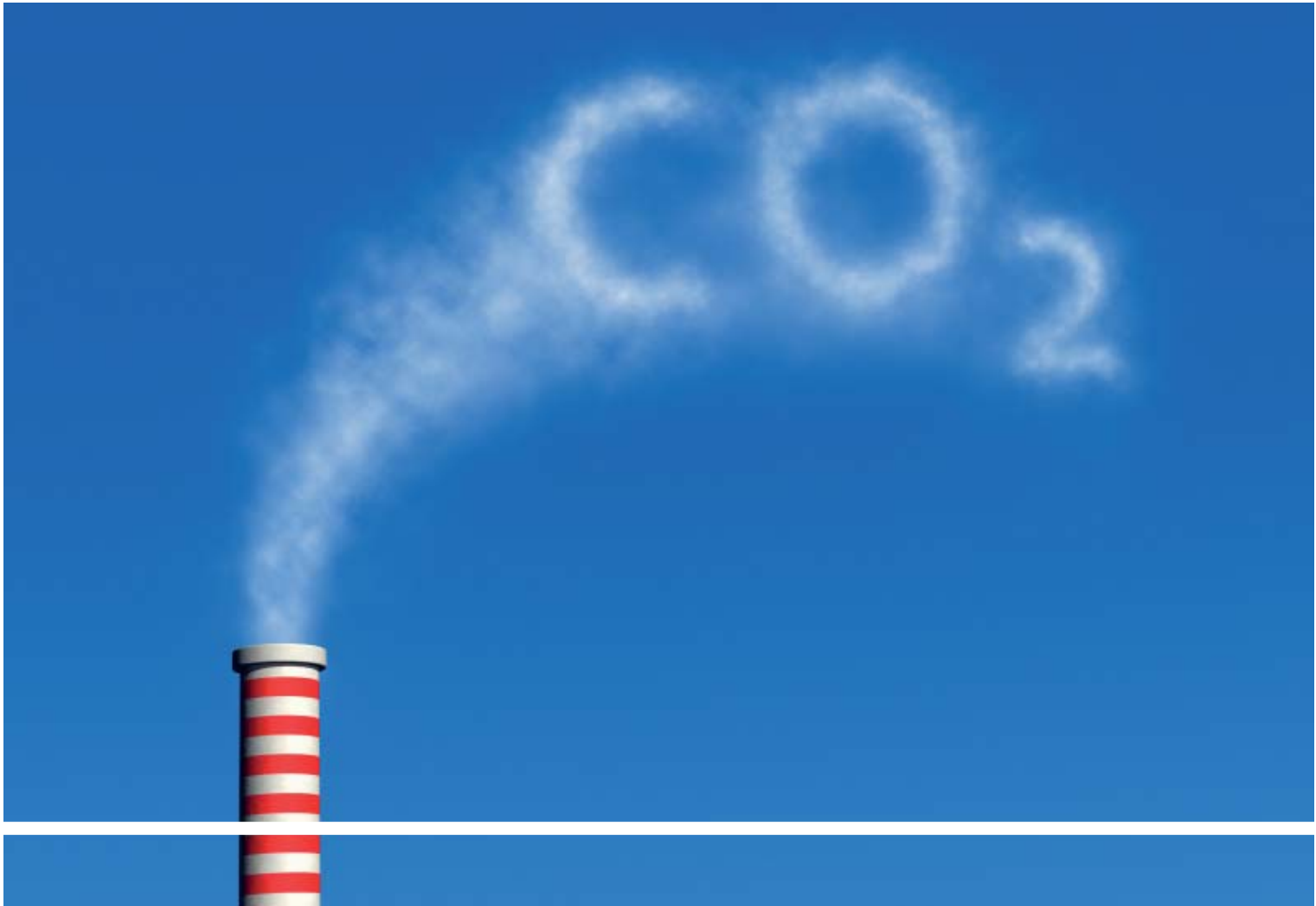


Optimal economic fuel efficiency



Energy is essential to keep the wheels of the economy turning. However, estimates have revealed that the EU is using 20% more energy than can be justified on economic grounds.

This suggests that European companies and citizens are using a lot more electricity and gas than they need to sustain their activities. But what is causing this excessive consumption?

A whole range of factors contribute to this situation, including lack of interest and awareness of energy-efficiency issues. Investing in energy-efficiency measures can be costly and there are too few incentives to encourage consumers to

reduce their consumption. For instance, pricing structures may encourage over-consumption by offering substantial discounts for higher energy use. A case in point is the fact that electricity prices for industrial users fell in real terms by an average of 10-15% between 1995 and 2005.

In addition, energy providers might have an interest in not helping their clients optimise their energy consumption. But for the sake of the environment and long-term economic sustainability, it is important that they become not just energy providers but also trusted energy consultants.

Rationalising energy consumption is a major goal of the EU.

:: What is the EU doing?

In March 2007, EU leaders signed up to the ambitious 'Energy for a changing world' package which, in addition to boosting competitiveness and securing future energy supplies, aims to save energy and promote climate-friendly energy sources. Member States committed themselves to cutting the EU's greenhouse gas emissions by 20% by 2020 and a binding overall target of extracting 20% of the EU's energy supplies from renewable sources by the same year. They also agreed energy efficiency improvements of 20% by 2020.

In order to deliver on these commitments, the European Commission proposed, in January 2008, a package of measures which prove not only that last year's agreement is technologically and economically feasible but also that it provides a unique business opportunity for thousands of European companies.

In addition, the EU has a wide range of legislative and financial instruments that aim to boost energy efficiency. A 2006 Directive on Energy End-use Efficiency and Energy Services (Directive 2006/32/EC) requires Member States to draw up national action plans to achieve 9% energy savings by 2016 in the retail, supply and distribution of electricity, natural gas, urban heating, and other energy products.

The same year, the Commission adopted its own Energy Efficiency Action Plan, which contains a package of 75 actions in six priority areas covering a wide range of energy efficiency initiatives. The plan also proposes specific financing mechanisms for SMEs to enable them to make the energy savings identified in energy audits.

The Intelligent Energy Europe sub-programme of the EU's Competitiveness and Innovation Programme (CIP), which runs from 2007 to 2013, seeks to foster energy efficiency and the rational use of energy, and promotes new and renewable energy sources. It funds a wide range of projects, such as EMEEES which develops methods for measuring and verifying energy savings from the energy-efficiency improvement measures implemented under the Directive (http://ec.europa.eu/energy/intelligent/projects/monitoring_en.htm) The CIP also provides financing for eco-innovation.

This builds upon the success of the Sustainable Energy Europe (SEE) campaign (2005-2008), a European initiative in the framework of the Intelligent Energy Europe programme. SEE is designed to bring about a genuine change in behaviour by the main players concerned, so that they commit themselves to moving towards efficient, clean and sustainable energy production and consumption schemes based on renewable energy sources and energy efficiency.

:: Energy end-users – power through information

Many people believe that knowledge is power. In the case of energy, it can also help save power. In fact, experts have identified insufficient information on the part of end-users, technicians and markets as a major barrier preventing improved energy efficiency.

In order to empower end-users to reduce their energy consumptions, ways have to be found to provide them with improved information. This includes information on more efficient alternatives, energy pricing structures, alternative energy suppliers, measures of their real-time consumption, the sources of the energy and their environmental impact, etc.

To help consumers make informed decisions, some EU Member States run certification schemes whereby independent certifying bodies confirm the energy-savings claims of various market actors.

There is also a need for energy professionals to receive better and more regular training so that they can keep abreast of the latest technological developments and inform their clients of the best options.



:: Energy service companies – harnessing the power to change

Energy users often lack the expertise to reduce their energy consumption and need expert advice to enable them to do so effectively and sustainably. Meanwhile, energy suppliers may lack the incentive to help their customers reduce their consumption. That is where energy service companies, or ESCOs, enter the equation.

ESCOs provide energy management services to end-users. They offer a wide selection of services, from supplying and installing energy-efficient equipment to refurbishing buildings and implementing cost-saving projects. ESCOs also bridge the gap between suppliers and consumers of energy and energy-saving technology.

Despite the important role ESCOs can and do play, there is a lack of policy support to help promote their activities through the establishment of quality standards and enhanced access to finance.

According to the Directive on Energy End-use Efficiency and Energy Services, Member States have the option of making it compulsory for energy distributors, distribution system operators and retail energy sales companies to offer energy services, alongside their regular supply activities.

:: Good practice

ESCO lights the way for future energy savings

One major hurdle many organisations face when wishing to implement energy-saving technologies is financing the switchover. Energy service companies (ESCOs) provide a novel solution for improving the energy performance of buildings without any initial cost to the owners. Instead, investments made by a third party are refinanced by the savings accrued from improved efficiency.

Latvia provides an interesting example of this. The country's Efficient Lighting Initiative (ELI) enabled the Latvian Academy of Sport Education (LASE) in Riga to renovate its indoor lighting system, which not only saved energy but enhanced lighting quality.

The project enabled LASE to save 83 500 kWh per year, which is equivalent to 30.4 tonnes of CO₂ emission. In addition, improvements in the quality of lighting in the sports hall and viewing balcony made conditions much more comfortable and safer for players and spectators.

The ESCO implementing the project covered the €28 500 investment needed to carry out renovations which it would recoup over a number of years by collecting LASE's annual energy savings. Such an arrangement provides the ESCO with incentives to install the most efficient system possible in order to regain its investment as quickly as possible.

Following the success of the project, the academy's administration prepared a similar tender for the renovation of its heating and water supply system.

http://www.managenergy.net/download/local_energy_action_2007.pdf

:: Fine tuning the market for energy services

EU energy markets do not always provide the right conditions and incentives for energy suppliers and consumers to make the necessary technological and behavioural changes needed to enhance energy efficiency.

The Directive on Energy End-use Efficiency and Energy Services seeks to eliminate the market barriers and imperfections which prevent the efficient end-use of energy, and to create the conditions for the development and promotion of a market for energy services and for the delivery of energy-saving programmes

A market for energy services holds the promise of cutting the EU's energy consumption, improving its environmental credentials, underwriting the market for new energy-efficient technologies and boost eco-innovation.

For this to be successful will require the mobilisation of all relevant stakeholders, including regulators, suppliers, installers and consumers. It also requires financial support through national and European funding instruments, as well as the coherent deployment of tax incentives and state aid.

:: Good practice

Save first, pay later

As noted earlier, energy service companies (ESCOs) can help speed up the switchover to more energy-efficient technologies by taking up the financial burden and recouping their costs through the energy savings accrued.

In order to promote this kind of partnership, the region of Upper Austria (AT) put in place a regional market for this kind of third-party finance. The initiative combined a comprehensive information and advice strategy with financial support.

Promotional measures included information events, publications, advice sessions, research projects, and an internet platform. The initiative's targeted approach succeeded in establishing a successful TPF market in Upper Austria with more than 100 projects implemented involving a total investment of about €35 million.

<http://www.managenergy.net/download/gp2005.pdf>



:: What is ManagEnergy?

ManagEnergy is an initiative of the European Commission's Directorate-General for Energy and Transport, which is funded by the Intelligent Energy Europe programme. It aims to support local and regional actions on energy efficiency and renewable energies through training workshops and on-line events. In addition, information is provided on case studies, good practice, European legislation and programmes.

ManagEnergy is also a European network of local and regional energy agencies (LEAs). These agencies promote the introduction of good energy management practices, support sustainability, provide information and guidance, and offer other services depending on local needs.

www.managenergy.net

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