

# Spain in the 25 state EU



# Percentage variation of greenhouse gas emissions in the 25 state EU Under 60 2002 (base 1990 = 100) 60 to 92 Percentage variation of emission of the main gases that produce the greenhouse effect, expressed in CO<sub>2</sub> equivalent units 0ver 125

#### Greenhouse gas emissions

# Greenhouse gas emissions

Base year 1990 = 100

	2002
Portugal	141.0
Spain	139.4
Ireland	128.9
Malta	128.5
Greece	126.5
Italy	109.0
Austria	108.5
Finland	106.8
Belgium	102.1
Netherlands	100.6
Denmark	99.2
Slovenia	98.7
France	98.1
EU-15	97.1
Sweden	96.3
United Kingdom	85.1
Luxembourg	84.9
Germany	81.1
Czech Republic	74.3
Slovakia	71.8
Hungary	69.0
Poland	67.7
Estonia	44.8
Lithuania	39.8
Latvia	36.9
Cyprus	:

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## The objective sought

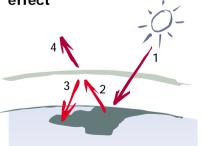
Greenhouse gas emissions in the EU-15 (before the incorporation of new states in 2004) fell by **0.5%** between 2001 and 2002. According to the **Kyoto Protocol**, countries should reduce their emissions by 8% with respect to 1990 levels during the period 2008-2012.

**Spain** has a greater challenge than other countries to fulfil its objective as its 2002 emissions were **39.4% above the level** in the reference year. This is only beaten by Portugal with 41%.

Greenhouse gases that cause major problems are methane, nitrogen oxide, fluoride gases and carbon dioxide. The latter, generated mainly by manufacturing industries, electricity, gas and water and households is what is most emitted into the atmosphere.

**Spain** is the EU country which emits the least quantity of  $CO_2$  in tonnes, **35% below the European average**.

## The greenhouse effect



country that emits the least tonnes of CO<sub>2</sub> per inhabitant

Spain is the EU

1. The earth absorbs radiation emitted by the sun

2. Approximately 30% of solar radiation is reflected

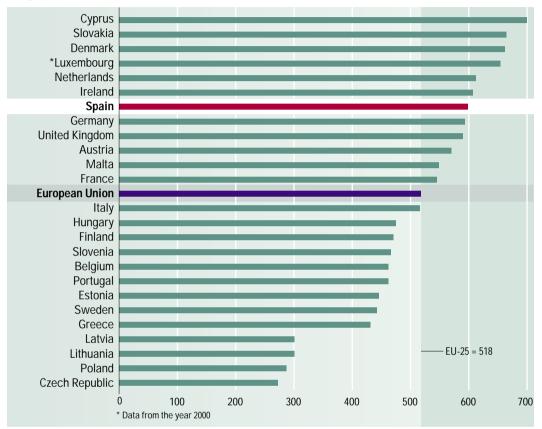
**3.** Greenhouse gases capture the solar radiation and raise the temperature of the layers closest to the earth's surface

4. Radiation liberated into space



#### Municipal waste collected. 2001

In Kg. per inhabitant





# The quantity of waste collected by inhabitant in 2001 was 598.7 kilograms in Spain. The European Union average was 518.

Cyprus, followed by Slovakia are the countries where the most waste was collected per inhabitant and year. Conversely, the Czech Republic and Poland showed the least quantities.



#### **Renewable energies**

#### Consumption of electricity coming from renewable sources

2002	%
Austria	66.0
Sweden	46.9
Latvia	39.3
Slovenia	25.9
Finland	23.7
Portugal	20.8
Denmark	19.8
Slovakia	18.6
Spain	14.4
Italy	14.3
France	13.5
European Union	12.7
Germany	8.1
Greece	6.0
Ireland	5.4
Czech Republic	4.6
Netherlands	3.6
Lithuania	3.2
United Kingdom	2.9
Luxembourg	2.8
Belgium	2.3
Poland	2.1
Hungary	0.7
Estonia	0.5
Cyprus	0.0
Malta	0.0

### **Cleaner energy sources**

Renewable energies are those that are produced continuously, do not run out and are respectful of the environment-hydraulic reactors, wind parks, biomass, biofuels, solar and geothermal energy as well as wave and tidal energy.

**Electricity consumption** generated from these sources in **Spain** represented 14.4% of the total in 2002 which represents **nearly two percentage points more than the EU average**.

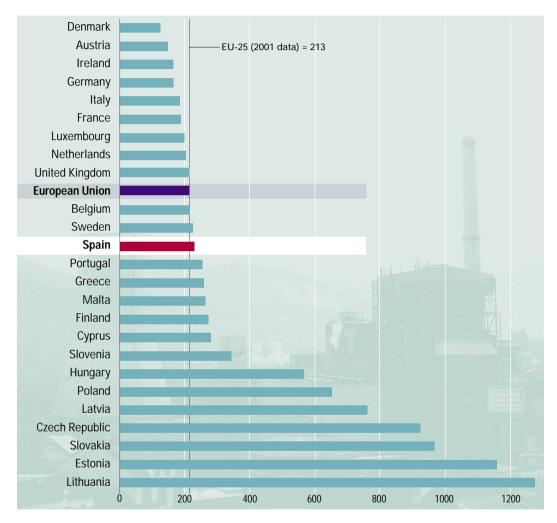
The objective of the **European Union** for **2010** is established in **22%** of electricity consumption coming from renewable energy sources.

By countries, Austria was the Member State with a higher percentage of electricity consumed which came from renewable sources (66%). Sweden (46.9%) and Latvia (39.3%) follow. Conversely, the use of renewable sources has hardly been implemented in Cyprus and Malta.

> More than 14% of electricity consumed in Spain comes from renewable sources



#### Energy intensity of the economy. 2002



The reduction **in energy intensity** (relationship between gross domestic consumption and GDP) is a priority objective for any economy as it improves the competition of their productive processes and reduces both emissions and energy expenditure.

Energy intensity in **Spain** in 2002 was maintained around **14 points above the European Union average**.

Denmark and Austria were countries which presented the best results with 90 and 67 percentage points below the average respectively, whilst Lithuania, Estonia and Slovakia were at the other extreme.

#### **Electricity and gas prices**

Electricity prices excluding taxes	
(€/kwh)	2004
ltoly	0.143
Italy	
Portugal	0.128
Germany	0.126
Luxembourg	0.122
Belgium	0.115
Ireland	0.106
Netherlands	0.103
European Union	0.100
Austria	0.098
Cyprus	0.093
Denmark	0.092
Sweden	0.090
*France	0.089
Spain	0.089
United Kingdom	0.084
Finland	0.081
Hungary	0.079
Czech Republic	0.066
Greece	0.062
Poland	0.061
Malta	0.059
Estonia	0.055
Latvia	0.049
Slovakia	:
Slovenia	:
Lithuania	:

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\* 2003 Data

# In Spain, electricity is cheaper than in the EU...

The price of electricity in 2004 (3,500 kwh type, of which 1,300 are nocturnal tariff in a 90 m<sup>2</sup> dwelling) for Spanish households was **less than the average European Union price**.

The price in Euros per kilowatt-hour excluding taxes in **Spain** is **0.09 Euros** whilst this is **0.10 Euros** in the European Union.

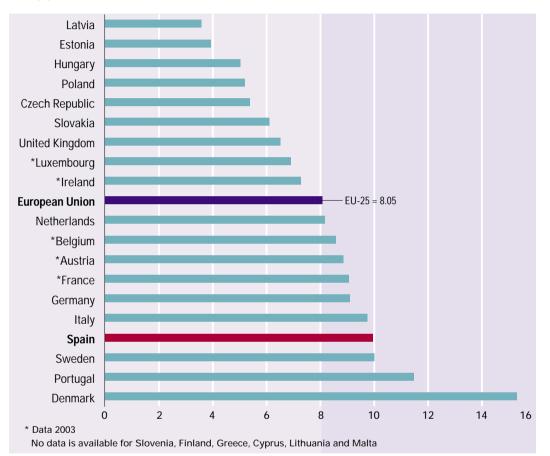
The community country which paid the highest price for its electricity was Italy with 0.14 Euros while the lowest was paid in Latvia with 0.05.

The Member States from the last enlargement had prices below the European Union average.



#### Gas prices excluding taxes. 2004

Euro/giga Joule



## ... and gas is more expensive

The price of natural gas in Spain for domestic use (83.70 GJ type of annual consumption excluding taxes) exceeded the European Union average by nearly 2 Euros /Giga Joule in 2004.

The highest gas prices were registered in Denmark (15.3 Euros), Portugal (11.5 Euros) and Sweden (10 Euros).

Just as in the case of electricity, the gas prices of the new states were lower than the Union average.

#### Modal split of freight transport\*

2002	%
Cyprus	100.0
Malta	100.0
Greece	98.2
Ireland	97.1
Spain	94.1
Portugal	93.2
Denmark	92.3
Luxembourg	90.4
Italy	90.3
United Kingdom	89.7
Belgium	77.8
France	77.8
Finland	76.6
European Union	76.3
Czech Republic	73.3
Germany	67.7
Slovakia	67.0
Hungary	66.6
Austria	65.9
Sweden	65.9
Netherlands	61.9
Poland	61.3
Slovenia	59.8
Lithuania	52.2
Estonia	32.2
Latvia	29.1

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\* Percentage share of total goods transport (car, rail and canals, maritime transport within the EU and gas pipelines) by road. (In Tn./Km.)

# Fifth place in goods transport by road

In 2002, goods transport by road in **Spain** represented **94.1%** of the total tonnes per kilometre, compared with 89.7% in 1997. It is therefore in **fifth place** among European Union countries with the highest volume of goods transport by this route and is only exceeded by Cyprus, Malta, Greece and Ireland.

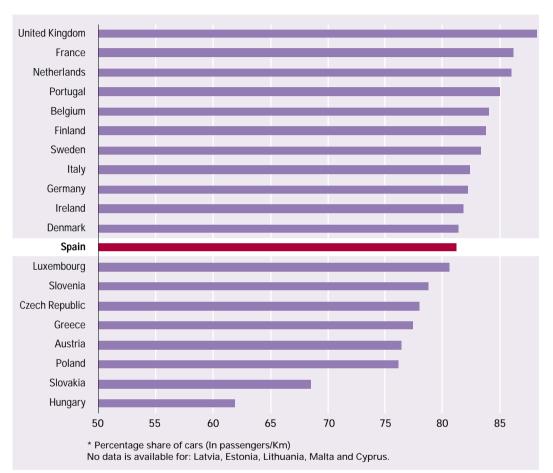
The **EU average** was **18 percentage points below Spain**. Therefore, **76%** of the total goods transport was carried out by road; while for the remaining 24% other methods were used such as rail, maritime transport within the European Union and gas pipelines.

Significant differences are observed in goods transport by countries; while in Cyprus and Malta all goods are transported by road, these percentages were very low in the Baltic states: Latvia 29%, Estonia 32% and Lithuania 52%.





For the year 2001, the goods transport volume by road in Japan was 93.4% and in the USA it was only 36.3%



#### Modal split of passenger transport\*. 2001

In 2001, the volume of **passenger transport by car** in Spain represented **81%** of the total passenger per kilometre. The remaining 19% used other methods of transport such as bus, tram, metro, rail and air.

The volume of private transport has been stable in Spain since 1996.

The United Kingdom was the Member State with the highest number of passenger transport who used a private car with 88%, whilst this was only 62% in Hungary, the lowest figure.



The volume of private passenger transport in Japan and USA is 61.5% and 96.1% respectively