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Energy consumption in 2017

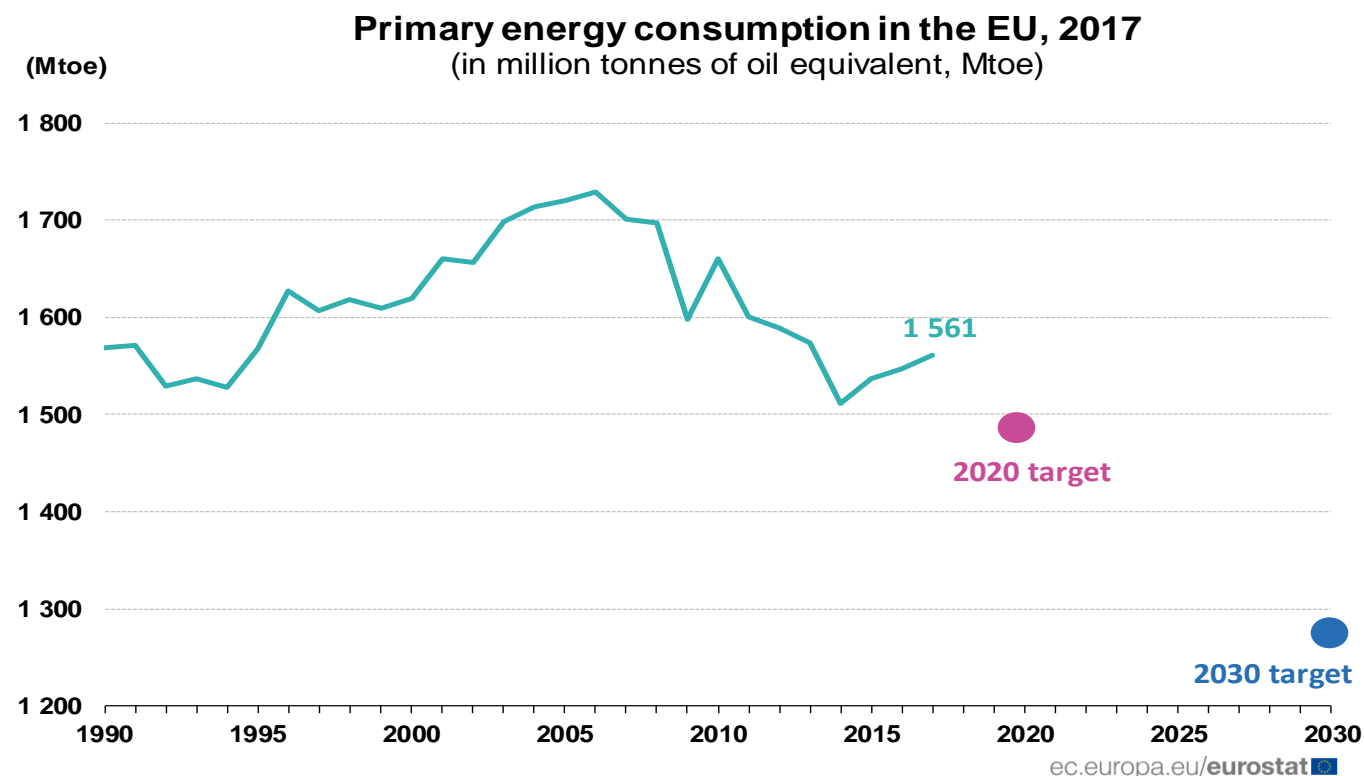
Energy consumption in the EU increased by 1% in 2017

Gap to energy efficiency target for 2020 continued to widen

In 2017, energy consumption in the **European Union** (EU) continued to increase for the third consecutive year, thus moving away from the energy efficiency targets. Primary energy consumption amounted to 1 561 million tonnes of oil equivalent (Mtoe), while final energy consumption reached 1 222 Mtoe. Compared with last year, both levels increased by around 1%.

The **EU** has committed itself to binding energy efficiency target of reducing energy consumption by 20% by 2020. The primary energy consumption should amount to no more than 1 483 Mtoe and final energy consumption to no more than 1 086 Mtoe in 2020. The revised Energy Efficiency Directive provides for a new energy efficiency target for 2030: a primary energy consumption of no more than 1 273 Mtoe and a final energy consumption of no more than 956 Mtoe (equivalent to a reduction of 32.5%).

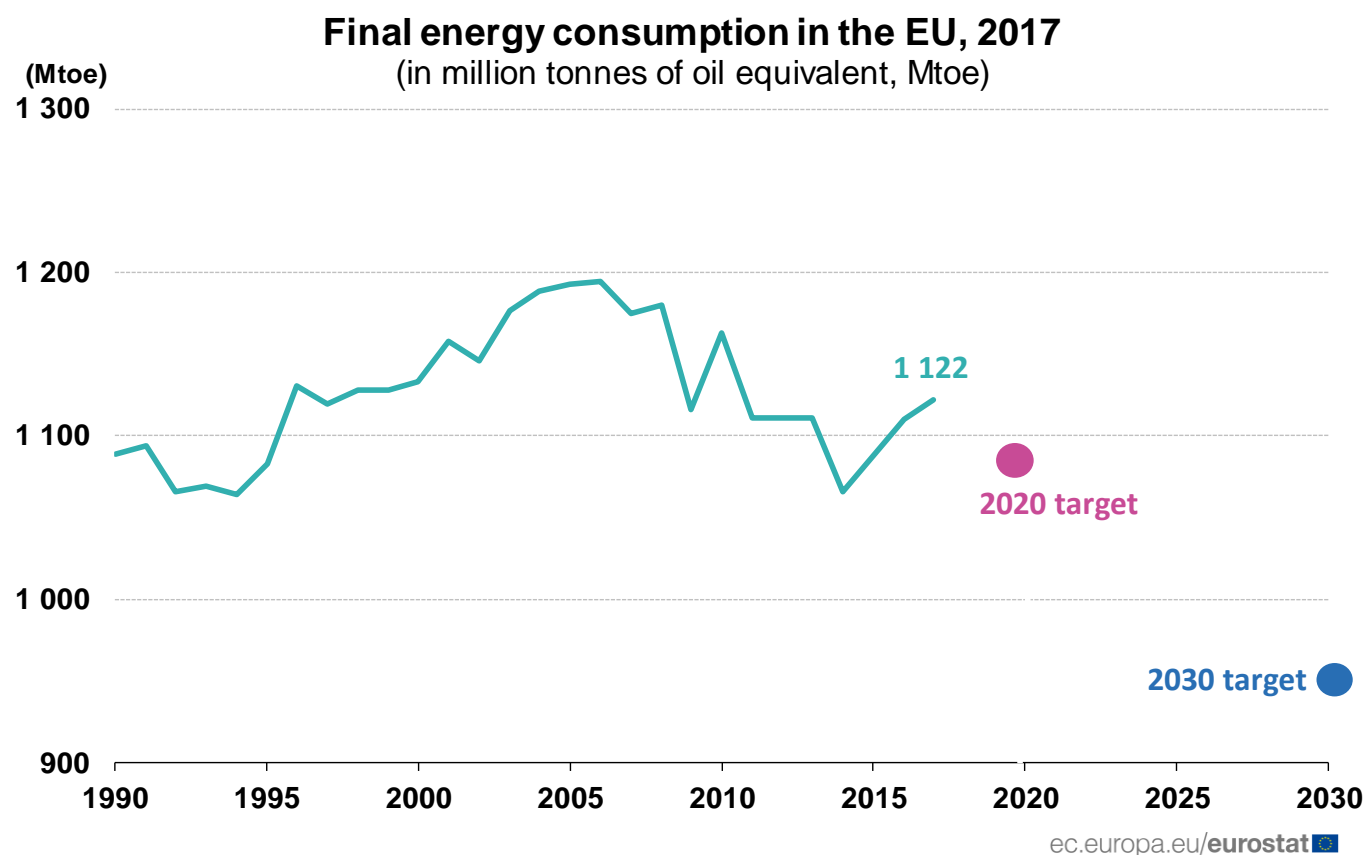
In 2017, primary energy consumption in the **EU** was 5.3% above the efficiency target for 2020. Since 1990, the first year for which data are available, consumption has fallen by 0.4%. However, over the years, the primary energy consumption has fluctuated greatly. It peaked in 2006 (1 729 Mtoe representing a 16.6% gap from the 2020 target), while a record low was reached in 2014 (1 511 Mtoe representing a 1.9% gap from the 2020 target). Over the last three years the consumption rose again, to 1 537 Mtoe in 2015, 1 547 Mtoe in 2016 and 1 561 Mtoe in 2017.



These figures are issued by **Eurostat, the statistical office of the European Union**, and are complemented by an [article](#) on energy saving in the EU.

In 2017, final energy consumption in the **EU** was 3.3% above the efficiency target for 2020. Final energy consumption in the **EU** peaked in 2006 (1 195 Mtoe) and decreased by 0.6% p.a. between 2006 and 2017 (1 122 Mtoe). Since the beginning of the new millennium, the lowest level of final energy consumption was recorded in 2014

(1 065 Mtoe, 1.9% below the 2020 target). In the last three years, it has increased again to 1 088 Mtoe in 2015, 1 110 Mtoe in 2016, and 1 122 Mtoe in 2017.



Primary energy consumption fell most in Estonia, rose most in Malta over last year

In 2017, primary energy consumption fell compared to the previous year in eight Member States: **Estonia** (-4.2%, 5.6 Mtoe in 2017), the **United Kingdom** (-1.6%, 177.0 Mtoe), **Ireland** (-1.4%, 14.4 Mtoe), **Sweden** (-1.6%, 46.1 Mtoe), **Finland** (-1.2%, 31.7 Mtoe), the **Netherlands** (-0.5%, 64.5 Mtoe), **France** (-0.3%, 239.5 Mtoe) and **Belgium** (-0.3%, 49.1 Mtoe). The highest increase was recorded in **Malta** (+12.9%, 0.8 Mtoe in 2017), followed by **Romania** (+5.8%, 32.4 Mtoe), **Spain** (+5.4%, 125.6 Mtoe) and **Slovakia** (+5.1%, 16.1 Mtoe).

Among the 25 Member States where primary energy consumption decreased between 2006 and 2017, **Greece** (-2.4% p.a.) and **Lithuania** (-2.2% p.a.) recorded average annual decreases during the period of more than 2%. Consumption increased in **Estonia** (+1.2% p.a.), **Poland** (+0.7% p.a.) and **Austria** (+0.1% p.a.).

Final energy consumption decreased most in Belgium, increased most in Slovakia in 2017

In 2017, final energy consumption fell compared to 2016 in only four Member States: **Belgium** (-1.2%, 36.0 Mtoe in 2017), the **United Kingdom** (-0.8%, 133.3 Mtoe), **Italy** (-0.6%, 115.2 Mtoe) and **Slovenia** (-0.3%, 4.9 Mtoe). The highest increases were recorded in **Slovakia** (+7.0%, 11.1 Mtoe in 2017), **Malta** (+6.7%, 0.6 Mtoe) and **Poland** (+6.5%, 71.0 Mtoe).

Among the 23 Member States where final energy consumption decreased between 2006 and 2017, only **Greece** (-2.3% p.a.) recorded an average annual decrease of more than 2%. Consumption grew in **Malta** (+2.7% p.a.), **Poland** (+1.4% p.a.), **Lithuania** (+0.7% p.a.), **Austria** (+0.3% p.a.), and **Hungary** (+0.1% p.a.).

Geographical information

The **European Union** (EU) includes Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom.

Methods and definitions

A **tonne of oil equivalent** (toe) is a standardised unit defined on the basis of one tonne of oil having a net calorific value of 41.868 Gigajoules. It is a convenient common measure used to sum up the different fuels, based on their energy content. Thus, for example, one GJ of nuclear power will be equivalent to 0.024 tonnes of oil, and one tonne of high grade coal contains the same amount of energy as 0.7 tonnes of oil. Lower grades will contain less energy. Mtoe refers to million toe.

Primary energy consumption measures the total energy demand of a country. It is defined as gross inland energy consumption excluding non-energy purposes (such as natural gas used in chemical industry or bitumen for road surfaces).

Final energy consumption is the total energy consumed by end users, such as industry, transport, households, services (commercial and public) and agriculture. It is the energy which reaches the final consumer's door and excludes that which is used by the energy sector itself.

For more information

Eurostat [website section](#) on energy statistics

Eurostat [database](#) on energy

Eurostat [Statistics Explained article](#) on energy savings

The [Energy Efficiency Directive](#) that sets rules and obligations to help the EU reach its 2020 energy efficiency target

[Europe 2020 Strategy](#) on energy target


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Primary energy consumption in the EU, 2017

	2006 (in Mtoe)	2016 (in Mtoe)	2017 (in Mtoe)	2006 - 2017 (average annual change in %)	2016 - 2017 (change in %)
EU	1 729.2	1 546.7	1 561.0	-0.9	+0.9
Belgium	51.4	49.3	49.1	-0.4	-0.3
Bulgaria	19.9	17.7	18.3	-0.7	+3.7
Czechia	43.5	40.0	40.1	-0.7	+0.1
Denmark	20.8	17.4	17.7	-1.5	+2.1
Germany	330.7	297.7	298.3	-0.9	+0.2
Estonia	4.9	5.9	5.6	+1.2	-4.2
Ireland	15.1	14.6	14.4	-0.4	-1.4
Greece	30.1	22.8	23.1	-2.4	+1.2
Spain	136.7	119.2	125.6	-0.8	+5.4
France	256.2	240.2	239.5	-0.6	-0.3
Croatia	9.1	8.0	8.3	-0.8	+3.5
Italy	179.0	148.0	148.9	-1.7	+0.7
Cyprus	2.6	2.4	2.5	-0.2	+4.4
Latvia	4.7	4.3	4.5	-0.4	+4.0
Lithuania	7.9	6.0	6.2	-2.2	+2.0
Luxembourg	4.7	4.2	4.3	-0.8	+3.5
Hungary	26.0	23.7	24.5	-0.5	+3.1
Malta	0.9	0.7	0.8	-1.1	+12.9
Netherlands	69.5	64.8	64.5	-0.7	-0.4
Austria	32.3	31.7	32.5	+0.1	+2.7
Poland	92.3	94.8	99.1	+0.6	+4.5
Portugal	24.0	21.8	22.8	-0.5	+4.7
Romania	37.5	30.6	32.4	-1.3	+5.7
Slovenia	7.0	6.5	6.6	-0.5	+1.5
Slovakia	17.2	15.4	16.1	-0.6	+5.1
Finland	36.7	32.1	31.7	-1.3	-1.2
Sweden	48.0	46.9	46.1	-0.4	-1.6
United Kingdom	220.4	179.8	177.0	-2.0	-1.6
Norway	25.1	26.1	27.8	+0.9	+6.6
Montenegro	1.1	1.0	1.0	-0.5	+4.6
Former Yug. Rep. of Macedonia	2.9	2.6	2.7	-0.8	+4.9
Albania	2.0	2.2	2.3	+1.2	+7.3
Serbia	16.5	14.6	14.9	-0.9	+2.1
Turkey	88.1	131.5	145.5	+4.7	+10.6
Kosovo*	2.0	2.7	2.5	+2.3	-5.0
Georgia	:	4.6	4.6	:	+0.3

: Data not available

* Kosovo, under United Nations Security Council Resolution 1244/99

The source dataset can be found [here](#).

Final energy consumption in the EU, 2017

	2006 (in Mtoe)	2016 (in Mtoe)	2017 (in Mtoe)	2006 - 2017 (average annual change in %)	2016 - 2017 (change in %)
EU	1 194.8	1 109.8	1 122.3	-0.6	+1.1
Belgium	36.7	36.5	36.0	-0.2	-1.2
Bulgaria	10.5	9.6	9.9	-0.6	+2.5
Czechia	26.7	24.8	25.5	-0.4	+2.7
Denmark	15.6	14.4	14.6	-0.6	+1.2
Germany	223.6	216.7	218.7	-0.2	+0.9
Estonia	2.9	2.8	2.9	-0.1	+1.3
Ireland	13.3	11.6	11.8	-1.1	+1.4
Greece	21.6	16.7	16.8	-2.3	+0.3
Spain	95.8	82.3	84.2	-1.2	+2.3
France	157.8	148.7	148.9	-0.5	+0.2
Croatia	7.3	6.6	6.9	-0.4	+4.3
Italy	135.7	115.9	115.2	-1.5	-0.6
Cyprus	1.9	1.8	1.9	-0.1	+5.3
Latvia	4.2	3.8	4.0	-0.4	+5.1
Lithuania	4.9	5.1	5.3	+0.7	+4.9
Luxembourg	4.4	4.0	4.2	-0.5	+3.5
Hungary	18.5	17.8	18.5	+0.02	+3.8
Malta	0.5	0.6	0.6	+2.7	+6.7
Netherlands	53.8	49.9	50.3	-0.6	+0.9
Austria	27.5	27.8	28.4	+0.3	+2.1
Poland	61.2	66.6	71.0	+1.4	+6.5
Portugal	18.8	16.2	16.6	-1.1	+2.3
Romania	24.8	22.2	23.2	-0.6	+4.4
Slovenia	4.9	4.9	4.9	-0.2	-0.3
Slovakia	11.4	10.4	11.1	-0.2	+7.0
Finland	26.5	25.2	25.2	-0.5	+0.1
Sweden	33.2	32.4	32.6	-0.2	+0.6
United Kingdom	150.9	134.3	133.3	-1.1	-0.8
Norway	18.6	19.0	18.8	+0.1	-0.7
Montenegro	0.8	0.7	0.7	-0.5	+4.9
Former Yug. Rep. of Macedonia	1.8	1.9	1.9	+0.6	+1.3
Albania	1.7	1.9	2.1	+1.7	+8.5
Serbia	9.6	8.6	8.8	-0.8	+2.5
Turkey	69.5	96.4	107.1	+4.0	+11.2
Kosovo*	1.0	1.4	1.5	+3.8	+5.9
Georgia	:	4.1	4.1	:	+1.0

: Data not available

* Kosovo, under United Nations Security Council Resolution 1244/99

The source dataset can be found [here](#).