	6296	6289
Import Dependency (%)	59.4	60.9	60.5	62.2	63.7	63.9
of Solid Fossil Fuels	25.6	31.7	40.0	45.4	49.6	45.3
of Hard Coal	39.2	57.7	73.2	87.6	94.7	93.4
of Oil and Petroleum Products	94.6	97.3	96.8	96.5	96.4	95.8
of Crude and NGL	93.8	97.3	97.3	97.1	96.7	97.4
of Natural Gas	79.1	79.6	81.2	90.1	88.6	91.4
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		7.1	11.7	14.9	14.9	15.5
RE-T – Transport		4.0	6.4	6.6	7.0	7.0
RES-E – Electricity Generation		10.5	18.2	30.8	32.2	34.4
RES-H&C – Heating and Cooling		7.7	12.1	13.5	13.1	13.4
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	919.7	889.6	856.6	820.4	828.0	827.1
GHG Emissions – National total*	1064.7	1016.5	967.0	931.8	937.7	936.0
Main Emissions Indicators						
GHG National Total Emissions/index 1990	84.3	80.5	76.5	73.8	74.2	74.1
Total GHG per Capita (t CO ₂ eq/cap)	13.0	12.3	11.8	11.5	11.4	11.3

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.6 Estonia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	3.2	3.9	4.9	5.6	5.2	5.8
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.5	0.7	1.0	1.3	1.5	1.6
Wastes, Non-Renewable	0.0	0.0	0.0	0.1	0.1	0.1
Net Imports	1.6	1.5	0.9	0.6	0.5	0.2
Solid Fossil Fuels	0.1	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.1	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.8	0.9	0.8	0.6	0.7	0.6
of which Crude Oil and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural gas	0.7	0.8	0.6	0.4	0.4	0.4
Renewables and Biofuels	0.0	-0.1	-0.2	-0.4	-0.5	-0.5
Electricity	-0.1	-0.1	-0.3	-0.1	-0.2	-0.2
Gross Inland Consumption	4.7	5.3	5.7	5.4	6.0	5.8
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.1	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.7	0.8	0.6	0.3	0.5	0.2
of which Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.7	0.8	0.6	0.4	0.4	0.4
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.5	0.6	0.8	0.9	1.0	1.1
Electricity	-0.1	-0.1	-0.3	-0.1	-0.2	-0.2
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.1	0.1
Available for Final Consumption	2.7	3.2	3.0	2.8	3.3	3.0
Final Non-Energy Consumption	0.2	0.2	0.1	0.1	0.1	0.1
Final Energy Consumption	2.4	2.8	2.9	2.7	2.8	2.8
by Fuel/Product						
Solid Fossil Fuels	0.1	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.7	0.9	0.9	1.0	1.0	1.0
Natural Gas	0.2	0.3	0.2	0.2	0.3	0.2
Renewables and Biofuels	0.4	0.4	0.6	0.5	0.4	0.4
Solid Biofuels and Renewable Waste	0.4	0.4	0.5	0.5	0.4	0.4
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.4	0.5	0.6	0.6	0.6	0.6
Heat	0.5	0.5	0.5	0.4	0.5	0.5
by Sector						
Industry	0.6	0.7	0.6	0.5	0.5	0.5
Transport	0.6	0.7	0.7	0.8	0.8	0.8
Residential	0.9	0.9	1.0	0.9	0.9	0.9
Services	0.3	0.4	0.4	0.5	0.5	0.5
Agriculture and Fishing	0.1	0.1	0.1	0.1	0.1	0.1
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	2.8	2.6	2.8	2.9	2.6	2.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	7.7	9.3	11.2	8.0	9.7	10.0
Oil and Petroleum Products	0.1	0.0	0.0	0.1	0.3	0.1
Natural Gas	0.8	0.8	0.7	0.6	0.6	0.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.1	1.0	1.5	1.5	1.8
Wastes non-RES	0.0	0.0	0.0	0.1	0.1	0.1
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.4	0.4	0.2	0.0
CHP Electricity Generation (TWh)			1.3	1.2	0.9	1.1
CHP in Total Electricity Generation (%)			10.3	11.9	7.7	8.4
CHP Heat Production (PJ)			12.3	12.5	3.3	13.6
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	554	716	741	745	766	793
of which LPG	0	0	0	0	5	8
of which Motor Gasoline	295	305	289	241	254	267
of which Gas/Diesel Oil	258	409	451	503	505	517
Final Consumption Biofuels	0	0	0	3	3	1
Pure and Blended Biogasoline	0	0	0	3	3	1
Pure and Blended Biodiesel	0	0	0	0	0	0
Main Energy Indicators						
Primary Energy Consumption 2020-2030	4.6	5.1	5.6	5.3	5.9	5.6
Final Energy Consumption 2020-2030	2.4	2.9	2.9	2.8	2.8	2.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	427	336	378	302	322	295
Energy Intensity GAE/GDP2010 (toe/M€'10)	454	359	399	324	343	317
Energy per Capita - GIC/pop (kgoe/cap)	3379	3880	4243	4128	4554	4382
Final Electricity per Capita (KWh/cap)	3579	4445	5181	5211	5547	5486
Import Dependency (%)						
of Solid Fossil Fuels	125.2	88.4	132.6	-6.8	70.1	87.2
of Hard Coal	116.1	96.4	118.3	24.1	85.2	93.8
of Oil and Petroleum Products	101.5	98.8	95.8	101.6	101.5	115.2
of Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
of Natural Gas	100.0	100.0	100.0	100.0	100.0	100.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		17.4	24.6	28.4	28.6	29.2
RE-T – Transport		0.2	0.4	0.4	0.4	0.4
RES-E – Electricity Generation		1.0	10.2	14.9	15.2	17.0
RES-H&C – Heating and Cooling		32.2	43.3	49.6	51.2	51.6
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	15.4	17.3	19.1	16.0	17.6	18.8
GHG Emissions – National total*	17.4	19.3	21.3	18.3	19.8	21.1
Main Emissions Indicators						
GHG National Total Emissions/index 1990	43.0	47.7	52.6	45.1	48.9	52.0
Total GHG per Capita (t CO ₂ eq/cap)	12.4	14.2	16.0	13.9	15.0	16.0

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.7 Ireland

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	2.2	1.7	1.9	1.9	4.2	4.9
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	1.0	0.5	0.2	0.1	2.5	2.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.2	0.4	0.6	1.0	1.0	1.1
Wastes, Non-Renewable	0.0	0.0	0.0	0.1	0.1	0.1
Net Imports	12.4	14.0	13.2	12.7	10.4	9.9
Solid Fossil Fuels	1.7	1.9	1.0	1.5	1.1	1.2
of which Hard Coal	1.7	1.9	0.9	1.5	1.1	1.2
Oil and Petroleum Products	8.2	8.9	7.7	7.5	7.5	7.2
of which Crude Oil and NGL	3.0	3.3	3.0	3.7	3.3	3.0
Natural gas	2.5	3.0	4.5	3.6	1.7	1.4
Renewables and Biofuels	0.0	0.0	0.0	0.1	0.1	0.2
Electricity	0.0	0.2	0.0	0.1	-0.1	-0.1
Gross Inland Consumption	14.4	15.5	15.1	14.1	14.9	14.7
Solid Fossil Fuels	1.8	1.9	1.2	1.4	1.4	1.1
of which Hard Coal	1.8	1.9	1.2	1.4	1.4	1.1
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	8.2	8.8	7.8	7.0	7.4	7.2
of which Crude and NGL	3.4	3.4	3.0	3.4	3.3	3.3
Natural Gas	3.4	3.5	4.7	3.8	4.2	4.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.2	0.4	0.7	1.1	1.1	1.3
Electricity	0.0	0.2	0.0	0.1	-0.1	-0.1
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.1	0.1
Available for Final Consumption	10.4	11.1	11.3	10.7	11.2	11.0
Final Non-Energy Consumption	0.7	0.5	0.3	0.2	0.3	0.2
Final Energy Consumption	10.2	11.8	11.3	10.4	10.7	10.7
by Fuel/Product						
Solid Fossil Fuels	0.4	0.5	0.3	0.3	0.3	0.2
Oil and Petroleum Products	6.5	7.5	6.6	5.6	5.9	5.8
Natural Gas	1.2	1.4	1.6	1.7	1.8	1.8
Renewables and Biofuels	0.1	0.2	0.3	0.3	0.4	0.4
Solid Biofuels and Renewable Waste	0.1	0.2	0.2	0.2	0.2	0.2
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.1	0.1	0.1	0.2
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.1
Electricity	1.7	2.1	2.2	2.2	2.2	2.2
Heat	0.0	0.0	0.0	0.0	0.0	0.0
by Sector						
Industry	2.5	2.6	2.1	2.4	2.4	2.5
Transport	3.5	4.3	4.0	3.8	4.1	4.0
Residential	2.5	2.9	3.3	2.7	2.7	2.6
Services	1.3	1.6	1.5	1.3	1.3	1.4
Agriculture and Fishing	0.4	0.4	0.3	0.2	0.2	0.2
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	4.7	6.2	8.0	9.6	9.9	10.5
Combustible Fuels	4.1	5.1	6.4	6.6	6.6	6.6
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.5	0.5	0.2	0.5	0.5	0.5
Solar	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	24.0	26.0	28.4	28.4	30.5	30.9
Solid Fossil Fuels, Peat & Products, Oil Shale	8.6	8.8	5.7	7.4	7.0	5.8
Oil and Petroleum Products	4.6	3.3	0.6	0.4	0.3	0.1
Natural Gas	9.3	11.6	18.1	12.4	15.3	15.7
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.5	2.2	3.9	8.1	7.8	9.1
Wastes non-RES	0.0	0.0	0.0	0.1	0.1	0.2
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.3	0.3	0.3	0.3
CHP Electricity Generation (TWh)			1.9	2.1	2.2	2.2
CHP in Total Electricity Generation (%)			6.7	7.5	7.1	7.0
CHP Heat Production (PJ)			12.0	12.6	11.2	11.8
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	3 509	4 309	3 939	3 693	3 960	3 863
of which LPG	6	6	1	2	2	1
of which Motor Gasoline	1 590	1 823	1 527	1 020	1 003	905
of which Gas/Diesel Oil	1 856	2 417	2 365	2 665	2 951	2 954
Final Consumption Biofuels	0	1	93	88	118	175
Pure and Blended Biogasoline	0	0	30	24	32	44
Pure and Blended Biodiesel	0	1	63	64	86	131
Main Energy Indicators						
Primary Energy Consumption 2020-2030	13.7	14.9	14.8	13.9	14.6	14.4
Final Energy Consumption 2020-2030	10.8	12.7	12.0	11.2	11.6	11.8
Primary Energy Intensity 2020-2030 (toe/M€'10)	108	91	88	58	58	53
Energy Intensity GAE/GDP2010 (toe/M€'10)	115	95	91	59	60	55
Energy per Capita - GIC/pop (kgoe/cap)	3 804	3 759	3 319	3 023	3 149	3 063
Final Electricity per Capita (KWh/cap)	5 371	5 923	5 588	5 360	5 411	5 403
Import Dependency (%)	85.4	89.6	87.2	88.9	69.1	67.1
of Solid Fossil Fuels	93.3	100.8	77.7	103.1	83.6	111.0
of Hard Coal	93.1	100.8	77.5	103.1	83.5	111.4
of Oil and Petroleum Products	98.8	100.0	97.5	104.6	99.1	98.3
of Crude and NGL	89.8	98.9	101.6	108.2	100.1	91.7
of Natural Gas	72.1	86.1	95.3	96.3	40.0	32.7
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		2.8	5.8	9.1	9.3	10.7
RE-T – Transport		0.1	2.5	5.9	5.2	7.4
RES-E – Electricity Generation		7.2	15.6	25.5	26.8	30.1
RES-H&C – Heating and Cooling		3.4	4.3	6.3	6.3	6.9
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	47.0	50.6	44.0	40.9	42.5	41.8
GHG Emissions – National total*	70.3	72.0	63.4	61.7	63.9	63.8
Main Emissions Indicators						
GHG National Total Emissions/index 1990	124.4	127.5	112.3	109.3	113.1	112.9
Total GHG per Capita (t CO ₂ eq/cap)	18.6	17.5	13.9	13.2	13.5	13.3

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.8 Greece

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	10.0	10.3	9.4	8.5	6.8	7.5
Solid Fossil Fuels	8.2	8.5	7.3	5.7	4.0	4.6
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	8.2	8.5	7.3	5.7	4.0	4.6
Oil and Petroleum Products	0.3	0.1	0.1	0.1	0.2	0.2
of which Crude Oil	0.3	0.1	0.1	0.1	0.2	0.1
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.4	1.6	2.0	2.6	2.5	2.8
Wastes, Non-Renewable	0.1	0.0	0.0	0.1	0.1	0.0
Net Imports	21.6	23.0	21.2	18.2	18.3	18.7
Solid Fossil Fuels	0.8	0.4	0.4	0.2	0.2	0.2
of which Hard Coal	0.8	0.4	0.4	0.2	0.2	0.2
Oil and Petroleum Products	19.2	20.0	16.9	14.4	13.8	13.6
of which Crude Oil and NGL	19.1	17.5	19.0	21.7	22.9	23.1
Natural gas	1.7	2.3	3.2	2.7	3.5	4.2
Renewables and Biofuels	0.0	0.0	0.2	0.1	0.1	0.1
Electricity	0.0	0.3	0.5	0.8	0.8	0.5
Gross Inland Consumption	27.7	30.9	28.2	23.9	23.4	24.2
Solid Fossil Fuels	9.0	9.0	7.9	5.6	4.4	4.8
of which Hard Coal	0.7	0.3	0.4	0.2	0.2	0.2
of which Brown Coal	8.3	8.6	7.5	5.4	4.2	4.6
Oil and Petroleum Products	15.5	17.6	14.4	11.9	12.1	11.8
of which Crude and NGL	19.2	18.4	19.1	21.4	22.8	23.7
Natural Gas	1.7	2.4	3.2	2.7	3.5	4.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.4	1.6	2.1	2.8	2.6	2.9
Electricity	0.0	0.3	0.5	0.8	0.8	0.5
Waste, Non-Renewable	0.1	0.0	0.0	0.1	0.1	0.0
Available for Final Consumption	18.3	20.6	18.9	16.3	16.7	16.7
Final Non-Energy Consumption	0.7	0.8	1.1	0.7	0.6	0.8
Final Energy Consumption	17.9	20.2	18.3	15.7	15.8	16.1
by Fuel/Product						
Solid Fossil Fuels	0.9	0.4	0.3	0.2	0.2	0.2
Oil and Petroleum Products	11.9	13.6	11.4	8.6	8.6	8.3
Natural Gas	0.3	0.6	0.8	1.0	1.0	1.2
Renewables and Biofuels	1.0	1.1	1.2	1.4	1.3	1.7
Solid Biofuels and Renewable Waste	0.9	1.0	0.9	1.1	0.9	0.9
Solar Thermal	0.1	0.1	0.2	0.2	0.2	0.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.1	0.2	0.2	0.2
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.0	0.0
Electricity	3.7	4.4	4.6	4.4	4.6	4.6
Heat	0.0	0.0	0.0	0.0	0.1	0.1
by Sector						
Industry	4.5	4.2	3.5	3.1	3.1	3.1
Transport	6.5	7.4	7.4	5.8	5.9	5.8
Residential	4.5	5.5	4.6	4.4	4.3	4.4
Services	1.3	1.9	2.0	1.9	2.0	2.2
Agriculture and Fishing	1.1	1.2	0.8	0.3	0.3	0.3
Others	0.0	0.0	0.0	0.3	0.2	0.2

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	10.9	13.3	15.3	18.9	19.2	19.4
Combustible Fuels	7.6	9.7	10.6	10.9	10.8	10.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	3.1	3.1	3.2	3.4	3.4	3.4
Solar	0.0	0.0	0.2	2.6	2.6	2.6
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	53.8	60.0	57.4	51.9	54.4	55.3
Solid Fossil Fuels, Peat & Products, Oil Shale	34.3	35.5	30.8	22.1	18.9	18.8
Oil and Petroleum Products	8.9	9.2	6.1	5.7	5.6	5.5
Natural Gas	5.9	8.2	9.8	9.1	14.9	17.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	4.6	7.0	10.5	14.9	14.9	13.9
Wastes non-RES	0.2	0.1	0.1	0.1	0.2	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.6	0.6	0.5	0.3
CHP Electricity Generation (TWh)			2.5	2.0	2.6	2.2
CHP in Total Electricity Generation (%)			4.3	3.9	4.8	3.9
CHP Heat Production (PJ)			12.7	10.9	18.9	14.6
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	6 438	7 343	7 322	5 563	5 713	5 621
of which LPG	17	12	46	257	261	246
of which Motor Gasoline	3 418	4 114	3 867	2 574	2 537	2 451
of which Gas/Diesel Oil	2 252	2 489	2 730	2 254	2 419	2 415
Final Consumption Biofuels	0	0	91	142	149	166
Pure and Blended Biogasoline	0	0	0	0	0	0
Pure and Blended Biodiesel	0	0	91	142	149	166
Main Energy Indicators						
Primary Energy Consumption 2020-2030	27.0	30.1	27.1	23.2	22.8	23.1
Final Energy Consumption 2020-2030	18.7	21.0	19.0	16.5	16.7	16.8
Primary Energy Intensity 2020-2030 (toe/M€'10)	142	131	120	125	124	124
Energy Intensity GAE/GDP2010 (toe/M€'10)	165	147	137	139	136	141
Energy per Capita - GIC/pop (kgoe/cap)	2 575	2 815	2 532	2 198	2 173	2 250
Final Electricity per Capita (KWh/cap)	4 005	4 640	4 777	4 677	4 948	5 012
Import Dependency (%)	69.0	68.2	68.6	71.0	72.9	71.1
of Solid Fossil Fuels	8.5	4.1	5.1	2.8	4.4	4.8
of Hard Coal	105.8	112.4	100.5	91.5	93.7	109.3
of Oil and Petroleum Products	100.2	97.7	98.6	105.5	99.6	98.0
of Crude and NGL	99.5	95.2	99.5	101.5	100.5	97.8
of Natural Gas	99.1	99.1	99.9	99.9	99.2	100.5
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		7.0	9.8	15.4	15.1	16.3
RE-T – Transport		0.1	1.9	1.1	1.6	1.8
RES-E – Electricity Generation		8.2	12.3	22.1	22.7	24.5
RES-H&C – Heating and Cooling		12.8	17.9	25.8	24.6	26.6
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	105.5	116.5	99.9	77.8	74.4	78.3
GHG Emissions – National total*	128.9	138.9	121.0	98.2	94.8	98.9
Main Emissions Indicators						
GHG National Total Emissions/index 1990	122.1	131.5	114.6	93.0	89.8	93.6
Total GHG per Capita (t CO ₂ eq/cap)	12.0	12.7	10.9	9.0	8.8	9.2

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.9 Spain

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	31.4	30.0	34.4	34.0	34.6	34.2
Solid Fossil Fuels	8.0	6.3	3.3	1.2	0.7	1.1
of which Hard Coal	5.4	4.1	2.5	0.8	0.5	0.5
of which Brown Coal	2.6	2.1	0.8	0.4	0.2	0.6
Oil and Petroleum Products	0.2	0.2	0.1	0.2	0.1	0.1
of which Crude Oil	0.2	0.2	0.1	0.2	0.1	0.1
Natural Gas	0.1	0.1	0.0	0.1	0.0	0.0
Nuclear	16.0	14.8	16.1	14.9	15.3	15.1
Renewables and Biofuels	6.8	8.4	14.6	17.3	18.2	17.6
Wastes, Non-Renewable	0.2	0.2	0.2	0.3	0.2	0.3
Net Imports	100.4	124.8	107.1	95.4	94.5	101.9
Solid Fossil Fuels	12.8	14.4	6.8	10.2	7.7	10.9
of which Hard Coal	13.3	14.7	6.9	10.1	7.7	10.8
Oil and Petroleum Products	71.7	80.2	69.7	61.8	61.8	63.2
of which Crude Oil and NGL	58.6	60.7	53.5	66.0	65.4	67.2
Natural gas	15.5	30.2	30.9	23.8	24.7	27.6
Renewables and Biofuels	0.0	0.0	0.4	-0.4	-0.4	-0.6
Electricity	0.4	-0.1	-0.7	0.0	0.7	0.8
Gross Inland Consumption	124.5	145.0	130.4	123.3	124.7	131.1
Solid Fossil Fuels	20.9	20.5	7.3	13.6	10.8	12.7
of which Hard Coal	18.5	18.6	7.2	12.7	10.4	12.2
of which Brown Coal	2.8	2.3	0.2	0.7	0.4	0.6
Oil and Petroleum Products	64.9	71.3	61.4	53.0	54.7	57.9
of which Crude and NGL	58.2	60.6	53.8	66.3	66.2	67.3
Natural Gas	15.2	29.8	31.1	24.5	25.0	27.3
Nuclear	16.0	14.8	16.1	14.9	15.3	15.1
Renewables and Biofuels	6.8	8.4	15.0	17.0	17.9	17.1
Electricity	0.4	-0.1	-0.7	0.0	0.7	0.8
Waste, Non-Renewable	0.2	0.2	0.2	0.3	0.2	0.3
Available for Final Consumption	85.4	101.9	91.1	79.0	81.8	85.2
Final Non-Energy Consumption	9.5	8.4	7.1	4.3	5.0	4.9
Final Energy Consumption	76.3	93.8	85.2	76.0	78.0	79.4
by Fuel/Product						
Solid Fossil Fuels	0.8	0.8	0.5	0.4	0.6	0.6
Oil and Petroleum Products	43.7	50.5	43.9	36.7	38.0	38.8
Natural Gas	11.8	17.7	14.3	13.1	13.4	13.5
Renewables and Biofuels	3.4	3.8	5.0	5.5	5.7	6.0
Solid Biofuels and Renewable Waste	3.3	3.4	3.7	4.0	4.0	4.1
Solar Thermal	0.0	0.1	0.2	0.3	0.3	0.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.1	0.2	1.1	0.8	0.9	1.0
Biogases	0.0	0.0	0.1	0.1	0.1	0.1
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	16.2	20.8	21.0	20.0	20.0	20.2
Heat	0.0	0.0	0.0	0.0	0.0	0.0
by Sector						
Industry	24.5	30.1	20.8	18.2	18.4	19.0
Transport	30.5	36.8	33.9	29.5	30.6	31.7
Residential	12.1	15.2	17.0	15.0	15.2	15.4
Services	6.7	8.4	9.8	10.3	10.9	10.4
Agriculture and Fishing	2.6	3.1	2.2	2.5	2.7	2.6
Others	0.0	0.2	1.5	0.5	0.2	0.2

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	53.9	76.6	101.7	106.8	105.9	103.8
Combustible Fuels	26.2	40.8	50.5	49.4	48.5	46.5
Nuclear	7.5	7.6	7.5	7.4	7.4	7.1
Hydro	18.0	18.2	18.5	20.1	20.1	20.1
Solar	0.0	0.1	4.6	7.0	7.0	7.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	224.5	289.1	301.4	280.7	274.7	275.6
Solid Fossil Fuels, Peat & Products, Oil Shale	79.1	79.1	25.3	51.4	36.4	45.1
Oil and Petroleum Products	22.6	24.4	16.6	17.2	16.9	15.8
Natural Gas	21.9	80.7	95.8	53.8	53.8	65.3
Nuclear	62.2	57.5	62.0	57.2	58.6	58.0
Renewables and Biofuels	38.0	46.9	101.0	100.3	108.1	90.7
Wastes non-RES	0.6	0.5	0.7	0.8	0.7	0.8
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			3.4	3.5	4.2	4.6
CHP Electricity Generation (TWh)			22.4	22.7	27.5	28.8
CHP in Total Electricity Generation (%)			7.4	8.1	10.0	10.4
CHP Heat Production (PJ)			153.3	120.3	138.8	139.2
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	30053	36144	32407	27979	29017	29935
of which LPG	85	51	21	49	53	58
of which Motor Gasoline	9019	7682	5620	4561	4768	4871
of which Gas/Diesel Oil	18903	26037	24228	21433	21982	22352
Final Consumption Biofuels	52	219	1099	756	836	960
Pure and Blended Biogasoline	0	114	232	190	134	138
Pure and Blended Biodiesel	52	104	867	565	702	822
Main Energy Indicators						
Primary Energy Consumption 2020-2030	115.0	136.6	123.3	118.6	119.2	125.6
Final Energy Consumption 2020-2030	80.0	98.1	89.1	80.4	82.5	84.3
Primary Energy Intensity 2020-2030 (toe/M€'10)	133	133	114	111	108	110
Energy Intensity GAE/GDP2010 (toe/M€'10)	150	149	128	122	119	121
Energy per Capita - GIC/pop (kgoe/cap)	3077	3349	2806	2655	2685	2819
Final Electricity per Capita (KWh/cap)	4657	5595	5266	4995	5007	5041
Import Dependency (%)	76.9	81.6	77.2	72.9	71.5	73.9
of Solid Fossil Fuels	61.3	70.3	92.8	75.4	71.7	85.6
of Hard Coal	71.5	79.1	95.7	79.6	74.3	89.0
of Oil and Petroleum Products	101.0	101.2	99.9	102.1	99.2	97.9
of Crude and NGL	100.6	100.1	99.3	99.5	98.7	99.9
of Natural Gas	101.6	101.4	99.4	96.9	98.7	101.3
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		8.4	13.8	16.2	17.4	17.5
RE-T – Transport		1.3	5.0	1.3	5.3	5.9
RES-E – Electricity Generation		19.1	29.8	37.0	36.6	36.3
RES-H&C – Heating and Cooling		9.4	12.6	17.0	17.1	17.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	320.4	379.5	295.4	285.2	276.0	291.4
GHG Emissions – National total*	397.1	452.6	370.1	351.8	342.2	357.3
Main Emissions Indicators						
GHG National Total Emissions/index 1990	135.4	154.3	126.2	120.0	116.7	121.8
Total GHG per Capita (t CO ₂ eq/cap)	9.8	10.5	8.0	7.6	7.4	7.7

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.10 France

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	129.7	136.3	137.0	140.7	133.7	132.2
Solid Fossil Fuels	2.5	0.4	0.2	0.0	0.0	0.0
of which Hard Coal	2.4	0.4	0.2	0.0	0.0	0.0
of which Brown Coal	0.1	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.0	1.5	1.1	1.1	1.0	1.0
of which Crude Oil	1.7	1.3	0.9	0.9	0.8	0.8
Natural Gas	1.5	0.9	0.6	0.0	0.0	0.0
Nuclear	107.1	116.5	111.6	114.0	105.1	103.9
Renewables and Biofuels	15.7	16.0	22.2	24.2	26.1	25.9
Wastes, Non-Renewable	0.9	1.1	1.3	1.4	1.5	1.5
Net Imports	132.7	144.6	132.3	120.4	121.9	125.2
Solid Fossil Fuels	12.8	13.4	12.1	9.2	8.5	10.1
of which Hard Coal	12.3	12.7	11.2	8.8	8.3	9.7
Oil and Petroleum Products	90.0	95.8	83.2	81.8	78.3	80.1
of which Crude Oil and NGL	85.4	86.0	65.5	59.1	56.9	58.9
Natural Gas	35.8	40.7	39.6	34.5	37.9	37.7
Renewables and Biofuels	0.0	-0.1	0.2	0.4	0.7	0.7
Electricity	-6.0	-5.2	-2.6	-5.5	-3.6	-3.4
Gross Inland Consumption	256.1	277.2	269.7	260.1	255.9	256.0
Solid Fossil Fuels	14.9	14.2	12.0	9.3	9.1	9.9
of which Hard Coal	14.1	13.6	11.1	9.1	8.9	9.6
of which Brown Coal	0.1	0.0	0.0	0.1	0.0	0.0
Oil and Petroleum Products	87.6	93.7	82.6	81.2	78.7	79.1
of which Crude and NGL	86.8	87.6	66.7	59.9	58.6	59.3
Natural Gas	35.8	41.0	42.6	35.0	38.3	38.5
Nuclear	107.1	116.5	111.6	114.0	105.1	103.9
Renewables and Biofuels	15.7	15.9	22.3	24.6	26.8	26.6
Electricity	-6.0	-5.2	-2.6	-5.5	-3.6	-3.4
Waste, Non-Renewable	0.9	1.1	1.3	1.4	1.5	1.5
Available for Final Consumption	156.7	167.1	161.7	156.0	157.4	157.3
Final Non-Energy Consumption	16.3	16.1	13.9	13.9	13.5	14.2
Final Energy Consumption	145.7	150.8	146.3	138.7	141.2	141.0
by Fuel/Product						
Solid Fossil Fuels	2.3	2.0	1.8	1.1	1.1	1.1
Oil and Petroleum Products	68.2	65.5	58.4	56.0	55.0	55.0
Natural Gas	29.8	33.3	32.0	27.7	29.1	28.7
Renewables and Biofuels	8.9	9.4	12.9	13.7	14.7	14.9
Solid Biofuels and Renewable Waste	8.4	8.5	9.1	8.5	9.1	8.8
Solar Thermal	0.0	0.0	0.1	0.2	0.2	0.2
Geothermal	0.1	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.3	0.6	2.4	3.0	3.1	3.3
Biogases	0.1	0.1	0.1	0.2	0.2	0.3
Waste, Non-Renewable	0.2	0.1	0.1	0.1	0.1	0.1
Electricity	33.1	36.4	38.2	37.2	37.8	37.6
Heat	3.2	4.2	2.8	2.9	3.3	3.7
by Sector						
Industry	32.9	32.5	27.7	26.1	26.8	26.5
Transport	45.2	44.4	43.6	44.9	45.0	45.4
Residential	40.6	43.0	45.4	39.2	41.3	40.6
Services	18.7	21.0	24.1	23.2	23.5	23.8
Agriculture and Fishing	4.3	4.7	4.5	4.6	4.1	4.1
Others	4.1	5.3	1.0	0.7	0.5	0.5

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	114.5	115.7	124.1	132.2	133.1	133.1
Combustible Fuels	25.9	26.4	28.4	25.9	24.9	21.9
Nuclear	63.2	63.3	63.1	63.1	63.1	63.1
Hydro	25.2	25.1	25.4	25.6	25.6	25.7
Solar	0.0	0.0	1.0	7.1	7.7	8.6
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.2	0.2	0.2	0.2	0.2	0.2
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	540.0	576.1	569.2	578.5	563.9	561.5
Solid Fossil Fuels, Peat & Products, Oil Shale	27.0	27.5	23.4	11.9	10.3	12.6
Oil and Petroleum Products	7.2	7.9	5.5	6.7	6.9	7.4
Natural Gas	15.4	26.3	26.7	23.8	37.0	42.9
Nuclear	415.2	451.5	428.5	437.4	403.2	398.4
Renewables and Biofuels	74.2	61.2	83.0	96.4	104.0	97.7
Wastes non-RES	1.1	1.7	2.0	2.3	2.4	2.5
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			4.6	5.6	6.1	6.3
CHP Electricity Generation (TWh)			15.7	13.9	15.0	16.6
CHP in Total Electricity Generation (%)			2.8	2.5	2.7	3.0
CHP Heat Production (PJ)			173.9	154.9	163.9	177.6
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	44093	42923	40254	40902	40903	40998
of which LPG	245	153	126	89	79	70
of which Motor Gasoline	14459	11198	7713	7048	7207	7441
of which Gas/Diesel Oil	28237	30600	31532	32917	32779	32641
Final Consumption Biofuels	254	585	2420	2996	3106	3335
Pure and Blended Biogasoline	59	101	399	432	476	537
Pure and Blended Biodiesel	195	484	2021	2564	2630	2798
Main Energy Indicators						
Primary Energy Consumption 2020-2030	239.8	260.9	254.4	244.3	240.2	239.5
Final Energy Consumption 2020-2030	155.4	160.2	154.0	146.7	148.7	148.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	136	136	128	116	113	110
Energy Intensity GAE/GDP2010 (toe/M€'10)	147	146	136	125	121	119
Energy per Capita - GIC/pop (kgoe/cap)	4229	4416	4171	3914	3840	3832
Final Electricity per Capita (KWh/cap)	6357	6735	6868	6507	6595	6539
Import Dependency (%)	51.2	51.7	48.7	46.0	47.4	48.6
of Solid Fossil Fuels	86.3	94.4	101.0	98.4	93.7	101.9
of Hard Coal	87.2	92.8	100.6	97.0	92.9	100.4
of Oil and Petroleum Products	99.5	99.5	98.0	98.7	97.7	99.2
of Crude and NGL	98.5	98.2	98.2	98.8	97.1	99.3
of Natural Gas	100.0	99.3	92.8	98.5	99.0	98.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		9.6	12.7	15.2	15.9	16.3
RE-T – Transport		2.1	6.5	8.4	8.7	9.1
RES-E – Electricity Generation		13.7	14.8	18.8	19.2	19.9
RES-H&C – Heating and Cooling		12.4	16.2	19.9	21.1	21.3
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	430.3	442.7	405.7	358.3	359.9	363.7
GHG Emissions – National total*	567.0	570.7	528.0	477.3	477.8	482.0
Main Emissions Indicators						
GHG National Total Emissions/index 1990	101.9	102.5	94.9	85.7	85.8	86.6
Total GHG per Capita (t CO ₂ eq/cap)	9.4	9.1	8.2	7.2	7.2	7.2

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.11 Croatia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	4.3	4.8	5.2	4.4	4.4	4.2
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.3	1.0	0.8	0.7	0.8	0.8
of which Crude Oil	1.3	1.0	0.8	0.7	0.8	0.8
Natural Gas	1.4	1.9	2.2	1.5	1.4	1.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.6	1.9	2.2	2.2	2.3	2.2
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	4.1	5.2	4.4	4.2	4.2	4.7
Solid Fossil Fuels	0.5	0.6	0.7	0.6	0.7	0.4
of which Hard Coal	0.4	0.6	0.6	0.6	0.6	0.4
Oil and Petroleum Products	2.4	3.6	3.0	2.6	2.6	2.7
of which Crude Oil and NGL	3.9	4.0	3.6	2.4	2.6	2.9
Natural gas	0.9	0.6	0.5	0.6	0.7	1.3
Renewables and Biofuels	0.0	0.0	-0.1	-0.3	-0.3	-0.3
Electricity	0.3	0.4	0.3	0.6	0.5	0.6
Gross Inland Consumption	8.4	9.8	9.5	8.5	8.6	8.9
Solid Fossil Fuels	0.4	0.7	0.7	0.6	0.7	0.4
of which Hard Coal	0.4	0.6	0.6	0.6	0.6	0.4
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	4.0	4.5	3.7	3.2	3.3	3.5
of which Crude and NGL	5.5	5.1	4.4	3.0	3.4	3.6
Natural Gas	2.2	2.4	2.6	2.1	2.2	2.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.6	1.9	2.1	2.0	2.0	1.9
Electricity	0.3	0.4	0.3	0.6	0.5	0.6
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Available for Final Consumption	6.6	7.8	7.7	7.0	7.0	7.3
Final Non-Energy Consumption	0.7	0.7	0.6	0.5	0.5	0.5
Final Energy Consumption	5.9	7.2	7.1	6.5	6.5	6.8
by Fuel/Product						
Solid Fossil Fuels	0.1	0.1	0.2	0.1	0.1	0.1
Oil and Petroleum Products	2.6	3.0	2.8	2.6	2.7	2.8
Natural Gas	1.0	1.2	1.3	1.0	1.0	1.1
Renewables and Biofuels	1.0	1.2	1.3	1.2	1.2	1.2
Solid Biofuels and Renewable Waste	1.0	1.2	1.2	1.2	1.2	1.1
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	1.0	1.2	1.4	1.3	1.3	1.4
Heat	0.2	0.3	0.2	0.2	0.2	0.2
by Sector						
Industry	1.4	1.6	1.4	1.1	1.1	1.2
Transport	1.5	1.8	2.0	2.0	2.0	2.2
Residential	2.3	2.8	2.8	2.4	2.4	2.4
Services	0.5	0.7	0.8	0.7	0.8	0.8
Agriculture and Fishing	0.3	0.2	0.2	0.2	0.2	0.2
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	2.1	3.9	4.1	4.8	4.9	5.0
Nuclear	0.0	1.8	1.9	2.1	2.1	2.1
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	2.1	2.1	2.1	2.2	2.2	2.2
Solar	0.0	0.0	0.0	0.0	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	11.3	13.2	14.9	11.4	12.8	12.0
Oil and Petroleum Products	1.6	2.3	2.4	2.3	2.6	1.4
Natural Gas	1.7	1.9	0.6	0.2	0.1	0.2
Nuclear	1.6	1.8	2.6	1.2	1.6	3.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	6.5	7.2	9.4	7.7	8.6	7.3
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.7	0.6	0.8	0.8
CHP Electricity Generation (TWh)			2.0	0.8	1.5	2.0
CHP in Total Electricity Generation (%)			15.8	7.1	11.5	16.7
CHP Heat Production (PJ)			14.9	10.0	16.3	18.8
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1459	1815	1943	1942	2013	2161
of which LPG	11	25	66	75	80	79
of which Motor Gasoline	815	739	678	554	557	535
of which Gas/Diesel Oil	623	1038	1186	1303	1366	1537
Final Consumption Biofuels	0	0	3	24	1	0
Pure and Blended Biogasoline	0	0	0	0	0	0
Pure and Blended Biodiesel	0	0	3	24	1	0
Main Energy Indicators						
Primary Energy Consumption 2020-2030	7.8	9.1	8.9	8.0	8.0	8.3
Final Energy Consumption 2020-2030	6.0	7.2	7.2	6.6	6.6	6.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	221	208	196	178	174	175
Energy Intensity GAE/GDP2010 (toe/M€'10)	240	224	210	190	185	186
Energy per Capita - GIC/pop (kgoe/cap)	1877	2277	2198	2009	2044	2134
Final Electricity per Capita (KWh/cap)	2631	3344	3686	3631	3651	3846
Import Dependency (%)						
of Solid Fossil Fuels	48.5	52.6	46.8	48.9	48.5	53.3
of Hard Coal	110.9	91.3	102.5	103.0	102.0	100.7
of Oil and Petroleum Products	112.8	90.6	102.7	102.4	102.5	100.9
of Crude and NGL	61.0	79.4	80.6	81.4	79.0	77.1
of Natural Gas	72.1	78.9	82.3	79.6	76.4	79.3
of Natural Gas	41.0	23.7	18.1	27.1	33.5	53.8
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		23.7	25.1	29.0	28.3	27.3
RE-T – Transport		1.0	1.1	3.6	1.3	1.2
RES-E – Electricity Generation		35.4	37.5	45.4	46.6	46.4
RES-H&C – Heating and Cooling		30.0	32.8	38.5	37.6	36.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	19.9	23.6	21.4	18.2	18.5	19.2
GHG Emissions – National total*	26.1	30.3	28.4	24.6	24.8	25.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	80.5	93.6	87.7	76.0	76.5	78.7
Total GHG per Capita (t CO ₂ eq/cap)	5.8	7.0	6.6	5.8	5.9	6.1

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.12 Italy

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	28.3	30.3	32.9	36.1	33.5	36.7
Solid Fossil Fuels	0.0	0.1	0.1	0.1	0.0	0.0
of which Hard Coal	0.0	0.1	0.1	0.1	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	4.9	6.3	5.6	5.8	4.0	4.5
of which Crude Oil	4.6	6.1	5.1	5.5	3.7	4.1
Natural Gas	13.6	9.9	6.9	5.5	4.7	4.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	9.6	13.3	19.4	23.6	23.6	26.5
Wastes, Non-Renewable	0.3	0.7	1.0	1.1	1.2	1.1
Net Imports	152.4	159.8	148.5	121.4	121.5	124.6
Solid Fossil Fuels	13.1	16.4	13.8	12.3	10.7	9.4
of which Hard Coal	12.9	15.9	13.8	11.9	10.2	9.1
Oil and Petroleum Products	88.0	78.5	66.8	52.4	51.9	52.8
of which Crude Oil and NGL	83.6	88.5	78.2	61.7	60.3	65.7
Natural gas	47.0	59.8	61.6	50.0	53.3	56.8
Renewables and Biofuels	0.5	0.8	2.5	2.7	2.5	2.3
Electricity	3.8	4.2	3.8	4.0	3.2	3.2
Gross Inland Consumption	174.5	189.4	176.8	155.7	154.3	159.5
Solid Fossil Fuels	12.6	16.5	13.7	12.3	11.0	9.3
of which Hard Coal	12.2	16.0	13.6	11.8	10.4	9.1
of which Brown Coal	0.0	0.0	0.2	0.2	0.1	0.0
Oil and Petroleum Products	89.9	83.3	68.4	56.7	54.8	55.4
of which Crude and NGL	87.9	94.1	82.8	67.0	64.6	70.1
Natural Gas	57.9	70.7	68.1	55.3	58.1	61.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	10.1	14.1	21.9	26.3	26.0	28.8
Electricity	3.8	4.2	3.8	4.0	3.2	3.2
Waste, Non-Renewable	0.3	0.7	1.0	1.1	1.2	1.1
Available for Final Consumption	128.8	139.6	131.7	117.6	116.8	121.2
Final Non-Energy Consumption	8.4	8.6	9.6	6.6	6.3	7.9
Final Energy Consumption	119.7	131.5	123.1	112.1	111.6	113.6
by Fuel/Product						
Solid Fossil Fuels	1.5	1.3	0.6	0.5	0.7	0.5
Oil and Petroleum Products	55.0	56.0	45.6	41.2	40.5	38.3
Natural Gas	37.6	40.6	38.5	33.0	33.2	33.9
Renewables and Biofuels	1.7	4.5	9.1	8.4	8.0	11.3
Solid Biofuels and Renewable Waste	1.5	4.1	7.4	6.8	6.6	7.2
Solar Thermal	0.0	0.0	0.1	0.2	0.2	0.2
Geothermal	0.2	0.2	0.1	0.1	0.1	0.1
Liquid Biofuels	0.0	0.2	1.4	1.2	1.0	1.1
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.1	0.1	0.2	0.3	0.3	0.2
Electricity	23.5	25.9	25.7	24.7	24.6	25.1
Heat	0.0	3.1	3.3	3.9	4.0	4.1
by Sector						
Industry	37.6	37.2	29.0	24.9	25.1	24.9
Transport	39.7	41.8	38.6	36.4	35.8	34.5
Residential	27.6	33.9	35.4	32.5	32.2	32.9
Services	11.5	15.1	17.0	15.4	15.4	18.2
Agriculture and Fishing	3.2	3.3	2.9	2.9	2.9	2.9
Others	0.2	0.2	0.2	0.1	0.2	0.1

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	75.5	85.5	106.6	117.0	114.2	114.2
Combustible Fuels	54.0	61.9	74.7	65.6	62.1	61.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	20.3	21.0	21.5	22.2	22.3	22.4
Solar	0.0	0.0	3.6	18.9	19.3	19.7
Geothermal	0.6	0.7	0.7	0.8	0.8	0.8
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	275.9	302.6	301.3	282.4	289.0	295.2
Solid Fossil Fuels, Peat & Products, Oil Shale	26.3	43.6	39.7	43.2	35.6	32.6
Oil and Petroleum Products	85.9	47.1	21.7	13.4	12.1	11.5
Natural Gas	105.6	155.1	157.4	113.0	128.9	142.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	57.6	55.3	80.3	110.3	109.8	105.7
Wastes non-RES	0.5	1.5	2.1	2.4	2.5	2.5
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			7.4	9.0	8.5	8.4
CHP Electricity Generation (TWh)			34.7	39.5	40.3	41.0
CHP in Total Electricity Generation (%)			11.5	14.0	13.9	13.8
CHP Heat Production (PJ)			202.5	213.2	219.8	219.9
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	38633	40430	35534	33187	32708	31421
of which LPG	1562	1131	1334	1817	1756	1832
of which Motor Gasoline	17556	14175	10276	8192	7650	7433
of which Gas/Diesel Oil	18415	23793	22703	22090	22136	20987
Final Consumption Biofuels	0	177	1419	1167	1041	1062
Pure and Blended Biogasoline	0	0	122	25	33	33
Pure and Blended Biodiesel	0	177	1297	1142	1008	1029
Main Energy Indicators						
Primary Energy Consumption 2020-2030	166.1	180.8	167.3	149.1	148.0	148.9
Final Energy Consumption 2020-2030	124.8	137.2	128.5	116.2	115.9	115.2
Primary Energy Intensity 2020-2030 (toe/M€'10)	107	111	104	96	94	93
Energy Intensity GAE/GDP2010 (toe/M€'10)	113	118	112	101	99	101
Energy per Capita - GIC/pop (kgoe/cap)	3066	3273	2988	2562	2543	2633
Final Electricity per Capita (KWh/cap)	4795	5199	5057	4729	4715	4819
Import Dependency (%)	86.5	83.3	82.6	77.0	77.7	77.0
of Solid Fossil Fuels	104.6	99.4	100.8	100.2	97.5	100.2
of Hard Coal	105.7	99.7	101.4	100.5	98.0	100.2
of Oil and Petroleum Products	96.1	91.8	93.6	89.4	90.9	91.5
of Crude and NGL	95.1	94.0	94.5	92.2	93.3	93.6
of Natural Gas	81.1	84.7	90.5	90.4	91.8	92.3
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		7.5	13.0	17.5	17.4	18.3
RE-T – Transport		1.0	4.7	6.5	7.4	6.5
RES-E – Electricity Generation		16.3	20.1	33.5	34.0	34.1
RES-H&C – Heating and Cooling		8.2	15.6	19.3	18.9	20.1
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	478.2	502.9	435.2	365.4	363.8	360.2
GHG Emissions – National total*	562.1	589.2	514.7	443.7	442.5	439.0
Main Emissions Indicators						
GHG National Total Emissions/index 1990	107.7	112.9	98.6	85.0	84.8	84.1
Total GHG per Capita (t CO ₂ eq/cap)	9.9	10.2	8.7	7.3	7.3	7.2

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.13 Cyprus

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	0.0	0.1	0.1	0.1	0.1	0.1
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.1	0.1	0.1	0.1
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	2.6	2.9	3.0	2.5	2.6	2.7
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.5	2.8	2.9	2.4	2.6	2.6
of which Crude Oil and NGL	1.2	0.0	0.0	0.0	0.0	0.0
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.0	0.0	0.0
Gross Inland Consumption	2.4	2.5	2.8	2.3	2.5	2.6
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.3	2.5	2.6	2.1	2.3	2.4
of which Crude and NGL	1.2	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.1	0.1	0.1	0.2	0.2
Electricity	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Available for Final Consumption	1.5	1.5	1.7	1.4	1.5	1.6
Final Non-Energy Consumption	0.1	0.1	0.1	0.0	0.0	0.0
Final Energy Consumption	1.4	1.5	1.6	1.4	1.5	1.5
by Fuel/Product						
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.0	1.1	1.1	0.9	1.0	1.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.1	0.1	0.1	0.1	0.1
Solid Biofuels and Renewable Waste	0.0	0.0	0.0	0.0	0.0	0.0
Solar Thermal	0.0	0.0	0.1	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.3	0.3	0.4	0.4	0.4	0.4
Heat	0.0	0.0	0.0	0.0	0.0	0.0
by Sector						
Industry	0.4	0.3	0.2	0.2	0.2	0.2
Transport	0.6	0.7	0.8	0.6	0.7	0.7
Residential	0.2	0.3	0.3	0.3	0.3	0.3
Services	0.1	0.2	0.2	0.2	0.2	0.2
Agriculture and Fishing	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.1	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	1.0	1.1	1.6	1.8	1.8	1.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	3.4	4.4	5.2	4.1	4.5	4.6
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.1	0.4	0.4	0.4
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.0	0.0	0.0	0.0
CHP Electricity Generation (TWh)			0.1	0.0	0.0	0.0
CHP in Total Electricity Generation (%)			1.0	0.1	0.6	0.6
CHP Heat Production (PJ)			0.1	0.2	0.1	0.1
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	577	676	750	612	645	668
of which LPG	0	0	0	0	0	0
of which Motor Gasoline	218	321	413	365	375	371
of which Gas/Diesel Oil	359	355	338	247	271	297
Final Consumption Biofuels	0	0	15	10	9	9
Pure and Blended Biogasoline	0	0	0	0	0	0
Pure and Blended Biodiesel	0	0	15	10	9	9
Main Energy Indicators						
Primary Energy Consumption 2020-2030	2.3	2.5	2.7	2.3	2.4	2.5
Final Energy Consumption 2020-2030	1.6	1.8	1.9	1.7	1.8	1.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	167	145	138	127	129	129
Energy Intensity GAE/GDP2010 (toe/M€'10)	187	166	152	142	147	144
Energy per Capita - GIC/pop (kgoe/cap)	3511	3476	3365	2704	2896	2996
Final Electricity per Capita (KWh/cap)	4339	5402	5960	4830	5186	5313
Import Dependency (%)						
of Solid Fossil Fuels	102.0	121.1	65.6	100.0	0.0	326.4
of Hard Coal	102.0	121.2	65.4	100.0	0.0	326.4
of Oil and Petroleum Products	100.3	102.3	104.2	102.8	100.7	100.9
of Crude and NGL	98.5	0.0	0.0	0.0	0.0	0.0
of Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		3.1	6.0	9.4	9.3	9.9
RE-T – Transport			2.0	2.5	2.7	2.6
RES-E – Electricity Generation		0.0	1.4	8.4	8.6	8.9
RES-H&C – Heating and Cooling		10.0	18.2	22.5	23.0	24.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	8.0	8.9	8.9	7.7	8.2	8.5
GHG Emissions – National total*	9.2	10.2	10.3	9.1	9.6	10.0
Main Emissions Indicators						
GHG National Total Emissions/index 1990	144.2	159.1	161.0	141.7	150.6	155.7
Total GHG per Capita (t CO ₂ eq/cap)	13.4	13.9	12.6	10.7	11.3	11.6

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.14 Latvia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	1.4	1.9	2.0	2.3	2.5	2.6
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.4	1.9	2.0	2.3	2.4	2.6
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	2.4	3.1	2.2	2.4	2.2	2.1
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.0	0.0
of which Hard Coal	0.1	0.1	0.1	0.0	0.0	0.0
Oil and Petroleum Products	1.2	1.8	1.7	1.8	2.0	1.8
of which Crude Oil and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural gas	1.1	1.4	0.9	1.1	0.9	1.0
Renewables and Biofuels	-0.2	-0.4	-0.6	-0.7	-0.8	-0.8
Electricity	0.2	0.2	0.1	0.2	0.1	0.0
Gross Inland Consumption	3.9	4.6	4.6	4.4	4.4	4.6
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.0	0.0
of which Hard Coal	0.1	0.1	0.1	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.3	1.5	1.5	1.5	1.5	1.6
of which Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	1.1	1.4	1.5	1.1	1.1	1.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	1.2	1.5	1.4	1.5	1.6	1.9
Electricity	0.2	0.2	0.1	0.2	0.1	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.0	0.0
Available for Final Consumption	3.3	4.0	4.1	3.8	3.8	3.9
Final Non-Energy Consumption	0.1	0.1	0.1	0.1	0.1	0.1
Final Energy Consumption	3.2	4.0	4.0	3.7	3.7	3.9
by Fuel/Product						
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.0	0.0
Oil and Petroleum Products	1.0	1.3	1.3	1.3	1.3	1.3
Natural Gas	0.3	0.5	0.5	0.3	0.3	0.3
Renewables and Biofuels	0.8	1.0	0.9	0.9	0.9	1.0
Solid Biofuels and Renewable Waste	0.8	1.0	0.9	0.9	0.9	1.0
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.0	0.0
Electricity	0.4	0.5	0.5	0.6	0.6	0.6
Heat	0.6	0.6	0.6	0.5	0.6	0.6
by Sector						
Industry	0.6	0.7	0.8	0.8	0.7	0.8
Transport	0.7	1.0	1.1	1.0	1.0	1.1
Residential	1.3	1.5	1.4	1.1	1.1	1.2
Services	0.5	0.6	0.6	0.6	0.6	0.6
Agriculture and Fishing	0.1	0.2	0.2	0.2	0.2	0.2
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	2.1	2.2	2.6	2.9	2.9	2.9
Combustible Fuels	0.6	0.6	1.0	1.3	1.3	1.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.5	1.5	1.6	1.6	1.6	1.6
Solar	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	4.1	4.9	6.6	5.5	6.4	7.5
Solid Fossil Fuels, Peat & Products, Oil Shale	0.1	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.1	0.0	0.0	0.0	0.0	0.0
Natural Gas	1.1	1.5	3.0	2.8	2.9	2.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	2.8	3.4	3.6	2.8	3.5	5.5
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.9	1.1	1.3	1.3
CHP Electricity Generation (TWh)			3.0	2.5	3.1	2.8
CHP in Total Electricity Generation (%)			45.0	44.7	48.5	37.7
CHP Heat Production (PJ)			10.4	12.4	14.5	14.2
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	707	991	1046	1006	1014	1063
of which LPG	21	26	24	64	62	58
of which Motor Gasoline	347	352	294	205	200	192
of which Gas/Diesel Oil	340	613	728	737	752	811
Final Consumption Biofuels	0	3	27	23	11	9
Pure and Blended Biogasoline	0	0	8	8	8	8
Pure and Blended Biodiesel	0	3	19	15	3	1
Main Energy Indicators						
Primary Energy Consumption 2020-2030	3.8	4.5	4.6	4.3	4.3	4.5
Final Energy Consumption 2020-2030	3.3	4.0	4.1	3.8	3.8	4.0
Primary Energy Intensity 2020-2030 (toe/M€'10)	308	246	256	202	199	198
Energy Intensity GAE/GDP2010 (toe/M€'10)	315	266	274	219	218	213
Energy per Capita - GIC/pop (kgoe/cap)	1623	2040	2183	2205	2231	2334
Final Electricity per Capita (KWh/cap)	1880	2547	2931	3253	3292	3325
Import Dependency (%)	61.0	63.8	45.5	51.2	47.2	44.1
of Solid Fossil Fuels	84.1	97.7	106.5	85.2	85.9	88.5
of Hard Coal	82.5	96.7	106.6	85.2	85.9	88.5
of Oil and Petroleum Products	94.9	102.2	94.4	102.9	109.1	100.1
of Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
of Natural Gas	101.9	105.6	61.8	98.6	82.9	102.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		32.3	30.4	37.5	37.1	39.0
RE-T – Transport		2.4	4.0	3.9	2.8	2.5
RES-E – Electricity Generation		43.0	42.1	52.2	51.3	54.4
RES-H&C – Heating and Cooling		42.7	40.7	51.7	51.8	54.6
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	7.2	8.0	8.9	7.6	7.6	7.7
GHG Emissions – National total*	10.6	11.6	12.7	11.6	11.7	11.8
Main Emissions Indicators						
GHG National Total Emissions/index 1990	39.9	43.7	47.7	43.7	44.0	44.3
Total GHG per Capita (t CO ₂ eq/cap)	4.4	5.2	6.0	5.8	5.9	6.0

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.15 Lithuania

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	3.4	3.9	1.3	1.6	1.6	1.8
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.3	0.2	0.1	0.1	0.1	0.1
of which Crude Oil	0.3	0.2	0.1	0.1	0.1	0.1
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	2.3	2.8	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.7	0.9	1.2	1.5	1.5	1.7
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	4.3	5.0	5.7	5.5	5.6	5.7
Solid Fossil Fuels	0.1	0.2	0.2	0.1	0.1	0.2
of which Hard Coal	0.0	0.0	0.1	0.1	0.1	0.2
Oil and Petroleum Products	2.3	2.6	2.7	2.7	2.9	3.0
of which Crude Oil and NGL	4.6	8.9	9.1	8.7	9.4	9.9
Natural gas	2.1	2.5	2.5	2.1	1.9	1.9
Renewables and Biofuels	0.0	0.0	-0.1	-0.1	0.0	-0.1
Electricity	-0.1	-0.3	0.5	0.6	0.7	0.7
Gross Inland Consumption	7.2	8.8	6.8	6.9	7.1	7.4
Solid Fossil Fuels	0.1	0.2	0.2	0.2	0.2	0.2
of which Hard Coal	0.0	0.0	0.1	0.2	0.1	0.1
of which Brown Coal	0.1	0.2	0.1	0.0	0.0	0.0
Oil and Petroleum Products	2.2	2.7	2.6	2.6	2.8	2.9
of which Crude and NGL	4.9	9.4	9.2	8.7	9.4	9.9
Natural Gas	2.1	2.5	2.5	2.1	1.8	1.9
Nuclear	2.3	2.8	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.7	0.9	1.1	1.4	1.5	1.6
Electricity	-0.1	-0.3	0.5	0.6	0.7	0.7
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Available for Final Consumption	4.3	5.3	5.4	5.9	6.0	6.4
Final Non-Energy Consumption	0.7	0.7	0.7	1.1	1.0	1.2
Final Energy Consumption	3.7	4.6	4.8	4.8	5.0	5.2
by Fuel/Product						
Solid Fossil Fuels	0.1	0.2	0.2	0.2	0.2	0.2
Oil and Petroleum Products	1.3	1.6	1.6	1.8	1.9	2.0
Natural Gas	0.4	0.6	0.6	0.5	0.6	0.6
Renewables and Biofuels	0.6	0.7	0.7	0.7	0.7	0.7
Solid Biofuels and Renewable Waste	0.6	0.7	0.7	0.6	0.6	0.6
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.1	0.1	0.1
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.5	0.7	0.7	0.8	0.8	0.9
Heat	0.8	0.9	0.9	0.8	0.8	0.9
by Sector						
Industry	0.8	1.1	0.9	1.0	1.0	1.1
Transport	1.0	1.4	1.5	1.8	1.9	2.0
Residential	1.4	1.5	1.6	1.4	1.4	1.5
Services	0.5	0.6	0.6	0.6	0.6	0.6
Agriculture and Fishing	0.1	0.1	0.1	0.1	0.1	0.1
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	5.7	4.6	3.6	3.6	3.7	3.3
Combustible Fuels	2.5	2.5	2.5	2.2	2.2	1.8
Nuclear	2.4	1.2	0.0	0.0	0.0	0.0
Hydro	0.9	0.9	0.9	0.9	0.9	0.9
Solar	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	11.3	14.6	5.5	4.7	4.0	3.9
Solid Fossil Fuels, Peat & Products, Oil Shale	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.7	0.4	0.6	0.3	0.2	0.1
Natural Gas	1.6	3.0	3.2	2.0	1.0	0.6
Nuclear	8.4	10.3	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.6	0.8	1.7	2.4	2.7	3.1
Wastes non-RES	0.0	0.0	0.0	0.1	0.1	0.1
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			1.1	1.0	0.6	0.6
CHP Electricity Generation (TWh)			2.0	1.5	1.1	1.1
CHP in Total Electricity Generation (%)			34.6	31.3	25.9	26.2
CHP Heat Production (PJ)			19.3	12.4	9.5	10.4
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1 026	1 359	1 421	1 647	1 770	1 861
of which LPG	120	229	174	133	126	116
of which Motor Gasoline	390	351	296	200	216	214
of which Gas/Diesel Oil	513	779	951	1 313	1 429	1 530
Final Consumption Biofuels	0	3	45	68	57	61
Pure and Blended Biogasoline	0	1	10	10	6	7
Pure and Blended Biodiesel	0	3	34	58	50	54
Main Energy Indicators						
Primary Energy Consumption 2020-2030	6.5	8.0	6.2	5.8	6.0	6.2
Final Energy Consumption 2020-2030	3.8	4.7	4.8	4.9	5.1	5.3
Primary Energy Intensity 2020-2030 (toe/M€'10)	357	304	220	172	175	171
Energy Intensity GAE/GDP2010 (toe/M€'10)	398	338	249	207	210	210
Energy per Capita - GIC/pop (kgoe/cap)	2 051	2 617	2 174	2 365	2 452	2 589
Final Electricity per Capita (KWh/cap)	1 764	2 377	2 652	3 198	3 375	3 532
Import Dependency (%)	58.9	56.6	81.9	78.4	77.6	75.6
of Solid Fossil Fuels	101.7	101.0	95.7	90.6	91.8	107.8
of Hard Coal	100.0	100.0	109.7	90.1	91.5	109.0
of Oil and Petroleum Products	101.0	93.4	98.7	100.7	97.9	96.3
of Crude and NGL	94.5	95.3	99.0	99.5	99.4	99.5
of Natural Gas	100.0	100.7	99.7	99.7	100.6	99.3
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		16.8	19.6	25.8	25.6	25.8
RE-T – Transport		0.6	3.8	4.6	3.6	3.7
RES-E – Electricity Generation		3.8	7.4	15.5	16.9	18.3
RES-H&C – Heating and Cooling		29.3	32.5	46.1	46.6	46.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	11.9	14.2	13.9	13.4	13.4	13.7
GHG Emissions – National total*	19.6	23.0	20.9	20.5	20.5	20.7
Main Emissions Indicators						
GHG National Total Emissions/index 1990	40.3	47.3	42.9	42.1	42.1	42.7
Total GHG per Capita (t CO ₂ eq/cap)	5.6	6.9	6.6	7.0	7.1	7.3

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.16 Luxembourg

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	0.1	0.1	0.1	0.2	0.2	0.2
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.1	0.1	0.1	0.1	0.2
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	3.6	4.7	4.5	4.0	4.0	4.1
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.1	0.0
of which Hard Coal	0.1	0.1	0.1	0.0	0.0	0.0
Oil and Petroleum Products	2.4	3.1	2.9	2.6	2.6	2.7
of which Crude Oil and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural gas	0.7	1.2	1.2	0.8	0.7	0.7
Renewables and Biofuels	0.0	0.0	0.0	0.1	0.1	0.1
Electricity	0.5	0.3	0.3	0.5	0.5	0.5
Gross Inland Consumption	3.7	4.8	4.6	4.2	4.2	4.3
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.1	0.0
of which Hard Coal	0.1	0.1	0.1	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.3	3.2	2.9	2.6	2.6	2.8
of which Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.7	1.2	1.2	0.8	0.7	0.7
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.1	0.1	0.2	0.2	0.3
Electricity	0.5	0.3	0.3	0.5	0.5	0.5
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Available for Final Consumption	3.2	4.1	3.9	3.6	3.6	3.6
Final Non-Energy Consumption	0.1	0.0	0.0	0.0	0.0	0.0
Final Energy Consumption	3.2	4.0	3.9	3.5	3.5	3.6
by Fuel/Product						
Solid Fossil Fuels	0.1	0.1	0.1	0.0	0.1	0.0
Oil and Petroleum Products	1.9	2.7	2.4	2.1	2.1	2.1
Natural Gas	0.6	0.6	0.7	0.6	0.6	0.6
Renewables and Biofuels	0.0	0.0	0.1	0.1	0.1	0.2
Solid Biofuels and Renewable Waste	0.0	0.0	0.0	0.0	0.0	0.0
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.1	0.1	0.1
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.5	0.5	0.6	0.5	0.5	0.5
Heat	0.0	0.1	0.1	0.1	0.1	0.1
by Sector						
Industry	0.7	0.8	0.8	0.6	0.7	0.6
Transport	1.6	2.3	2.2	2.0	1.9	2.0
Residential	0.5	0.5	0.5	0.5	0.5	0.5
Services	0.4	0.4	0.4	0.4	0.4	0.5
Agriculture and Fishing	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	1.2	1.7	1.7	2.0	1.7	1.7
Nuclear	0.1	0.5	0.5	0.5	0.1	0.1
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	1.1	1.1	1.1	1.3	1.3	1.3
Solar	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	1.2	4.1	4.6	2.8	2.2	2.2
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.2	3.1	2.9	0.8	0.3	0.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.9	1.0	1.6	1.9	1.9	1.9
Wastes non-RES	0.0	0.0	0.0	0.1	0.1	0.1
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.1	0.1	0.1	0.1
CHP Electricity Generation (TWh)			0.4	0.4	0.3	0.3
CHP in Total Electricity Generation (%)			9.6	12.7	15.7	15.5
CHP Heat Production (PJ)			3.2	2.4	2.3	2.6
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1 588	2 341	2 124	1 863	1 807	1 843
of which LPG	2	2	1	1	1	1
of which Motor Gasoline	595	514	362	293	285	301
of which Gas/Diesel Oil	990	1 824	1 760	1 570	1 521	1 542
Final Consumption Biofuels	0	1	42	83	89	113
Pure and Blended Biogasoline	0	0	1	7	9	7
Pure and Blended Biodiesel	0	0	41	76	81	107
Main Energy Indicators						
Primary Energy Consumption 2020-2030	3.6	4.8	4.6	4.1	4.2	4.3
Final Energy Consumption 2020-2030	3.5	4.5	4.3	4.0	4.0	4.2
Primary Energy Intensity 2020-2030 (toe/M€'10)	117	134	115	90	88	90
Energy Intensity GAE/GDP2010 (toe/M€'10)	119	135	116	91	89	90
Energy per Capita - GIC/pop (kgoe/cap)	8 433	10 411	9 254	7 425	7 278	7 343
Final Electricity per Capita (KWh/cap)	13 319	13 340	13 132	11 056	11 050	10 825
Import Dependency (%)						
of Solid Fossil Fuels	99.6	97.4	97.0	95.9	96.1	95.4
of Hard Coal	100.0	100.0	100.0	100.0	100.0	100.0
of Oil and Petroleum Products	100.0	100.0	100.0	100.0	100.0	100.0
of Crude and NGL	102.1	99.4	99.3	99.3	100.0	99.7
of Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
of Natural Gas	100.0	100.0	100.0	100.0	100.0	100.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		1.4	2.9	5.1	5.4	6.4
RE-T – Transport		0.1	2.1	6.7	5.9	6.4
RES-E – Electricity Generation		3.2	3.8	6.2	6.7	8.1
RES-H&C – Heating and Cooling		3.6	4.7	7.1	7.3	8.1
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	9.7	13.4	12.5	10.7	10.6	10.9
GHG Emissions – National total*	10.6	14.3	13.4	11.6	11.6	11.9
Main Emissions Indicators						
GHG National Total Emissions/index 1990	80.8	108.8	102.3	88.6	87.9	90.8
Total GHG per Capita (t CO ₂ eq/cap)	24.5	31.0	26.8	20.7	20.0	20.2

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.17 Hungary

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	11.6	10.9	11.7	11.1	11.3	11.1
Solid Fossil Fuels	2.9	1.7	1.6	1.5	1.5	1.3
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	2.9	1.7	1.6	1.5	1.5	1.3
Oil and Petroleum Products	1.7	1.5	1.1	0.9	1.0	1.0
of which Crude Oil	1.7	1.4	1.1	0.9	1.0	1.0
Natural Gas	2.5	2.3	2.2	1.4	1.4	1.4
Nuclear	3.7	3.6	4.0	4.0	4.1	4.1
Renewables and Biofuels	0.8	1.7	2.7	3.2	3.2	3.2
Wastes, Non-Renewable	0.0	0.1	0.1	0.1	0.1	0.1
Net Imports	13.9	17.7	15.1	13.6	14.3	16.7
Solid Fossil Fuels	1.1	1.3	1.1	0.8	0.7	1.0
of which Hard Coal	0.9	1.0	1.3	1.0	1.0	1.1
Oil and Petroleum Products	5.2	6.1	5.8	6.6	6.3	6.6
of which Crude Oil and NGL	5.8	6.2	5.8	6.2	5.9	5.8
Natural gas	7.3	9.8	7.7	5.2	6.3	8.2
Renewables and Biofuels	0.0	0.0	0.0	-0.2	-0.2	-0.2
Electricity	0.3	0.5	0.4	1.2	1.1	1.1
Gross Inland Consumption	25.2	28.5	26.6	25.2	25.6	26.7
Solid Fossil Fuels	3.8	3.1	2.7	2.4	2.2	2.2
of which Hard Coal	0.9	0.9	1.3	1.0	1.0	1.1
of which Brown Coal	3.0	2.1	1.7	1.6	1.5	1.4
Oil and Petroleum Products	6.9	7.5	6.8	7.0	7.0	7.6
of which Crude and NGL	7.4	7.6	6.8	6.8	6.9	6.7
Natural Gas	9.7	12.1	9.8	7.5	8.0	8.5
Nuclear	3.7	3.6	4.0	4.0	4.1	4.1
Renewables and Biofuels	0.8	1.7	2.8	3.0	3.0	3.0
Electricity	0.3	0.5	0.4	1.2	1.1	1.1
Waste, Non-Renewable	0.0	0.1	0.1	0.1	0.2	0.2
Available for Final Consumption	17.2	20.3	18.9	18.6	19.0	19.9
Final Non-Energy Consumption	1.6	2.2	2.0	1.9	1.8	2.2
Final Energy Consumption	15.6	18.2	16.9	16.9	17.4	18.0
by Fuel/Product						
Solid Fossil Fuels	0.4	0.5	0.2	0.2	0.2	0.3
Oil and Petroleum Products	4.0	4.6	4.4	5.0	5.1	5.3
Natural Gas	6.4	7.7	6.1	5.3	5.5	5.7
Renewables and Biofuels	0.8	1.2	2.0	2.2	2.2	2.1
Solid Biofuels and Renewable Waste	0.7	1.1	1.7	1.9	1.9	1.8
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.1	0.1	0.1	0.1	0.1	0.1
Liquid Biofuels	0.0	0.0	0.2	0.2	0.2	0.1
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.1	0.1	0.1
Electricity	2.5	2.8	2.9	3.1	3.2	3.3
Heat	1.4	1.3	1.1	1.0	1.1	1.0
by Sector						
Industry	3.3	3.1	2.6	3.9	4.0	4.3
Transport	3.1	4.0	4.1	4.2	4.3	4.5
Residential	5.6	7.0	6.6	6.0	6.2	6.3
Services	3.0	3.5	3.0	2.2	2.2	2.2
Agriculture and Fishing	0.7	0.6	0.5	0.6	0.6	0.6
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	8.3	8.6	9.0	8.6	8.8	8.9
Combustible Fuels	6.4	6.7	6.6	6.1	6.1	6.1
Nuclear	1.9	1.9	2.0	2.0	2.0	2.0
Hydro	0.0	0.0	0.1	0.1	0.1	0.1
Solar	0.0	0.0	0.0	0.2	0.2	0.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	35.2	35.8	37.4	30.3	31.8	32.8
Solid Fossil Fuels, Peat & Products, Oil Shale	9.6	7.0	6.2	5.8	5.6	4.9
Oil and Petroleum Products	4.4	0.5	0.5	0.1	0.1	0.1
Natural Gas	6.7	12.5	11.7	5.2	6.6	8.0
Nuclear	14.2	13.8	15.8	15.8	16.1	16.1
Renewables and Biofuels	0.2	1.9	3.0	3.2	3.3	3.5
Wastes non-RES	0.1	0.1	0.2	0.1	0.2	0.2
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			1.9	1.6	1.5	1.5
CHP Electricity Generation (TWh)			7.3	4.1	4.8	4.6
CHP in Total Electricity Generation (%)			19.6	13.5	15.1	14.1
CHP Heat Production (PJ)			42.2	24.4	24.7	25.2
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	2 971	3 932	3 791	3 873	4 006	4 207
of which LPG	0	33	29	30	28	26
of which Motor Gasoline	1 414	1 568	1 348	1 283	1 388	1 366
of which Gas/Diesel Oil	1 557	2 328	2 414	2 559	2 590	2 815
Final Consumption Biofuels	0	3	175	175	187	148
Pure and Blended Biogasoline	0	3	57	43	44	40
Pure and Blended Biodiesel	0	0	118	133	143	108
Main Energy Indicators						
Primary Energy Consumption 2020-2030	23.6	26.4	24.6	23.3	23.7	24.5
Final Energy Consumption 2020-2030	16.2	18.7	17.5	17.4	17.8	18.5
Primary Energy Intensity 2020-2030 (toe/M€'10)	292	264	249	214	213	211
Energy Intensity GAE/GDP2010 (toe/M€'10)	312	285	269	231	230	230
Energy per Capita - GIC/pop (kgoe/cap)	2 468	2 825	2 655	2 557	2 603	2 723
Final Electricity per Capita (KWh/cap)	2 880	3 203	3 416	3 682	3 779	3 928
Import Dependency (%)	55.0	62.2	56.9	53.9	55.8	62.6
of Solid Fossil Fuels	28.1	42.5	41.9	33.7	32.5	44.1
of Hard Coal	96.4	108.3	99.2	99.2	99.0	101.7
of Oil and Petroleum Products	75.9	81.6	85.3	93.7	89.7	86.6
of Crude and NGL	78.5	81.4	85.3	91.4	86.2	86.0
of Natural Gas	75.4	81.1	78.7	69.7	78.9	96.2
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		6.9	12.7	14.4	14.3	13.3
RE-T – Transport		0.9	6.1	7.1	7.6	6.8
RES-E – Electricity Generation		4.4	7.1	7.3	7.3	7.5
RES-H&C – Heating and Cooling		9.9	18.1	21.2	20.9	19.6
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	59.3	61.3	52.8	47.2	48.0	50.3
GHG Emissions – National total*	73.9	76.2	65.7	61.3	61.7	64.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	78.5	80.9	69.7	65.1	65.6	68.5
Total GHG per Capita (t CO ₂ eq/cap)	7.2	7.5	6.6	6.2	6.3	6.6

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.18 Malta

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	0.0	0.0	0.0	0.0	0.0	0.0
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Net Imports	1.5	1.6	2.4	2.2	2.5	3.0
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.5	1.6	2.4	2.1	2.4	2.7
of which Crude Oil and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural gas	0.0	0.0	0.0	0.0	0.0	0.3
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.1	0.1
Gross Inland Consumption	0.8	0.9	0.9	0.8	0.7	0.8
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.8	0.9	0.9	0.6	0.6	0.5
of which Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.1	0.1
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Available for Final Consumption	0.3	0.4	0.4	0.5	0.5	0.5
Final Non-Energy Consumption	0.0	0.0	0.0	0.0	0.0	0.0
Final Energy Consumption	0.3	0.4	0.4	0.5	0.5	0.5
by Fuel/Product						
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.2	0.2	0.2	0.3	0.3	0.3
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Solid Biofuels and Renewable Waste	0.0	0.0	0.0	0.0	0.0	0.0
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.1	0.2	0.2	0.2	0.2	0.2
Heat	0.0	0.0	0.0	0.0	0.0	0.0
by Sector						
Industry	0.0	0.1	0.0	0.0	0.0	0.1
Transport	0.2	0.2	0.2	0.2	0.2	0.2
Residential	0.1	0.1	0.1	0.1	0.1	0.1
Services	0.0	0.1	0.1	0.1	0.1	0.1
Agriculture and Fishing	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	0.0	0.0	0.6	0.7	0.6	0.7
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.9	2.2	2.1	1.2	0.7	0.2
Natural Gas	0.0	0.0	0.0	0.0	0.0	1.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	0.0	0.0	0.0	0.1	0.1	0.2
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.0	0.0	0.1	0.1
CHP Electricity Generation (TWh)			0.0	0.0	0.2	0.2
CHP in Total Electricity Generation (%)			0.0	0.0	28.3	12.6
CHP Heat Production (PJ)			0.0	0.0	0.1	0.1
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	153	165	185	192	191	200
of which LPG	0	0	0	0	0	1
of which Motor Gasoline	75	67	74	77	78	79
of which Gas/Diesel Oil	78	94	108	111	110	119
Final Consumption Biofuels	0	0	1	5	6	9
Pure and Blended Biogasoline	0	0	0	0	0	0
Pure and Blended Biodiesel	0	0	1	5	6	9
Main Energy Indicators						
Primary Energy Consumption 2020-2030	0.8	0.9	0.9	0.8	0.7	0.8
Final Energy Consumption 2020-2030	0.4	0.5	0.5	0.6	0.6	0.6
Primary Energy Intensity 2020-2030 (toe/M€'10)	150	153	141	87	78	83
Energy Intensity GAE/GDP2010 (toe/M€'10)	272	267	362	266	271	302
Energy per Capita - GIC/pop (kgoe/cap)	2080	2324	2266	1721	1595	1801
Final Electricity per Capita (KWh/cap)	4031	4614	4406	4808	4693	5066
Import Dependency (%)						
of Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of Oil and Petroleum Products	100.2	100.0	99.2	97.9	101.8	104.2
of Crude and NGL	0.0	0.0	0.0	0.0	0.0	0.0
of Natural Gas	0.0	0.0	0.0	0.0	0.0	105.2
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		0.1	1.0	5.2	6.2	7.2
RE-T – Transport				4.8	5.4	6.8
RES-E – Electricity Generation			0.0	4.3	5.7	6.6
RES-H&C – Heating and Cooling		1.0	7.5	14.8	16.1	19.8
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	2.9	2.9	2.8	2.1	1.8	2.0
GHG Emissions – National total*	3.1	3.2	3.2	2.5	2.3	2.6
Main Emissions Indicators						
GHG National Total Emissions/index 1990	134.5	138.1	139.7	110.4	98.8	112.2
Total GHG per Capita (t CO ₂ eq/cap)	8.0	7.9	7.8	5.8	5.0	5.6

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.19 The Netherlands

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	58.8	62.7	71.4	48.4	46.5	42.2
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	3.0	2.8	2.0	2.5	2.0	1.9
of which Crude Oil	2.4	2.3	1.5	1.8	1.3	1.2
Natural Gas	52.8	56.2	64.7	39.4	38.1	33.2
Nuclear	1.0	1.0	0.9	0.9	0.9	0.8
Renewables and Biofuels	1.5	2.0	3.1	4.9	4.9	5.6
Wastes, Non-Renewable	0.6	0.7	0.7	0.6	0.7	0.7
Net Imports	35.0	37.5	28.3	42.7	41.1	46.6
Solid Fossil Fuels	7.7	8.2	7.6	10.5	10.1	9.2
of which Hard Coal	7.7	8.2	7.5	10.6	10.1	9.3
Oil and Petroleum Products	42.9	48.4	44.5	42.8	41.2	39.5
of which Crude Oil and NGL	60.7	61.4	60.4	60.0	61.4	60.7
Natural gas	-17.2	-20.9	-24.2	-10.5	-9.9	-1.4
Renewables and Biofuels	-0.1	0.3	0.1	-1.1	-1.0	-1.2
Electricity	1.6	1.6	0.2	0.8	0.4	0.3
Gross Inland Consumption	78.3	83.7	86.2	76.2	77.7	78.3
Solid Fossil Fuels	7.8	8.1	7.5	10.9	10.1	9.1
of which Hard Coal	7.8	8.2	7.4	11.0	10.2	9.2
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	30.9	34.7	33.4	30.4	31.5	32.0
of which Crude and NGL	62.8	63.5	61.9	61.2	62.1	62.2
Natural Gas	35.0	35.3	40.1	28.6	30.0	30.9
Nuclear	1.0	1.0	0.9	0.9	0.9	0.8
Renewables and Biofuels	1.4	2.3	3.3	3.8	3.9	4.3
Electricity	1.6	1.6	0.2	0.8	0.4	0.3
Waste, Non-Renewable	0.6	0.7	0.7	0.8	0.9	0.9
Available for Final Consumption	58.8	62.1	64.8	55.1	56.9	58.1
Final Non-Energy Consumption	11.3	13.6	14.4	12.2	12.8	13.6
Final Energy Consumption	47.5	49.0	50.8	44.1	44.7	45.0
by Fuel/Product						
Solid Fossil Fuels	0.1	0.1	0.1	0.1	0.1	0.1
Oil and Petroleum Products	14.0	14.9	15.3	13.7	14.0	14.2
Natural Gas	20.7	20.0	21.6	17.2	17.4	17.4
Renewables and Biofuels	0.5	0.6	1.0	1.4	1.3	1.5
Solid Biofuels and Renewable Waste	0.4	0.5	0.6	0.7	0.7	0.8
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.1	0.1	0.1
Liquid Biofuels	0.0	0.0	0.2	0.3	0.3	0.3
Biogases	0.1	0.1	0.1	0.1	0.1	0.1
Waste, Non-Renewable	0.0	0.0	0.1	0.0	0.0	0.0
Electricity	8.2	9.0	9.3	9.0	9.1	9.1
Heat	3.7	3.8	3.0	2.2	2.2	2.1
by Sector						
Industry	15.2	15.6	14.4	13.4	13.8	13.8
Transport	10.6	11.4	11.7	10.4	10.4	10.7
Residential	10.8	10.7	12.5	9.6	9.9	9.7
Services	6.2	6.9	7.8	6.8	6.7	6.8
Agriculture and Fishing	4.5	4.2	4.2	3.8	3.8	3.8
Others	0.1	0.1	0.1	0.1	0.1	0.1

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	21.1	21.8	26.7	33.9	34.2	33.8
Combustible Fuels	20.1	20.0	23.7	28.4	27.3	26.2
Nuclear	0.4	0.4	0.5	0.5	0.5	0.5
Hydro	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.1	0.1	1.5	2.0	2.9
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	89.4	99.7	119.1	110.2	115.1	117.1
Solid Fossil Fuels, Peat & Products, Oil Shale	24.3	23.5	22.6	39.4	36.7	31.3
Oil and Petroleum Products	2.6	2.3	1.3	1.3	1.3	1.2
Natural Gas	54.4	61.0	78.5	50.1	56.6	62.2
Nuclear	3.9	4.0	4.0	4.1	4.0	3.4
Renewables and Biofuels	3.0	7.4	11.2	13.7	14.8	17.4
Wastes non-RES	1.2	1.4	1.6	1.6	1.7	1.7
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			9.3	9.2	9.1	9.4
CHP Electricity Generation (TWh)			39.2	29.8	30.8	31.4
CHP in Total Electricity Generation (%)			33.2	27.1	26.7	26.8
CHP Heat Production (PJ)			233.6	189.6	174.3	180.5
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	10501	11239	11268	9897	9947	10155
of which LPG	602	448	343	192	181	163
of which Motor Gasoline	3964	4039	4048	3783	3906	4036
of which Gas/Diesel Oil	5916	6738	6863	5911	5849	5946
Final Consumption Biofuels	0	0	229	298	240	307
Pure and Blended Biogasoline	0	0	134	142	121	129
Pure and Blended Biodiesel	0	0	95	156	119	178
Main Energy Indicators						
Primary Energy Consumption 2020-2030	66.9	70.1	71.7	63.8	64.8	64.5
Final Energy Consumption 2020-2030	52.1	54.1	55.3	49.2	49.9	50.3
Primary Energy Intensity 2020-2030 (toe/M€'10)	120	117	112	96	96	93
Energy Intensity GAE/GDP2010 (toe/M€'10)	164	166	156	133	132	129
Energy per Capita - GIC/pop (kgoe/cap)	4934	5134	5198	4506	4578	4583
Final Electricity per Capita (KWh/cap)	5993	6403	6501	6175	6244	6185
Import Dependency (%)	38.3	37.8	28.3	48.4	45.9	51.8
of Solid Fossil Fuels	99.4	101.3	101.4	96.5	99.6	100.8
of Hard Coal	98.9	100.0	101.6	96.5	99.2	101.4
of Oil and Petroleum Products	97.4	96.2	94.2	101.3	95.2	90.5
of Crude and NGL	96.7	96.7	97.6	98.0	98.8	97.6
of Natural Gas	-49.1	-59.3	-60.4	-36.7	-32.8	-4.4
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		2.5	3.9	5.7	5.9	6.6
RE-T – Transport		0.5	3.3	5.4	4.9	5.9
RES-E – Electricity Generation		6.3	9.6	11.0	12.5	13.8
RES-H&C – Heating and Cooling		2.4	3.1	5.4	5.4	5.9
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	182.4	188.9	192.9	178.3	178.5	176.9
GHG Emissions – National total*	229.8	225.8	224.1	207.5	207.6	205.8
Main Emissions Indicators						
GHG National Total Emissions/index 1990	101.5	99.7	99.0	91.7	91.7	90.9
Total GHG per Capita (t CO ₂ eq/cap)	14.5	13.8	13.5	12.3	12.2	12.0

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.20 Austria

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	9.8	9.7	11.7	12.1	12.3	12.3
Solid Fossil Fuels	0.3	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.3	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	1.1	0.9	1.1	0.9	0.8	0.7
of which Crude Oil	1.1	0.9	1.1	0.9	0.8	0.7
Natural Gas	1.5	1.3	1.4	1.0	1.0	1.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	6.6	7.0	8.6	9.4	9.8	9.8
Wastes, Non-Renewable	0.3	0.4	0.6	0.7	0.8	0.7
Net Imports	19.2	24.7	21.9	20.3	21.1	22.2
Solid Fossil Fuels	3.0	4.0	3.4	2.8	2.9	3.1
of which Hard Coal	2.3	3.0	2.4	2.1	2.3	2.4
Oil and Petroleum Products	11.0	13.3	11.8	11.3	11.3	11.4
of which Crude Oil and NGL	7.4	8.0	6.9	8.2	7.4	7.3
Natural gas	5.3	7.2	6.1	5.0	6.1	7.0
Renewables and Biofuels	0.0	0.0	0.4	0.4	0.3	0.2
Electricity	-0.1	0.2	0.2	0.9	0.6	0.6
Gross Inland Consumption	29.2	34.2	34.3	33.5	33.8	34.4
Solid Fossil Fuels	3.6	4.0	3.4	3.2	3.0	3.1
of which Hard Coal	2.5	2.8	2.5	2.5	2.3	2.3
of which Brown Coal	0.3	0.3	0.0	0.0	0.0	0.0
Oil and Petroleum Products	12.3	14.4	13.0	12.0	12.3	12.3
of which Crude and NGL	8.5	9.0	8.0	9.0	8.3	8.2
Natural Gas	6.6	8.1	8.1	6.9	7.1	7.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	6.6	7.0	9.0	9.8	10.0	9.9
Electricity	-0.1	0.2	0.2	0.9	0.6	0.6
Waste, Non-Renewable	0.3	0.4	0.6	0.7	0.8	0.7
Available for Final Consumption	23.6	27.1	27.4	27.1	27.6	27.9
Final Non-Energy Consumption	1.7	1.6	1.8	1.8	1.8	1.7
Final Energy Consumption	21.8	25.5	25.6	25.3	25.7	26.2
by Fuel/Product						
Solid Fossil Fuels	0.7	0.5	0.4	0.3	0.3	0.3
Oil and Petroleum Products	9.0	11.2	9.7	9.1	9.3	9.5
Natural Gas	4.0	4.6	4.7	4.5	4.6	4.8
Renewables and Biofuels	2.4	2.8	3.6	4.0	4.0	4.0
Solid Biofuels and Renewable Waste	2.3	2.5	2.8	2.9	3.0	3.0
Solar Thermal	0.1	0.1	0.2	0.2	0.2	0.2
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.1	0.5	0.7	0.6	0.5
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.1	0.2	0.2	0.3	0.3	0.3
Electricity	4.4	4.9	5.1	5.3	5.3	5.4
Heat	1.0	1.2	1.7	1.7	1.8	1.8
by Sector						
Industry	6.0	7.2	7.5	7.6	7.8	8.1
Transport	6.4	8.4	8.2	8.4	8.5	8.7
Residential	6.3	6.4	6.6	6.3	6.5	6.6
Services	2.6	3.0	2.8	2.4	2.3	2.4
Agriculture and Fishing	0.5	0.5	0.5	0.5	0.5	0.5
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	17.8	18.9	21.2	24.5	25.2	24.9
Combustible Fuels	6.1	6.5	7.3	7.7	7.3	6.6
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	11.6	11.6	12.7	13.4	14.1	14.1
Solar	0.0	0.0	0.1	0.9	1.1	1.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	61.2	66.8	71.1	65.2	68.3	71.3
Solid Fossil Fuels, Peat & Products, Oil Shale	5.7	7.2	4.9	2.9	2.0	1.8
Oil and Petroleum Products	1.7	1.6	1.3	0.9	1.0	0.8
Natural Gas	8.9	14.3	16.1	9.8	10.4	13.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	44.8	43.2	48.2	50.8	54.0	54.7
Wastes non-RES	0.1	0.4	0.6	0.8	0.9	0.9
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			3.2	2.8	3.4	2.9
CHP Electricity Generation (TWh)			11.0	9.0	10.9	9.5
CHP in Total Electricity Generation (%)			15.4	13.8	16.0	13.4
CHP Heat Production (PJ)			110.6	105.9	114.9	116.0
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	5960	7892	7181	7237	7437	7621
of which LPG	16	22	21	14	12	12
of which Motor Gasoline	2016	2137	1767	1542	1524	1507
of which Gas/Diesel Oil	3892	5693	5351	5637	5858	6060
Final Consumption Biofuels	16	74	496	652	540	468
Pure and Blended Biogasoline	0	0	78	60	57	56
Pure and Blended Biodiesel	16	74	418	592	483	412
Main Energy Indicators						
Primary Energy Consumption 2020-2030	27.5	32.6	32.4	31.5	31.7	32.5
Final Energy Consumption 2020-2030	23.7	27.7	27.7	27.4	27.8	28.4
Primary Energy Intensity 2020-2030 (toe/M€'10)	108	117	110	101	100	100
Energy Intensity GAE/GDP2010 (toe/M€'10)	115	123	116	107	106	105
Energy per Capita - GIC/pop (kgoe/cap)	3650	4171	4113	3901	3880	3924
Final Electricity per Capita (KWh/cap)	6441	7011	7164	7115	7130	7157
Import Dependency (%)	65.6	72.1	63.7	60.6	62.5	64.4
of Solid Fossil Fuels	83.9	100.0	100.0	86.5	96.0	99.8
of Hard Coal	91.6	107.1	97.4	84.2	96.6	106.1
of Oil and Petroleum Products	89.1	92.1	90.4	93.8	91.8	92.2
of Crude and NGL	87.0	88.8	86.5	91.1	89.5	89.1
of Natural Gas	80.6	88.5	75.3	72.6	85.8	90.2
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		23.7	29.9	32.8	33.0	32.6
RE-T – Transport		5.1	10.7	11.4	10.6	9.7
RES-E – Electricity Generation		61.9	65.6	70.6	73.3	72.2
RES-H&C – Heating and Cooling		21.9	28.7	32.0	32.2	32.1
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	68.0	81.4	74.3	68.9	69.6	72.2
GHG Emissions – National total*	82.1	94.5	86.8	81.0	81.9	84.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	103.2	118.8	109.1	101.9	103.0	106.2
Total GHG per Capita (t CO ₂ eq/cap)	10.3	11.5	10.4	9.4	9.4	9.6

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.21 Poland

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	79.4	78.4	67.2	68.0	66.8	64.4
Solid Fossil Fuels	71.3	68.9	55.4	53.9	52.3	49.8
of which Hard Coal	59.2	56.2	43.9	41.6	40.7	37.7
of which Brown Coal	12.1	12.7	11.6	12.3	11.7	12.2
Oil and Petroleum Products	0.9	1.0	0.8	1.0	1.1	1.0
of which Crude Oil	0.7	0.9	0.7	0.9	1.0	1.0
Natural Gas	3.3	3.9	3.7	3.7	3.6	3.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	3.8	4.5	6.9	8.9	9.1	9.1
Wastes, Non-Renewable	0.1	0.2	0.4	0.5	0.7	0.9
Net Imports	9.6	16.5	32.1	28.7	31.0	40.4
Solid Fossil Fuels	-16.3	-13.0	-2.7	-5.5	-5.8	-1.5
of which Hard Coal	-13.8	-9.7	1.8	-1.0	-0.9	3.0
Oil and Petroleum Products	19.9	22.0	25.7	24.1	25.4	29.8
of which Crude Oil and NGL	18.1	18.0	22.8	26.6	24.7	24.8
Natural gas	6.6	8.5	8.9	9.9	11.5	12.0
Renewables and Biofuels	0.0	-0.1	0.4	0.1	-0.2	-0.2
Electricity	-0.5	-1.0	-0.1	0.0	0.2	0.2
Gross Inland Consumption	89.2	92.6	101.6	95.7	100.5	105.1
Solid Fossil Fuels	56.3	54.7	55.2	48.4	49.5	49.7
of which Hard Coal	46.3	45.5	48.5	40.7	42.7	41.9
of which Brown Coal	12.1	12.7	11.6	12.3	11.7	12.2
Oil and Petroleum Products	19.6	22.0	26.0	24.1	26.6	30.0
of which Crude and NGL	18.3	18.5	23.2	26.5	26.2	25.5
Natural Gas	10.0	12.2	12.8	13.8	14.6	15.4
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	3.8	4.5	7.3	9.0	8.8	8.9
Electricity	-0.5	-1.0	-0.1	0.0	0.2	0.2
Waste, Non-Renewable	0.1	0.2	0.4	0.5	0.7	0.9
Available for Final Consumption	57.1	61.7	70.4	65.1	70.4	74.7
Final Non-Energy Consumption	4.4	4.6	5.0	5.6	5.6	5.9
Final Energy Consumption	53.6	57.5	65.2	60.8	65.0	69.1
by Fuel/Product						
Solid Fossil Fuels	11.9	11.5	13.2	10.7	11.1	11.3
Oil and Petroleum Products	15.2	17.6	20.2	18.6	20.9	24.1
Natural Gas	6.3	7.9	8.9	8.5	9.2	9.2
Renewables and Biofuels	3.5	3.9	5.3	5.5	5.6	5.8
Solid Biofuels and Renewable Waste	3.5	3.8	4.3	4.6	4.9	5.0
Solar Thermal	0.0	0.0	0.0	0.0	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.9	0.7	0.5	0.6
Biogases	0.0	0.0	0.0	0.1	0.1	0.1
Waste, Non-Renewable	0.1	0.1	0.4	0.5	0.6	0.7
Electricity	8.4	9.0	10.2	11.0	11.4	11.7
Heat	6.9	6.6	6.5	5.5	5.7	5.8
by Sector						
Industry	17.1	14.6	13.5	14.1	14.7	15.8
Transport	9.6	12.2	17.2	16.6	18.6	21.4
Residential	17.2	19.5	22.0	18.9	19.8	19.9
Services	5.0	6.7	8.8	7.8	8.5	8.0
Agriculture and Fishing	4.6	4.4	3.7	3.3	3.5	3.9
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	28.4	29.8	29.9	30.0	29.8	34.4
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	2.2	2.3	2.3	2.4	2.4	2.4
Solar	0.0	0.0	0.0	0.1	0.2	0.3
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	135.9	141.9	136.5	130.5	130.3	131.2
Oil and Petroleum Products	1.9	2.8	2.9	2.1	2.3	2.0
Natural Gas	3.0	6.5	6.7	8.8	10.4	12.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	4.3	5.4	11.5	23.3	23.3	24.6
Wastes non-RES	0.1	0.0	0.0	0.1	0.2	0.3
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			8.7	8.6	8.7	9.2
CHP Electricity Generation (TWh)			27.7	26.5	27.6	28.4
CHP in Total Electricity Generation (%)			17.6	16.1	16.6	16.7
CHP Heat Production (PJ)			277.1	238.6	246.5	253.3
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	9135	11597	15811	15281	17434	20158
of which LPG	480	1750	1824	1791	1896	2012
of which Motor Gasoline	5248	4173	4243	3654	3860	4219
of which Gas/Diesel Oil	3404	5670	9740	9817	11654	13900
Final Consumption Biofuels	0	46	867	653	457	605
Pure and Blended Biogasoline	0	34	170	153	168	176
Pure and Blended Biodiesel	0	12	698	500	290	429
Main Energy Indicators						
Primary Energy Consumption 2020-2030	84.9	88.0	96.6	90.1	94.8	99.1
Final Energy Consumption 2020-2030	55.1	58.5	66.3	62.3	66.6	70.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	345	307	267	214	219	218
Energy Intensity GAE/GDP2010 (toe/M€'10)	364	324	281	228	233	232
Energy per Capita - GIC/pop (kgoe/cap)	2332	2425	2671	2519	2646	2767
Final Electricity per Capita (KWh/cap)	2563	2751	3122	3363	3499	3576
Import Dependency (%)						
of Solid Fossil Fuels	-29.0	-23.8	-5.0	-11.4	-11.7	-3.0
of Hard Coal	-29.9	-21.3	3.7	-2.4	-2.1	7.2
of Oil and Petroleum Products	99.7	98.4	98.2	99.5	95.0	98.6
of Crude and NGL	99.1	97.3	98.4	100.5	94.5	97.2
of Natural Gas	66.3	69.7	69.3	72.2	78.4	77.8
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		6.9	9.3	11.7	11.3	10.9
RE-T – Transport		1.6	6.6	5.6	3.9	4.2
RES-E – Electricity Generation		2.7	6.6	13.4	13.4	13.1
RES-H&C – Heating and Cooling		10.2	11.7	14.5	14.7	14.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	319.0	323.4	334.9	314.2	325.0	339.1
GHG Emissions – National total*	396.3	404.3	413.1	392.3	401.1	416.3
Main Emissions Indicators						
GHG National Total Emissions/index 1990	83.4	85.1	87.0	82.6	84.5	87.6
Total GHG per Capita (t CO ₂ eq/cap)	10.4	10.6	10.9	10.3	10.6	11.0

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.22 Portugal

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	3.8	3.6	5.8	5.3	6.0	5.2
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	3.8	3.5	5.6	5.2	5.8	5.1
Wastes, Non-Renewable	0.1	0.1	0.2	0.1	0.2	0.2
Net Imports	22.2	24.8	18.7	18.5	17.5	19.8
Solid Fossil Fuels	3.9	3.2	1.6	3.2	2.9	3.4
of which Hard Coal	4.0	3.2	1.6	3.2	2.9	3.4
Oil and Petroleum Products	16.2	17.1	12.5	11.2	11.0	11.3
of which Crude Oil and NGL	11.7	13.4	11.5	14.4	14.1	14.6
Natural gas	2.0	3.9	4.5	4.1	4.3	5.4
Renewables and Biofuels	0.0	0.0	-0.2	-0.2	-0.2	-0.2
Electricity	0.1	0.6	0.2	0.2	-0.4	-0.2
Gross Inland Consumption	25.4	27.4	24.4	23.0	22.9	24.0
Solid Fossil Fuels	3.8	3.3	1.7	3.3	2.8	3.2
of which Hard Coal	3.8	3.3	1.7	3.3	2.8	3.2
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	15.6	16.1	12.4	10.4	10.4	10.5
of which Crude and NGL	11.8	13.4	11.6	14.2	14.3	14.5
Natural Gas	2.0	3.8	4.5	4.1	4.3	5.4
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	3.8	3.5	5.5	5.0	5.6	4.8
Electricity	0.1	0.6	0.2	0.2	-0.4	-0.2
Waste, Non-Renewable	0.1	0.1	0.2	0.2	0.2	0.2
Available for Final Consumption	19.5	20.9	18.9	16.3	16.1	16.4
Final Non-Energy Consumption	2.4	2.6	1.7	1.3	1.2	1.2
Final Energy Consumption	17.2	18.3	17.2	15.0	15.0	15.3
by Fuel/Product						
Solid Fossil Fuels	0.4	0.0	0.1	0.0	0.0	0.0
Oil and Petroleum Products	10.1	10.1	8.4	6.9	6.9	7.1
Natural Gas	0.8	1.3	1.6	1.6	1.6	1.7
Renewables and Biofuels	2.4	2.5	2.5	2.2	2.2	2.2
Solid Biofuels and Renewable Waste	2.4	2.5	2.2	1.7	1.8	1.8
Solar Thermal	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.3	0.3	0.3	0.3
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.1	0.1	0.1	0.1
Electricity	3.3	4.0	4.3	3.9	4.0	4.0
Heat	0.1	0.3	0.3	0.2	0.2	0.2
by Sector						
Industry	6.3	5.8	5.5	4.4	4.4	4.5
Transport	6.0	6.4	6.4	5.6	5.7	5.8
Residential	2.8	3.2	3.0	2.5	2.6	2.6
Services	1.4	2.2	1.9	2.0	1.9	1.9
Agriculture and Fishing	0.7	0.6	0.5	0.4	0.4	0.5
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	10.9	13.4	18.9	19.6	20.6	20.9
Combustible Fuels	6.3	7.3	9.9	8.0	8.0	8.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	4.5	5.0	5.1	6.2	7.0	7.2
Solar	0.0	0.0	0.1	0.4	0.5	0.6
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	43.8	46.6	54.1	52.4	60.3	59.4
Solid Fossil Fuels, Peat & Products, Oil Shale	14.6	15.2	7.1	14.7	12.6	14.7
Oil and Petroleum Products	8.4	8.8	3.0	1.3	1.3	1.3
Natural Gas	7.2	13.6	14.9	10.6	12.6	18.9
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0
Renewables and Biofuels	13.3	8.6	28.8	25.5	33.5	24.3
Wastes non-RES	0.3	0.3	0.3	0.3	0.3	0.3
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			1.3	1.3	1.2	1.2
CHP Electricity Generation (TWh)			6.4	6.5	6.2	6.4
CHP in Total Electricity Generation (%)			11.8	12.3	10.4	10.8
CHP Heat Production (PJ)			67.2	59.3	61.7	60.0
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	5932	6382	6062	5199	5374	5495
of which LPG	23	25	32	40	41	48
of which Motor Gasoline	2272	1935	1450	1099	1082	1080
of which Gas/Diesel Oil	3523	4286	4366	3886	4040	4139
Final Consumption Biofuels	0	0	309	328	265	242
Pure and Blended Biogasoline	0	0	0	22	26	3
Pure and Blended Biodiesel	0	0	305	302	237	239
Main Energy Indicators						
Primary Energy Consumption 2020-2030	23.0	24.9	22.6	21.6	21.8	22.8
Final Energy Consumption 2020-2030	18.0	19.0	18.1	16.0	16.2	16.6
Primary Energy Intensity 2020-2030 (toe/M€'10)	137	142	126	126	124	126
Energy Intensity GAE/GDP2010 (toe/M€'10)	156	161	138	137	135	137
Energy per Capita - GIC/pop (kgoe/cap)	2476	2614	2305	2215	2217	2327
Final Electricity per Capita (KWh/cap)	3744	4414	4718	4416	4486	4524
Import Dependency (%)	85.3	88.6	75.2	78.2	74.0	79.9
of Solid Fossil Fuels	102.9	96.3	98.3	98.5	102.3	105.6
of Hard Coal	103.4	96.3	98.3	98.5	102.3	105.6
of Oil and Petroleum Products	99.4	102.3	97.5	101.7	98.7	100.2
of Crude and NGL	99.0	100.2	98.8	100.9	98.7	100.4
of Natural Gas	100.3	103.8	100.4	100.4	98.6	100.4
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		19.5	24.2	28.0	28.4	28.1
RE-T – Transport		0.5	5.5	7.4	7.7	7.9
RES-E – Electricity Generation		27.7	40.6	52.6	54.0	54.2
RES-H&C – Heating and Cooling		32.1	33.9	33.5	35.1	34.4
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	68.4	72.0	55.8	55.5	53.9	58.7
GHG Emissions – National total*	84.3	88.1	71.7	71.1	69.5	74.6
Main Emissions Indicators						
GHG National Total Emissions/index 1990	138.8	145.0	117.9	117.0	114.4	122.8
Total GHG per Capita (t CO ₂ eq/cap)	8.2	8.4	6.8	6.9	6.7	7.2

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.23 Romania

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	28.5	28.0	27.4	26.4	24.8	25.5
Solid Fossil Fuels	5.6	5.8	5.9	4.7	4.2	4.5
of which Hard Coal	0.2	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	5.4	5.8	5.9	4.7	4.2	4.5
Oil and Petroleum Products	6.4	6.0	4.3	4.0	3.8	3.6
of which Crude Oil	6.4	5.4	4.3	4.0	3.8	3.6
Natural Gas	11.0	9.7	8.6	8.8	7.8	8.5
Nuclear	1.4	1.4	2.9	2.9	2.8	2.9
Renewables and Biofuels	4.0	5.0	5.7	5.9	6.1	5.8
Wastes, Non-Renewable	0.1	0.1	0.0	0.1	0.1	0.1
Net Imports	8.0	10.5	7.4	5.2	6.9	7.7
Solid Fossil Fuels	1.9	2.9	1.2	1.0	1.0	1.0
of which Hard Coal	1.6	2.1	0.1	0.1	0.1	0.1
Oil and Petroleum Products	3.5	3.7	4.5	4.6	5.0	5.9
of which Crude Oil and NGL	4.8	8.6	5.7	6.5	7.3	7.6
Natural gas	2.7	4.2	1.8	0.2	1.2	0.9
Renewables and Biofuels	0.0	0.0	0.1	0.0	0.1	0.2
Electricity	-0.1	-0.2	-0.2	-0.6	-0.4	-0.2
Gross Inland Consumption	36.8	38.6	35.0	31.9	31.8	33.4
Solid Fossil Fuels	7.5	8.8	6.9	5.9	5.3	5.4
of which Hard Coal	1.7	2.0	0.1	0.1	0.1	0.1
of which Brown Coal	5.5	6.4	6.2	5.3	4.7	4.8
Oil and Petroleum Products	10.1	9.7	8.7	8.6	8.8	9.6
of which Crude and NGL	11.1	14.0	10.1	10.4	11.3	11.4
Natural Gas	13.7	13.9	10.8	8.9	9.0	9.6
Nuclear	1.4	1.4	2.9	2.9	2.8	2.9
Renewables and Biofuels	4.0	4.9	5.9	6.0	6.2	6.0
Electricity	-0.1	-0.2	-0.2	-0.6	-0.4	-0.2
Waste, Non-Renewable	0.1	0.1	0.0	0.1	0.1	0.1
Available for Final Consumption	24.1	25.9	24.8	22.8	23.1	24.4
Final Non-Energy Consumption	1.9	2.6	2.1	1.1	1.1	1.1
Final Energy Consumption	21.9	23.6	22.0	21.6	21.9	22.9
by Fuel/Product						
Solid Fossil Fuels	0.3	0.6	0.5	0.8	0.7	0.6
Oil and Petroleum Products	5.4	6.5	6.0	6.8	7.1	7.6
Natural Gas	6.5	7.2	6.0	5.3	5.2	5.5
Renewables and Biofuels	2.7	3.2	4.0	3.5	3.7	3.8
Solid Biofuels and Renewable Waste	2.7	3.2	3.9	3.3	3.4	3.4
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.1	0.2	0.3	0.3
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.1	0.1	0.0	0.1	0.1	0.1
Electricity	2.9	3.3	3.6	3.7	3.7	3.8
Heat	3.6	2.1	1.6	1.3	1.3	1.3
by Sector						
Industry	8.6	9.0	6.5	6.4	6.3	6.4
Transport	3.3	4.2	4.9	5.3	5.7	6.1
Residential	8.4	8.0	8.1	7.4	7.4	7.7
Services	0.7	1.7	1.9	1.8	1.8	1.8
Agriculture and Fishing	0.4	0.2	0.4	0.5	0.5	0.5
Others	0.5	0.6	0.2	0.2	0.3	0.3

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	16.8	19.0	19.9	23.8	23.6	23.6
Combustible Fuels	10.0	12.0	11.6	11.2	11.0	11.1
Nuclear	0.7	0.7	1.4	1.4	1.4	1.4
Hydro	6.1	6.3	6.5	6.7	6.7	6.7
Solar	0.0	0.0	0.0	1.3	1.4	1.4
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	51.6	59.4	61.0	66.3	65.1	64.3
Solid Fossil Fuels, Peat & Products, Oil Shale	18.9	21.9	20.7	18.1	15.9	16.8
Oil and Petroleum Products	3.4	1.9	0.7	0.5	0.7	0.6
Natural Gas	9.0	9.8	7.3	9.5	9.8	10.7
Nuclear	5.5	5.6	11.6	11.6	11.3	11.5
Renewables and Biofuels	14.8	20.2	20.7	26.6	27.5	24.6
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			4.6	1.8	1.9	1.8
CHP Electricity Generation (TWh)			6.5	5.6	5.3	5.8
CHP in Total Electricity Generation (%)			10.8	8.4	8.1	9.0
CHP Heat Production (PJ)			69.0	51.0	45.9	47.0
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	3 134	3 983	4 723	5 041	5 390	5 758
of which LPG	0	55	20	63	75	90
of which Motor Gasoline	1 304	1 600	1 412	1 269	1 326	1 333
of which Gas/Diesel Oil	1 760	2 304	3 180	3 676	3 961	4 285
Final Consumption Biofuels	0	0	98	202	257	297
Pure and Blended Biogasoline	0	0	47	61	81	91
Pure and Blended Biodiesel	0	0	51	141	176	206
Main Energy Indicators						
Primary Energy Consumption 2020-2030	34.9	36.0	33.0	30.7	30.6	32.4
Final Energy Consumption 2020-2030	22.7	24.6	22.5	21.8	22.2	23.2
Primary Energy Intensity 2020-2030 (toe/M€'10)	422	329	263	212	201	199
Energy Intensity GAE/GDP2010 (toe/M€'10)	444	353	279	220	209	206
Energy per Capita - GIC/pop (kgoe/cap)	1 637	1 807	1 726	1 603	1 607	1 703
Final Electricity per Capita (KWh/cap)	1 511	1 817	2 036	2 166	2 189	2 275
Import Dependency (%)	21.9	27.2	21.2	16.4	21.6	23.1
of Solid Fossil Fuels	25.5	33.2	16.9	16.7	19.5	18.4
of Hard Coal	96.3	103.1	88.4	96.9	115.4	102.2
of Oil and Petroleum Products	34.4	37.5	51.8	53.4	56.5	60.6
of Crude and NGL	43.5	61.3	56.5	62.3	65.0	66.7
of Natural Gas	19.8	30.1	16.8	1.8	13.0	9.7
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		17.2	23.1	24.8	25.0	24.5
RE-T – Transport		1.6	3.4	5.5	6.2	6.6
RES-E – Electricity Generation		26.9	30.4	43.2	42.7	41.6
RES-H&C – Heating and Cooling		17.9	27.2	25.9	26.9	26.6
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	95.9	103.0	84.5	78.5	76.7	76.0
GHG Emissions – National total*	143.6	151.7	124.4	117.2	115.2	114.8
Main Emissions Indicators						
GHG National Total Emissions/index 1990	57.7	61.0	50.0	47.1	46.3	46.1
Total GHG per Capita (t CO ₂ eq/cap)	6.4	7.1	6.1	5.9	5.8	5.8

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.24 Slovenia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	3.1	3.5	3.7	3.3	3.4	3.5
Solid Fossil Fuels	1.1	1.2	1.2	0.9	0.9	0.9
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	1.1	1.2	1.2	0.9	0.9	0.9
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	1.2	1.5	1.3	1.3	1.3	1.5
Renewables and Biofuels	0.8	0.8	1.1	1.0	1.1	1.0
Wastes, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.1
Net Imports	3.4	3.9	3.6	3.2	3.3	3.5
Solid Fossil Fuels	0.2	0.3	0.3	0.2	0.2	0.2
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.5	2.6	2.6	2.3	2.5	2.6
of which Crude Oil and NGL	0.1	0.0	0.0	0.0	0.0	0.0
Natural gas	0.8	0.9	0.9	0.7	0.7	0.7
Renewables and Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	-0.1	0.0	-0.2	0.0	-0.1	0.0
Gross Inland Consumption	6.4	7.3	7.2	6.4	6.7	6.8
Solid Fossil Fuels	1.3	1.5	1.5	1.1	1.1	1.1
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	1.2	1.5	1.4	1.0	1.1	1.1
Oil and Petroleum Products	2.4	2.6	2.6	2.3	2.4	2.3
of which Crude and NGL	0.1	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.8	0.9	0.9	0.7	0.7	0.7
Nuclear	1.2	1.5	1.3	1.3	1.3	1.5
Renewables and Biofuels	0.8	0.8	1.1	1.1	1.1	1.1
Electricity	-0.1	0.0	-0.2	0.0	-0.1	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.1
Available for Final Consumption	4.7	5.2	5.2	4.8	5.0	5.0
Final Non-Energy Consumption	0.2	0.3	0.2	0.1	0.1	0.1
Final Energy Consumption	4.4	4.9	5.0	4.7	4.9	4.8
by Fuel/Product						
Solid Fossil Fuels	0.1	0.1	0.0	0.0	0.0	0.0
Oil and Petroleum Products	2.2	2.4	2.4	2.1	2.3	2.2
Natural Gas	0.6	0.7	0.6	0.6	0.6	0.6
Renewables and Biofuels	0.4	0.4	0.7	0.6	0.6	0.6
Solid Biofuels and Renewable Waste	0.4	0.4	0.6	0.5	0.6	0.5
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.0	0.0	0.0	0.0
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.9	1.1	1.0	1.1	1.1	1.2
Heat	0.2	0.2	0.2	0.2	0.2	0.2
by Sector						
Industry	1.4	1.6	1.3	1.2	1.2	1.3
Transport	1.2	1.5	1.8	1.8	1.9	1.8
Residential	1.1	1.2	1.3	1.1	1.1	1.1
Services	0.5	0.5	0.5	0.5	0.5	0.5
Agriculture and Fishing	0.1	0.1	0.1	0.1	0.1	0.1
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	2.6	3.0	3.2	3.4	3.5	3.6
Nuclear	1.1	1.4	1.3	1.1	1.3	1.3
Hydro	0.7	0.7	0.7	0.7	0.7	0.7
Solar	0.8	1.0	1.3	1.3	1.3	1.3
Solar	0.0	0.0	0.0	0.2	0.2	0.2
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	13.6	15.1	16.4	15.1	16.5	16.3
Oil and Petroleum Products	4.6	5.3	5.3	4.4	5.0	4.8
Natural Gas	0.1	0.0	0.0	0.0	0.0	0.0
Nuclear	0.3	0.3	0.5	0.4	0.4	0.5
Nuclear	4.8	5.9	5.7	5.6	5.7	6.3
Renewables and Biofuels	3.9	3.6	4.9	4.6	5.3	4.7
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			0.3	0.4	0.4	0.4
CHP Electricity Generation (TWh)			1.1	1.2	1.2	1.3
CHP in Total Electricity Generation (%)			6.9	7.7	7.3	7.7
CHP Heat Production (PJ)			11.6	10.4	10.8	11.1
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1 201	1 446	1 718	1 728	1 847	1 782
of which LPG	0	0	5	14	15	15
of which Motor Gasoline	849	689	600	437	434	417
of which Gas/Diesel Oil	351	756	1 111	1 276	1 397	1 349
Final Consumption Biofuels	0	0	46	29	18	43
Pure and Blended Biogasoline	0	0	4	7	4	9
Pure and Blended Biodiesel	0	0	41	23	14	35
Main Energy Indicators						
Primary Energy Consumption 2020-2030	6.2	7.0	7.0	6.3	6.5	6.6
Final Energy Consumption 2020-2030	4.5	4.9	5.0	4.7	4.9	4.9
Primary Energy Intensity 2020-2030 (toe/M€'10)	223	211	193	171	172	166
Energy Intensity GAE/GDP2010 (toe/M€'10)	231	221	200	176	178	173
Energy per Capita - GIC/pop (kgoe/cap)	3 244	3 667	3 525	3 124	3 232	3 282
Final Electricity per Capita (KWh/cap)	5 293	6 379	5 835	6 199	6 310	6 549
Import Dependency (%)						
of Solid Fossil Fuels	52.8	52.5	49.5	49.7	49.3	50.4
of Hard Coal	18.8	21.0	19.3	19.1	17.3	17.4
of Oil and Petroleum Products	118.2	100.0	135.3	124.2	118.2	100.7
of Crude and NGL	101.5	101.2	99.2	99.6	100.3	103.3
of Crude and NGL	87.2	0.0	0.0	0.0	0.0	0.0
of Natural Gas	99.3	99.6	99.3	99.6	99.4	99.0
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		16.0	20.4	21.9	21.3	21.5
RE-T – Transport		0.8	3.1	2.2	1.6	2.7
RES-E – Electricity Generation		28.7	32.2	32.7	32.1	32.4
RES-H&C – Heating and Cooling		18.9	28.1	33.9	34.0	33.2
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	15.5	17.0	16.4	13.7	14.5	14.3
GHG Emissions – National total*	19.1	20.6	19.7	16.9	17.7	17.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	102.4	110.1	105.4	90.4	94.9	93.8
Total GHG per Capita (t CO ₂ eq/cap)	9.6	10.3	9.6	8.2	8.6	8.5

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.25 Slovakia

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	6.3	6.4	6.0	6.4	6.2	6.4
Solid Fossil Fuels	1.0	0.6	0.6	0.5	0.5	0.4
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	1.0	0.6	0.6	0.5	0.5	0.4
Oil and Petroleum Products	0.1	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.1	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1
Nuclear	4.3	4.7	3.9	4.0	3.9	4.0
Renewables and Biofuels	0.5	0.9	1.4	1.6	1.6	1.6
Wastes, Non-Renewable	0.3	0.1	0.0	0.2	0.2	0.2
Net Imports	11.5	12.3	11.4	9.8	9.9	11.2
Solid Fossil Fuels	3.4	3.7	3.0	2.8	2.7	3.0
of which Hard Coal	3.1	3.5	2.6	2.5	2.5	2.6
Oil and Petroleum Products	2.6	3.2	3.4	3.1	3.4	3.6
of which Crude Oil and NGL	5.3	5.3	5.5	5.9	5.8	5.5
Natural Gas	5.7	5.7	5.0	3.7	3.6	4.4
Renewables and Biofuels	0.0	0.0	-0.1	0.0	0.0	0.0
Electricity	-0.2	-0.3	0.1	0.2	0.2	0.3
Gross Inland Consumption	17.7	18.7	17.7	16.3	16.3	17.2
Solid Fossil Fuels	4.3	4.2	3.9	3.3	3.2	3.4
of which Hard Coal	3.0	3.3	2.8	2.6	2.5	2.6
of which Brown Coal	1.2	0.9	0.8	0.7	0.6	0.6
Oil and Petroleum Products	2.9	3.3	3.5	3.1	3.3	3.7
of which Crude Oil and NGL	5.4	5.5	5.5	6.0	5.8	5.6
Natural Gas	5.8	5.9	5.0	3.9	3.9	4.1
Nuclear	4.3	4.7	3.9	4.0	3.9	4.0
Renewables and Biofuels	0.5	0.8	1.3	1.6	1.6	1.6
Electricity	-0.2	-0.3	0.1	0.2	0.2	0.3
Waste, Non-Renewable	0.3	0.1	0.0	0.2	0.2	0.2
Available for Final Consumption	11.7	11.7	11.5	10.0	10.2	11.0
Final Non-Energy Consumption	1.4	1.3	1.1	1.0	1.0	1.1
Final Energy Consumption	9.9	10.4	10.4	8.9	9.2	9.9
by Fuel/Product						
Solid Fossil Fuels	0.9	0.6	0.7	0.4	0.4	0.4
Oil and Petroleum Products	1.7	2.1	2.3	2.1	2.3	2.6
Natural Gas	4.2	3.9	3.5	2.5	2.6	2.7
Renewables and Biofuels	0.1	0.3	0.5	0.6	0.6	0.6
Solid Biofuels and Renewable Waste	0.1	0.3	0.4	0.4	0.4	0.4
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.1	0.1	0.1	0.1
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.2	0.0	0.0	0.2	0.2	0.2
Electricity	1.9	2.0	2.1	2.1	2.1	2.2
Heat	0.6	1.0	0.9	0.6	0.7	0.7
by Sector						
Industry	3.5	3.6	3.2	3.3	3.3	3.5
Transport	1.4	2.4	2.6	2.2	2.4	2.8
Residential	2.6	2.5	2.3	2.0	2.0	2.1
Services	2.2	1.8	2.1	1.3	1.3	1.4
Agriculture and Fishing	0.2	0.2	0.1	0.2	0.1	0.1
Others	0.0	0.0	0.0	0.0	0.0	0.0

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	7.5	8.3	7.9	7.8	7.7	7.7
Combustible Fuels	2.4	3.1	3.5	2.8	2.7	2.6
Nuclear	2.6	2.6	1.8	1.9	1.9	1.9
Hydro	2.4	2.5	2.5	2.5	2.5	2.5
Solar	0.0	0.0	0.0	0.5	0.5	0.5
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	31.2	31.4	27.8	26.8	26.9	27.6
Solid Fossil Fuels, Peat & Products, Oil Shale	5.6	5.5	3.6	2.8	2.8	3.0
Oil and Petroleum Products	0.2	0.7	0.6	0.4	0.5	0.4
Natural Gas	3.9	2.6	2.7	2.1	2.0	2.2
Nuclear	16.5	17.7	14.6	15.1	14.8	15.1
Renewables and Biofuels	5.0	4.8	6.3	6.3	6.9	6.8
Wastes non-RES	0.0	0.0	0.0	0.0	0.0	0.0
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			2.8	3.7	1.0	1.7
CHP Electricity Generation (TWh)			4.4	21.1	3.0	3.5
CHP in Total Electricity Generation (%)			15.9	78.5	11.1	12.5
CHP Heat Production (PJ)			20.1	27.3	34.4	36.9
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	1 347	1 694	2 055	1 881	2 091	2 422
of which LPG	0	1	2	37	36	34
of which Motor Gasoline	605	667	600	577	609	609
of which Gas/Diesel Oil	742	1 014	1 453	1 267	1 446	1 779
Final Consumption Biofuels	0	11	98	144	145	149
Pure and Blended Biogasoline	0	0	24	23	16	20
Pure and Blended Biodiesel	0	11	74	121	129	130
Main Energy Indicators						
Primary Energy Consumption 2020-2030	16.4	17.4	16.7	15.2	15.4	16.1
Final Energy Consumption 2020-2030	11.0	11.6	11.5	10.1	10.4	11.1
Primary Energy Intensity 2020-2030 (toe/M€'10)	390	325	247	198	194	198
Energy Intensity GAE/GDP2010 (toe/M€'10)	423	349	262	212	207	211
Energy per Capita - GIC/pop (kgoe/cap)	3 284	3 480	3 286	3 000	3 012	3 173
Final Electricity per Capita (KWh/cap)	4 077	4 253	4 477	4 495	4 605	4 747
Import Dependency (%)	65.1	66.0	64.4	60.1	60.6	64.8
of Solid Fossil Fuels	80.2	88.3	75.7	84.5	83.3	87.8
of Hard Coal	103.8	105.2	91.9	97.5	97.2	100.1
of Oil and Petroleum Products	92.5	97.3	98.4	100.6	102.0	97.5
of Crude and NGL	97.6	97.7	99.9	99.3	100.7	99.5
of Natural Gas	98.8	97.5	99.9	95.1	92.8	105.6
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		6.4	9.1	12.9	12.0	11.5
RE-T – Transport		1.6	5.3	8.5	7.7	7.0
RES-E – Electricity Generation		15.7	17.8	22.7	22.5	21.3
RES-H&C – Heating and Cooling		5.0	7.9	10.8	9.9	9.8
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	41.3	43.0	38.6	34.6	35.0	36.2
GHG Emissions – National total*	49.2	51.3	46.4	41.8	42.3	43.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	67.1	69.8	63.2	56.9	57.6	59.2
Total GHG per Capita (t CO ₂ eq/cap)	9.1	9.5	8.6	7.7	7.8	8.0

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.26 Finland

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	14.8	16.6	17.0	17.1	17.1	18.1
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.1	0.2	0.1	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	5.8	6.0	5.6	5.6	5.6	5.4
Renewables and Biofuels	7.8	8.2	9.4	10.4	10.5	11.7
Wastes, Non-Renewable	0.1	0.1	0.1	0.2	0.3	0.3
Net Imports	18.6	19.3	18.1	15.8	15.7	15.1
Solid Fossil Fuels	3.5	3.3	4.0	2.5	2.7	2.6
of which Hard Coal	3.2	3.0	3.7	2.3	2.6	2.5
Oil and Petroleum Products	10.6	10.9	9.5	9.6	9.2	8.7
of which Crude Oil and NGL	11.9	10.8	11.4	11.1	12.4	12.7
Natural gas	3.4	3.6	3.8	2.2	2.1	1.9
Renewables and Biofuels	0.0	-0.1	-0.1	0.1	0.1	0.1
Electricity	1.0	1.5	0.9	1.4	1.6	1.8
Gross Inland Consumption	32.7	34.7	36.7	32.5	33.8	33.9
Solid Fossil Fuels	3.6	3.3	4.6	2.7	3.2	2.8
of which Hard Coal	3.3	2.9	4.3	2.5	3.1	2.8
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	9.5	10.5	10.0	8.4	9.1	8.7
of which Crude and NGL	11.7	11.1	11.3	10.7	12.4	12.8
Natural Gas	3.4	3.6	3.8	2.2	2.1	1.9
Nuclear	5.8	6.0	5.6	5.6	5.6	5.4
Renewables and Biofuels	7.8	8.1	9.4	10.5	10.6	11.8
Electricity	1.0	1.5	0.9	1.4	1.6	1.8
Waste, Non-Renewable	0.1	0.1	0.1	0.2	0.3	0.3
Available for Final Consumption	23.7	25.3	26.4	24.3	25.2	25.8
Final Non-Energy Consumption	1.0	1.2	1.2	1.3	1.5	1.4
Final Energy Consumption	23.3	24.0	25.1	23.1	24.0	24.6
by Fuel/Product						
Solid Fossil Fuels	0.3	0.3	0.2	0.1	0.1	0.1
Oil and Petroleum Products	7.2	7.4	6.9	6.0	6.4	6.1
Natural Gas	0.9	0.8	0.8	0.6	0.6	0.6
Renewables and Biofuels	4.5	4.2	4.9	5.4	5.4	6.4
Solid Biofuels and Renewable Waste	4.5	4.2	4.7	4.9	5.2	5.4
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.0	0.2	0.5	0.2	0.4
Biogases	0.0	0.0	0.0	0.0	0.0	0.0
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.1	0.1
Electricity	6.5	6.9	7.2	6.7	7.0	7.0
Heat	3.3	3.8	4.6	3.8	4.1	4.0
by Sector						
Industry	11.5	11.1	10.7	10.2	10.5	10.7
Transport	3.9	4.2	4.3	4.1	4.2	4.2
Residential	4.5	5.0	5.9	5.0	5.3	5.8
Services	2.3	2.6	3.1	2.7	2.9	3.0
Agriculture and Fishing	0.8	0.8	0.8	0.7	0.8	0.7
Others	0.3	0.3	0.3	0.3	0.3	0.2

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	10.7	10.7	9.5	9.6	8.7	9.0
Nuclear	2.6	2.7	2.7	2.8	2.8	2.8
Hydro	2.9	3.0	3.2	3.2	3.2	3.3
Solar	0.0	0.0	0.0	0.0	0.0	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	12.5	11.0	20.8	8.2	9.9	8.6
Oil and Petroleum Products	0.6	0.5	0.5	0.2	0.2	0.2
Natural Gas	10.8	11.9	11.8	5.8	4.4	3.9
Nuclear	22.5	23.3	22.8	23.2	23.2	22.5
Renewables and Biofuels	23.4	23.5	24.2	30.5	30.4	31.5
Wastes non-RES	0.1	0.2	0.2	0.4	0.4	0.5
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			6.2	5.8	5.9	6.5
CHP Electricity Generation (TWh)			29.2	21.7	21.8	21.7
CHP in Total Electricity Generation (%)			36.2	31.7	31.8	32.1
CHP Heat Production (PJ)			272.8	242.4	241.6	246.5
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	3872	4147	4086	3540	3931	3728
of which LPG	0	0	0	0	0	0
of which Motor Gasoline	1748	1835	1531	1361	1355	1302
of which Gas/Diesel Oil	1947	2167	2435	2107	2504	2351
Final Consumption Biofuels	0	0	140	498	177	391
Pure and Blended Biogasoline	0	0	78	66	68	81
Pure and Blended Biodiesel	0	0	63	432	110	310
Main Energy Indicators						
Primary Energy Consumption 2020-2030	31.6	33.6	35.5	31.2	32.3	31.9
Final Energy Consumption 2020-2030	24.4	25.2	26.3	24.2	25.2	25.3
Primary Energy Intensity 2020-2030 (toe/M€'10)	200	187	190	166	168	161
Energy Intensity GAE/GDP2010 (toe/M€'10)	211	196	197	175	177	173
Energy per Capita - GIC/pop (kgoe/cap)	6315	6629	6863	5936	6159	6163
Final Electricity per Capita (KWh/cap)	14636	15420	15603	14341	14731	14726
Import Dependency (%)						
of Solid Fossil Fuels	97.6	102.0	86.3	92.4	85.7	91.6
of Hard Coal	97.7	102.6	85.5	89.8	83.4	90.3
of Oil and Petroleum Products	104.1	99.1	92.3	109.6	97.6	96.4
of Crude and NGL	101.5	97.5	101.1	104.2	100.5	98.9
of Natural Gas	100.0	100.0	100.0	100.0	100.0	99.1
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		28.8	32.4	39.3	39.0	41.0
RE-T – Transport		0.9	4.4	24.8	9.0	18.8
RES-E – Electricity Generation		26.9	27.7	32.5	32.9	35.2
RES-H&C – Heating and Cooling		39.1	44.2	52.6	53.7	54.8
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	58.2	58.4	65.8	46.1	49.3	46.9
GHG Emissions – National total*	71.3	71.2	77.4	57.2	60.1	57.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	98.6	98.5	107.0	79.0	83.1	79.5
Total GHG per Capita (t CO ₂ eq/cap)	13.8	13.6	14.5	10.4	10.9	10.4

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

5.27 Sweden

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	30.0	34.1	32.0	35.9	35.4	36.6
Solid Fossil Fuels	0.0	0.0	0.0	0.0	0.0	0.0
of which Hard Coal	0.0	0.0	0.0	0.0	0.0	0.0
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	0.0	0.0	0.0	0.0	0.0	0.0
of which Crude Oil	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	14.8	18.7	14.5	15.5	15.7	16.4
Renewables and Biofuels	14.7	14.7	16.8	19.7	18.9	19.4
Wastes, Non-Renewable	0.3	0.5	0.5	0.6	0.7	0.7
Net Imports	19.3	20.3	19.9	14.7	17.0	14.0
Solid Fossil Fuels	2.3	2.5	2.4	1.9	2.2	1.9
of which Hard Coal	2.1	2.2	2.3	1.9	2.2	1.9
Oil and Petroleum Products	15.7	17.4	15.5	13.0	13.9	11.3
of which Crude Oil and NGL	20.8	20.2	20.0	20.3	19.8	19.2
Natural gas	0.8	0.8	1.5	0.7	0.8	0.9
Renewables and Biofuels	0.0	0.1	0.2	0.9	1.0	1.4
Electricity	0.4	-0.6	0.2	-1.9	-1.0	-1.6
Gross Inland Consumption	47.7	51.7	50.7	48.3	50.7	50.5
Solid Fossil Fuels	2.2	2.3	2.1	2.0	1.9	1.9
of which Hard Coal	2.0	2.1	2.0	1.9	1.8	1.8
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	14.2	14.8	14.6	10.7	12.5	11.0
of which Crude and NGL	20.7	20.1	20.2	20.1	19.8	19.7
Natural Gas	0.8	0.8	1.5	0.7	0.8	0.9
Nuclear	14.8	18.7	14.5	15.5	15.7	16.4
Renewables and Biofuels	14.7	14.9	17.0	20.5	19.9	20.9
Electricity	0.4	-0.6	0.2	-1.9	-1.0	-1.6
Waste, Non-Renewable	0.3	0.5	0.5	0.6	0.8	0.8
Available for Final Consumption	34.9	33.7	35.3	32.3	34.5	34.0
Final Non-Energy Consumption	1.7	2.3	2.1	1.8	2.2	2.4
Final Energy Consumption	33.7	32.1	32.5	31.2	32.2	32.4
by Fuel/Product						
Solid Fossil Fuels	0.5	0.4	0.4	0.4	0.4	0.4
Oil and Petroleum Products	12.6	10.8	9.3	7.8	8.0	7.7
Natural Gas	0.4	0.5	0.6	0.6	0.5	0.5
Renewables and Biofuels	5.3	4.7	5.6	7.4	7.8	8.2
Solid Biofuels and Renewable Waste	5.3	4.6	5.2	5.4	5.4	5.3
Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.2	0.3	0.8	1.0	1.5
Biogases	0.0	0.0	0.1	0.1	0.1	0.1
Waste, Non-Renewable	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	11.1	11.2	11.3	10.7	11.0	10.9
Heat	3.6	4.2	5.1	4.2	4.4	4.4
by Sector						
Industry	13.7	11.8	11.4	10.9	10.8	10.8
Transport	7.5	8.0	7.8	7.7	8.0	8.4
Residential	7.3	7.3	8.0	7.2	7.5	7.5
Services	4.4	4.3	4.6	4.0	4.3	4.1
Agriculture and Fishing	0.8	0.8	0.7	0.4	0.3	0.3
Others	0.0	0.0	0.0	1.1	1.3	1.3

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)						
Combustible Fuels	33.7	33.4	36.5	39.7	40.3	39.8
Nuclear	7.5	7.1	8.7	7.8	7.5	7.4
Hydro	9.5	9.5	9.0	9.7	9.8	9.0
Solar	16.5	16.3	16.7	16.3	16.5	16.5
Solar	0.0	0.0	0.0	0.1	0.2	0.2
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)						
Solid Fossil Fuels, Peat & Products, Oil Shale	145.3	158.4	148.5	162.1	156.0	164.3
Oil and Petroleum Products	1.7	1.2	1.8	0.6	0.5	0.5
Natural Gas	1.5	1.4	1.8	0.3	0.4	0.3
Nuclear	1.3	1.3	3.8	1.1	1.2	1.0
Nuclear	57.3	72.4	57.8	56.3	63.1	65.7
Renewables and Biofuels	83.2	81.3	82.2	102.6	89.2	95.1
Wastes non-RES	0.2	0.9	1.2	1.2	1.6	1.7
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			5.1	4.9	3.9	3.0
CHP Electricity Generation (TWh)			18.5	13.7	9.2	9.0
CHP in Total Electricity Generation (%)			12.5	8.4	5.9	5.5
CHP Heat Production (PJ)			187.2	151.3	91.1	92.0
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	7 168	7 544	7 239	6 547	6 655	6 497
of which LPG	0	0	0	0	0	0
of which Motor Gasoline	4 208	4 086	3 276	2 534	2 530	2 425
of which Gas/Diesel Oil	2 677	3 161	3 661	3 857	3 939	3 885
Final Consumption Biofuels	0	151	336	779	976	1 520
Pure and Blended Biogasoline	0	146	204	139	109	99
Pure and Blended Biodiesel	0	5	131	640	867	1 421
Main Energy Indicators						
Primary Energy Consumption 2020-2030	46.0	49.4	48.6	45.1	46.9	46.5
Final Energy Consumption 2020-2030	35.0	33.7	34.0	31.5	32.4	32.6
Primary Energy Intensity 2020-2030 (toe/M€'10)	153	145	132	110	111	108
Energy Intensity GAE/GDP2010 (toe/M€'10)	164	157	143	122	125	123
Energy per Capita - GIC/pop (kgoe/cap)	5 384	5 735	5 429	4 956	5 143	5 049
Final Electricity per Capita (KWh/cap)	14 526	14 504	14 048	12 810	12 942	12 732
Import Dependency (%)						
of Solid Fossil Fuels	39.3	37.9	37.8	29.3	32.3	26.6
of Hard Coal	105.4	105.9	113.7	97.4	115.7	101.3
of Oil and Petroleum Products	107.7	104.3	115.2	99.6	116.8	105.3
of Crude and NGL	100.8	103.9	93.7	103.5	96.2	84.5
of Natural Gas	100.6	100.4	99.0	100.7	100.0	97.2
of Natural Gas	100.0	100.0	100.0	100.0	100.0	102.1
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		40.5	47.2	53.6	53.8	54.5
RE-T – Transport		6.2	9.2	25.1	31.1	32.1
RES-E – Electricity Generation		50.9	56.0	65.8	64.9	65.9
RES-H&C – Heating and Cooling		51.8	60.9	68.6	68.5	69.1
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	56.6	55.7	55.0	45.2	45.1	44.8
GHG Emissions – National total*	70.4	68.6	66.4	55.7	55.5	55.5
Main Emissions Indicators						
GHG National Total Emissions/index 1990	96.9	94.3	91.4	76.6	76.4	76.3
Total GHG per Capita (t CO ₂ eq/cap)	7.9	7.6	7.1	5.7	5.6	5.5

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

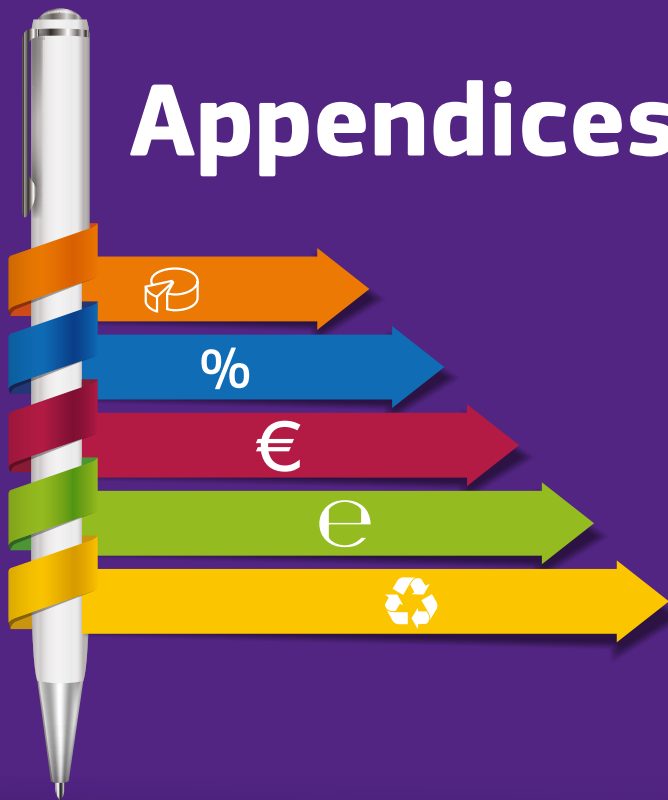
5.28 United Kingdom

Mtoe, unless otherwise stated	2000	2005	2010	2015	2016	2017
Production	272.3	205.5	146.4	116.4	118.0	118.1
Solid Fossil Fuels	18.7	12.1	10.9	5.1	2.5	1.8
of which Hard Coal	18.7	12.1	10.9	5.1	2.5	1.8
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	131.7	88.8	65.4	47.0	49.3	48.3
of which Crude Oil	131.6	88.5	65.4	47.0	49.3	48.3
Natural Gas	97.6	79.4	49.8	35.0	35.9	36.0
Nuclear	21.9	21.1	13.9	15.5	15.4	15.1
Renewables and Biofuels	2.3	3.5	5.8	12.8	13.6	15.6
Wastes, Non-Renewable	0.2	0.7	0.5	1.0	1.3	1.2
Net Imports	-40.3	31.7	62.6	72.8	68.2	66.4
Solid Fossil Fuels	14.5	27.3	16.0	14.6	6.1	5.9
of which Hard Coal	14.4	26.7	16.3	13.9	5.2	5.2
Oil and Petroleum Products	-46.7	-2.7	10.9	27.0	25.4	25.8
of which Crude Oil and NGL	-43.0	-0.2	9.6	14.0	9.5	10.3
Natural Gas	-9.3	6.0	33.9	26.5	32.3	30.9
Renewables and Biofuels	0.0	0.4	1.6	2.9	2.9	2.6
Electricity	1.2	0.7	0.2	1.8	1.5	1.3
Gross Inland Consumption	233.3	234.8	213.0	191.5	188.6	185.5
Solid Fossil Fuels	36.5	37.7	31.9	24.7	12.3	9.9
of which Hard Coal	36.6	37.3	32.3	23.9	11.6	9.2
of which Brown Coal	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Petroleum Products	83.7	85.3	74.3	71.0	71.9	71.9
of which Crude and NGL	89.8	88.1	75.3	61.0	58.8	59.0
Natural Gas	87.4	85.5	84.8	61.9	69.5	67.8
Nuclear	21.9	21.1	13.9	15.5	15.4	15.1
Renewables and Biofuels	2.3	3.9	7.4	15.7	16.5	18.2
Electricity	1.2	0.7	0.2	1.8	1.5	1.3
Waste, Non-Renewable	0.2	0.7	0.5	1.0	1.3	1.2
Available for Final Consumption	150.3	148.7	139.2	128.6	130.8	129.0
Final Non-Energy Consumption	11.3	11.4	7.9	7.4	7.5	7.5
Final Energy Consumption	139.6	137.7	130.1	120.1	122.6	121.2
by Fuel/Product						
Solid Fossil Fuels	3.7	2.5	2.4	2.3	1.9	1.7
Oil and Petroleum Products	52.8	53.4	48.6	47.8	48.8	48.8
Natural Gas	51.4	49.8	46.5	37.7	39.0	37.9
Renewables and Biofuels	0.6	0.6	2.8	4.7	5.3	5.4
Solid Biofuels and Renewable Waste	0.5	0.4	1.6	2.5	2.8	3.0
Solar Thermal	0.0	0.0	0.0	0.1	0.1	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Liquid Biofuels	0.0	0.1	1.2	0.9	0.9	0.9
Biogases	0.1	0.1	0.1	0.1	0.3	0.3
Waste, Non-Renewable	0.0	0.1	0.1	0.1	0.1	0.1
Electricity	28.3	30.0	28.3	26.1	26.1	25.9
Heat	2.4	1.3	1.3	1.3	1.3	1.3
by Sector						
Industry	33.9	30.5	25.6	22.9	22.5	22.7
Transport	42.2	43.3	40.4	40.9	41.8	41.9
Residential	43.1	44.2	45.5	37.3	38.5	37.1
Services	16.9	16.8	16.5	16.9	17.5	17.1
Agriculture and Fishing	1.2	0.9	1.0	1.2	1.3	1.4
Others	2.4	2.0	1.0	1.0	1.1	1.1

	2000	2005	2010	2015	2016	2017
Installed Electricity Capacity (GW)	78.4	82.4	93.7	96.2	97.5	103.5
Combustible Fuels	61.2	64.7	72.9	58.3	55.4	56.9
Nuclear	12.5	11.9	10.9	9.5	9.5	9.4
Hydro	4.3	4.3	4.4	4.5	4.6	4.6
Solar	0.0	0.0	0.1	9.6	11.9	12.8
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0
Tide, Wave and Ocean	0.0	0.0	0.0	0.0	0.0	0.0
Other Sources	0.0	0.0	0.0	0.0	0.0	0.0
Gross Electricity Generation, by Fuel (TWh)	377.1	398.4	382.1	338.9	339.3	338.3
Solid Fossil Fuels, Peat & Products, Oil Shale	120.0	134.6	107.6	75.9	30.7	22.5
Oil and Petroleum Products	8.4	5.3	4.8	2.0	1.9	1.6
Natural Gas	150.4	154.3	176.8	101.0	144.1	137.5
Nuclear	85.1	81.6	62.1	70.3	71.7	70.3
Renewables and Biofuels	12.7	19.9	29.3	86.1	86.1	102.2
Wastes non-RES	0.5	2.6	1.4	3.6	4.8	4.2
Cogeneration Heat and Power						
CHP Electrical Capacity (GW)			6.1	5.9	4.6	4.5
CHP Electricity Generation (TWh)			23.6	19.4	19.8	21.6
CHP in Total Electricity Generation (%)			6.2	5.7	5.8	6.4
CHP Heat Production (PJ)			155.5	124.2	129.8	139.8
Transport Fuels (ktoe)						
Final Consumption Petroleum Products	41 468	42 839	38 924	39 559	40 428	40 496
of which LPG	25	135	116	90	78	74
of which Motor Gasoline	22 858	19 975	15 598	12 926	12 784	12 553
of which Gas/Diesel Oil	17 795	21 547	22 392	25 710	26 730	27 004
Final Consumption Biofuels	0	69	1 151	933	946	934
Pure and Blended Biogasoline	0	43	321	404	386	383
Pure and Blended Biodiesel	0	26	830	529	560	551
Main Energy Indicators						
Primary Energy Consumption 2020-2030	222.0	223.5	205.1	183.0	179.8	176.8
Final Energy Consumption 2020-2030	153.3	153.0	143.1	132.6	134.4	133.3
Primary Energy Intensity 2020-2030 (toe/M€'10)	141	123	111	89	86	83
Energy Intensity GAE/GDP2010 (toe/M€'10)	149	131	117	95	92	88
Energy per Capita - GIC/pop (kgoe/cap)	3 968	3 902	3 408	2 953	2 884	2 817
Final Electricity per Capita (KWh/cap)	5 604	5 794	5 263	4 681	4 648	4 567
Import Dependency (%)	-17.1	13.4	29.0	37.5	35.7	35.3
of Solid Fossil Fuels	39.6	72.3	50.3	59.2	49.2	59.2
of Hard Coal	39.4	71.6	50.5	58.0	45.0	56.1
of Oil and Petroleum Products	-54.4	-3.1	14.1	36.7	34.0	34.7
of Crude and NGL	-47.9	-0.2	12.8	22.9	16.2	17.4
of Natural Gas	-10.7	7.0	40.0	42.8	46.5	45.5
Renewable in Gross Final Energy (%)						
Overall RES (with aviation cap)		1.3	3.7	8.4	9.2	10.2
RE-T – Transport		0.5	3.3	4.5	5.0	5.1
RES-E – Electricity Generation		4.1	7.5	22.3	24.6	28.1
RES-H&C – Heating and Cooling		0.8	2.6	6.1	7.0	7.5
Gases Emissions (Mio ton CO₂)						
CO ₂ Emissions – National total*	594.5	601.9	540.9	453.0	430.8	419.5
GHG Emissions – National total*	741.9	726.2	642.1	541.5	517.0	505.4
Main Emissions Indicators						
GHG National Total Emissions/index 1990	91.6	89.7	79.3	66.9	63.8	62.4
Total GHG per Capita (t CO ₂ eq/cap)	12.6	12.1	10.3	8.3	7.9	7.7

* Total emissions without LULUCF, with ind. CO₂, including international aviation, excl. international maritime transport.

Appendices



#6



Summary

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Appendices Methodology

Appendix 1 – Country Nomenclature

Interinstitutional Style Guide (ISG) Country Code	ISG Short Name EN	ISG Short Name, Source Language*	ISG Protocol Order	ISO 3166 Alpha-2 Country Codes
BE	Belgium	Belgique/België	1	BE
BG	Bulgaria	Bulgaria*	2	BG
CZ	Czechia	Česko	3	CZ
DK	Denmark	Danmark	4	DK
DE	Germany	Deutschland	5	DE
EE	Estonia	Eesti	6	EE
IE	Ireland	Éire/Ireland	7	IE
EL	Greece	Elláda*	8	GR
ES	Spain	España	9	ES
FR	France	France	10	FR
HR	Croatia	Hrvatska	11	HR
IT	Italy	Italia	12	IT
CY	Cyprus	Kýpros*	13	CY
LV	Latvia	Latvija	14	LV
LT	Lithuania	Lietuva	15	LT
LU	Luxembourg	Luxembourg	16	LU
HU	Hungary	Magyarország	17	HU
MT	Malta	Malta	18	MT
NL	Netherlands	Nederland	19	NL
AT	Austria	Österreich	20	AT
PL	Poland	Polska	21	PL
PT	Portugal	Portugal	22	PT
RO	Romania	România	23	RO
SI	Slovenia	Slovenija	24	SI
SK	Slovakia	Slovensko	25	SK
FI	Finland	Suomi/Finland	26	FI
SE	Sweden	Sverige	27	SE
UK	United Kingdom	United Kingdom	28	GB

* Latin transliteration.

Interinstitutional Style Guide (ISG): <http://publications.europa.eu/code/>

Eurostat Website: <http://ec.europa.eu/eurostat/>

ISO 3166 Country Codes Maintenance Agency: <https://www.iso.org/iso-3166-country-codes.html>

Appendix 2 – Main Energy Flows in Eurostat Energy Balances – EN

ESTAT Energy Database – EN	
Code	Dissemination Label
PPRD	Primary production
RCV_RCY	Recovered and recycled products
IMP	Imports
EXP	Exports
STK_CHG	Change in stock
NRGSUP	Total energy supply
INTMARB	International maritime bunkers
GIC	Gross inland consumption
INTAVI	International aviation
GAE	Gross available energy
INTMARB	International maritime bunkers
TI_E	Transformation input
TO	Transformation output
NRG_E	Energy sector
DL	Distribution losses
AFC	Available for final consumption
FC_NE	Final non-energy consumption
FC_E	Final energy consumption
FC_IND_E	Final energy consumption – Industry
FC_IND_IS_E	Iron and steel
FC_IND_CPC_E	Chemical and petrochemical
FC_IND_NFM_E	Non-ferrous metals
FC_IND_NMM_E	Non-metallic minerals
FC_IND_TE_E	Transport equipment
FC_IND_MAC_E	Machinery
FC_IND_MQ_E	Mining and quarrying
FC_IND_FBT_E	Food, beverages and tobacco
FC_IND_PPP_E	Paper, pulp and printing
FC_IND_WP_E	Wood and wood products
FC_IND_CON_E	Construction
FC_IND_TL_E	Textile and leather
FC_IND_NSP_E	Not elsewhere specified (industry)
FC_TRA_E	Transport
FC_TRA_RAIL_E	Rail
FC_TRA_ROAD_E	Road
FC_TRA_DAVI_E	Domestic aviation
FC_TRA_DNAVI_E	Domestic navigation
FC_TRA_PIPE_E	Pipeline transport
FC_TRA_NSP_E	Not elsewhere specified (transport)
FC_OTH_E	Other
FC_OTH_CP_E	Commercial and public services
FC_OTH_HH_E	Households
FC_OTH_AF_E	Agriculture and forestry
FC_OTH_FISH_E	Fishing
FC_OTH_NSP_E	Not elsewhere specified (other)
STATDIFF	Statistical differences

Appendix 3 – Main Energy Products in Eurostat Energy Balances – EN

ESTAT Energy Database – EN	
Code	Dissemination label
C0000X0350-0370	Solid fossil fuels
C0110	Anthracite
C0121	Coking coal
C0129	Other bituminous coal
C0210	Sub-bituminous coal
C0220	Lignite
C0320	Patent fuels
C0311	Coke oven coke
C0312	Gas coke
C0340	Coal tar
C0330	Brown coal briquettes
C0350-0370	Manufactured gases
C0360	Gas works gas
C0350	Coke oven gas
C0371	Blast furnace gas
C0379	Other recovered gases
P1000	Peat and peat products
P1100	Peat
P1200	Peat products
S2000	Oil shale and oil sands
O4000XBIO	Oil and petroleum products
O4100_TOT	Crude oil
O4200	Natural gas liquids
O4300	Refinery feedstocks
O4400X4410	Additives and oxygenates (excluding biofuel portion)
O4500	Other hydrocarbons
O4610	Refinery gas
O4620	Ethane
O4630	Liquefied petroleum gas
O4652XR5210B	Motor gasoline (excluding biofuel portion)
O4651	Aviation gasoline
O4653	Gasoline-type jet fuel
O4661XR5230B	Kerosene-type jet fuel (excluding biofuel portion)
O4669	Other kerosene
O4640	Naphtha
O4671XR5220B	Gas oil and diesel oil (excluding biofuel portion)
O4680	Fuel oil
O4691	White spirit and special boiling point industrial spirits
O4692	Lubricants
O4695	Bitumen
O4694	Petroleum coke
O4693	Paraffin waxes
O4699	Other oil products n.e.c.

Code	Dissemination label
G3000	Natural gas
RA000	Renewables and biofuels
RA100	Hydro power
RA500	Tide, wave and ocean
RA300	Wind power
RA420	Solar photovoltaic
RA410	Solar thermal
RA200	Geothermal
R5110-5150_W6000RI	Primary solid biofuels
R5160	Charcoal
R5300	Biogases
W6210	Renewable municipal waste
R5210P	Pure biogasoline
R5210B	Blended biogasoline
R5220P	Pure biodiesels
R5220B	Blended biodiesels
R5230P	Pure bio jet kerosene
R5230B	Blended bio jet kerosene
R5290	Other liquid biofuels
RA600	Ambient heat (heat pumps)
W6100_6220	Non-renewable waste
W6100	Industrial waste (non-renewable)
W6220	Non-renewable municipal waste
N900H	Nuclear heat
H8000	Heat
E7000	Electricity

Appendix 4 – Symbols and Abbreviations

%	per cent
€	euro
0	zero or figure less than half of the unit represented
bbl	barrel
bcm	billion cubic meters
Blank	data not available
CHP	combined heat and power
CO ₂	carbon dioxide
DG	Directorate-General of the European Commission
EEA	European Environment Agency
equiv.	equivalent
ESTAT	Eurostat, Statistical Office of the European Union
GCV	gross calorific value
GDP	gross domestic product
GHG	greenhouse gas
GJ	gigajoule
IEA	International Energy Agency
k	thousand
kgoe	kilogram of oil equivalent
ktoe	kiloton of oil equivalent
kton	kiloton
kWh	kilowatt hour
LPG	liquefied petroleum gas
M€ '2010	millions of euro, chain-linked volumes, reference year 2010, at 2010 exchange rates
m ³	cubic meter
Mio	million
MS	European Union Member State
MSW	municipal solid waste
Mtoe	million ton of oil equivalent
MW	megawatt
MWh	megawatt hour
NCV	net calorific value
NGL	natural gas liquid
p/cap	per capita
PJ	petajoule
PV	photovoltaic
RES	renewable energy
RES-E	renewable energy – electricity generation
RES-H&C	renewable energy – heating and cooling
RES-T	renewable energy – transport
SI Units	International System of Units
TJ	terajoule
toe	ton of oil equivalent
ton	metric ton, metric tonne, mt
TPES	Total Primary Energy Supply
TWh	terawatt hour
UNFCCC	United Nations Framework Convention on Climate Change
VAT	value added tax

Appendix 5 – Conversion Factors

ENERGY

		TO:	TJ	Mtoe	GWh
FROM:	Multiply by				
	Terajoule (TJ)		1	1/41 868	/3.6
	Million ton of oil equivalent (Mtoe)		X 41 868	1	X 11 630
	Gigawatt-hour (GWh)		X 3.6	/11 630	1

VOLUME

		VOLUME				
		TO:	l	bbl	gal US	gal UK
FROM:		Multiply by				
	Litre (l)		1	0.6290×10^{-2}	0.2642	0.2200
	Barrel (bbl)		158.99	1	42	34.9723
	U.S. gallon (gal US)		3.7854	0.2381×10^{-1}	1	0.8327
	U.K. gallon (gal UK)		4.5461	0.2859×10^{-1}	1.2009	1

MASS

		TO:	t	lt	st
FROM:		Multiply by			
	Ton, Tonne (t)	1	0.9842	1.1023	
	Long ton (lt) UK	1.0160	1	1.1200	
	Short ton (st) US	0.9072	0.8929	1	

Appendix 6 – Average Calorific Values*

Product	Net calorific value (TJ/kt)
Anthracite	26.7
Coking coal	28.2
Other bituminous coal	25.8
Sub-bituminous coal	18.9
Lignite	11.9
Patent fuels	20.7
Coke oven coke	28.2
Gas coke	28.2
Coal tar	28.0
Brown coal briquettes**	19.0
Peat	9.76
Peat products*	16.0
Oil shale and oil sands	8.9
Crude oil	42.3
Natural gas liquids	44.2
Refinery feedstocks	43.0
Additives and oxygenates**	42.5
Other hydrocarbons (w/o bio)**	42.5
Refinery gas	49.5
Ethane	46.4
Liquefied petroleum gases	47.3
Motor gasoline (w/o bio)	44.3
Aviation gasoline**	44.3
Gasoline-type jet fuel**	44.3
Kerosene-type jet fuel**	44.1
Other kerosene	43.8
Naphtha	44.5
Gas oil and diesel oil (w/o bio)	43.0
(Residual) Fuel oil	40.4
White spirit and SPB	40.2
Lubricants	40.2
Bitumen	40.2
Petroleum coke	32.5
Paraffin waxes	40.2
Other oil products	40.2
Charcoal	29.5
Pure biogasoline	27.0
Blended biogasoline	27.0
Pure biodiesels	27.0
Blended biodiesels	27.0
Pure bio jet kerosene**	44.0
Blended bio jet kerosene**	44.0
Other liquid biofuels	27.4

* If no calorific values are provided by a reporting country, Eurostat uses the net calorific values enacted in [Commission Regulation \(EU\) No 601/2012](#) on the monitoring and reporting of greenhouse gas emissions pursuant to [Directive 2003/87/EC](#) of the European Parliament and of the Council.

** Eurostat estimates for products not covered by the Commission Regulation (EU) No 601/2012. These estimates take into account the [Commission Decision 2007/589/EC](#) establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to [Directive 2003/87/EC](#) of the European Parliament and of the Council.

Appendix Glossary

Appendix 7 – Glossary

In parenthesis are the codes for energy products and energy flows and indicators from the EUROSTAT Energy database/EUROBASE as of June 2019. More extensive explanations is available on Eurostat website at: <https://ec.europa.eu/eurostat/web/energy/data/energy-balances>

ALL FUELS

'All fuel' (WHICH corresponds to the code 'Total'), covers all energy products. These consist of solid fossil fuels (including hard coal and derivatives, brown coal and derivatives, peat and derivatives, oil shale and oil sands, oil and petroleum products (such as LPG, refinery gas, motor spirit, kerosene, gas/diesel oil, residual fuel oil), natural gas, manufactured gases, renewable and biofuels (such as hydro power, wind energy, biomass, wastes, geothermal energy, ambient heat for heat pumps), electrical energy, heat energy and nuclear heat.

AMBIENT HEAT (HEAT PUMPS)

It is the ambient heat (RA600) captured by heat pumps as a fuel. It is included at the renewable energy category and can either be used to produced heat for sale (input in transformation for heat production) or used directly by end-users (final energy consumption). The ambient heat captured by heat pumps is included in Eurostat's energy balances as of January 2019 edition.

ANNUAL INSTALLED CAPACITY

Annual installed or new installed capacity of a given source refers to the capacity entering in operation, during a year period.

AUTOPRODUCER: ELECTRICITY AND HEAT GENERATION

Autoproducers are plants which generate electricity and/or heat for their own use.

AVAILABLE FOR FINAL CONSUMPTION (ENERGY)

Energy available for final consumption covers the energy placed at the disposal of final users. This code is calculated as follows: total energy supply (NRGSUP) + transformation output (TO) - transformation input (TI_E) - consumption of the energy sector (NRG_E) - distribution losses (DL).

BIOFUELS

Biofuels are fuels derived directly or indirectly from biomass. Biofuels used for non-energy purposes are excluded from the scope of energy statistics. Biofuels can be split up into three categories: Solid biofuels, liquid biofuels and biogases. Liquid or gaseous fuels used primarily for transport, produced from biomass and renewable waste. The liquid biofuels groups pure biogasoline (R5210P), blended biogasoline (R5210B), pure biodiesel

(R5220P), blended biodiesel (R5220B), pure bio jet kerosene (R5230P), blended bio jet kerosene (R5230B) and other liquid biofuels (R5290).

BIOFUELS AND RES WASTE

Biofuels and RES municipal wastes (W6210), covers organic, non-fossil material of biological origin, which may be used for heat production or electricity generation. They comprise primary solid biofuels such as wood and wood waste (R5110-5150_W6000RI), biogases (R5300), renewable municipal waste (W6210), charcoal (R5160) and biofuels such as: pure gasoline (R5210P), blended gasoline (R5210B), pure biodiesel (R5220P), blended biodiesel (R5220B), pure bio jet kerosene (R5230P), blended bio jet kerosene (R5230B) and other liquid biofuels (R5290).

The non-renewable part of municipal waste (W6220) and the industrial waste (W6100) are included in non-renewable waste (W6100_6220).

CAPACITY FACTOR – ANNUAL AVERAGE

It is a measure of efficiency, which is defined as the ratio of actual energy output of a source against its annual maximum potential output, or in other words, to the energy it would produce if operated at full rated power for 8000 hours a year (i.e. 24 hours per day for about 11 months, assuming one month per year for annual maintenance). It is equal to the total annual energy production, divided by the cumulative capacity converted to average statistical year base.

CHP – COMBINED HEAT AND POWER

A combined heat and power unit is an installation in which energy released from fuel combustion is partly used for generating electrical energy and partly for supplying heat for various purposes.

The definition of Combined Heat and Power (CHP) or 'cogeneration' implies that heat and electricity are produced simultaneously in one process.

CONVENTIONAL THERMAL POWER

It is a technology for the production of electricity by fuel combustion. It will include biomass use, which is also considered a renewable source of electricity. Thermal power stations cover conventional public utility power stations for the production of electricity and heat, as well as in auto-producer power stations for the generation of electricity and heat sold to third parties only.

CUMULATIVE INSTALLED CAPACITY

This represents the running sum for consecutive periods of a given installed source. It indicates the total capacity availability in each of those periods.

ELECTRICITY MIX

The electricity mix is the proportion of different sources in electricity production. While energy mix is measured at gross inland consumption level, electricity mix is measured at energy transformation into electricity level (i.e. in gross electricity generation).

ENERGY AVAILABLE FOR FINAL CONSUMPTION

Energy available for final consumption, [AFC], covers the energy placed at the disposal of final users. This code is calculated as follows: total energy supply [NGSUP] + transformation output [TO] - transformation input [TI] - consumption of the energy sector [NRG_E] - distribution losses [DL]. It includes final non-energy consumption [FC_NE] and Final energy consumption [FC_E].

ENERGY IMPORT DEPENDENCY

Energy dependency shows the extent to which a country relies upon imports in order to meet its energy needs. It is calculated using the following formula: net imports (as imports – exports, i.e. [IMP]-[EXP])/(gross inland consumption [GIC] +international maritime bunkers [INTMARB]).

ENERGY INTENSITY

Energy intensity gives an indication of the effectiveness with which energy is being used to produce added value. It is defined as the ratio of Gross available energy [GAE] to Gross Domestic Product [GDP].

ENERGY MIX

The energy mix is the proportion of main sources in gross inland consumption (excluding electricity and heat).

ENERGY SECTOR BROAD DEFINITION

It includes the electricity, gas, steam, and air conditioning supply sector as well as the energy commodities production activities, mining and extraction, support activities and manufacture of energy products.

ENERGY SECTOR NARROW DEFINITION

It includes the electricity, gas, steam, and air conditioning supply sector.

EUROBASE

The Eurostat, web based, dissemination database contains the full range of publically available data from Eurostat. The Eurobase is available at: <https://ec.europa.eu/eurostat/data/database>

FINAL ENERGY CONSUMPTION (FEC)

Final energy consumption covers energy supplied to the final consumer's sectors for all energy uses [FC_E]. It excludes deliveries to the energy transformation sector and to the energy industries themselves. It is the sum of final energy consumption by industry [FC_IND_E], transport [FC_TRA_E], household [FC_OTH_HH_E], commercial & public services [FC_OTH_CP_E], agriculture & forestry [FC_OTH_AF_E], fishing [FC_OTH_FISH_E] and other unspecified [FC_OTH_NSP_E].

FINAL ENERGY CONSUMPTION 2020-2030

In order to allow comparison with Europe 2020 targets established prior to the actual methodology of energy balance, this Eurostat indicator [FEC 2020-2030] estimates Final energy consumption to that calculated under the old methodology – the methodology in place at the time of establishing the Directive 2012/27/EU and Europe 2020 energy efficiency targets. This indicator should be used also for tracking progress towards Europe 2030 energy efficiency targets.

FINAL ENERGY CONSUMPTION – TRANSPORT

Final energy consumption – transport [FC_TRA_E], covers the consumption in all types of transportation, i.e., rail, road, domestic aviation, domestic navigation, pipeline transport and transport consumption not elsewhere specified.

FINAL NON-ENERGY CONSUMPTION

Final non-energy consumption covers the use of energy products for non-energy purposes [FC_NE].

GDP – GROSS DOMESTIC PRODUCT

The gross domestic product is the value of the output of all goods and services produced within the borders of a country. The income measure of gross domestic product (GDP) is derived as compensation of employees plus gross operating surplus plus gross mixed incomes plus taxes less subsidies on both production and imports.

GDP AT CONSTANT MARKET PRICES

GDP values, used, were referenced to year 2010, in millions of euro, chain-linked volumes, at 2010 exchange rates.

GHG – GREENHOUSE GAS

GHG includes gases that contribute to the natural greenhouse effect. The Kyoto Protocol covers a basket of six greenhouse gases (GHGs) produced by human activities: Carbon dioxide, methane, nitrous oxide, hydro fluoro-carbons, perfluorocarbons and sulphur hexafluoride.

GHG INTENSITY OF THE ENERGY CONSUMPTION

GHG Intensity of the Energy Consumption [kg CO₂ eq./toe] represents the average emission rate of greenhouse gas (GHG) emissions from fuel combustion activities of an economy relative to its gross inland consumption.

GHG GDP INTENSITY

This represents the average emission rate of GHG emissions of an economy relative to its GDP.

GROSS AVAILABLE ENERGY

Gross available energy [GAE] represents the quantity of energy necessary to satisfy all energy demand of entities operating under the authorities of the geographical entity under consideration. Gross available energy is defined by the formula: primary production [PPRD] + Recovered & Recycled Products [RCV_RCY] + Imports [IMP] – Exports [EXP] + Stock changes [STK_CHG].

GROSS CALORIFIC VALUE (GCV)

The gross calorific value is the total amount of heat released by a unit quantity of fuel, when it is burned completely with oxygen, and when the products of combustion are returned to ambient temperature. This quantity includes the heat of condensation of any water vapour contained in the fuel and of the water vapour formed by the combustion of any hydrogen contained in the fuel.

GROSS ELECTRICITY GENERATION

The gross electricity generation is measured at the outlet of the main transformers, i.e. the consumption of electricity in the plant auxiliaries and in transformers is included.

GROSS ELECTRICITY GENERATION PENETRATION LEVEL

Electricity penetration level refers to the fraction of gross electricity production of a source, compared with the total gross electricity generation, all sources.

GROSS FINAL ENERGY CONSUMPTION

Gross final consumption of energy means the energy commodities delivered for energy purposes to industry, transport, households and services (including public services), agriculture, forestry and fisheries, including the consumption of electricity and heat by the energy branch for electricity and heat production and including losses of electricity and heat in distribution and transmission. The gross (overall) final consumption of energy from renewable sources is calculated as the sum of: (a) gross final consumption of electricity from renewable energy sources; (b) gross final consumption of energy from renewable sources for heating and cooling; and (c) final consumption of energy from renewable sources in transport.

GROSS HEAT PRODUCED

It is the total heat produced, including losses in the installations/network heat exchanges, as well as heat from chemical processes used as primary energy form. For auto-producers, the heat used by the undertaking for its own processes is not included here. Only heat sold to third parties should be reported.

GROSS INLAND CONSUMPTION

Gross inland consumption [GIC] represents the quantity of energy necessary to satisfy inland consumption of the geographical entity under consideration, i.e. the Total Energy Supply [NRGSUP], plus the international aviation [INTAVI]. It is also calculated using the following formula: gross available energy [GAE] – International maritime bunkers [INTMARB]. Gross inland consumption is calculated to ensure continuity and transition from the old Eurostat energy balance into the new Eurostat energy balance methodology.

GROSS INLAND CONSUMPTION 2020-2030

This indicator [GIC 20202-2030] estimates Gross inland consumption to that calculated under the old methodology – the methodology in place at the time of establishing the Europe 2020 targets. This indicator should be used also for tracking progress towards Europe 2030 targets.

GROSS INSTALLED (ELECTRICITY) CAPACITY

This covers the gross installed electrical capacity of thermal, nuclear, hydro, geothermal, wind and any other types of power plants.

ISIC

The International Standard Industrial Classification of All Economic Activities is a United Nations system for classifying economic activity data, in the fields of production, employment, gross domestic product and other statistical areas.

ISG

The Inter-institutional style guide is intended to serve as a reference tool for written works for all European Union institutions, bodies and organisations, representing an achievement in linguistic harmonisation.

INHABITANTS

This represents the group of persons fulfilling the requirements for legal permanent residency in a region/country.

LFS

The EU Labour Force Survey (LFS) is a large sample survey among private households which provides detailed annual and quarterly data on: employment, unemployment and inactivity.

The LFS is an important source of information about the situation and trends in the EU labour market, with a sample size is about 1.5 million people every quarter.

The data can be broken down along many dimensions including age, sex, educational attainment, and distinctions between permanent/temporary and full-time/part-time employment. In terms of employment figures are more representative of the total sector, but unfortunately not so disaggregated as the SBS survey.

LONG SCALE – SHORT SCALE

The long and short scales are two of several different large-number naming systems used for integer powers of ten.

Many countries, including most in continental Europe, use the long scale whereas most English-speaking countries and Arabic-speaking countries use the short scale.

In the long scale every new term greater than a million is a million times the previous term. Thus, billion means a million millions, trillion means a million billions, and so on.

In the short scale every new term greater than million is 1 000 times the previous term. Thus, billion means a thousand millions, trillion means a thousand billions.

Name	Long Scale Value in Scientific notation	Short Scale Value in Scientific notation
million	10^6	10^6
billion	10^{12}	10^9
trillion	10^{18}	10^{12}
	to the next:	to the next:
	multiply by 1 000 000	multiply by 1 000

Milliard, is used in several languages that use the long scale to represent a corresponding value to billions in short scale, i.e. 10^9 .

MANUFACTURED GASES

Manufactured gases [C0350-0370] covers coke oven gas [4210], blast furnace gas [4220], gas work gas [4230], and other recovered gas [4240].

NACE

NACE is the acronym used to designate the various statistical classifications of economic activities developed since 1970 in the European Union. It provides the framework for collecting and presenting a large range of statistical data according to economic activity in the fields of economic statistics (e.g. production, employment, national accounts) and in other statistical domains.

NET CALORIFIC VALUE (NCV)

The net calorific value is the amount of heat released by a unit quantity of fuel, when it is burned completely with oxygen, and when the products of combustion are returned to ambient temperature. This quantity does not include the heat of condensation of any water vapour contained in the fuel nor of the water vapour formed by the combustion of any hydrogen contained in the fuel.

NET IMPORTS

Net import is calculated as the difference between imports [IMP] and exports [EXP].

NET ELECTRICITY GENERATION

It is the amount of gross generation a generator produces less the electricity used to operate the plant.

OIL AND PETROLEUM PRODUCTS

Oil and petroleum products [04000XBIO] include crude oil [04100_TOT], natural gas liquids [04200], refinery feedstocks [04300], additives and oxygenates (excl biofuel portion) [04400X4410], other hydrocarbons [04500] and the oil products such as LPG [04630], refinery gas [04620], ethane [04620], motor gasoline [04652XR5210B], aviation gasoline [04651], gasoline-type jet fuel [04653], kerosene-type jet fuels [04661XR5230B], other kerosene [04669], naphtha [04640], gas/diesel oil [04671XR5220B], fuel oil [4680], white spirit [04691], lubricants [04692], bitumen [04695], petroleum coke [04694], paraffin waxes [04693] and other oil products [04699].

PRIMARY ENERGY CONSUMPTION

Primary energy consumption corresponds to the Gross Inland consumption minus the energy included in the final non-energy consumption.

PRIMARY ENERGY CONSUMPTION 2020-2030

This indicator [PEC 2020-2030] reflects on the definition given in Article 2 of the Directive 2012/27/EU as well as the methodology of energy balances in place at the time of establishing the Directive and Europe 2020 energy efficiency targets. This indicator should be used also for tracking progress towards Europe energy efficiency 2030 targets. This is an aggregate with the following arithmetic definition: [PEC 20202-2030] = [GIC 2020-2030] – Final non-energy consumption [FC_NE].

PRIMARY ENERGY INTENSITY 2020-2030

Primary energy intensity 2020-2030 gives an indication of the effectiveness with which primary energy consumption produces added value. It is defined as the ratio of Primary Energy Consumption 2020-2030 to Gross Domestic Product.

PRIMARY ENERGY PRODUCTION – INDIGENOUS PRODUCTION

Primary production [PPRD] is any kind of extraction of energy products from natural sources to a usable form is called primary production. Primary production takes place when the natural sources are exploited, for example in coal mines, crude oil fields, hydro power plants or fabrication of biofuels. Transformation of energy from one form to another, such as electricity or heat generation in thermal power plants, or coke production in coke ovens, is not included in primary production. In general for solid fossil fuels and peat, production includes the quantities consumed by the producer during the production as well as any quantities supplied to other on-site producers of energy for transformation or other uses. For oil and petroleum products,

production includes only marketable production, and excludes any quantities returned to formation. For natural gas, the production includes all quantities used within the natural gas industry, in gas extraction, pipeline systems and processing plants. For nuclear, the production is the actual heat produced or the heat calculated on the basis of the gross electricity generated and the thermal efficiency of the nuclear plant. For renewables generating electricity (hydro, wind, solar thermal-electric and photovoltaic) production is calculated on the basis of the gross electricity generated and a conversion factor of 3600 kJ/kWh. For geothermal, production is calculated on the basis of the difference between the enthalpy of the fluid produced in the production borehole and that of the fluid disposed of via the re-injection borehole. In the case of municipal solid wastes (MSW), wood, wood wastes and other solid wastes, production is the heat produced after combustion and corresponds to the heat content (NCV) of the fuel. In the case of anaerobic digestion of wet wastes, production is the heat content (NCV) of the biogases produced. The production includes all quantities of gas consumed in the installation for the fermentation processes, and excludes all quantities of flared gases. In the case of bioliquids, the production is the heat content (NCV) of the fuel.

PUMPING, PUMPED STORAGE

Method for storing electrical energy at hydroelectric installations by pumping water between reservoirs at different altitudes

RENEWABLES AND BIOFUELS (RES):

Renewables and biofuels [RA000] cover hydro power [RA100], tide, wave and ocean power [RA500], wind power [RA300], solar photovoltaic [RA420] and solar thermal [RA410], geothermal [RA200], renewable municipal waste [W6210], ambient heat [RA600] and biofuels such as: primary solid biofuels [R5110-5150_W6000RI], charcoal [R5160], pure biogasoline [R5210P], blended biogasoline [R5210B], pure biodiesels [R5220P], blended biodiesels [R5220B], pure bio jet kerosene [R5230P], blended bio jet kerosene [R5230B] and other liquid biofuels [R5290].

SOLAR ENERGY

Solar energy is solar radiation exploited for hot water production – solar thermal [RA410] and electricity generation – solar photovoltaic [RA420]. This energy production, is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collectors' losses.

SBS

Structural business statistics cover industry, construction, trade and services. Presented according to the NACE activity classification, they describe the structure, conduct and performance of businesses across the European Union.

SOLID FOSSIL FUELS

Solid fossil fuels [C0000X0350-0370] category of energy products includes Hard coal [C0100] (further including Anthracite [C0110], Coking coal [C0121] and Other bituminous coal [C0129]), Brown coal [C0200] (further including Sub-bituminous coal [C0210] and Lignite [C220]) and Coal products [C0300] (further including Patent fuel [C0320], Coke oven coke [C0311], Gas coke [C0312], Coal tar [C0340] and Brown coal briquettes [C0330]). Quantities of fuels extracted or produced, calculated after any operation for removal of inert matter.

TONNE OF OIL EQUIVALENT (toe)

The tonne of oil equivalent is a conventional standardised unit for measuring energy, defined on the basis of a tonne of oil with a net calorific value of 41 868 kilojoules/kg.

TOTAL ENERGY SUPPLY

Total energy supply [NRGSUP] is one of the most important aggregate of energy balance and represents the quantity of energy necessary to satisfy inland consumption (inland fuel deliveries) of the geographical entity under consideration.

Total energy supply is the sum of Primary production [PPRD], Recovered & recycled products [RCV_RCY], Imports [IMP] from which are subtracted: Exports [EXP], Stock changes [STK_CHG], International maritime bunkers [INTMARB] and international aviation [INTAVI].

Total Energy Supply is also equivalent to Gross Inland Consumption [GIC] minus International Aviation [INTAVI].

TOTAL PRIMARY ENERGY SUPPLY

Total primary energy supply [TPES] is an IEA energy flow, defined as the quantity of energy necessary to satisfy inland consumption of the geographical entity under consideration. It is equal to the indigenous production + imports – exports – international marine bunkers – international aviation bunkers +/- stock changes. It corresponds to the Eurostat's Total energy supply [NRGSUP].

TRANSFORMATION INPUT

Transformation input [TI_E] covers all inputs into the transformation plants destined to be converted into derived products. Transformation is only recorded when the energy products are physically or chemically modified to produce other energy products, electricity and/or heat. Quantities of fuels used for heating, operation of equipment and in general in support of the transformation are not included in Transformation input but in Energy sector [NRG_E].

Transformation Input is the sum of the inputs for electricity & heat generation plants [TI_EHG_E], coke ovens [TI_CO_E], blast furnaces [TI_BF_E], gas works [TI_GW_E], refineries & petrochemical industry [TI_RPI_E], patent fuel plants [TI_PF_E], BKB & PB plants [TI_BKBPB_E], coal liquefaction plants [TI_CL_E], for blended natural gas [TI_BNG_E], liquid biofuels blended [TI_LBB_E], charcoal production plants [TI_CPP_E], gas-TI-liquids plants [TI_GTL_E] and others not elsewhere specified [TI_NSP_E].

TRANSFORMATION OUTPUT

Transformation output [TO_E] is the result of the transformation process of energy products. This output covers production of derived products (secondary products, by-products and co-products). Transformation output refers always to gross production of derived products, i.e. the products used for the own consumption of the transformation plants are included in the transformation output and their use is reported in the Energy sector. Transformation output is the sum of the output from electricity & heat generation plants [TO_EHG_E], coke ovens [TO_CO_E], blast furnaces [TO_BF_E], gas works [TO_GW_E], refineries & petrochemical industry [TO_RPI_E], patent fuel plants [TO_PF_E], BKB & PB plants [TO_BKBPB_E], coal liquefaction plants [TO_CL_E], for blended natural gas [TO_BNG_E], liquid biofuels blended [TO_LBB_E], charcoal production plants [TO_CPP_E], gas-TO-liquids plants [TO_GTL_E] and others not elsewhere specified [TO_NSP_E].

TRANSFORMATION LOSSES

The difference between transformation input and transformation output constitutes transformation losses.

TURNOVER

Gross Premium Written comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties.

UNEMPLOYMENT RATE

The unemployment rate represents unemployed persons as a percentage of the active population.

Appendix Notes

Appendix 8 – Notes

APPENDIX 8.1

1.1.1, 1.1.2 PAGES 10, 11

Energy production corresponds to the indigenous energy production (IEA methodology). It does not include production from other sources.

Asia aggregation does not include China data.

1.1.2, 1.1.4, 1.1.6, 1.1.8, PAGES 11, 13, 15 AND 17

Solid fuels, includes hard coal, lignite and peat, as well as derived fuels.

Petroleum and (petroleum) sub-products comprises crude oil, NGL, feed-stock, additives as well as other hydrocarbons.

RES (renewables) is equal to the sum of hydro, geothermal, solar PV, solar thermal, tide, wind, municipal waste, primary solid biofuels, biogases, bio gasoline, biodiesel, other liquid biofuels, non-specified biofuels and charcoal energy. Industrial waste not included.

1.1.3, 1.1.4, PAGES 12, 13

Total Energy Supply according to EUROSTAT methodology (see glossary) corresponds to the Total Primary Energy Supply (see glossary TPES), of the IEA methodology.

Asia aggregation does not include China data.

1.1.5, 1.1.6, PAGES 14, 15

Final energy consumption covers energy supplied to the final consumer's door for all energy uses.

Asia aggregation does not include China data.

1.1.8, PAGE 17

It is the total heat produced, including losses in the installations/network heat exchanges. However only autoproducers heat sold to third parties is here included. Auto-producers heat, used by the undertaking for their own processes, is excluded.

1.1.10, PAGE 19

CO₂ Intensity refers to CO₂ emissions activity intensity, measured by its energy gross inland consumption.

1.3.1, PAGE 27

Overall RES share is measured against the total gross final energy consumption.

APPENDIX 8.2**2.1.1, PAGES 35-37**

Production comprises primary production [PPRD] and products recovered & recycled [RCV_RCY].

2.1.2, PAGES 38-40

Net imports correspond to the difference between imports [IMP] and exports [EXP].

2.1.4, PAGES 42-45

Gross inland consumption [GIC] represents the quantity of energy necessary to satisfy inland consumption of the geographical entity under consideration, including the international aviation [INTAVI]. This aggregate is calculated to ensure continuity and transition from the old Eurostat energy balance into the new Eurostat energy balance.

2.2.1, PAGES 47-51

Solid fossil fuels – see glossary

2.2.2, PAGES 52-56

Total oil and petroleum products – see glossary. Crude oil and NGL is a subgroup containing only crude oil [O4100_TOT] and natural gas liquids [O4200] codes.

2.3, PAGES 68-74

See glossary energy import dependency.

Please note that hard coal dependency is a part of the solid fuels dependency, natural gas, of the gases dependency, and crude and NGL of the total petroleum and petroleum sub-products dependency. The total import dependency covers all fuels and it is not a simple average of the upper mentioned products.

2.5.1, PAGE 81

Energy available for final consumption covers the energy placed at the disposal of final users. It includes final non-energy consumption.

2.5.2, PAGE 82

Final non-energy consumption covers the use of energy products in non-energy purposes.

2.5.3, PAGES 83-86

Final energy consumption covers energy supplied to the final consumer's door for all energy uses. It does not include final non-energy consumption.

2.6.1, PAGES 87-89

Installed capacity represents the maximum active power that can be supplied, continuously, with all systems running.

Please note that combustible fuels include not only fossil fuels, as well as biomass and wastes, that are later included, also, in the renewables installed capacity.

2.6.2, PAGES 90-94

The gross electricity generation is measured at the outlet of the main transformers, i.e. the consumption of electricity in the plant auxiliaries and in transformers is included.

2.7.1, PAGES 96-97

Intermittent energy only includes wind and solar energy. Tide is not included in the totals. The share of the intermittent energy is measured against to total installed capacity, all sources.

2.7.2-2.7.8, PAGES 98-105

Wind and solar energy generated by all producers. Annual installed capacity includes new installations and replacement of former wind or solar systems.

2.7.3, 2.7.4, PAGES 100-101

Gross electricity production wind share measures the percentage of wind produced electricity in the total production.

Average capacity factor it is the ratio of actual energy output of wind sources against its annual maximum potential output. It is equal to the total annual electricity production, divided by the cumulative capacity converted to an average statistical year base.

2.7.8, PAGE 105

Gross electricity production solar share measures the percentage of solar produced electricity in the total production.

2.8, PAGES 107-109

The data collection for CHP generation is not based in the annual Heat survey, but instead on a specific survey in accordance with the Energy Efficiency Directive 2018/2002/EU. Differences can appear between the two datasets.

2.9, PAGES 110-112

Data is generated by the annual heat survey. Heat, in these tables, include the total heat produced, including losses in the installations/network heat exchanges, as well as heat from chemical processes used as primary energy form. Only heat sold to third parties is here reported.

2.10, PAGES 113-115

The tables include the total final energy consumption of petroleum products, and two of its main products: motor gasoline [O4652XR5210B], and Gas oil and diesel oil [O4671XR5220B], and the total final energy consumption of biofuels with its two main products: biogasoline [R5210] and biodiesel [R5220].

2.11.1, PAGE 116

Energy intensity gives an indication of the effectiveness with which energy is being used (GIC) to produce an added value (GDP).

2.11.4, PAGE 119

Primary energy intensity gives an indication of the effectiveness with which primary energy is being used to produce an unit of added value (GDP).

2.13, PAGES 126-132

All available price data has been used in the calculation of EU-wide fuel price averages. The overall EU price is an average of the prices in the individual countries weighted by their consumption.

PETROLEUM PRODUCTS

Heating gasoil, low sulphur fuel oil, unleaded petrol and automotive diesel prices are supplied by the Member States to DG ENERGY as those being the most frequently encountered for the specific categories of sales. The prices are as of January 15th in each year.

The heating gasoil prices given are for deliveries of between 2000 and 5000 litres while those for low sulphur fuel oil are for monthly deliveries of less than 2000 tonnes or annual deliveries of less than 24000 tonnes. The average pump prices are given for motor fuels.

The EU average prices are calculated by weighting the prices from each country by the corresponding final energy consumption.

ELECTRICITY AND GAS

The legal basis for the collection of industrial gas and electricity prices is defined by EC Directive 2008/92/EC. The collection of prices includes national average prices of the last 6 months reported by different consumer bands. All taxes are included in the current prices.

Consumption bands have been selected as the most representative for the exercise.

APPENDIX 8.3

3.1.1, PAGE 134

Energy activities sector in its broad and narrow definition as defined by EUROSTAT/NACE and UN/SIC nomenclatures (sector D35 according to NACE codes).

3.2, PAGES 135-146

Includes data on number of enterprises, turnover, and persons declared as employed, as originated from the SBS survey that targets especially enterprises business. At employment level is more disaggregated but less complete than the LFS survey.

3.3, PAGES 147-150

Data is extracted from DG Economic and Financial Affairs, AMECO database. Differences mainly due to data freshness, constant revisions, and methodology can appear when comparing with Eurostat economic data.

3.5, PAGES 152-154

Data from the LFS survey. At employment level, this dataset presents larger figures than the SBS, due to the difference of methodology, and its sample size.

APPENDIX 8.4

4.1.1, PAGES 158-162

GHG, greenhouse gases, are gases that contribute to the natural greenhouse effect. GHG emissions aggregate includes Fuel combustion emissions and other non-fuel linked emissions (Industrial processes, agriculture...). Fuel combustion emissions include combustion in Energy industries, Manufacturing Industries and construction, Transport, Commercial and Institutional, Residential, Agriculture, Forestry/Fisheries and other combustion and fugitive emissions.

4.1.2 PAGES 163-167

Structure of emissions similar to the GHG emissions.

APPENDIX 8.5

For products see appendix 3 and the glossary from appendix 7. For energy flows see appendix 2 and the glossary from appendix 7. For abbreviations, conversion factors and units see the explanations provided in appendices 6 and 7.

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Publications Office
of the European Union

ISBN 978-92-76-08818-9