

25/2018 - 5 February 2018

Energy consumption in 2016

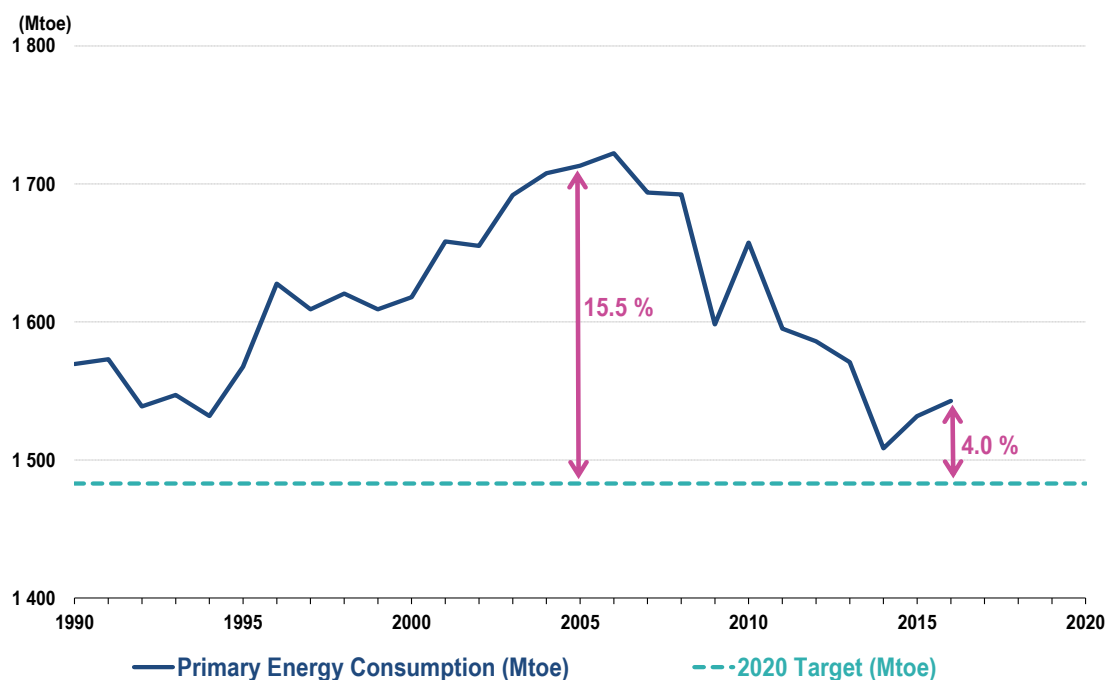
## Consumption in the EU above the energy efficiency target

4% gap for primary energy consumption and 2% gap for final energy consumption targets

The **European Union** (EU) has committed itself to reducing energy consumption by 20% by 2020 compared to projections. This objective is also known as the 20% energy efficiency target. In other words, the EU has pledged to attaining a primary energy consumption of no more than 1 483 million tonnes of oil equivalent (Mtoe) and a final energy consumption of no more than 1 086 Mtoe in 2020.

In 2016, primary energy consumption in the **EU** was 4% off the efficiency target. Since 1990, the first year for which data are available, the consumption has reduced by 1.7%. However, over the years, the distance from primary energy consumption target has fluctuated greatly. The biggest divergence from the target was in 2006 (16.2%, a consumption level of 1 723 Mtoe), while a record low was reached in 2014 (1.7%, 1 509 Mtoe). Over the last two years the gap rose again, to 4% above the 2020 target, equating to a consumption of 1 543 Mtoe in 2016.

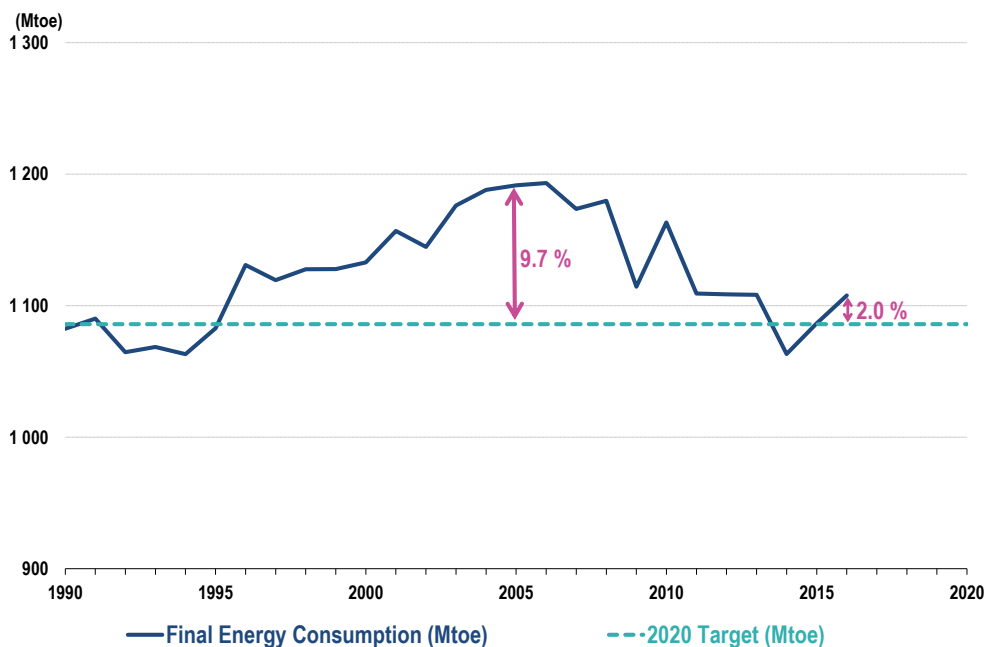
**Primary energy consumption in the EU, 2016**  
(in million tonnes of oil equivalent, Mtoe)



In 2016, final energy consumption in the **EU** was 1 108 Mtoe, 2.0% above the efficiency target. Final energy consumption in the **EU** increased by 2.1% between 1990 (1 085 Mtoe) and 2016 (1 108 Mtoe). The lowest level of final energy consumption was recorded in 2014 (1 063 Mtoe 2.1% below the target), and highest in 2006 (1 194 Mtoe 10.0% above the target). In 2015 the EU met the efficiency target of 1 086 Mtoe, however in 2016 consumption rose again to 2% beyond the goal.

### Final energy consumption in the EU, 2016

(in million tonnes of oil equivalent, Mtoe)



In 2016, gross inland energy consumption in the **European Union**, which reflects the energy quantities necessary to satisfy all inland consumption, amounted to 1 641 Mtoe. This was a 10.8% decrease compared with the peak of nearly 1 840 Mtoe in 2006, but a 6.1% increase compared to the decade between 1996 and 2006.

### Energy consumption falling mainly in Greece, Malta and Romania over last decade

While 19 Member States increased their energy consumption between 1996 and 2006, growth in energy consumption was recorded in only two Member States between 2006 and 2016: **Estonia** (13.4% increase to 6.2 Mtoe in 2016) and **Poland** (3.2% increase to 99.9 Mtoe in 2016). Among the 26 Member States where energy consumption decreased, **Greece** (-23.6%), **Malta** (-22.5%) and **Romania** (-20.2%) recorded decreases of more than 20%.

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.

## Gross inland energy consumption, 2016

	1996 (in Mtoe)	2006 (in Mtoe)	2016 (in Mtoe)	1996 > 2006 (growth rate)	2006 > 2016 (growth rate)
<b>EU</b>	1 733.5	1 839.7	1 641	6.1%	-10.8%
<b>Belgium</b>	56.7	58.1	57.5	2.3%	-1.0%
<b>Bulgaria</b>	23.0	20.4	18.1	-11.3%	-11.1%
<b>Czech Republic</b>	43.1	46.6	41.8	8.0%	-10.4%
<b>Denmark</b>	23.0	21.0	17.4	-8.5%	-17.2%
<b>Germany</b>	352.9	351.6	317.3	-0.4%	-9.8%
<b>Estonia</b>	6.1	5.5	6.2	-9.8%	13.4%
<b>Ireland</b>	11.7	15.6	14.8	33.0%	-4.9%
<b>Greece</b>	24.5	31.6	24.1	28.7%	-23.6%
<b>Spain</b>	99.3	144.4	122.2	45.5%	-15.4%
<b>France</b>	255.2	272.4	248.7	6.7%	-8.7%
<b>Croatia</b>	8.1	9.7	8.6	19.9%	-11.6%
<b>Italy</b>	162.4	188.3	154.7	16.0%	-17.8%
<b>Cyprus</b>	2.1	2.6	2.4	23.0%	-7.3%
<b>Latvia</b>	4.6	4.8	4.4	4.0%	-8.0%
<b>Lithuania</b>	9.3	8.5	7.0	-8.2%	-17.7%
<b>Luxembourg</b>	3.4	4.7	4.2	39.5%	-11.1%
<b>Hungary</b>	26.9	27.9	25.7	3.7%	-8.0%
<b>Malta</b>	0.7	0.9	0.7	26.2%	-22.5%
<b>Netherlands</b>	79.2	83.3	78.5	5.1%	-5.7%
<b>Austria</b>	28.9	34.3	33.9	18.4%	-1.1%
<b>Poland</b>	103.1	96.9	99.9	-6.0%	3.2%
<b>Portugal</b>	20.5	26.2	23.3	27.8%	-11.2%
<b>Romania</b>	47.9	40.6	32.4	-15.3%	-20.2%
<b>Slovenia</b>	6.3	7.3	6.8	15.9%	-7.2%
<b>Slovakia</b>	18.2	18.9	16.5	3.4%	-12.5%
<b>Finland</b>	31.7	37.5	34.6	18.2%	-7.7%
<b>Sweden</b>	52.7	49.6	49.2	-5.9%	-0.8%
<b>United Kingdom</b>	231.8	230.6	189.4	-0.5%	-17.8%
<b>Iceland</b>	2.5	4.2	5.6	67.0%	33.4%
<b>Norway</b>	23.1	27.6	28.4	19.5%	2.8%
<b>Montenegro</b>	:	1.1	1.0	:	-13.9%
<b>Former Yugoslav Republic of Macedonia</b>	2.9	2.9	2.7	0.9%	-7.3%
<b>Albania</b>	1.4	2.1	2.3	52.7%	6.6%
<b>Serbia</b>	16.6	16.7	15.4	0.9%	-7.7%
<b>Turkey</b>	67.1	94.1	139.7	40.3%	48.4%
<b>Bosnia &amp; Herzegovina</b>	:	:	6.7	:	:
<b>Kosovo</b>	:	2.0	2.7	:	37.2%
<b>Moldova</b>	:	:	2.4	:	:
<b>Ukraine</b>	150.3	135.6	91.3	-9.8%	-32.7%

: Data not available

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

## Geographical information

The **European Union** (EU) includes Belgium, Bulgaria, the Czech Republic, 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

**Gross inland energy consumption** is defined as primary energy production plus recovered energy products, imports and stock change, less exports and fuel supply to maritime bunkers (for seagoing ships of all flags). It therefore reflects the energy necessary to satisfy inland consumption within the limits of national territory.

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.

**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 wood not used for combustion but for producing furniture).

**Final energy consumption** is the total energy consumed by end users, such as industry, transport, households, services 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

[Energy flow diagrams](#)

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

[Europe 2020 Strategy](#) on energy targets

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