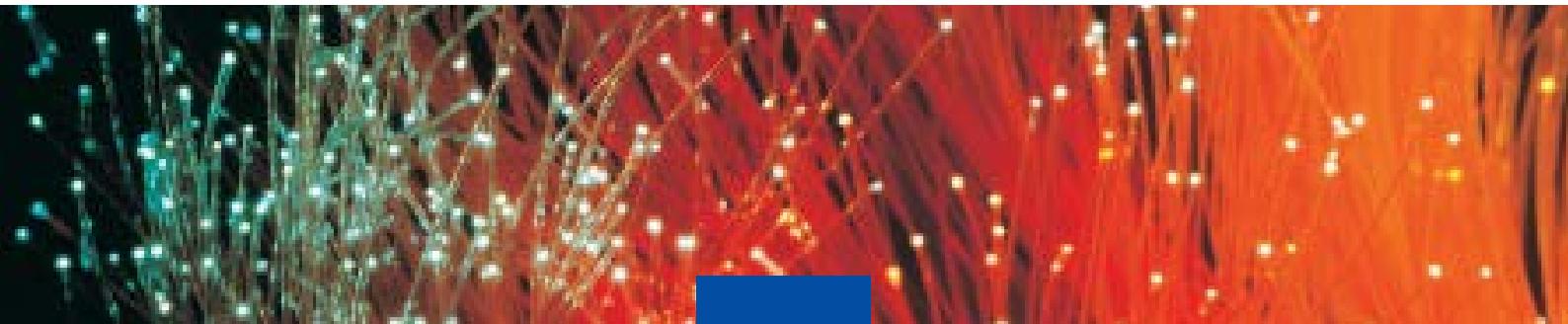




Sustainable, secure and affordable energy for Europeans

Energy

Securing reliable energy at affordable prices is one of the biggest challenges the EU currently faces: further integration of European energy policies and speaking with one voice on the global scene are crucial in order to succeed.



THE EUROPEAN UNION EXPLAINED

This publication is a part of a series that explains what the EU does in different policy areas, why the EU is involved and what the results are.

You can find the publications online:
http://europa.eu/pol/index_en.htm
<http://europa.eu/bY34KD>

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ENERGY

Why we need a European energy policy

Common interests in a strategic field

Lighting, heating, transport, industrial output: energy is vital for essential day-to-day services, without which we and our businesses cannot function. Europe's stocks of fossil fuels (oil, gas and coal) will not, however, last forever. They need to be judiciously managed while we look into new sources of energy. Europe is consuming, and importing, increasing quantities of energy. EU countries are well aware of the advantages of coordinated action in this highly strategic field. This has led to common rules throughout Europe and a pooling of Europe's efforts to secure the energy that it needs at an affordable price, while generating the least possible pollution.



Generating energy and transporting it to consumers requires huge technical, logistical and financial resources.

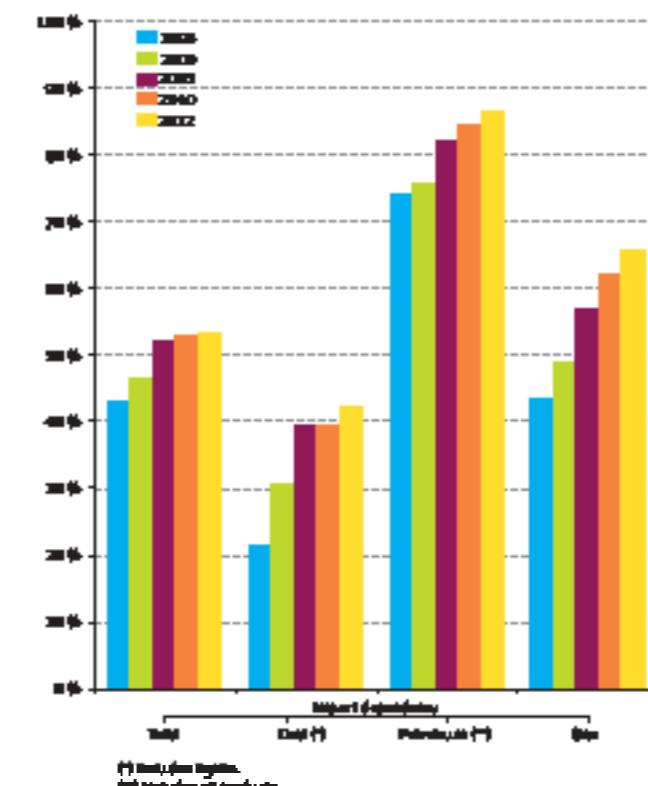
A complex sector

Turning on our computers or starting our cars are actions that we take for granted, yet they represent the final stage of a complex process. First of all, energy

resources, such as gas, oil and coal, have to be extracted from the ground. Wood can also be converted into heat, and electricity generated from wind, water and sunlight by using wind turbines, dams and solar panels. This energy then has to be transported, sometimes across continents or under the sea, to the place where it will be used. That requires power plants capable of producing an uninterrupted energy supply for many decades. Massive technical, logistical and financial resources are therefore involved.

Energy is a strategic sector because we cannot do without it. It is vital for lighting, protecting against the cold and transporting people and goods, and it also underpins all the sectors of the economy — agriculture, industry and services — as well as scientific progress. Our standard of living requires huge amounts of energy, and that obviously generates pollution (air, water, soil and climate) whose impact needs to be reduced as much as possible.

EU-27 FOSSIL FUEL IMPORTS (1995–2012)



Source: Eurostat, April 2013.

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The world's largest importer

Europe depends on the rest of the world for its energy. The European Union, the world's second largest economy, consumes one fifth of the world's energy, but has very few reserves of its own. Fortunately, here in Europe, our portfolio — known as the energy mix — is very diverse: from Austria's many dams, Poland's coal mines and France's nuclear power stations to the oil rigs of the North Sea and the gas fields of Denmark and the Netherlands, none of Europe's countries are alike, and that is not a disadvantage. Provided, of course, that those countries work together to make the most of their diversity.

Europe's energy dependence has an enormous impact on our economy. We buy our oil from the Organisation of Petroleum Exporting Countries (OPEC) and Russia, and our gas from Algeria, Norway and Russia. Europe's coffers are depleted to the tune of over €350 billion every year to pay for it. Energy costs are also constantly on the increase. That leaves us with no other option: EU countries have to be efficient, set ambitious goals and work together if they are to diversify their energy sources and supply channels.

Climate constraints

Leading experts have demonstrated what the exorbitant cost of climate change will be if the world does not succeed in reducing its greenhouse gas emissions. The energy sector is directly involved here as over 80 % of its output comes from fossil fuels, which emit carbon dioxide (CO₂), the main greenhouse gas, when they are burnt. In the future, therefore, the European energy sector will have to cut down on fossil fuels and make much more use of low-carbon energy sources.

Europe must act together

The importance that EU countries attach to the energy sector is nothing new. Its relevance was recognised immediately after the Second World War, when Europe's founding fathers resolved to 'place the instruments of war at the service of peace', to use the words of Jean Monnet. Coal and steel and atomic energy were the starting point for the first European treaties: the European Coal and Steel Community (ECSC) Treaty, which was mainstreamed into EU policy in 2002, and the Euratom Treaty on atomic energy, which is still in force today.

In the 1960s, EU countries realised that they had to work together to resolve energy supply problems. As a result, they pooled strategic oil stocks and set up a crisis-management procedure. Nowadays, energy policy also has an impact on many other fields: industry, the environment, transport, research and innovation, and even external relations.

Europe's goals

The European Union has the powers and instruments that it needs to implement an energy policy geared towards:

- securing Europe's energy supply;
- ensuring that energy prices do not make Europe less competitive;
- protecting the environment and in particular combating climate change;
- improving energy grids.

EU countries are free to develop whatever energy sources they wish. They must, however, take account of EU renewable energy objectives.

A single market of half a billion Europeans.



How the EU goes about it

A European energy strategy

Europe currently has to import over half of its energy because it has few energy reserves. And it has to accept the price decided by world markets or even by individual supply countries. A powerful way to cut our energy bill is to reduce the amount of energy that we consume. That may seem obvious. But can we consume less while maintaining our living standards and modern conveniences?

Saving energy

Reducing our energy consumption is no easy matter, but the answer is yes: by using energy in better and more efficient ways. A win-win solution is possible: CO₂ emissions can be reduced and we can create new jobs and save money by becoming less dependent on energy imports. Moreover, we have the opportunity to export our expertise. Energy efficiency is therefore one of the European Union's main objectives for 2020. European leaders decided that our total energy consumption needed to be cut by 20 % of 1990 levels by 2020. A substantial cut of that kind is tantamount to turning off over 400 power stations. To achieve its objective, the European Union has to encourage its members to

stop energy wastage from electrical appliances, industry and transport. Buildings are also a key area, as we consume 40 % of our energy in them and they emit 36 % of all greenhouse gases in the EU, 80 % in the form of heat.

The energy efficiency directive, adopted in 2012, will help the EU to reach these targets and benefit from all energy efficiency opportunities. It is a cross-cutting law introducing measures across all major economic sectors, including new energy targets and audits, heat recovery and energy performance objectives. In 2014 the European Commission will assess whether the EU is on track to reach its 20 % target and will suggest an appropriate way forward.

All EU countries have had to set indicative national energy efficiency targets for 2020 and draw up plans outlining how they intend to reach them. Given the challenging economic climate, the EU has to pull out all the stops if it is to spur investment and concrete actions in the field of energy efficiency. Even if investments in energy efficiency quickly become profitable and act as leverage for further investment, the money has to be made available in the first place. The European Union can help its members to finance their energy efficiency



The challenge for Europe:
lowering consumption while
preserving living standards.

plans through its budget and its financial institutions. A significant amount of EU funding is available during the 2014–20 period to help upscale energy efficiency investments (€23 billion alone from EU Structural Funds). Moreover, energy efficiency is becoming an important area for research and innovation under the new Horizon 2020 programme (see below).

A genuine European energy market

In principle, electricity and gas can flow freely through the grids which criss-cross Europe. In a single European energy market, all producers and suppliers compete with one another. In theory, it is therefore possible to buy and sell electricity and gas wherever one wants, the aim being to obtain high-quality energy at the most competitive price. However, this market of 500 million consumers has yet to become a reality because a series of national rules hamper the development of cross-border energy businesses. The prices of gas and electricity for businesses, set by governments, are just one example. Some players even have privileged and unfair access to energy grids. Investors are therefore deterred because the outlook is not very promising. As a consequence, the regeneration of power plants that have become outdated could be delayed. Competition therefore needs to be enhanced and common rules need to be introduced on the equitable use of grids. The European Union has a leading role to play here, both in setting the common rules and in strictly supervising markets to prevent certain players from unjustly exploiting any kind of monopoly.



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European households, public services and businesses need safe and reliable energy.

Up-to-date energy grids

Energy grids also need to be modernised and developed in order to cope with the growing demand for energy, to diversify existing resources and to make the market more fluid. Over the next 10 years, a massive investment of around €1 trillion will have to be made in energy grids. The EU can give its members a helping hand here, as it is in all their interests to develop high-voltage lines and transnational gas pipelines and to store energy. High-voltage electricity grids, originally built to connect large electricity power stations to neighbouring consumer areas, must also be connected up to power stations intermittently generating electricity from renewable sources. Finally, distribution grids must make it possible to use electricity in a more flexible way, so that peaks in demand can be better managed, and must allow for individual micro-generation (solar panels for instance).

However, it still takes too long to obtain the permits needed for grid projects. The European Union therefore encourages the development and modernisation of energy grids in order to speed up the construction of any 'missing links', especially in eastern Europe. The role of the European Union should not just be one of overall coordination; in some cases it can financially support certain projects which are essential but involve too many economic risks for businesses and countries alone.

Consumers are central to concerns

The ultimate aim of EU energy policy is to benefit consumers, be they individuals or small or large companies. Consumers have rights and must be better informed about them in order to make the most of the opportunities offered by the internal energy market. They should for instance be able to: switch supplier readily, receive straightforward and comparable bills and offers, find out where their electricity has come from and receive information on their consumption at any moment. Information technology and telecommunications are set to occupy an increasingly important place in the energy sector as a way of involving consumers more proactively in the energy market. Only Europe-wide regulation will place all consumers on an equal footing and enable them to benefit from the economies of scale achieved by the sector. Europe must therefore introduce the necessary regulations, especially as regards the protection of data obtained from gas and electricity meters. Consumers must also be able to buy energy-saving appliances and be informed about their actual consumption so that they have all the information at their fingertips before making a purchase. Businesses must be able to buy their energy in the safest and cheapest way possible. Only real competition can pave the way for fair prices that are neither artificially high nor too low to encourage investment in energy generation.

Safety: a key issue for Europeans

Europeans need to know that EU energy policy guarantees safe energy generation and transport. EU governments are aware of the advantages of Europe-wide coordination or even the harmonisation of safety standards for critical power plants. The Fukushima accident in Japan was a striking illustration of the importance of nuclear safety. The European Union must therefore set the highest possible safety standards for European nuclear power stations and the management of nuclear waste. EU standards to protect the population and nuclear sector workers against radioactive radiation now apply throughout Europe. Finally, Europe must continue to guarantee that the use of nuclear material within its borders does not lead to illicit trafficking or the proliferation of nuclear weapons.

Leaders in low-carbon technology

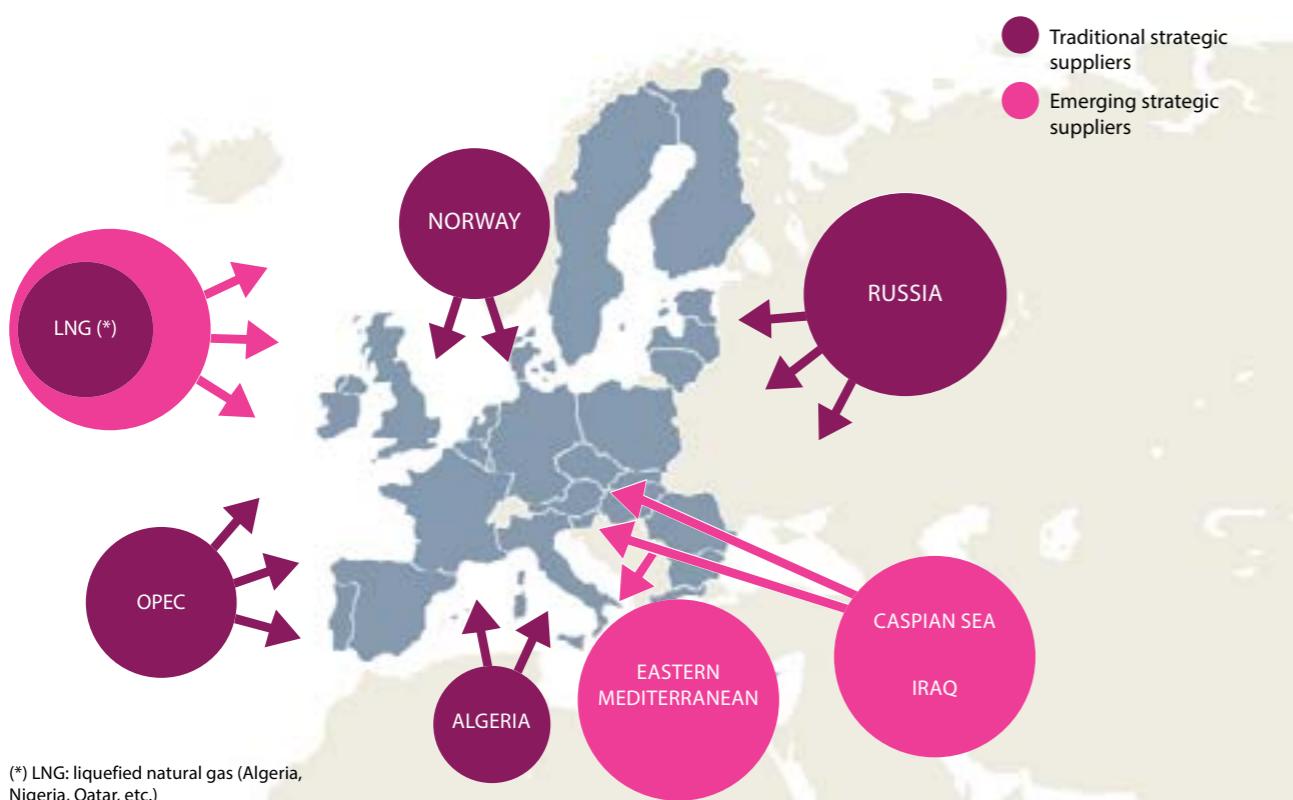
There will have to be a technological revolution in Europe if energy is to be generated without emitting CO₂. In 2013, the European Commission proposed an update of the EU's strategic plan for low-carbon energy technologies. To address the new challenges in the global energy market, the European Union is setting its priorities on energy research and innovation so as to ensure the integration of low-carbon technologies into the energy system and to bring new products into the market in a cost-efficient way.

The goal is to rally industrialists in the sectors concerned to work together while benefiting from EU support. Some industrial initiatives focus on energy generation and sources such as biofuels, wind, solar and nuclear power, as well as fuel cells and the use of hydrogen. Others are geared towards better energy management in 'smart cities', underground CO₂ capture and storage and the electricity grids of the future. The aim here is to make these new technologies affordable and profitable so that current technologies can ultimately be replaced and CO₂ emissions reduced in the European energy sector. The huge costs involved mean that this objective can only be achieved through a coordinated, Europe-wide effort.

Energy diplomacy

Europe, the world's largest regional market, must assert its interests on the international scene in order to ensure that its energy supplies are secure. Its size as well as its dependence on the outside world leave it with no other choice, especially at a time when the world race for energy resources is accelerating. The problem is that European countries have always found it difficult to speak with a single voice. But it is crucial that they present a united front so as to have a stronger influence on the leading energy-producing and energy-consuming countries. Europe must ensure the safe transport of energy from its gas and oil suppliers. Energy must also be part of European external policies including development aid, trade and bilateral cooperation agreements. That is also a way of supporting exports of cutting-edge European technologies.

WHERE DO EUROPE'S OIL AND GAS IMPORTS COME FROM?



Democratic decision-making

EU energy policy affects all Europeans. EU law has a major impact on national law, especially in the energy field. The European Parliament (directly elected every 5 years by EU citizens) and the Council of Ministers of the European Union (representing national governments) jointly adopt EU energy law, except for legislation on nuclear power and energy taxation which the Council of Ministers adopts on its own. National governments are involved in drawing up EU law at an early stage, via committees of national experts. Professional organisations and civil society take part in this transparent process, as their opinion is sought during various consultation stages.

What the EU does

Empowering consumers and stimulating the energy sector

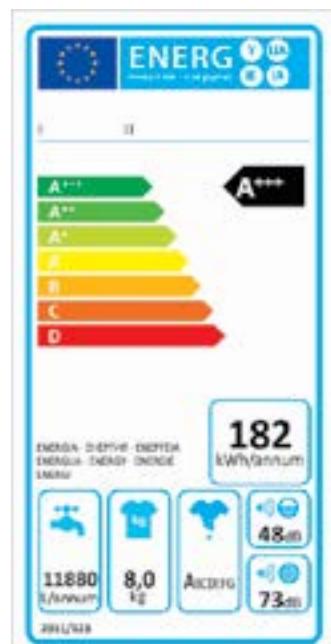
The European Union provides European consumers with an unprecedented level of protection: it protects vulnerable consumers, increases the regulatory powers of supervisory authorities and their ability to impose sanctions and makes bills easier to understand. However, the real revolution lies in the 'smart' meters and grids which, it is hoped, will make consumers more proactive. Not only will bills be based on actual consumption, but consumers will also be able to find out about their consumption at any moment and take steps to improve it. The European Union is introducing the necessary safeguards to ensure that citizens' privacy is protected when information is gathered from smart meters.

Energy labelling, brought in by the European Union, means that people are now fully informed about their purchases when they buy electrical appliances. This kind of labelling is now being extended to many domestic, electrical, office and other products. It has encouraged manufacturers to offer more energy-saving products, thus helping to reduce bills, as the total price of a product not only includes its purchase price but also the cost of using it.

Cutting energy bills

The end of monopolies in electricity and gas markets means that all consumers are free to choose their energy suppliers. A recent study has estimated that over €13 billion, that is €100 per household per year, could be saved by switching electricity and gas suppliers. Businesses were the first to be able to choose their suppliers. Energy accounts for a substantial proportion of the production costs of both large and small companies in Europe's main industries. Competition between energy suppliers has extended what is on offer, improved the overall quality of the service and kept prices as low as possible.

The EU has provided for the establishment of new national authorities in every EU country, commonly known as energy regulators, to ensure fair competition. Their task is to supervise the system and to ensure that energy companies follow the rules. They have extensive powers to punish anti-competitive practices and help consumers to make the best possible choices. The regulators set energy transport tariffs as fairly as possible so that grid operators receive a proper income and are encouraged to invest, without any major increases in final consumers' bills. Energy prices will not necessarily go down, however, as they depend to some extent on the market prices of fuels, including oil, coal and gas which are impossible to control. A very effective way of reducing your energy bill is therefore to reduce what you consume. If European energy-saving goals are achieved by 2020, every European household will make a yearly saving of around €1 000.



Securing Europe's energy supplies

Major electricity cuts are now rare in Europe, thanks to some extent to the cooperation between grid operators set in motion by the European Union. However, 67 % of Europe's gas is imported, in some cases from very far away. A breakdown in supply for reasons over which it has no control may have serious consequences. To prevent shortages, the European Union therefore has a very comprehensive solidarity mechanism through which oil and gas stocks can be accessed. Prevention is nevertheless better than cure: the EU has set up its own energy market observatory and even introduced an early warning mechanism with Russia and other key supply and transit countries.

In October 2014 the Commission published a report on the resilience of the European gas system. The report assesses the impact of potential gas supply disruptions in various European countries. The main recommendation is that EU countries need to cooperate and allow market forces to work where possible. This cooperative approach could significantly reduce the impact of gas disruption in the most affected countries.

'Winter package' deal between Ukraine and Russia

In late October 2014, a 4.6 billion dollar deal was reached between Ukraine and Russia, with the European Commission acting as moderator. The result should ensure that Ukrainians (and, ultimately, Europeans) have access to sufficient heating in winter 2014/2015.



The 2030 framework for climate and energy

On the basis of a proposal from the European Commission, EU leaders agreed in October 2014 on a new EU framework on climate and energy for 2030. The framework includes EU-binding targets to reduce domestic greenhouse gas emissions by at least 40 % compared to 1990 levels and to increase the use of renewable energy to at least 27 % of total energy consumption by 2030. It also contains renewed ambitions for energy efficiency policies, a new governance system and a set of new indicators to ensure a safe, competitive and sustainable energy supply.

Stimulating the energy sector

Competition between electricity and gas operators has shaken up the energy sector. New trades have emerged (traders, consultants, auditors), and the sector is increasingly drawing on information and communication technologies. New operators have broken into national markets, and many now have a European dimension. Winning over new customers requires innovation to create new products at competitive prices and therefore greater efficiency. The European Union has introduced incentives and priority measures to promote new sources of energy in electricity generation, in biofuel and heat production, and even in combined electricity and heat generation.

The boom in renewables

The current EU objective is for 20 % of the energy consumed in the European Union in 2020 to come from renewable sources (and at least 27 % by 2030). Promotion of this objective throughout Europe has led to a spectacular increase in the production capacity of renewable energy sources. In 2011 over 100 gigawatts of solar panels were installed worldwide, 70 % of them in the EU. EU renewables production contributes to reducing fossil fuel imports equivalent to around €400 billion every year.

Europe's expanding renewable energy market has considerably reduced the cost of renewable technologies: the cost of solar panels has for instance fallen by 70 % over the last 7 years. Renewable energy is also part of a growing 'green' technology sector which employs more and more people in Europe. In 2011, 1.2 million people had renewable-energy-related jobs. By 2020, the renewables and energy efficiency sector are expected to employ over 4 million people across the EU.

Renewable energy is at the core of Europe's long-term energy strategy because it helps to reduce greenhouse gas emissions and reduces Europe's energy imports, making Europe more independent. This booming economic sector contributes to European technological leadership, providing EU countries and their regions with new 'green' jobs and high added-value exports.

Energy efficiency: a promising market

Investment in greater energy efficiency is stimulating growth. Insulating homes, installing new energy-saving equipment, refurbishing buildings and carrying out audits: they all stimulate economic activity. 2 million jobs could be created by 2020 if Europe's energy-saving objectives are achieved. With a yearly investment of €24 billion in insulation, energy management and control systems, for instance, the overall European energy bill could be cut by some €38 billion between now and 2020.

The EU target for all new buildings is for them to be 'practically zero-energy' by the end of the decade, which will considerably cut energy consumption and energy bills. The use of renewable energy will satisfy the low energy needs of these buildings, thereby reducing emissions.

The energy performance of buildings directive requires EU countries to set up a system of energy performance certificates for buildings, including recommendations for more energy efficiency. These building labels generally follow an 'A to G' scheme similar to the EU energy labelling for appliances such as fridges, 'A' being the best energy class. Energy performance certificates give information to consumers on how high their energy bills will be, allowing them to compare offers and to better negotiate rental prices. It has been demonstrated that the improvement of energy efficiency by one class (for instance from G to F) increases the price of a house or a flat by at least 4 %.

Achieving European energy-saving objectives could create 2 million jobs by 2020.





The Energy Star logo helps consumers to find equipment with high energy efficiency.

Moreover, an increase in the building renovation rate would also strongly contribute to job creation and competitiveness in the construction and energy services sectors. The renovation of existing buildings also provides a significant opportunity to stimulate innovation.

From now on, energy suppliers must deliver energy savings for their customers. The energy service company business model will need to be rolled out across Europe. Companies of this type are tasked with supplying energy services (lighting, heating, air conditioning, electricity supply) on the condition that they invest in high-performance equipment and reap rewards from the energy savings that they achieve.

The EU is also lowering energy consumption through eco-design requirements for a wide range of appliances including televisions, refrigerators, dishwashers, washing machines, fans, freezers, lamps and much more besides. The most radical and visible change has been the replacement, on a massive scale, of conventional light bulbs by energy-saving light bulbs, which use up to five times less energy.

In addition to the energy label, the Energy Star logo which one can find on office equipment is visible proof that the European Union is encouraging the sale of energy efficient products. Since 2001, under an agreement with the United States, it has been possible to showcase the energy efficiency of numerous products (computers, photocopiers, printers, monitors and others) using the label. The energy label and the Energy Star logo offer valuable guidelines to public authorities when making bulk purchases.

Increasing energy efficiency through research and innovation actions

Interview with Patrick Lambert, Director of the Executive Agency for Small and Medium-sized Enterprises (EASME).

What is your agency doing in the energy field?

P.L.: Since January 2014 we are responsible for carrying out energy efficiency calls under the Horizon 2020 programme (2014–20), the successor to the framework programme for research and development. We will promote and support projects along the full research and innovation cycle, including market-uptake activities for facilitating policy implementation, raising skills levels and mobilising investments in energy efficiency. We will also continue to manage the projects supported under the intelligent energy Europe programme (2007–13) to foster energy efficiency and the use of renewable sources. Our communication activities culminate every year at the EU Sustainable Energy Week (EUSEW).

Can you really change attitudes in a week?

P.L.: Several hundred events take place during EU Sustainable Energy Weeks throughout the European Union, including 100 or so in Brussels. We want to make Europeans and businesses more committed and create a snowball effect by encouraging them to replicate projects and best practices throughout Europe. Our annual sustainable energy prizes are our showcase, as well as an added incentive for stakeholders.

Is legislation not enough on its own?

P.L.: Adopting laws is important, but action is also needed in the field to ensure that they become a reality in people's lives. For instance, it will not be possible to put into practice European laws on the energy performance of buildings unless energy actors, including consumers, are properly informed and skilled.

Combating climate change

In international climate talks, the EU has committed itself to reducing its greenhouse gas emissions by 20 % of 1990 levels by 2020 and under certain conditions to increase that figure to 85 % or even 95 % by 2050. Most of that reduction will have to come from the energy sector, as it accounts for 80 % of the European Union's greenhouse gas emissions. If the EU continues to meet its targets at the current rate, it will exceed its current goal of a 20 % reduction of greenhouse gas emissions and achieve a 25 % reduction by 2020.

All decision-making levels are involved in implementing EU energy and climate policies, be they local, regional, national or European. For instance, the European Union launched the Covenant of Mayors initiative in 2009. Signatory towns and cities undertook to exceed the European objectives. There are currently 4 000 signatories, representing over 160 million inhabitants and offering a potential CO₂ reduction of 164 million tonnes, the equivalent of all emissions from Hungary, Portugal and Sweden put together.

Europe's place on the world stage

The European Union has set up a permanent dialogue on energy issues with its main suppliers — Norway, Russia, the Gulf states and OPEC — and with other countries or regions playing an important role on the world energy stage, namely Brazil, China, India, the United States, Africa and the Mediterranean. The EU has launched many cooperation and aid programmes in the energy field throughout the world. It cooperates actively with organisations such as the International Energy Agency, the International Atomic Energy Agency and the International Energy Forum. It has signed up to the 'Sustainable energy for all' initiative launched in 2011 by the UN to help a further 500 million people in developing countries gain access to sustainable energy by 2030. Closer to its borders, the EU has signed the Energy Community Treaty in order to integrate progressively the energy markets of south-east Europe, Moldova and Ukraine on the basis of the EU energy, competition and environmental rules. Energy is also a key element of EU neighbourhood policy with countries in the south and east of Europe, with specific emphasis on energy efficiency and the promotion of renewable energy sources.



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The EU takes part in many international programmes where it can spread its expertise in renewables.

Work in progress

2020 and beyond: building an Energy Union

Throughout the world, we have to come to terms with the increased difficulty of accessing the planet's mineral resources. Oil will be much more expensive and much more difficult to extract. While new shale oil and gas reserves may well exist, there are many environmental constraints which hamper their extraction. More and more energy will be needed to mine raw materials, as the mineral content of mines will continue to decrease. Access to energy sources will therefore be increasingly subject to geopolitical considerations. For Europe this situation makes it urgent to radically rethink the security of our energy supply. The EU has therefore invested enormously in recent years in diversifying its energy supplies and energy routes. One such project is the southern gas corridor, which should give Europe access to the substantial gas resources in the Caspian Sea region.

A stable long-term energy policy

Europe faces a complex challenge: the need to secure access to imported energy sources while supplying energy at the most competitive prices possible and at the same time protecting the environment. In keeping with its international commitments, the European Union is already on the path to becoming a low-carbon society by 2050. Its 2050 Roadmap has sparked a debate on the best way to meet growing energy needs at affordable prices while keeping greenhouse gas emissions to a minimum. However, given that the energy capacity of a huge number of older power plants will have to be replaced over the next 30–40 years, the EU needs to attract new investors by providing them with a clear and stable regulatory framework.



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Cities of the future will be low carbon and provide better services for their increasing populations.

Improving our energy security

In response to the political crisis in Ukraine and given the overall importance of a stable and abundant energy supply for the EU's citizens and economy, the European Commission put forward an EU Energy Security Strategy in May 2014. Its main objective is to define ways of reducing the EU's energy dependency and to increase energy security. The strategy focuses on diversifying sources of external energy supply, modernising energy infrastructure, increasing energy production in the EU, completing the internal energy market and moderating energy demand. It also provides for better coordination of decisions between national energy policies.

The European Councils of June and October 2014 welcomed the Commission's strategy and agreed on the launch of short-term measures in order to increase EU energy security in view of the coming winter.

A long-term strategy: the 2030 framework

If the EU is to move towards a low-carbon society, it needs a clear vision for the long term. The European Council adopted the proposal of the Commission on climate and energy objectives for 2030. The aim of this long-term strategy is to increase certainty for investors, especially for long-term infrastructure projects, give guidance to EU governments in preparing national policies and help the EU to contribute constructively to negotiations on a new international climate agreement in 2015. It also aims to reduce our dependency on imported fossil fuels, to make the EU economy more energy and resource efficient (and thus less carbon intensive) and to increase investments in the EU economy, developing new sectors, technologies and jobs.

A more European energy policy

It is only through European integration that these long-term challenges can be met: the decisions of one EU country have repercussions for us all. Modernising the energy system and developing new technological solutions do, however, raise huge financial issues. Without European cooperation, public funds will not be able to channel investment into the technologies of the future, which are still too risky for national investors alone. In this period of transition to a greener world, EU countries must agree on their energy priorities in order to better coordinate their work in this field and to allow the EU to speak with one voice in the outside world.

Energy savings: a more ambitious target for 2030

Based on a proposal from the Commission, in October 2014 the European Council adopted a new EU-level target: energy efficiency should be improved by at least 27 % by 2030. This target will benefit Europe with new opportunities for businesses, affordable energy bills for consumers, increased energy security through a significant reduction of natural gas imports and a positive impact on the environment. The proposed target builds on existing achievements: new buildings use half the energy they did in the 1980s and industry is about 19 % less energy intensive than in 2001.

In the coming years, energy will continue to stay high on the European agenda. The European Council in particular has stressed the importance of energy efficiency and of boosting domestic production. It has also underlined the need to make the European energy market fully functioning and interconnected, based on a regional approach. This is to be done by increasing transparency in the gas market and by correcting gaps in infrastructure, so as to end EU countries' isolation from European gas and electricity networks.

In short, a truly common European energy policy is the only sustainable solution for the future.

Further reading

EUROPEAN ENERGY LEGISLATION

- ▶ Summary of EU legislation: http://europa.eu/legislation_summaries/energy/index_en.htm

EUROPEAN ENERGY STATISTICS

- ▶ Energy trends up to 2050: <http://ec.europa.eu/energy/en/statistics/energy-trends-2050>

EUROPEAN ENERGY STRATEGY

- ▶ 2020 / 2030 / 2050 strategy: <http://ec.europa.eu/energy/en/topics/energy-strategy>

EUROPEAN ENERGY POLICY

- ▶ European Commission — DG Energy: http://ec.europa.eu/energy/index_en.htm

