



BING comments
on the public consultation on the Evaluation and Revision of the
Action Plan for Energy Efficiency (COM(2006)545)

The Action Plan for Energy Efficiency of 2006 identified 6 key areas and proposed 10 priority actions (out of a total of 85 actions and measures). Which of the actions and measures of the 2006 EEAP should be continued / redefined / discontinued, and why?

Priority Action 1 Appliance and equipment labelling and minimum energy performance standards

BING fully supports further measures as far as energy-using products are concerned. On the other hand, it would be inappropriate to develop minimum energy performance standards for intermediary products such as most non-energy using construction products. As a matter of example, the life time energy savings potential of insulation materials can only be assessed at the level of the building.

Priority Action 2 Building performance requirements and very low energy buildings

Buildings account for over 40% of primary energy use and, at the same time, offer the highest cost-efficient savings potential. BING therefore supports an ambitious EPBD recast and calls on the Commission to implement the proposed measures in the action plan such as

- Defining minimum performance requirements for new and renovated buildings
- Developing EU strategy for deployment of very low energy houses
- Commission setting an example with its own buildings

Priority Action 3 Making power generation and distribution more efficient

Further actions are supported to reduce transmission losses. Stimulating decentralised energy generation could be one of the solutions.

Priority Action 4 Achieving fuel efficiency of cars

Comprehensive legislation has been adopted over the past years or is in the adoption process. Additional actions may not be appropriate at this stage.

Priority Action 5 Facilitating appropriate financing of energy efficiency investments for small and medium enterprises and Energy Service Companies

These actions should be continued as financing is still a major problem and the ESCO sector is still in its infancy. The market is not functioning properly and more actions need to be taken to remove barriers and develop its full potential. It will be particularly important to build bridges between existing funds at all levels and organisations seeking funding.

BING does not support the development of a European white certificate system (see below for reasons).

Priority Action 6 Spurring energy efficiency in the new Member States

BING supports strong action in this area. As financing opportunities (and in particular bank loans) are even less accessible in the new Member States, Europe should support the establishment of energy efficiency funds, possibly financed through Structural Funds.

Furthermore, remedies and incentives need to be given to address the issue of single-family ownership in large residential blocks.

Priority Action 7 A coherent use of taxation

The use of taxation is far from coherent today. Although EU decisions in tax matters are usually difficult to achieve, more actions need to be taken. A coherent tax policy must overcome the contradiction between the possibility of applying reduced VAT rates for energy consumption and the obligation to require full VAT rates for energy saving products and services. In practice, one third of the Member States apply lower VAT rates to energy consumption than to energy conservation.

Priority Action 8 Raising energy efficiency awareness

Many of the proposed actions were not implemented or their impact was very small in practice. Selected and well targeted actions should continue taking full account of subsidiarity. One area in which the EU has the power to raise public awareness is the energy performance certificate introduced by the EPBD. They should always be displayed in all buildings frequently visited by the public.

Priority Action 9 Energy efficiency in built-up areas

The Covenant of Mayors is an excellent initiative and should be continued. The effective implementation of the commitments taken by mayors should be monitored.

Priority Action 10 Foster energy efficiency worldwide

So far, progress is very limited. Efforts need to be stepped up under the new EEAP.

Which new challenges have emerged since 2006 and should be addressed in the new Action Plan for Energy Efficiency?

Since the adoption of the original action plan, a global economic crisis has emerged which is severely affecting the European economy. In particular, the construction industry has been hit very hard. The review of the Action Plan should both highlight and promote the job-creation potential of energy efficiency measures in the building sector. The impact assessment to the EPBD recast proposal contains some job creation figures. However, the Commission should undertake a more comprehensive study to quantify the employment impact of a robust and ambitious energy efficiency policy, both for direct and indirect employment. A similar study for the renewable energy targets has just been completed and should be replicated for the energy efficiency market.

A second challenge which has grown steadily in importance since 2006 is that of energy security. Europe currently imports 50% of energy consumed; this is set to rise if the status quo is maintained. The latest gas crisis of last winter again highlighted Europe's vulnerability to foreign energy dependence. A true energy security policy is one that mitigates dependency and promotes home-grown solutions. To this end, the reviewed Action Plan should include a stronger energy security element, with energy efficiency becoming the corner-stone of Europe's efforts to ensure that the energy needs of Europe are met continuously.

A third challenge is that of more ambitious climate change targets. Europe is expected to lead the call for raising the 2020 targets from 20% to 30% at the Copenhagen climate summit this December. In July 2009, G8 leaders made a first commitment to reducing carbon emissions by at least 50% by 2050. The IPCC calculates that limiting a temperature increase to 2°C will necessitate an 80% decrease in greenhouse gas emissions by 2050. It is clear that, even if the existing measures were fully implemented, the current 2020 targets cannot be reached, let alone the 2050 targets. To achieve even higher targets will require a much-accelerated programme for energy efficiency. This review should act as the 2020 milestone for reaching the 80% reduction by 2050 goal.

How do you assess the need for moving towards a requirement that all new buildings have low or zero energy consumption and carbon emissions after certain date?

BING fully supports the Parliament's intention to introduce a binding pathway towards low and zero energy houses in the EPBD for the following reasons:

- The EPBD is the right legal instrument to address this issue.
- The products, technologies and the design know-how are already available and a number of Member States (D, DK, F, FIN, IRL, NL, UK) have adopted similar roadmaps.
- Very low energy buildings, in particular, offer short pay-back periods and there is no serious reason why they should not become the rule in the near future. With a wider market uptake, economies of scale will lead to lower prices.
- Both industry and users need a long-term vision to prepare to new requirements.

Looking at amendments 60 and 102 of the European Parliament on the recast EPBD, existing national roadmaps, and the short pay-back periods for very low energy buildings, it is logical to set an early target date for this group of new buildings. Due to the resistance of certain countries, it may however be difficult to agree on the roadmap as proposed by the European Parliament.

BING could therefore support a requirement according to which all new buildings must be at least very low energy buildings from 2015 onwards. As regards net zero energy buildings, the target date should not be moved beyond 2020. This would leave another decade of preparation.

It would however be short-sighted to exclusively focus on new buildings. Given that over 50% of that stock will still be standing in 2050 and that an 80 % CO₂ reduction needs to be achieved by 2050, clear requirements for upgrading existing buildings are of the utmost importance.

How do you assess the need for introducing an EU level measures concerning training of architects, builders and installers?

Training and qualification play a vital role in promoting energy efficiency. Architects must be able and motivated to design efficient buildings. Contractors and installers must be able to execute these works and provide energy efficiency advice and implement such solutions in the case of renovation works.

BING is however not fully convinced that EU level measures could provide the right answers for the following reasons:

- National training and qualification systems vary significantly between Member States (vocational schools versus on-the job-training, diplomas versus certification schemes, different scope of activity per building trade etc.);
- Subsidiarity principle applying to vocational training matters;
- Differences in current training levels and differences in culture.

Still, BING could see a role for the EU in spreading best practice and working towards mutual recognition of training programmes across Europe.

The Eco-Design (2005/32/EC) and Energy Labelling (92/75/EEC) framework Directives are significant steps as 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. Do you consider that additional measures can be taken forward in order to increase the impact of these instruments?

BING strongly opposes eco-design and energy labelling requirements for intermediary products such as most non energy-using construction products.

The energy and environmental performance of construction products can only be assessed at the level of the functional unit, which is the building. Neither of the two directives provides a methodology as to how this could be achieved. The absence of such a methodology may distort competition, confuse markets and have a negative effect on market transparency. Even worse, the indicators would not provide a methodology to identify the most sustainable solution for a building over its whole life cycle. All requirements regarding buildings and building components should be addressed in the EPBD. The two following examples demonstrate the influence of the building level on the environmental performance of construction products.

Example 1: Impact of insulation materials on the building footprint

Insulation material B has a thermal conductivity which is twice as high as that of insulant A. Hence, in order to achieve the same thermal resistance for an outside wall, the insulation layer using insulant B needs to be twice as thick. For a low energy building, the difference in thickness can realistically be estimated at 15 cm. If the overall façade length of the building is 60m, the buildings footprint increases by 9.0 m² when insulant B is used. 1,000 such buildings would occupy 9,000 m² of additional land with all the financial and environmental consequences.

Example 2: Impact of insulation materials on overall material use

The above example is developed further. Insulant B has not only a higher thermal conductivity but is also much heavier. This will lead to longer and more solid fixing devices and thicker outer walls which larger window boards. It will also require a larger roof and longer and larger studs. In particular in the case of flat roofs, heavier insulation layers may require a stronger roof structure with larger beams, stronger structural walls and foundations. In other words, when insulant B is used, the overall material use for the whole building will be much higher when compared to insulant A.

As regards energy labelling, BING anticipates similar problems as with eco-design. Again, it would be impossible to quantify energy savings without the possibility to assess the construction product in its end-use application.

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 energy efficient technologies in a competitive manner, e.g. 'smart cities', could also be considered. What best mechanisms and ways forward where the EU value added can be substantial would you recommend?

A large source of funding for energy efficiency is from the European Investment Bank (EIB). However, there is a mismatch of scale between the level of funding which the EIB traditionally operates and the level needed to incentivise individual building owners to upgrade their property. Also, the local banks to which the EIB lends do not share the EIB policy and do not find that lending for local energy efficiency projects is attractive. The Commission should investigate the reasons for such barriers and offer suggestions for removing them.

Energy Performance Contracting (EPC) enables private and public sector organisations to make major improvements to their building estates and resulting large reductions in energy and carbon emissions without the need to provide up-front capital or impact existing budgets.

Like most energy efficiency projects, the majority of ESCOs is also small in size. However, SMEs find it particularly difficult to provide the up-front financing required for EPC. The EIB should lend money to specialised national energy efficiency funds which provide up-front financing solutions to ESCOs and in particular SMEs. Alternatively, these funds could provide loan guarantees to facilitate lending from private banks. The experience of the KfW in financing EPC should be used.

Well targeted fiscal incentives could be a driver 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. What should these measures be?

The use of taxation is far from coherent today. Although, EU decisions in tax matters are usually difficult to achieve, more actions need to be taken. A coherent tax policy must overcome the contradiction between the possibility of applying reduced VAT rates for energy consumption and the obligation to require full VAT rates for energy saving products and services. In practice, one third of the Member States apply lower VAT rates to energy consumption than to energy conservation.

Proposed actions:

- Presenting a Commission proposal allowing all Member States to apply the lowest VAT rate for energy saving products and services in buildings.
- Extending the possibility to apply reduced VAT rates for the renovation and repairing of private dwellings to all dwellings, commercial and industrial buildings as well as new build. All of these activities are labour-intensive.

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. What should these measures be?

Training and qualification play a vital role in promoting energy efficiency. Architects must be able and motivated to design efficient buildings. Contractors and installers must be able to execute these works and provide energy efficiency advice and implement such solutions in the case of renovation works.

BING is however not fully convinced that EU level measures could provide the right answers for the following reasons:

- National training and qualification systems vary significantly between Member States (vocational schools versus on-the job-training, diplomas versus certification schemes, different scope of activity per building trade etc.);
- Subsidiarity principle applying to vocational training matters;
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Still, BING could see a role for the EU in spreading best practice and working towards mutual recognition of training programmes across Europe.

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. Which would be the content of such a communication strategy as regards each of the target groups concerned?

Communication is valuable and should continue in whatever way possible. IEE projects, for example, could be used more to roll out communication projects across the EU. It is vital that all synergies for co-operation, both formal and informal, are exploited. It is important to establish not just examples, but role models with good track records in each field who can act as ambassadors to enthuse their peers.

However, it should be recognised that communication strategies can often bring limited achievements. The lighting industry is a perfect example of this. Despite spending billions on communication campaigns to compel consumers to buy more energy efficient light-bulbs voluntarily, a market penetration of just 20% was seen. As a result, the EU has now banned all incandescent light-bulbs. When it comes to energy efficiency in buildings, ambitious mandatory targets and measures are imperative.

Furthermore, campaigns need to be adapted to the specific cultural context of each country. One-size fits-all solutions will not work.

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 but may need more support for implementing energy saving measures. What should these measures be?

Most SMEs do not have a person in charge of energy efficiency. The responsibility lies with the owner who is too busy to look into this. Consequently, SMEs are normally not aware of their energy savings potentials. Furthermore, when it comes to investments in efficiency, the expense is in competition with investments in new products / services or market development. In most cases, the decision will not be taken in favour of energy efficiency. It should also be noted that the expenses for energy in the total cost structure are below 5% in most SMEs and hence not a priority area.

Actions:

- A) SMEs must be made aware of the savings potential through reliable energy audits (office buildings and production facilities) partially using EPBD standards or the future standards on investment grade audits. The audits should be subsidised or tax deductible.
- B) SMEs need support in the implementation of cost-effective measures so that they do not negatively affect the capacity to invest in products / markets. Energy services (including performance contracting) should therefore be stimulated and third-party financing / leasing schemes facilitated.

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 EPBD proposal. What further actions would you suggest at EU level?

A change in attitude is needed regarding public procurement practices for energy efficiency. It is about buying energy saving, not products or services. Public authorities need help in changing mindsets to this way of thinking.

The public sector should be mandated to implement all cost-optimal recommendations received with an energy performance certificate, during the lifetime of that certificate.

The public sector in each Member State needs to make an overall and systematic plan to renovate the public sector building stock. If resources are pooled to renovate multiple buildings at the same time, higher cost-savings can be achieved. Scaling up in this way will not only bring the best economies of scale, but also of knowledge and best practice. The National Energy Efficiency Action Plans could be used as the tool to outline these plans.

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 liberalized electricity and natural gas markets should be sought, possibly in cooperation with the Regulators. What should these measures be?

In the foreseeable future, the core business of energy utilities is and remains generating and selling energy. Given the huge investments in power stations, their long service life and the profitability of this activity, a full change in business philosophy seems unlikely.

If energy savings targets are imposed on former utilities, as done in the UK, independent energy efficiency service providers should be able to contribute to meeting these targets in the same way as the service branches of the utilities. Ways must be found to prevent utilities from imposing certain solutions although more ambitious and cost-effective options exist. Only a large independent energy efficiency services sector will stimulate competition and hence innovative and less costly solutions.

As a matter of policy, energy companies should not be permitted to do anything which hinders the development, or impedes the delivery of energy efficiency. In particular Article 6 of the Energy End-use and Energy Services Directive needs to be fully enforced, and then strengthened.

Energy efficiency offers significant market opportunities. Do you consider that specific measures at EU level should be adopted to provide incentives for companies to enter these markets, in particularly as regards SMEs? What should these measures be?

First of all, it must be ensured that the companies that control the energy supply market do not obtain a dominating position in the energy efficiency market. This would seriously hamper the development of a wider sector of small and large energy efficiency service providers able to offer tailor-made solutions to all categories of end-users.

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As outlined above, energy services offer a huge cost-saving potential. However, smaller service providers are usually not able to provide up-front financing solutions. These should be provided either by state funds directly or through bank loans (partially) guaranteed by state funds (see KfW scheme or new Walloon and Brussels scheme).

In relation to the above question do you consider that there is a need for the introduction of an EU-wide White Certificate scheme?

Whilst BING recognises that a well designed white certificate system could provide a real impetus to energy efficiency, the establishment of a European scheme is not supported.

Reasons:

- A) The existing schemes (IT, F, UK) have not demonstrated that they deliver higher annual efficiency gains when compared to other national approaches. More research is needed to assess their performance.
- B) There is a risk that the European scheme would repeat national shortcomings. If for example, the utility can, but is not obliged to buy white certificates generated by independent ESCOs, then the ESCO will find it difficult to calculate the cost of its services. In such cases, the ESCO runs a higher risk than the service branches of the utilities which can be sure of selling their certificates.
- C) A European-wide scheme would divert investments from advanced countries to “low efficiency” countries with more low-hanging fruits. For example, a Danish utility might be tempted to purchase white certificates (or implement measures) in Romania, as the cost would be lower there. Whilst it appears logical to look first at low hanging fruits, it could lead to significant tensions in the market, a loss of know-how in the developed countries and difficulties for developed countries to meet their own savings targets.

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 the greenhouse gas emissions. Giving the increasing priority for ensuring that investment in energy consumption reduction are made in all Member States do you consider that a move towards binding targets is needed? How should these binding targets be set up and at what level?

There is a need for an overall 20 % target for energy efficiency to be made mandatory. This should be underpinned by an understood and clear definition of “energy efficiency” and the development of an objective method for measuring and quantifying energy efficiency. The binding overall target needs to be supplemented by secondary level targets in specific sectors.

An overall mandatory target for 2050 should also be set for the buildings sector.

BING appreciates that there remain legitimate concerns regarding the reliability of existing data in all Member States for establishing baselines to measure precise energy intensity. Therefore, there is a need for more practical sector specific targets to be set. For buildings, for example, a target could be set that would see x% of existing buildings renovated to a high standard in each Member State every year until 2020/2030/2050.

Measurement and verification of energy savings is an essential aspect for monitoring the results of any measures introduced at national and EU level. Although some targeted measures are being implemented, do you consider that more systematic and harmonized approach at EU level is needed? What should these measures be?

BING believes that a systematic and harmonised EU approach is required in order to ensure the comparability of energy savings claims.

The ongoing CEN standardisation activities are a first step forward. The reliability of the standardised methods needs to be tested in practice involving different countries and energy saving measures. If required, the methods need to be refined.

To provide consistency in approach and confidence for organisations implementing energy saving measures, a standard protocol should be supported and implemented for the measurement and verification of energy savings measures.

Energy efficiency should become a vector of international co-operation and a subject of international financing programmes, in particular regarding EU neighbouring countries. What should these measures be?

The international co-operation in this area has not shown notable results up until now. Efforts need to be stepped up to achieve progress for the following reasons:

- Energy efficiency is a major aspect in fighting climate change and this has to be tackled on a global level.
- Before the savings become effective, energy efficiency requires up-front investments which may negatively affect the competitiveness of the European economy if third countries are not implementing similar measures.
- Ambitious European regulations and standards may be taken over by third countries hence opening new markets for European industry.

The EU should strengthen its efforts to “export” European regulations, schemes (such as the energy performance certificate) and standards (such as the EPBD standards) to third countries.

Furthermore, the EU should provide financing for energy efficiency funds in third countries which could support ESCOs or offer reduced interest loans / loan guarantees to investors in energy efficiency.

Brussels, 16 July 2009