

25/2014 - 17 February 2014

Energy – 2012 data

## Energy consumption down by 8% between 2006 and 2012 in the EU28

Nuclear power and renewables made up half of the energy production

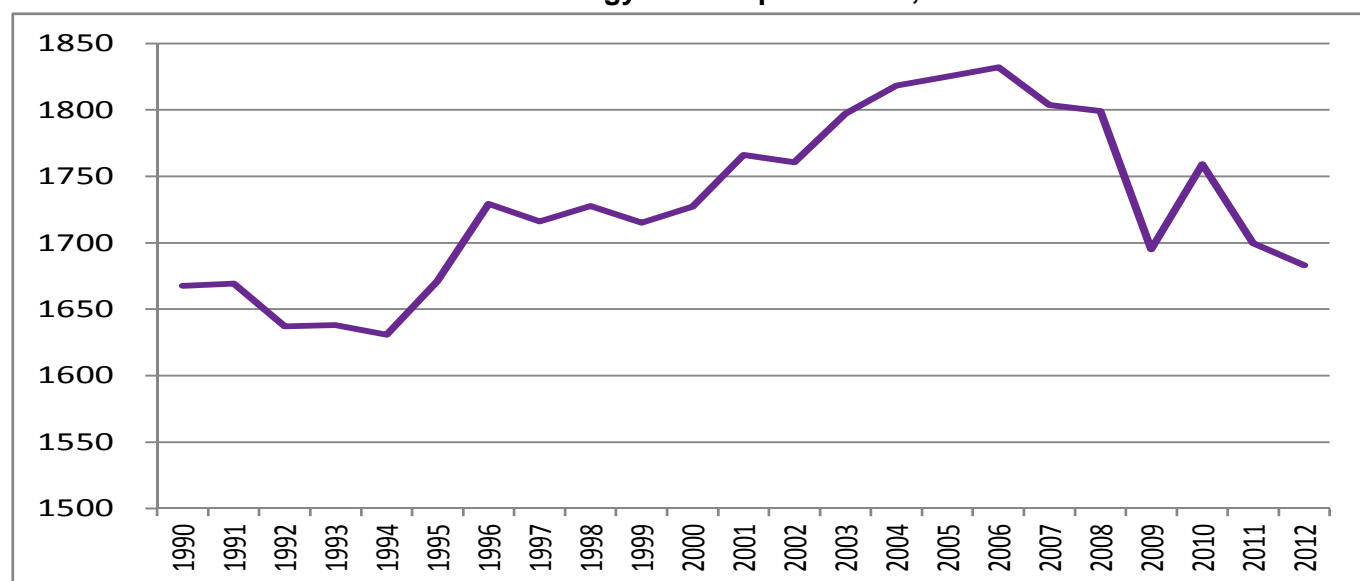
Over the last two decades, gross inland energy consumption<sup>1</sup> in the **EU28**, which stood at 1 670 million tonnes of oil equivalent<sup>2</sup> (Mtoe) in 1990, rose to a peak of 1 830 Mtoe in 2006 and then decreased to 1 680 Mtoe in 2012. Between 2006 and 2012, gross inland energy consumption in the **EU28** has fallen by 8%.

The energy dependence rate<sup>3</sup>, which shows the extent to which a country is dependent on energy imports, was 53% in the **EU28** in 2012.

The domestic production of primary energy was 794 Mtoe in the **EU28** in 2012. Nuclear energy (29%), accounted for the largest share, followed by renewables<sup>4</sup> (22%), solid fuels (21%), gas (17%) and oil (10%).

These figures are issued by **Eurostat, the statistical office of the European Union**.

**Gross inland energy consumption EU28, in Mtoe**



### Gross inland energy consumption fell in twenty four Member States between 2006 and 2012

The five largest energy consumers in 2012 in the **EU28** were **Germany** (319 Mtoe, -9.2% compared with 2006), **France** (258 Mtoe, -5.3%), the **United Kingdom** (202 Mtoe, -12.2%), **Italy** (163 Mtoe, -12.0%) and **Spain** (127 Mtoe, -11.9%). Together these five Member States accounted for 64% of total **EU28** energy consumption and for 77% of the reduction in absolute terms between 2006 and 2012.

Between 2006 and 2012, energy consumption fell in twenty four Member States and increased only in **Estonia** (+11.6%), the **Netherlands** (+2.9%), **Poland** (+0.8%) and **Sweden** (+0.4%). The largest relative falls were recorded in **Lithuania** (-17.0%), **Portugal** (-15.2), **Greece** (-14.4%) and **Hungary** (-14.2%).

## Denmark: the only net exporter of energy

In 2012, **Denmark** (-3%) was the only net exporter of energy and therefore had a negative dependence rate. The Member States the least dependent on energy imports were **Estonia** (17%), **Romania** (23%), the **Czech Republic** (25%), **Sweden** (29%), the **Netherlands** and **Poland** (both 31%). The highest energy dependence rates were registered in **Malta**<sup>3</sup> (100%), **Luxembourg** and **Cyprus** (both 97%) and **Ireland** (85%). Among the five Member States consuming the largest amounts of energy, the dependence rate was highest for **Italy** (81%), followed by **Spain** (73%), **Germany** (61%), **France** (48%) and the **United Kingdom** (42%).

## Gross inland energy consumption

	Gross inland energy consumption <sup>1</sup> , in Mtoe <sup>2</sup>						% change 2012/2006	Energy dependence rate, 2012
	1990	2000	2006	2010	2011	2012		
<b>EU28</b>	<b>1 667.6</b>	<b>1 727.1</b>	<b>1 832.0</b>	<b>1 759.1</b>	<b>1 699.5</b>	<b>1 682.9</b>	<b>-8.1%</b>	<b>53.3</b>
<b>Belgium</b>	48.7	59.2	57.5	60.6	59.2	56.3	-2.1%	74.0
<b>Bulgaria</b>	27.6	18.5	20.4	17.8	19.1	18.2	-10.6%	36.1
<b>Czech Republic</b>	49.8	41.2	46.3	44.7	43.2	42.8	-7.6%	25.2
<b>Denmark</b>	17.9	19.8	21.1	20.1	18.7	18.1	-13.9%	-3.4
<b>Germany</b>	356.3	342.3	351.7	333.7	317.1	319.5	-9.2%	61.1
<b>Estonia</b>	10.1	5.0	5.5	6.2	6.2	6.1	+11.6%	17.2
<b>Ireland</b>	10.3	14.3	15.5	15.1	14.0	13.8	-10.8%	84.8
<b>Greece</b>	22.3	28.3	31.6	28.8	27.8	27.0	-14.4%	65.6
<b>Spain</b>	90.1	123.6	144.4	129.9	128.2	127.3	-11.9%	73.3
<b>France</b>	227.8	257.6	272.9	267.1	257.9	258.4	-5.3%	48.1
<b>Croatia</b>	9.0	7.8	8.9	8.6	8.5	8.1	-9.0%	53.6
<b>Italy</b>	153.4	174.1	185.2	174.5	171.8	163.1	-12.0%	80.8
<b>Cyprus</b>	1.6	2.4	2.6	2.7	2.7	2.5	-4.8%	97.0
<b>Latvia</b>	7.9	3.9	4.8	4.8	4.4	4.5	-4.8%	56.4
<b>Lithuania</b>	15.9	7.1	8.5	6.8	7.0	7.1	-17.0%	80.3
<b>Luxembourg</b>	3.5	3.6	4.7	4.6	4.6	4.5	-5.6%	97.4
<b>Hungary</b>	28.8	25.3	27.5	25.8	25.1	23.6	-14.2%	52.3
<b>Malta</b>	0.6	0.8	0.9	1.0	0.9	0.9	-0.5%	100.4
<b>Netherlands</b>	66.8	75.8	79.6	86.6	80.2	82.0	+2.9%	30.7
<b>Austria</b>	25.0	29.0	34.5	34.6	33.6	33.7	-2.4%	63.6
<b>Poland</b>	103.3	89.0	97.2	100.9	101.2	98.0	+0.8%	30.7
<b>Portugal</b>	18.2	25.3	26.2	24.3	23.6	22.2	-15.2%	79.5
<b>Romania</b>	58.1	36.6	40.6	35.8	36.6	35.4	-12.8%	22.7
<b>Slovenia</b>	5.7	6.5	7.3	7.2	7.3	7.0	-4.4%	51.6
<b>Slovakia</b>	21.8	18.3	18.9	17.9	17.4	16.7	-11.5%	60.0
<b>Finland</b>	28.8	32.5	37.6	37.1	35.5	34.1	-9.3%	45.5
<b>Sweden</b>	47.4	48.9	49.6	50.8	49.7	49.8	+0.4%	28.7
<b>United Kingdom</b>	210.6	230.6	230.5	211.2	197.9	202.3	-12.2%	42.2

## France, Germany, the United Kingdom, Poland and the Netherlands: the largest energy producers in the EU28

The five main energy producers in the **EU28** in 2012 were **France** (133 Mtoe, 17% of total production in the EU28), **Germany** (124 Mtoe, 16%), the **United Kingdom** (116 Mtoe, 15%), **Poland** (71 Mtoe, 9%) and the **Netherlands** (65 Mtoe, 8%) which together accounted for 64% of total energy production in the **EU28**.

**Poland** (58 Mtoe, 35% of total production in the EU28) and **Germany** (48 Mtoe, 29%) were the largest producers of solid fuel in the **EU28**, the **United Kingdom** (46 Mtoe, 60%) of crude oil, the **Netherlands** (57 Mtoe, 43%) and the **United Kingdom** (35 Mtoe, 26%) of gas, **France** (110 Mtoe, 48%) and **Germany** (26 Mtoe, 11%) of nuclear energy and for renewables it was **Germany** (33 Mtoe, 19%), **France** (21 Mtoe, 12%), **Sweden** (19 Mtoe, 10%), **Italy** (18 Mtoe, 10%) and **Spain** (14 Mtoe, 8%).

## Primary production by energy type, 2012, in Mtoe

	Total primary production	of which:					
		Solid fuels	Oil	Gas	Nuclear	Renewable sources <sup>4</sup>	Wastes (non-renewable)
<b>EU28</b>	<b>794.3</b>	<b>166.1</b>	<b>76.6</b>	<b>133.1</b>	<b>227.7</b>	<b>177.3</b>	<b>13.6</b>
<b>Belgium</b>	15.7	0.0	0.0	0.0	10.4	2.8	2.5
<b>Bulgaria</b>	11.7	5.6	0.0	0.3	4.1	1.6	0.0
<b>Czech Republic</b>	32.0	20.1	0.3	0.2	7.8	3.2	0.2
<b>Denmark</b>	18.9	0.0	10.2	5.2	0.0	3.1	0.4
<b>Germany</b>	123.5	47.6	3.8	9.6	25.7	32.9	4.0
<b>Estonia</b>	5.1	4.0	0.0	0.0	0.0	1.1	0.0
<b>Ireland</b>	1.3	0.3	0.0	0.2	0.0	0.7	0.0
<b>Greece</b>	10.4	8.0	0.1	0.0	0.0	2.3	0.0
<b>Spain</b>	33.2	2.5	0.1	0.1	15.9	14.5	0.2
<b>France</b>	133.3	0.0	1.0	0.5	109.7	20.8	1.3
<b>Croatia</b>	3.5	0.0	0.6	1.6	0.0	1.2	0.0
<b>Italy</b>	31.8	0.1	5.7	7.0	0.0	17.9	1.1
<b>Cyprus</b>	0.1	0.0	0.0	0.0	0.0	0.1	0.0
<b>Latvia</b>	2.3	0.0	0.0	0.0	0.0	2.3	0.0
<b>Lithuania</b>	1.3	0.0	0.1	0.0	0.0	1.2	0.0
<b>Luxembourg</b>	0.1	0.0	0.0	0.0	0.0	0.1	0.0
<b>Hungary</b>	10.5	1.6	1.0	1.8	4.1	2.0	0.1
<b>Malta</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Netherlands</b>	64.9	0.0	2.0	57.5	1.0	3.8	0.7
<b>Austria</b>	12.8	0.0	0.9	1.6	0.0	9.6	0.7
<b>Poland</b>	71.1	57.5	0.7	3.8	0.0	8.5	0.6
<b>Portugal</b>	4.6	0.0	0.0	0.0	0.0	4.4	0.2
<b>Romania</b>	27.4	6.3	4.1	8.7	3.0	5.2	0.0
<b>Slovenia</b>	3.5	1.1	0.0	0.0	1.4	1.0	0.0
<b>Slovakia</b>	6.2	0.6	0.0	0.1	4.0	1.4	0.0
<b>Finland</b>	17.1	1.0	0.1	0.0	5.9	9.9	0.2
<b>Sweden</b>	35.7	0.1	0.0	0.0	16.5	18.5	0.5
<b>United Kingdom</b>	116.4	9.5	45.8	35.0	18.2	7.1	0.8

0.0 is used when the value is less than 0.05 or not applicable.

1. 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.
2. 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.
3. The energy dependence rate shows the proportion of energy that an economy must import. It is defined as net energy imports divided by gross inland energy consumption 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% indicates that energy products have been stocked.
4. Renewable energy production includes biomass, hydropower, geothermal energy, wind energy and solar energy.

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