



**EUROPEAN COMMISSION**

DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT

DIRECTORATE D - New and Renewable Energy Sources, Energy Efficiency & Innovation  
**Energy Efficiency**

**Background Information Paper for the  
Public Consultation on the  
Evaluation and Revision of the  
Action Plan for Energy Efficiency (COM (2006) 545)**

**Note:**

**This background paper is being circulated for consultation to all parties concerned by the Action Plan for Energy Efficiency (EEAP).**

**The sole purpose of the consultation is to contribute to the debate, collect relevant information and help the Commission develop its thinking in this area.**

**This document does not necessarily reflect the views of the Commission of the European Communities, and should not be interpreted as a commitment by the Commission to any official initiative in this area.**

**Parties concerned are invited to submit their comments no later than  
3 August 2009 by means of an online questionnaire, available at:**

**[http://ec.europa.eu/energy/efficiency/consultations/2009\\_08\\_03\\_eeap\\_en.htm](http://ec.europa.eu/energy/efficiency/consultations/2009_08_03_eeap_en.htm)**

## 1. INTRODUCTION

The European Community aims to promote energy efficiency and energy saving as it is the most cost-effective way of reducing energy consumption while maintaining an equivalent level of economic activity. This supports broader Community objectives in the areas of security of supply, climate change mitigation and improving competitiveness.

On 19 October 2006 the Commission adopted the Action Plan for Energy Efficiency: Realising the Potential (EEAP)<sup>1</sup>. It gave an outline for a coherent framework of legislation, policies and measures with a view to save a substantial part of the 20% of EU annual primary energy consumption by 2020. It proposed a selection of cost-effective energy efficiency improvement initiatives to be put in place and implemented until 2012.

As announced in the Plan, the Commission will evaluate it in 2009 and prepare a revised Action Plan, as requested by the European Council.

This document initiates the Public Consultation that precedes the preparation of the revised Plan and allows stakeholders and interested parties to express their views and opinions on issues they believe should be covered by the new *Action Plan for Energy Efficiency*.

## 2. THE ACTION PLAN FOR ENERGY EFFICIENCY AND EU POLICY OBJECTIVES

The full implementation of the EEAP can offer significant reductions in energy consumption and is therefore an important tool towards achieving the ambitious 20/20/20% targets for energy consumption and greenhouse gas emission reductions, and an increased share of renewables by 2020, as endorsed by the Heads of State and Governments during the spring 2007 European Council<sup>2</sup>.

The EEAP will lead to achieving the above objectives in a cost-effective manner as it will:

- (i) increase independence from energy imports which will contribute to the EU security of supply objectives;
- (ii) contribute to EU economic growth and job creation;
- (iii) contribute to the reduction of greenhouse gas emissions and of the harmful impact of energy generation on the environment; and
- (iv) improve living conditions and comfort for citizens.

The implementation of actions and measures of the Action Plan sector is therefore of prime importance for realizing the strategic objectives of the European Energy Policy.

Moreover, on the basis of Directive 2006/32/EC on energy end-use efficiency and energy services, each EU Member State has prepared its National Energy Efficiency Action Plan which describes the energy efficiency improvement measures planned at national level to achieve the energy savings target of the directive, to be reached by way of energy services and other energy efficiency improvement measures. The Commission is currently assessing

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<sup>1</sup> COM(2006) 545 final.

<sup>2</sup> 7224/1/07, REV 1.

these plans. A Commission staff working document is to be published in mid-2009 and will present the results of this assessment. The national Plans are expected to also contribute significantly to the EU's energy saving targets and are complementary to the EEAP.

The EEAP and the National Plans are two of the five pillars to the EU's specific energy efficiency policy. The other three pillars are i) the legal framework notably for the building sector and energy consuming products, ii) flanking policy instruments such as targeted financing and the provision of information and networks, and iii) international collaboration. The Commission stresses that the full implementation and enforcement of the existing and future regulatory frameworks is essential and the Commission will continue to pursue - through legal means - proper transposition and application of Community law affecting energy efficiency.

### **3. MAIN ELEMENTS OF THE ACTION PLAN FOR ENERGY EFFICIENCY**

The Action Plan outlines a framework of policies and measures with a view to intensify the process of realising the over 20% estimated savings potential in EU annual primary energy consumption by 2020. The Plan lists a range of cost-effective measures proposing priority actions to be initiated immediately, and others to be initiated over the Plan's implementation period.

The Action Plan intends to mobilise the general public and policy-makers at all levels of government, together with market actors, and to provide EU citizens with the globally most energy-efficient infrastructure, buildings, appliances, processes, transport means and energy systems. Given the importance of the human factor in reducing energy consumption, the Plan also encourages consumers to use energy in the most rational manner possible as energy efficiency is also about informed choice by individuals.

The current EEAP identifies six key areas with the highest potential for energy saving:

- energy performance requirements for products, buildings and services
- energy transformation
- transport
- financing and pricing
- energy behaviour
- international partnerships

The current Plan also proposes 85 actions and measures to be taken at EU and national level. Among them, ten priority actions have been identified:

- appliance and equipment labelling and minimum energy performance standards
- adoption of building performance requirements and very low energy buildings
- making power generation and distribution more efficient
- achieving fuel efficiency of cars
- facilitating appropriate financing of energy efficiency investments for SME's and Energy Services Companies

- coherent use of taxation
- energy efficiency in built-up areas
- raising energy efficiency awareness
- fostering energy efficiency worldwide
- spurring energy efficiency in the new Member States

#### **4. CURRENT IMPLEMENTATION OF THE ACTION PLAN FOR ENERGY EFFICIENCY**

The implementation of the Action Plan is ongoing and will continue till 2012. The measures set forth in the Action Plan and its annex are expected to produce effects between 2006 and 2012 and many of them already between 2006 and 2009. That is why the mid-term review takes place this year, during the implementation period of the Action Plan.

One third of the actions of the Action Plan have been completed. The remainder are ongoing and still need active commitment both at EU and national level.

#### **5. WHY THE ACTION PLAN FOR ENERGY EFFICIENCY NEEDS EVALUATION AND REVISION?**

There are strong indications that with on-going actions the EU will not be able to reach its saving objective for 2020. In its Communication 'Energy efficiency: delivering the 20% target' (COM(2008) 772 final), the Commission provided a quantitative evaluation of the expected impact of specific energy efficiency legislation and measures when fully implemented. First hand information on the involvement and the implementation as well as other indicators suggested that the energy saving potential is not being realised fast enough: they would achieve energy savings of about 13% by 2020 if properly implemented by Member States. Even if this represents a major achievement, it falls short of what is needed. For this reason, all pillars of the EU's energy efficiency policy - including the EEAP - need to be reinforced.

Recent studies indicate that the opportunities for energy savings are significant: the estimated energy consumption reduction potential in 2020 is 19% for industry, 20% for transport and 30% for the households and services sector.<sup>3</sup>

There are a number of reasons why our energy saving potential is not exploited to the full:

- Energy saving and efficiency is by its nature a result from numerous small actions at the final consumption level.
- The Member States are formally implementing the current EU legislation. However, more needs to be done to reap all benefits available.

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<sup>3</sup> Study on Energy Savings Potentials in EU Member States, Candidate Countries and EEA Countries. Fraunhofer ISI *et al*; preliminary results.

- The diversity of the 27 Member States is even more evident on energy efficiency policies than in other energy policy issues. The climatic conditions, consumers' possibilities to act, economic circumstances vary from one corner of Europe to another.
- Energy saving actions are needed at all levels of government including, but not only, the EU level.
- Consumers, companies and households are the final decision makers. Consumer awareness on the benefits of energy saving, though on the increase, is still too low. In parallel, the political decision makers are not eager to touch upon delicate behaviour-related issues.
- The financing of the energy saving investments is complex because of the small scale of the individual actions. Unlike other areas, such as renewable energy generation and transport, financial incentives for households have been rather limited. Further, even if funding is available, the missing organisational and administrative structures have been preventing its use.
- Energy prices and the environmental benefits have so far been the main drivers for energy saving. However, price do not yet fully internalise the environmental, social and economic benefits of higher energy efficiency (esp. there are benefits from energy security not valued on markets).
- Job creation benefits are equally important to justify new activities in the deepening economic downturn in Europe. Concerns about security of supply add to the urgency of action.
- A specific problem in energy saving is target setting. A concrete, verified target has proved to be successful in many sector policies. In energy saving, the results are difficult to measure.
- Energy efficiency in energy production and supply: a dynamic market for energy services has not yet fully developed, despite incentives created by the energy services directive for utilities to invest in energy efficiency and to promote an energy efficient behaviour of their customers
- In many Member States architects, builders and installers have not received training or have not certified their skills in order to implement energy efficiency practices.

The above list is not exhaustive but provides indications and avenues on how more energy can be saved and the actions to be taken to make that happen. Of course, additional challenges and avenues can be identified and proposed.

In its Energy Efficiency Package of November 2008, the Commission presented the overall policy lines and first rough estimations on the expected impacts of the current policy portfolio. In this context, the Commission also made a number of proposals to strengthen the legal framework for energy efficiency.<sup>4</sup> The impact assessments that accompany these

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<sup>4</sup> See the European Commission's website for details.

proposals show the significant potential impact thereof and will serve as an important source of information for the evaluation of the EEAP.

## **6. ISSUES FOR CONSIDERATION IN THE CONTEXT OF THE PREPARATION OF A NEW *ENERGY EFFICIENCY ACTION PLAN***

A brief but not exhaustive overview of some of the challenges arising out of implementation of the present Action Plan is set out in the previous sections. The new EEAP will start from analysis of the successes and failures of the current one. The Commission will carry out this evaluation in particular on the basis of the observations and comments made by third parties under this Public Consultation.

The list of priority issues that will be discussed in the new Action Plan for Energy Efficiency are the following:

- (1) The existing Energy Performance of Buildings Directive (2002/91/EC) and its recast, as well as other relevant legal acts, go a long way for introducing ambitious but realizable energy performance requirements for buildings and increase consumers' awareness. However, much more can be done. For example, measures on how to stimulate rapid uptake of training of architects, builders and installers need to be considered. Further discussion is also needed on whether EU should move towards fixing agreed date for all new build to be very low or zero energy and carbon and adopt a roadmap towards this.
- (2) Sustainable transport and energy consumption of cars is currently addressed in the Greening transport package<sup>5</sup>, the Regulation on Emission performance standards for new passenger cars<sup>6</sup>, the proposed Directive on labelling of tyres<sup>7</sup>, the proposal on greening car taxation<sup>8</sup> and the 'Green Cars' initiative. The Commission is also working on a proposal on light commercial vehicles<sup>9</sup> and a revision of CO<sub>2</sub>/cars labelling. Comments are needed as to whether additional measures need to be undertaken.
- (3) The Eco-Design (2005/32/EC) and Energy Labelling (92/75/EEC) framework Directives are significant steps with regard to product policy. A number of implementing measures have been already or are soon to be adopted and the ongoing amendments of the two Directives provide for their more ambitious and wider application. Suggestions should be made as to how these can be taken forward in order to increase their impact.
- (4) Lack of access to appropriate financing is an important bottleneck for making a real step forward in our ambitions on energy saving. Innovative financing instruments are now being developed by institutions such as EIB, EBRD, national promotional banks and private banks in particular in association with the Covenant of Majors initiative. Demonstration projects of the application of

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<sup>5</sup> COM(2008) 433

<sup>6</sup> COM(2007) 0856

<sup>7</sup> COM(2008) 0779

<sup>8</sup> COM(2005) 261

<sup>9</sup> [http://ec.europa.eu/environment/air/transport/co2/co2\\_home.htm](http://ec.europa.eu/environment/air/transport/co2/co2_home.htm)

energy efficient technologies in a competitive manner, e.g. 'smart cities', could also be considered. Comments on the best mechanisms and ways forward are needed.

- (5) Furthermore, well targeted fiscal incentives could be important drivers for energy efficiency investments and innovation. The EU has already taken measures to make it easy for Member States to allow for more advantageous VAT rates for some labour-intensive services, such as renovation and repairing of private dwellings and is considering further how energy taxation and other taxes can play a role in synergy with the EU ETS to achieve EU climate and energy objectives steps on products and other services. Comments on whether additional measures need to be undertaken to change consumption patterns are needed.
- (6) Education and training on energy efficiency are vital ingredients of a successful energy efficiency policy. These were already mentioned above regarding buildings but the challenge is much broader. Measures on ways to catalyze training at school and university level need to be identified and discussed.
- (7) Awareness of final consumers on energy savings possibilities and their benefits is still low. This in particular concerns domestic consumers and SMEs. Some actions to target different groups are already undertaken at national and EU level. For example, the Sustainable Energy Europe Campaign is focusing on grouping social stakeholders and market actors to undertake joint action. Further consideration of the appropriate level and means to better engage these groups is needed.
- (8) Furthermore, small and medium size companies (SMEs) are the backbone of EU's economy as they make up more than 99% of all firms and employ 67% of the EU's workforce. Consideration should be given as to the best means to provide them with more support for implementing energy saving measures.
- (9) Public sector should lead by providing best practice examples. Positive progresses have been made under the voluntary Green public procurement policy and the proposals for mandatory procurement of energy efficient products in the framework of the recast of the Energy Labelling Directive. The leading role of public authorities has also been emphasized under the recast of Energy Performance of Buildings Directive proposal but further measures should be envisaged.
- (10) The role of energy utilities can be substantial but at present they have insufficiently developed a market for energy efficiency services. Ways to create adequate framework conditions for this market to take-up in a liberalized electricity and natural gas markets should be sought, possibly in cooperation with the Regulators. Further questions on how these framework conditions can best be created, for example through possible EU-wide white certificate scheme, would also need to be considered.
- (11) Energy efficiency offers significant market opportunities. Measures to provide incentives for companies to enter these markets need to be considered, in particularly as regards SMEs.

- (12) The Directive on energy end-use efficiency and energy services (2006/32/EC) already provides for national indicative energy savings target which differs from the ones for renewables and for greenhouse gas emissions. Giving the increasing priority for ensuring that investment in energy consumption reduction are made in all Member States the question arises as to whether it is the time now to move towards binding "energy efficiency" targets.
- (13) Measurement and verification of energy savings is a challenging but very important aspect for monitoring the results of any measures introduced at national and EU level. Some targeted measures are being implemented but whether a more systematic and harmonized approach is needed should be considered.
- (14) Energy efficiency should become a vector of international co-operation and a subject of international financing programmes, in particular regarding EU neighbouring countries. Measures to this effect need to be identified and discussed.

Specific questions highlighting these issues are included in the online questionnaire, available at: [http://ec.europa.eu/yourvoice/index\\_en.htm](http://ec.europa.eu/yourvoice/index_en.htm)