

Energy consumption in 2015

Energy consumption in the EU below its 1990 level...

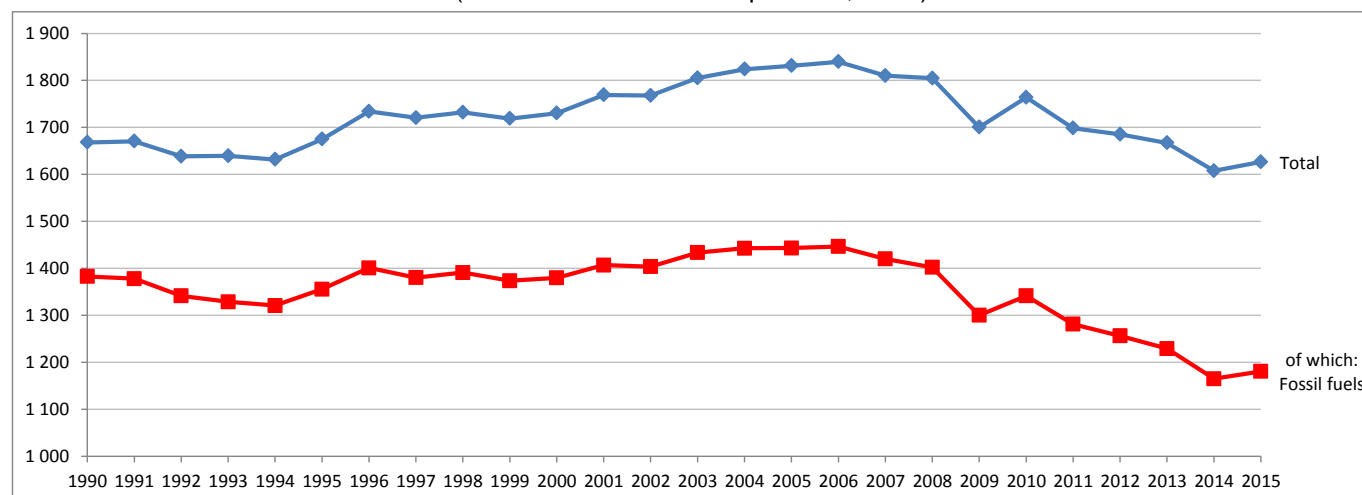
... but EU dependency on fossil fuel imports on the rise

In 2015, gross inland energy consumption, which reflects the energy quantities necessary to satisfy all inland consumption, amounted in the **European Union (EU)** to 1 626 million tonnes of oil equivalent (Mtoe), below its 1990 level (-2.5%) and down by 11.6% compared to its peak of almost 1 840 Mtoe in 2006.

Accounting for nearly three-quarters of **EU** consumption of energy in 2015, fossil fuels continued to represent by far the main source of energy, although their weight has constantly decreased over the past decades, from 83% in 1990 to 73% in 2015. However, over this period, **EU** dependency on imports of fossil fuels has increased, with 73% imported in 2015 compared with just over half (53%) in 1990. In other words, while in 1990 one tonne of fossil fuels was imported for each tonne produced in the **EU**, by 2015 three tonnes were imported for each tonne produced.

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

Gross inland energy consumption in the EU,
(in million tonnes of oil equivalent, Mtoe)



Germany, largest energy consumer in the EU

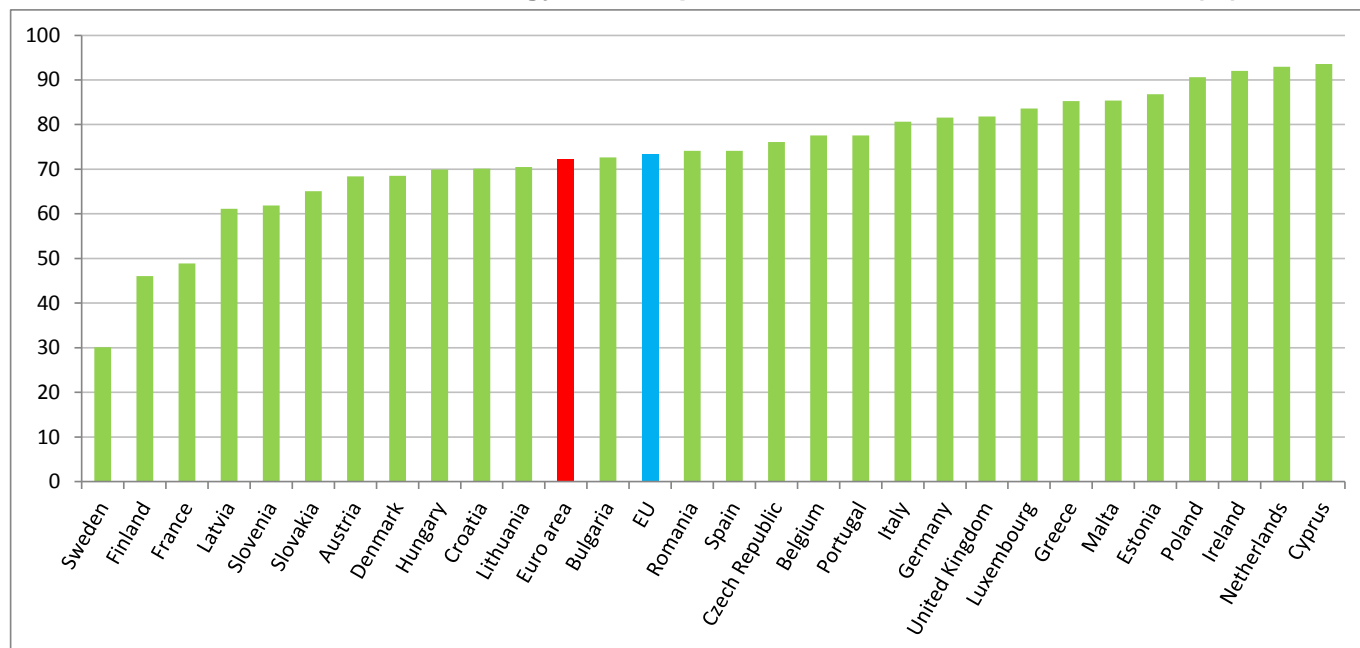
With 314 Mtoe (or 19% of total energy consumption in the EU), **Germany** remained in 2015 the main user of energy in the EU, ahead of **France** (253 Mtoe, or 16%), the **United Kingdom** (191 Mtoe, or 12%), **Italy** (156 Mtoe, or 10%), **Spain** (121 Mtoe, or 7%) and **Poland** (95 Mtoe or 6%).

Compared with 1990, the largest decreases in energy consumption in 2015 were recorded in the three EU Baltic States – **Lithuania** (-57%), **Latvia** (-45%) and **Estonia** (-37%) – as well as in **Romania** (-44%) and **Bulgaria** (-33%). In contrast, the highest increases were registered in **Cyprus** (+41%), **Ireland** (+38%), **Spain** (+35%) and **Austria** (+33%).

Less than half of the energy consumption from fossil fuels in Sweden, Finland and France

In every EU Member State, the share of fossil fuels in energy consumption decreased over the period 1990-2015, most notably in **Denmark** (from 91% in 1990 to 69% in 2015), **Latvia** (from 83% to 61%) and **Romania** (from 96% to 74%). However, the large majority of Member States remains highly reliant on fossil fuels for their energy consumption. In 2015, fossil fuels made up less than half of the energy consumption in only three Member States: **Sweden** (30%), **Finland** (46%) and **France** (49%).

Share of fossil fuels in energy consumption of the EU Member States, 2015 (%)

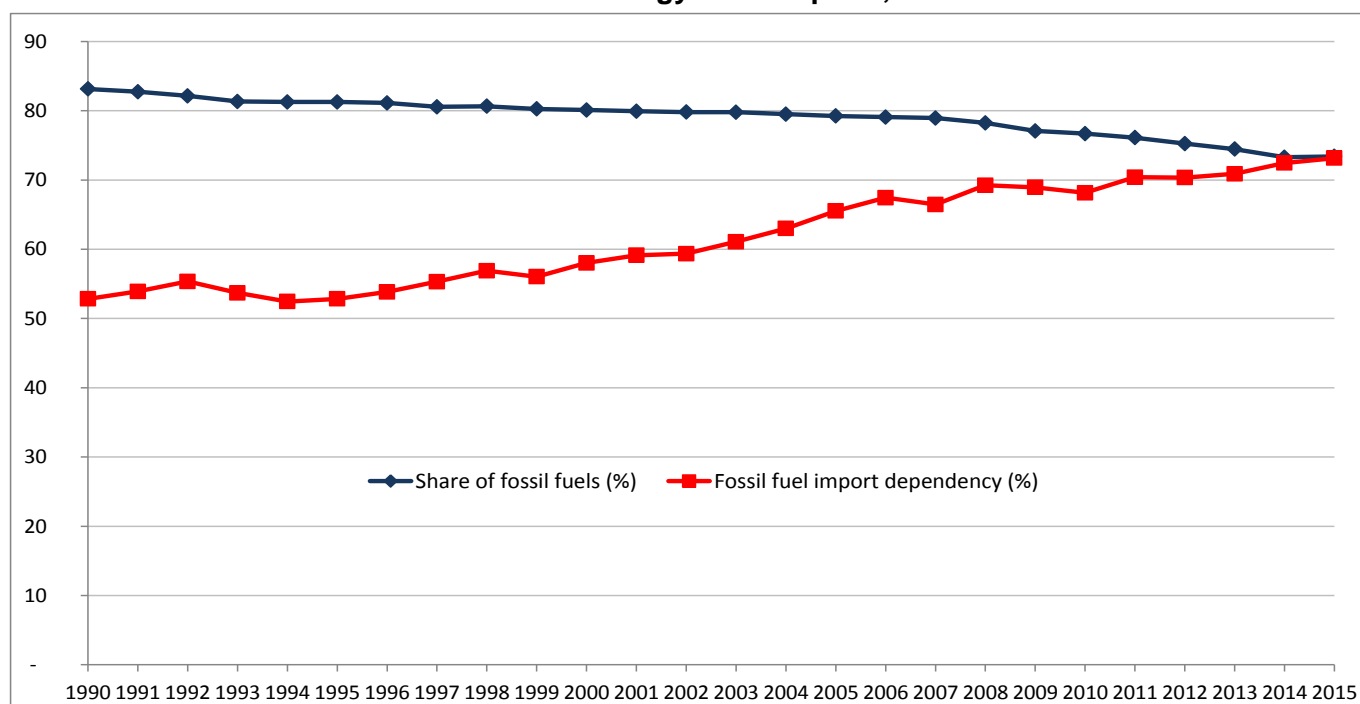


Denmark and Estonia, least dependent on energy imports

Most of the EU Member States have seen their dependency on fossil fuel imports increase between 1990 and 2015. This was notably the case for the **United Kingdom** (from a dependency rate of 2% in 1990 to 43% in 2015), the **Netherlands** (from 22% to 56%), **Poland** (from 1% to 32%) and the **Czech Republic** (from 17% to 46%).

In 2015, the Member State by far the least dependent on fossil fuel imports was **Denmark** (4%), followed by **Estonia** (17%), **Romania** (25%) and **Poland** (32%).

Fossil fuels in EU energy consumption, 1990-2015



Gross inland energy consumption

	1990			2005			2015		
	Energy consumption (in Mtoe)	Share of fossil fuels (%)	Import dependency on fossil fuels (%)	Energy consumption (in Mtoe)	Share of fossil fuels (%)	Import dependency on fossil fuels (%)	Energy consumption (in Mtoe)	Share of fossil fuels (%)	Import dependency on fossil fuels (%)
EU	1667.9	83	53	1831.2	79	66	1626.4	73	73
Euro area	1114.4	81	71	1292.5	78	83	1151.9	72	86
Belgium	48.6	77	97	59.1	76	101	54.2	78	102
Bulgaria	27.6	84	73	19.8	73	68	18.5	73	56
Czech Rep.	50.1	91	17	45.4	84	37	42.4	76	46
Denmark	17.9	91	47	19.6	85	-62	16.8	69	4
Germany	356.3	87	53	341.9	83	73	314.2	82	79
Estonia	9.9	100	48	5.6	92	33	6.3	87	17
Ireland	10.3	98	70	15.3	96	92	14.2	92	96
Greece	22.3	95	65	31.4	94	72	24.4	85	79
Spain	90.1	78	81	144.2	84	96	121.4	74	98
France	227.8	59	91	276.4	54	99	252.8	49	99
Croatia	9.5	81	42	9.8	77	63	8.5	70	64
Italy	153.5	94	88	190.1	90	90	156.2	81	91
Cyprus	1.6	100	99	2.5	98	103	2.3	94	103
Latvia	7.9	83	102	4.6	64	103	4.4	61	101
Lithuania	15.9	76	102	8.7	62	96	6.9	71	100
Luxembourg	3.5	90	100	4.8	93	100	4.2	84	99
Hungary	28.8	82	56	27.6	81	76	24.2	70	74
Malta	0.6	100	100	1.0	100	100	0.8	85	98
Netherlands	66.4	96	22	84.4	94	38	77.4	93	56
Austria	25.0	80	86	34.1	79	92	33.2	68	86
Poland	103.3	99	1	92.2	96	19	95.4	91	32
Portugal	18.2	82	102	27.5	85	102	23.0	78	100
Romania	58.1	96	34	39.2	84	34	32.4	74	25
Slovenia	5.7	72	65	7.3	69	77	6.6	62	78
Slovakia	21.8	82	92	19.0	73	92	16.4	65	90
Finland	28.8	61	95	34.5	55	91	33.2	46	92
Sweden	47.4	39	98	51.0	36	103	45.5	30	103
United Kingdom	210.6	91	2	234.2	89	15	190.7	82	43
Iceland	2.4	32	100	3.4	29	102	5.8	15	102
Norway	21.4	53	-799	27.2	56	-1232	30.0	60	-987
Montenegro	:	:	:	1.0	56	49	1.0	66	41
FYR of Macedonia	2.4	98	48	2.9	83	45	2.7	76	58
Albania	2.6	76	8	2.2	67	73	2.2	59	11
Serbia	19.6	91	34	15.7	89	41	14.7	87	32
Turkey	52.3	82	64	85.6	88	81	131.9	88	88

: 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.

The **euro area** includes Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

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.

Fossil fuels is a generic term for non-renewable energy sources such as coal, coal products, natural gas, derived gas, crude oil, petroleum products and non-renewable wastes. Fossil fuels are carbon-based and their combustion results in the release of carbon into the Earth's atmosphere (carbon that was stored hundreds of millions years ago). It is estimated that roughly 80% of all manmade CO₂ and green-house gas emissions originate from fossil fuels combustion.

The **energy dependency rate** shows the extent to which an economy relies upon imports in order to meet its energy needs. It is defined as net energy imports (imports minus exports) divided by gross inland energy consumption (which includes stock changes) plus fuel supplied to international maritime bunkers, expressed as percentage. A negative dependency rate indicates a net exporter of energy, while a dependency rate in excess of 100% relates to the build-up of stocks.

For more information

Eurostat [website section](#) on energy statistics.

Eurostat [database](#) on energy.


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

Eurostat [statistical news](#) on energy dependency.

European Commission [energy security strategy](#).

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