



EUROPEAN COMMISSION

MEMO

Brussels, 23 July 2014

Questions and answers on the Energy Efficiency Communication

What is the Energy Efficiency Communication?

The Communication on “Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy” (onwards, the Energy Efficiency Communication) does two things:

- It **assesses whether the EU is on track to reach its 2020 target** to increase energy efficiency by 20% and outlines what is necessary to ensure that the target is achieved.
- It **proposes a new energy saving target of 30% by 2030**. This completes the 2030 Framework on Climate and Energy which was adopted by the European Commission on 22 January 2014. The Framework called for a 40% reduction in greenhouse gas emissions compared to 1990 levels and for a renewable energy share of at least 27% of energy consumption, and indicated that the cost-effective delivery of the greenhouse gas emissions reduction target requires increased energy savings (http://ec.europa.eu/energy/2030_en.htm). That is what today's communication is delivering on. When setting the target, the Commission aims to strike the right balance between expected benefits and costs.

Why is it being presented now?

The **European Council** is scheduled to take a final decision on the new climate and energy policy framework at its meeting on **23/24 October 2014**. Therefore, it is crucial that the Commission puts forward its vision on energy efficiency now. By proposing an energy saving target of 30% for 2030, and assessing whether the EU is likely to reach its 2020 target, the Communication provides the Heads of State or Government with all the relevant information to discuss and set a comprehensive EU energy and climate policy framework for 2030.

Moreover, a clear policy framework providing **predictability and reduced regulatory risk** beyond 2020 is essential for investors. It will stimulate research and development in the area of energy efficiency and low-carbon technologies.

What progress has been made towards achieving the 20% target for 2020?

The Energy Efficiency Communication indicates that, between 1995 and 2013, the EU's energy consumption was maintained at roughly the same level while its GDP grew by 34%. This shows that the EU has managed to decouple economic growth from energy consumption through increased energy efficiency.

Based on the analysis of Member States' actions and additional forecasts, **the EU will achieve energy savings of around 18-19% in 2020.**

If all Member States fully implement existing legislation, the EU will meet the 20% energy saving target by 20% without additional measures.

What is the EU doing to ensure that the 2020 target is met?

The EU has put in place a broad **legislative framework** to achieve the indicative 20% energy saving target.

The centrepiece is the **Energy Efficiency Directive**. When an assessment showed that only half of the target would be reached by 2020, the Commission proposed in 2011 the Energy Efficiency Directive, which provides for the establishment of indicative national energy efficiency targets for 2020. The Directive incentivises changes in the business model of energy service companies by addressing some of the different market barriers that inhibit uptake of the most cost-effective tools. Furthermore, it requires Member States to promote financing facilities for energy efficiency, it foresees energy audits for large companies and it sets minimum targets for the renovation of buildings occupied by the central governments (for further information see [MEMO/11/440](#)).

This is complemented by several other pieces of legislation to make up the current energy efficiency framework:

- The **Energy Performance of Buildings Directive** (EPBD): Under this Directive, Member States must establish and apply minimum energy performance requirements for all buildings, ensure the certification of buildings' energy performance and ensure the regular inspection of heating and air conditioning systems. In addition, the Directive requires Member States to ensure that by 2021 all new buildings are so-called nearly zero-energy buildings.
- **Product regulations** laying down minimum energy performance **standards** and putting energy performance **information** on labels. This applies for example to washing machines, refrigerators and hovers.
- CO₂ performance **standards for cars and vans**;
- The roll-out of **smart meters following the Internal Electricity Market Directive**.
- Increased **financing** through EU Structural funds, Horizon 2020, and dedicated facilities such as European Local Energy Assistance programme and the European Energy Efficiency Fund. For example, with €38 billion in the EU Structural and Investment Funds set aside for the low carbon economy in the EU budget for 2014-2020, the commitment to energy efficiency has more than doubled.



Energy Efficiency Communication

ENERGY EFFICIENCY IS one of the most cost-effective options for reducing greenhouse gas emissions, while **improving the security of our energy supply** and **creating jobs**



TODAY

ENERGY EFFICIENT SOLUTIONS INCLUDE



Energy efficient BUILDINGS
to lower consumption, to improve air quality and to reduce external noise



HYBRID and ELECTRIC CARS
to reduce fossil fuel use and dependence



Smart METERS
to control energy use



Households APPLIANCES
to cut energy bills and to promote competitive products



ENERGY EFFICIENCY WORKS !

NEW AND RENOVATED BUILDINGS consume **50%** of the energy they did in the 1980s

NEW CARS consume **2 litres less fuel** than in 1995 (reduction from 7.7 l/100 km to 5.6 l/100 km)

EU INDUSTRY energy intensity fell by **19%** between 2001 and 2011

REFRIGERATORS rated A and above increased their market share from **<5%** (1995) to **99%** (2012)

TOMORROW

TARGET 20% 2020



~100% households will have smart meters



Member States will invest **€45 billion** in smart meters for electricity and gas



The EU will invest in **energy efficient buildings**, notably in the extensive renovation of existing buildings



Households will **save about €465/year** through energy efficient appliances

OUR LIVES

Better homes, control of energy use, lower energy bills

TARGET 30% 2030

ENERGY DEPENDENCE

1% of energy savings = 2.6% fewer gas imports

JOBS
More jobs, especially in construction and equipment

INDUSTRY

Opportunities for local companies and high value-added appliances in an efficient market

CLIMATE

Reduced greenhouse gas emissions

GROWTH

Further investments in energy saving technologies to benefit the economy



#EUEnergyChallenge #EnergyEfficiency

Partly thanks to these policies, the target of 20% is now expected to be met if the relevant legislation is properly implemented. The European Commission will act decisively to ensure that this is the case.

And what are Member States doing?

As for the **Energy Efficiency Directive**, various actions to implement it are underway in Member States. For example, in Germany, the publicly-owned bank KfW provides preferential loans for energy efficiency retrofits of existing buildings and for the construction of new energy efficient buildings. In the UK, a specialised department helps to design policies on the basis of research on how consumer decisions about energy efficiency can be stimulated. In France, the new draft national law provides for numerous concrete actions, in particular for buildings. Among the measures is a fiscal reduction of up to 30% of the cost of energy efficiency renovations, from September 2014 onwards. The number of Member States applying energy efficiency obligation schemes for utilities is expected to rise from five to sixteen. In Poland, the relevant provisions of the EED will be entirely implemented through such a system.

The EED promotes programmes to raise awareness among households about the benefits of energy audits through appropriate advice services. In the UK a specialised department helps in designing policies on the basis of research on how consumer decisions about energy efficiency can be stimulated ("behavioural economics").

As regards the Energy Performance of Buildings Directive, in Ireland, the Sustainable Energy Authority has upgraded over 100.000 homes since 2009 through its Home Energy Saving Scheme. This has resulted in a net benefit for society of between 106 and 518 million Euro, has supported 3000 full-time jobs and has saved households an average of 450 Euro per year. In France, the reallocation of 4% European Regional Development Fund (ERDF) funding to social housing will lead to EUR 320 million ERDF finance triggering investment of up to EUR 2.2 billion, creating 31.000 jobs and resulting in a 40% average decrease of heating costs of affected households.

Where do the Member States stand with the implementation of the energy efficiency legislation?

Despite some good progress, currently **only Cyprus, Denmark, Italy, Malta, and Sweden** have so far declared full transposition of the Energy Efficiency Directive in their respective national legislation. Other Member States are expected to declare this shortly, however, as the 5 June 2014 deadline has just passed. The Commission has just launched infringement proceedings against those Member States which have not yet fully transposed the Directive.

Since the adoption of the Energy Efficiency Directive in 2012, the Commission has been working very closely with the Member States to ensure that it is properly implemented. If all EU Countries actively contribute, the 2020 target will be reached; if they do not, it is expected to be missed by 1 to 2 percentage points.

Moreover, two years after the legal deadline, nine Member States (Austria, Belgium, Czech Republic, Finland, Italy, Netherlands, Poland, Slovenia and Croatia) have still not fully transposed the related **Energy Performance of Buildings Directive**.

Only a handful of Member States are carrying out proper **market surveillance** over products covered by energy efficiency requirements.

How does the Commission ensure that Member States transpose the Energy Efficiency Directive and the Energy Performance of Buildings Directive?

On 22 July 2014

(http://ec.europa.eu/eu_law/infringements/infringements_decisions_en.htm), the Commission launched **infringement proceedings** and sent letters of formal notice to the 24 Member States which had not yet notified sufficient measures for fully transposing the Energy Efficiency Directive into their national laws at that moment.

Moreover, the Commission has already referred Austria, Belgium, Finland and Poland to the **Court** for failure to fully transpose the Energy Performance of Buildings Directive and issued reasoned opinions against four Member States.

What are the benefits of energy efficiency today?

The **Energy Efficiency Communication** assesses the benefits of the implementation of energy efficiency on the economy. The highlighted benefits include:

- Energy efficiency policies had contributed to reduce **Energy intensity** in EU industry by almost 19% between 2001 and 2011.
- More **efficient appliances** are expected to save consumers €100 billion annually – about €465 per household – on their energy bills by 2020. For example, refrigerators have become more efficient: in 1995 less than 5% had an energy efficiency label at the highest grade A (the highest class at that time); by 2012 99% of refrigerators were labelled at A or above.
- Member States have committed to rolling out close to 200 million **smart meters** for electricity and 45 million for gas by 2020, leading to greater savings for consumers.
- **New buildings** consume half as much energy today as they did in the 1980s.
- Between 1995 and 2010, the average specific consumption of **fuel in new cars** was more than two liters less than it was in 1995. This has clear benefits in terms of cost savings and lower CO₂ emissions. Emissions from new cars sold in 2013 fell to an average of 127 grams per kilometre. So the target of 130g/km set for 2015 being is being met two years in advance. And CO₂ performance requirements in transport will reduce fleet average emissions of new passenger cars by 40% by 2021 compared to 2007.

Why is a target being proposed for 2030, and why is it 30%??

Improving the energy efficiency of the economy brings many benefits: it contributes to **security of supply**, spurs investments in **new technologies** and therefore contributes to economic growth and the creation of **new jobs**. Moreover, efforts to increase energy efficiency help to **keep the energy bills in check**: EU households spend on average 6.4% of their disposal income on energy, about two-thirds for heating and one-third for other purposes.

Of course, it requires upfront investments and there are some costs associated to it. For example, with 25% energy savings, the 2030 framework is estimated to increase the annual average cost of the energy system in the EU by approximately €2 billion per annum in comparison to the business as usual scenario (i.e. with no additional energy efficiency measures, taking into account that some provisions of the EED will be phased

out in 2020 unless explicitly prolonged). A target of 30% raises the cost by €22 billion compared to the business as usual scenario.

By setting a target of **30%** energy savings by 2030 compared to projections, the EU would commit to not exceeding **1307 Mtoe** energy consumption in that year. The proposed range reflects the expected costs and benefits and aims to strike the optimal balance.

Why is there an EU target?

The **current framework**, which is based on an indicative EU-level target and a mix of binding EU measures and national action including indicative targets set by Member States, **has proved to be effective** in driving strong progress by the Member States.

Energy efficiency should become an integral part of the governance framework proposed in the "2030" communication (http://ec.europa.eu/energy/2030_en.htm).

The 2030 energy saving target is therefore completing the EU **climate and energy objective** to reduce its greenhouse gas (GHG) emissions by 80-95% below 1990 levels by 2050. The new framework constitutes the next step towards reaching the 2050 goal, and will be the EU's contribution to facilitate a **global climate agreement** at the end of 2015.

So what's in it for me? What will the benefits of increased energy efficiency be in 2030?

First of all, it will **lower energy bills** by **€53 billion** annually by 2030.

In addition, reaching the proposed energy saving target will produce numerous other benefits:

- It will **increase the security of energy supply. It is estimated that every 1% in additional energy savings will cut gas imports by 2.6%.**
- It will create **local jobs and spur the competitiveness of EU industry** through investment in more efficient appliances, cars, and building refurbishment instead of energy imports.
- It will provide several **additional benefits** besides cost savings because of investments in the efficiency of buildings. These include **better air quality, lower noise levels**, and making it easier for EU citizens to keep their homes warm in cold weather.

Shouldn't we be more ambitious given the benefits?

We are ambitious. But we need to be clear that targets have consequences and that their achievement involves costs.

In comparison to the business as usual scenario (*i.e.* with no additional energy efficiency measures taken and taking into account that some provisions of the Energy Efficiency Directive will be phased out in 2020 unless explicitly prolonged), a 25% energy savings target would increase costs of the energy system by approximately €2 billion per annum by 2030. A target of 30% raises the additional cost by €22 billion compared to the business as usual scenario.

What investment will be necessary to reach the target?

It is estimated that reaching the **30%** target by 2030 will require additional investments in energy efficiency of **€ 89 billion annually**.

These will have to be primarily funded by **private investments**.

Public money, including the European Structural and Investment funds will have to be used to leverage these private investments.

Crucially, the right **regulatory framework** will be needed to underpin them. To ensure the necessary level of investment, the business case for energy efficiency has to be made clear for investors by creating an adequate framework. This will entail a number of actions such as:

- Establishing **reliable procedures**, reporting and accounting systems for measuring and verifying the full benefits of energy efficiency investments ;
- Developing **standards for energy efficiency** investment and decision processes; and
- Providing **technical assistance** in order to make energy efficiency projects bankable.

The Commission will strengthen cooperation with Member States, investors and financial institutions including the European Investment Bank to increase the level of knowledge about **existing financing mechanisms** for energy efficiency beyond grant funding. This will involve measuring their performance and impact, including on issues related to risk-assessment, valuation, and standardisation.

The Commission will also continue its co-operation with financial institutions and Member States on the further development or **roll-out of appropriate financial instruments and initiatives** which reinforce the availability of liquidity for energy efficiency measures.

What are the next steps?

As regards the proposed 30% energy saving target for 2030, the European Council in October is expected to decide on it, together with the CO2 reduction and renewables targets in the context of the 2030 Framework for climate and energy policies.

Energy efficiency should become an integral part of the governance framework proposed in the "2030" communication which would streamline current monitoring and reporting requirements. Energy efficiency would, therefore, be a key component of Member States' national plans for competitive, secure, and sustainable energy that would bring greater coherence to national and regional climate and energy policies and measures.

On the basis of the national plans it receives and using its own analyses, the Commission will monitor the national plans and assess the prospects for attainment of national/EU climate and energy targets (including that for energy efficiency), the outlook for the EU's energy dependence and the effective functioning of the internal energy market, on the basis of appropriate indicators.

In this context, the Commission will explore the use of additional indicators, to express and monitor progress towards the energy efficiency target, such as energy intensity, which better take account of underlying **changes in and projections for GDP and population growth**. Furthermore, the Commission will **review progress on energy efficiency in 2017 taking these elements into account**. Ultimately, the governance process will provide the framework within which to evaluate the effectiveness of national and EU policies linked to the 2030 climate and energy objectives.

The Commission will continue to support Member States in their national efforts on energy savings through policy measures at European level. **Several important pieces of legislation** will provide an opportunity to do so, notably:

- The review of the Ecodesign and Energy Labelling directives;
- The review of the Energy Performance of Buildings Directive;
- The Retail market communication;
- The implementation of the market stability reserve of ETS;
- The implementation of the White Paper on Transport.

What are the financial instruments available to bridge to 2030?

Substantial EU funds are available to implement energy efficiency measures in the period before 2020. The use of these funds is already a key discussion point with the Member States in the context of reaching an overall agreement on the 2030 Framework and achieving a fair and equitable effort distribution.

In the EU budget for the 2014-2020 Multiannual Financial Framework, funding for energy efficiency has significantly increased. A minimum of €38 billion will be available for low-carbon economy investments under the European Structural and Investment (ESI) Funds from 2014 to 2020 – this sum will be multiplied by national and regional co-funding and by attracting private capital.

In addition, Horizon 2020 (H2020) and the European Structural and Investment (ESI) Funds can be tapped in order to spur innovation that benefits energy efficiency. In the period 2014-2020 some two billion Euro are foreseen, particularly through the Energy Efficiency focus of the H2020 Societal Challenge on 'Secure, Clean and Efficient Energy'. Moreover, Public-private partnerships on "Energy Efficient Buildings", on "Factories of the Future" and for a "Sustainable Process Industry through Resource and Energy Efficiency (SPIRE)" will bring in further investments.

In recent years, the EU has been developing pilot schemes of innovative financing instruments, such as the European Energy Efficiency Fund ("EEE F"), the Global Energy Efficiency and Renewable Energy Fund ("GEEREF"), and Private Finance for Energy Efficiency ("PF4EE") under the Life Programme. These schemes can be used directly or replicated at the Member State level.

Building on the success of previous projects such as the Joint European Support for Sustainable Investment in City Areas (JESSICA), the use of financial instruments in the ESI Funds for 2014-2020 is strongly encouraged. "Renovation loans" for instance will provide better opportunities for Member States to ensure high leverage of ESI funds.

For further information

See also [IP/14/856](#) of 23 July 2014

[The Energy Efficiency Communication on the website of the Commission's Directorate-General for Energy](#)

[Commissioner Oettinger's press conference on energy efficiency on 23 July 2014 \(on Europe by Satellite\)](#)