AIMING HIGHER TO DELIVER MORE

In order to achieve rapid emission cuts in the most cost-effective manner, Member States should consider adopting targets ranging between 1.5 and 2% of annual energy efficiency improvement; a realistic range already chosen by several EU countries.

A DIRTY, INSECURE AND EXPENSIVE ENERGY FUTURE?

According to the International Energy Agency, global energy use will grow by 53% by 2030 taking the world into a "dirty, insecure and expensive" energy future. The global energy-related CO2 emissions will increase by more than half and energy prices will soar due to booming demand and shrinking and unstable supply. Recent developments in Russia and the Middle East confirm the likelihood that Europe's supply, particularly of oil and gas, will remain insecure.

To this instability of supply is added the fact that global climate change creates a pressing need to dramatically reduce Europe's use of fossil fuels. The European Commission's Integrated Energy and Climate Package, adopted 10 January 2007, calls for a 20% cut in CO2 emissions by 2020, as a minimum, to reduce the potential of dramatic consequences from global climate change. The European Union and the International Energy Agency however believe that such reductions are possible, if ambitious policies and measures are taken now.

ENERGY-EFFICIENCY: THE ALTERNATIVE SCENARIO

Energy-efficiency has been recognised by governments and international bodies as the most rapid and cost-effective answer to tackling Europe's energy and climate problems. The European Commission has acknowledged that "one central pillar of any future energy strategy for the EU must be cost effective energy efficiency improvements and energy savings." (European Commission, Winning the Battle Against Global Climate Change, SEC(2005) 180), while the International Energy Agency estimates that up to 2030 "a more efficient production and use of energy contributes almost 80% of the avoided CO2 emissions."

Energy efficiency must play a central part in delivering an energy and climate secure Europe but to do so, Member States will need to propose ambitious measures that go well beyond the 1% objective set by the Energy End-Use and Energy Services Directive (ESD).

To provide a sense of the ambition that is needed to achieve climate security, the Dutch research institute ECOFYS examined the impact of energy efficiency on achieving a target of a 50% cut in CO2 emissions by 2050. Achieving this with an annual improvement of only 1%, taking into account the expected growth in energy demand, would mean having to increase zero emission sources of energy to 120% of today's energy use. If Member States adopted a more ambitious goal of a 3% annual efficiency improvement, the percentage of zero emissions sources would only need to be 18%. Demonstrating that combining an ambitious efficiency target with a commitment to renewable energy sources can put Member States on the road to a low carbon economy. ¹

1 % : JUST A START

The annual 1% target is indicative and therefore Member States remain free to propose a more ambitious target. Several have already indicated that their level of ambition will be significantly higher with Denmark having proposed a 1.7% savings target and the Netherlands opting for a 2% target. These ambitious targets create a win-win scenario in which the environment, energy security and competitiveness are all improved. To put this into context, a recent study carried-out for Eurima, demonstrated that the implementation of an extended Energy Performance of Buildings Directive

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¹ Presentation delivered in Nov 2004 in Brussels by prof. K. Brok, Ecofys
² The 1.7% does not include the transport sector
(EPBD) would lead to an annual saving in energy costs of **270 billion EURO a year**, the reduction of **460 million tonnes of CO₂ per year**, a reduction in energy use of **3.3 million barrels of oil a day** and the creation of up to an estimated **530 000 jobs**.

Besides making the environment cleaner and the economy stronger, there is another reason for adopting more ambitious targets. In the Energy Efficiency Action Plan which was issued 19 October 2006, the EU committed itself to save 20% of energy use by 2020. If this goal is to be attained, Member States will need to save more than 1.5% of energy use per year.

**ENERGY EFFICIENCY IN BUILDINGS CAN PROVIDE THE BULK OF THE SAVINGS**

Buildings use by far the biggest share of energy, representing over 40% of energy consumption in the EU. At the same time, simple measures, such as wall and roof insulation, could cut energy use in buildings in half, i.e. the same as a 20% cut in total EU emissions. Added to this, the IEA has calculated that in many countries, new buildings could on average be made 70% more efficient than existing buildings and that if an ambitious set of policies was implemented, the residential sector would represent 70% of all savings in electricity consumption over the next 23 years.

One of the key goals of the Energy Services Directive is to improve the implementation of other directives targeting energy-efficiency and, as the above figures indicate, the Energy Performance of Buildings Directive (EPBD) has a huge untapped potential. Therefore, in the first instance, EU countries should use their National Energy Efficiency Action Plans as a means to fully implement existing legislation and in particular the key requirements created under the EPBD.

**WHAT NEEDS TO BE DONE TO MAKE THIS HAPPEN**

Besides focusing on good implementation of existing legal instruments, such as the EPBD, the place to start for European Member States is to both set more ambitious targets under their national energy efficiency action plans as well as to ensure that these plans have a clear strategy to tackle existing residential buildings. Although the challenge that each Member State faces in tackling its existing building stock will be different, a recent review of best practice from across the EU has concluded that a number of core issues are essential to tackle. These include:

- **Upfront Financing**: The lack of low interest and readily available loans for energy efficiency measures is a key barrier to action being taken in the residential sector. This is less a problem in the new building sector although it can also be a barrier, particularly for first time buyers.

- **Organisational Support**: One of the main findings was the importance of creating organisational support structures (one-stop shops) that can provide support for individuals to obtain finance, informational support and technical advice on how to improve energy efficiency in buildings. Where support structures were implemented, the level of uptake of energy efficiency measures was significantly improved.

- **Regulatory Requirements**: Specific requirements to upgrade components (i.e. roof insulation, windows, etc.) to new building standards, when these components are being replaced are an important element to improving energy efficiency levels in existing buildings. Improved regulatory requirements are an essential and effective approach for improving new building standards.

**CONCLUSION**

The Energy Services Directive provides a unique opportunity for Europe’s Member States to take an ambitious approach to energy efficiency in buildings. Seizing this opportunity through an ambitious national energy efficiency target above 1%, supported by an aggressive policy in buildings, can help to provide Europe with an energy and climate secure future that also supports jobs and growth. Failing to take this opportunity could leave Europe with a dirty, insecure and energy expensive future.

For more information on the potential in buildings and the report into best practice in the building sector, please visit [www.eurima.org](http://www.eurima.org).