



EUROPEAN COMMISSION

## MEMO

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# Questions and answers on the price report

## Why is the Commission presenting this study now?

Rising energy prices are a major concern for European governments, citizens and businesses and they affect Europe's global competitiveness.

Europe has to invest billions of euros in the modernisation of its grid, new electricity infrastructure, gas import routes and low-carbon technologies. This creates costs, all of which have to be paid for, mainly via consumers' bills.

This study will help policy makers understand the context of recent price rises and their impact on energy consumers. It will ensure that policy decisions rely on thorough evidence-based economic analyses. Moreover, it provides an insight in price developments in an international context.

The report is also a response to the European Council in May 2013 which called on the Commission to carry out an in-depth analysis of the evolution of energy prices and costs in Europe.

## What is the scope of the report?

The report mainly deals with electricity and gas prices, in particular it analyses how retail and wholesale prices have evolved in recent years in EU Member States. It explains in detail the drivers behind the price evolution and compares the situation in different EU Member States.

In addition, since our bills reflect total costs, rather than just prices, the report takes a closer look at energy costs of households and industrial customers, including energy intensive industries. It also compares the price landscape of the EU with that of other global economies. In the end it provides an insight into possible consequences of future price rises.

As there are no big discrepancies between oil and coal prices across the globe, these sectors are not specifically addressed.

## What is the difference between energy costs and energy prices?

- Energy **prices** refer to the price energy consumers actually pay for a given unit of energy.
- Energy **costs** refer to the amount of money consumers have to pay for their energy consumption.

If energy prices rise, consumers can try to switch suppliers or pay more attention to their energy consumption, in particular by using smart meters. Smart meters can also help consumers shift their energy consumption to times of lower prices. By improving energy efficiency (i.e. through buying energy efficient products or by behavioural changes), consumers can help mitigate rises in energy prices and lower their energy costs.

## **What are the main recommendations of the report to keep energy bills in check?**

The main proposals are:

- Member States need **to complete the internal energy market**. This is essential to ensure that investments can be made in an efficient and competitive way. Specifically, household consumers and industry, particularly small and medium-sized businesses, should explore the opportunity to lower their prices by switching to cheaper energy suppliers.
- More needs to be done to **increase energy efficiency** and help consumers lower their consumption. As mentioned above energy bills reflect usage as much as unit cost price. Therefore European households and industry can keep their bills down by further improving their energy efficiency. More attention to energy efficiency in product design, new technologies and consumer behaviour, as well as demand response techniques can directly help save energy and money.
- To take advantage of the internal market and the scope for cost reductions, Member States need to further **develop European energy infrastructure, diversify energy supplies and supply routes and ensure that, in their negotiations with major energy partners, they speak with a single European voice**.
- Member States need to ensure that the impact on energy prices, consumers and tax payers are fully understood and minimized in implementing European energy policies. Here, examples of **best practice** may be shared.

The EU and Member States need to further assess and compare network costs and practices. More **convergence in network practices** (tariff regimes, network codes, integration of renewables) across Europe can improve efficiency, reduce network costs and thus reduce prices.

## **Which components make up the energy bill?**

In general, energy bills consist of three parts:

- The **energy element** of the bill reflects the cost of fuel purchase or production, shipping and processing as well as the construction, operation and decommissioning of power stations, along with the sale of energy to final consumers.
- **Network costs** reflect transmission and distribution infrastructure costs related to the maintenance and expansion of grids, system services and network losses.
- **Taxes and levies**, which may include general taxation (VAT and excise duties) as well as specific levies or other charges on energy (climate/carbon/renewable energy levies).

These elements may vary, depending on market conditions and government policy.

The fuel cost is usually the largest element of the energy price, but in recent years its share has fallen while the share of taxes and network costs has increased.

## How have prices developed?

Between 2008 and 2012 on average Europe has seen a significant rise in retail prices for households and industry.

Over the same period, wholesale electricity prices declined by one-third and wholesale gas prices remained the same. For electricity, wholesale prices in Europe declined over the period, are relatively low and are of a roughly comparable level to wholesale electricity prices in the US.

- Household electricity prices have risen by 4% a year, an increase higher than inflation for most Member States;
- Household gas prices have risen 3% a year, also more than inflation for most Member States;
- Industry retail electricity prices have risen by 3.5% a year;
- Industry retail gas prices have risen by less than 1% a year, which is below inflation for most Member States;
- Wholesale electricity prices declined between 35% and 45% over the period;
- Wholesale gas prices, despite fluctuations over the five year period, have remained the same.

In the case of **electricity retail prices**, the energy component largely shadowed wholesale power prices. However, higher network tariffs and energy taxes/renewable subsidies significantly contributed to higher final retail prices.

Meanwhile, for **gas retail prices**, the energy component remained stable. Network costs and taxation elements had a relatively limited impact on price rises.

It is important to note that there are significant differences in price volatility across different industry sectors.

## What is the reason for the large differences between individual EU Member States?

There are different influences on all three elements of the price: energy costs differ according to the fuel mix of a country; network costs also differ according to the quality, age and other characteristics of the network. Taxes and levies vary depending on how governments have decided to finance their general expenditure and energy/climate specific policies and measures.

With the energy element of price however, one of the results of better market integration should be more convergence across Member States. Such **convergence is evident in wholesale markets**, but is less clear, or even absent in retail markets. This confirms the Commission's concerns that **markets are not working properly**. It shows that competition is weak and so market forces are less effective at keeping costs down.

## Why did the energy prices rise? Which elements have increased?

In the case of electricity and natural gas, price differences across different world regions have always existed, but the last few years these seem to be growing. For example, EU gas prices are sometimes linked to the (rising) global oil price, which is defined by global events. The shale gas boom in the US has brought gas prices down there, while sharply increased gas demand in Japan in the aftermath of Fukushima nuclear power plant accident has pushed up gas prices in Asia.

Whilst the energy cost element is still the largest part of the price in most Member States, rises have been highest in the taxes and levies elements. This includes taxes to reflect environmental costs and levies to finance certain low carbon energy and energy efficiency investments.

The network cost element of prices also rose, due to both rising maintenance and grid expansion costs as well as other costs sometimes incorporated into network costs and tariffs (e.g. production costs for electricity from Renewable Energy Sources). For example, between 2008 and 2012 the electricity network costs for retail customers rose by 18,5% for households and 30% for industry (before industry exemptions are taken into account).

### **Why did retail prices increase despite market liberalisation?**

First, in some markets, competition between suppliers is extremely limited. Regulated prices and passive consumers also reduce incentives for competition. More market opening is needed to create incentives for new entrants, to increase competition and choice for consumers. This would encourage energy suppliers to improve their efficiency, lower their costs and so compete on price. This is beginning to happen in Europe – consumers have a growing number of suppliers and may now switch between them.

Second, even where there is competition, energy companies may face additional and unavoidable network costs due to the need to maintain and expand grids or deploy innovative, but more expensive technologies, such as renewables.

Third, when governments add taxes or levies, prices by nature rise for all suppliers, irrespective of the level of competition or market liberalisation.

### **Why are lower wholesale prices not passed on to consumers on retail level?**

As in other industries, retail prices do not always reflect the developments at the wholesale markets. There are **four main reasons** for this:

- Network costs and taxes and levies have increased;
- Retail prices are still regulated in over half of European households, thus the pass through of falling wholesale prices to retail prices is curtailed by regulation; High market concentration can also be a reason why a reduction of wholesale prices is not passed on to consumers on a retail level;
- In a liberalised market, the costs to suppliers of investment in new infrastructure and technology have to be passed on to (end-) consumers;
- Consumers are not always taking advantage of more competitive supply offers and the high potential for efficiency & savings.

### **How do energy prices in the EU compare with prices in other major economies?**

Since 2007 wholesale gas prices have increased everywhere across the globe, except in North America. The price discrepancies between different regions have existed for decades, but the gap has been growing during recent years, in particular because of the USA's access to cheaper domestic shale gas resources. At the same time, some European long term gas supply contracts are at fixed higher prices, or at prices fixed to rising oil prices. These supplies are not able to take advantage of global reductions in gas prices.

Broadly speaking, today EU industry pays three to four times higher gas prices than industry in the US, India or Russia. The prices for EU industry are 12% higher than in China, but similar to those in Brazil and lower than in Japan.

At present exchange rates, EU industrial electricity prices (before taking account of tax or levy exemptions for energy intensive industries) are more than twice those in the US and Russia, 20% higher than China's but 20% lower than those in Japan. Here again, lower US and Russian gas prices (and subsequent lower coal prices) have helped bring down those countries' electricity prices.

It is difficult to compare like with like, due to cost of living and exchange rate differences. For example, although our power prices seem high compared to other regions, in the majority of Member States the supply of electricity (based on interruptions/fluctuations) is more reliable than that of the US and Japan, China and Russia. So to some extent we are paying for higher quality electricity supplies.

### **How do increased price gaps between the EU and its global competitors affect competitiveness?**

Higher production costs for one manufacturer may present an advantage for his competitor. So for industries where energy costs are a significant component of production costs (i.e. for several energy intensive industries, such as glass, ceramics, aluminium steel etc.) rising price differentials can have a negative impact on competitiveness.

The EU has until now retained the lead in exports of energy intensive goods. But European industry's efforts to compensate for higher energy costs through constant energy efficiency improvements may need to go even further, bearing in mind physical limits, as competitors also increase their efficiency and as European industry decides to invest abroad to be closer to expanding markets.

### **What does the study predict about future trends?**

The analysis confirms the Commission's 2050 analysis that energy prices **will continue to rise in the short term** – mainly due to rising fossil fuel prices as well as the need to invest in networks and in new power generation.

### **What is the political follow up to this report?**

The report will be discussed by Head of State or Government at the European Council in March and by stakeholders.

The study will also contribute to the debate on the Commission's energy and climate proposals for 2030.

The aim is to use it to help develop an ambitious but credible climate and energy 2030 framework that is cost-effective and does not undermine European competitiveness. A thorough understanding of the evolution of energy prices and costs is an important part of this process.

## **More information**

The full report on "Energy prices and costs in Europe" can be found here:

[http://ec.europa.eu/energy/2030\\_en.htm](http://ec.europa.eu/energy/2030_en.htm)

More information on the Commission's guidance to Member States on state intervention in electricity markets and the design and reform national support schemes for renewables here:

[http://ec.europa.eu/energy/gas\\_electricity/internal\\_market\\_en.htm](http://ec.europa.eu/energy/gas_electricity/internal_market_en.htm)