

Energy efficient equipment and appliances



Energy-consuming products have become essential to modern life, whether they are computers, light bulbs, TVs or washing machines. These products make people's lives more comfortable and contribute to high standard of livings, but our reliance on them means that the energy demand of households accounts for 25% of the total energy consumed in the EU. However, it also means that there is a big potential to save energy by introducing more efficient

equipment. And considering that we are using ever more gadgets, making them as efficient as possible should be a priority.

The most up-to-date technologies and products that are available on the market can be much more energy efficient than older equipment, but many people are unaware of the difference.

:: What is the EU doing?

- The **energy efficiency action plan** published in 2006 puts great emphasis on improving the energy efficiency of energy-using products.
- The Commission promotes a culture of "**sustainable consumption and production (SCP)**". This aims to increase social and economic development within the carrying capacity of ecosystems, while decoupling economic growth from environmental degradation. There are specific initiatives for the eco-design of energy-using products, eco-labelling, office equipment (the Energy Star scheme), environmental management and auditing (the EMAS scheme) and green public procurement.
- The **eco-design Directive (2005/32/EC)**, adopted in 2005, provides a framework for setting minimum energy performance standards for energy-using products within eco-design requirements. Regarding energy consumption, it means setting maximum levels of energy consumption for a given function of a product.
- The **labelling Directive (92/75 EC)** and its eight implementing directives deal with a wide range of domestic appliances such as dishwashers, conditioners, electric refrigerators and freezers, ovens and lightbulbs. The energy efficiency of an appliance is rated according to a set of energy efficiency classes from A to G, with A being the most efficient and G the least efficient. A+ and A++ grades have now been introduced for some products such as fridges.
- **Energy Star Regulation (EC No. 2422/2001)**: Office equipment is responsible for a significant and growing share of total electricity consumption. The European Energy Star programme is a voluntary energy-labelling programme for office equipment agreed between the US and the EU – two of the major global markets for office products. The agreement sets common labelling requirements for information and communication technology equipment in offices, such as computers, monitors, printers, fax machines, copiers, and scanners.
- **Green public procurement**: the Commission published a handbook on environmental public procurement in 2004, explaining how environmental considerations can be incorporated into public procurement, together with concrete examples of environmental tendering by local authorities in Europe.
- The EU, through the Intelligent Energy Europe Programme, funds projects such as the "E-Server", which aims to support the development of a market for energy efficient servers.

http://ec.europa.eu/energy/intelligent/projects/doc/factsheets/e_server.pdf

:: SMEs

Green public procurement can be a driver for more eco-innovative companies, as all companies wanting to win public contracts have to meet the requirements of green procurement. In the private sector, SMEs in the supply chain of bigger companies can be asked to provide cleaner and more energy efficient products and appliances. In addition, more companies are adopting the concept of corporate social responsibility. This means that companies integrate social and environmental considerations into their economic operations, on a voluntary basis.

The use of energy efficient appliances and products by a company can reduce energy consumption and so lower its energy bills. There are also market opportunities for

innovative companies in the field of energy efficient products. In addition, energy efficiency policies can have a positive impact on a company's image as a responsible business and be used as a marketing tool.

However, support for smaller businesses is important to enable them to improve their sustainability, as lack of human and financial resources can often act as a barrier to them taking up more energy efficient technologies.

It is also important to help companies that make energy-using equipment and appliances to develop more energy efficient products. Smaller companies should be able to benefit from the latest innovations and technologies available to in order to be eco-innovative.

:: Public authorities

The integration of energy efficiency criteria in public procurement can be a major driver for change. As large energy users with considerable spending power, public authorities have the potential to stimulate the market for energy efficient products and contribute to big energy savings. Authorities, at both national and regional levels, can take the lead and use energy efficient equipment and appliances (computers, light bulbs) as well as making 'reasonable' use of existing energy-using products and appliances.

Authorities can set an example to the public and show how easy it is to reduce energy use, and cut their costs. This means that authorities communicating their new 'energy habits' to the public is important.

Public authorities should also offer incentives to consumers to buy energy efficient products such as dishwashers or washing machines.

:: Good practice

Efficient Public lighting

The 'Bottom up to Kyoto' (ButK) project aims to make it easier for municipalities and regional authorities in new member states to adopt more energy efficient public lighting. As this lighting uses a significant proportion of total energy consumed, the project has the potential to make considerable CO2 and cost savings.

The project helps to overcome market barriers to more efficient lighting. Experts work with authorities to analyse where savings can be made – both in terms of energy and money – and then provide support to implement a strategy for more efficient lighting.

Five municipalities are involved in different countries – Voru in Estonia, Riga in Latvia, Raciechowice in Poland, Cluj in Romania and Slovenska-Bistrica in Slovenia. The initiative started in March 2007 and runs for 36 months.

More information:

<http://ec.europa.eu/energy/intelligent/projects/doc/factsheets/butk.pdf>



:: Consumers and retailers

It is essential that consumers are aware of the energy efficient equipment that is already available on the market place. There are a number of energy labels, but they may not be widely known. This means that it is important to provide information about them. One way of doing this is to organise awareness-raising campaigns aimed at both consumers and retailers.

It is also important that shops increase the visibility of energy efficient products and appliances to consumers. There is a need to increase consumer awareness of the real energy use – and running costs – of their household appliances.

Information should also be given, through information campaigns, on how to use more efficiently different appliances such as heating systems, washing machines, low energy lighting or refrigerators.

:: Good practice

Promoting energy labels to Czech retailers and consumers

The ELAR (Energy Labelling of Household Appliances) project promoted the commercial benefits of energy labels to make them more attractive to appliance manufacturers and retailers in the Czech Republic – changing their perception of them from a legal obligation into a marketing tool.

A comprehensive communication strategy was adopted and information material was developed for use in various campaigns. Leaflets, brochures and promotional materials were distributed and there was widespread coverage in the media. Surveys noted a significant increase in the awareness of energy labelling.

The project also covered Slovenia, Slovakia and Poland.

More information:

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