

5Cs for Energy Efficiency

The cornerstone of a viable Energy Policy for Europe

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5Cs for Energy Efficiency The cornerstone of a viable Energy Policy for Europe

In the view of the members of the Energy Efficiency Industrial Forum (EEIF), Europe is not on track to meet its 2020 energy savings target. This is despite the fact that cost-effective and marketable energy efficiency technologies exist today. Effective and innovative policies are vital to achieving this aim.

We urge the European Commission to focus on the following five key factors, the "5 Cs", as essential tools to realise the 20/20/20 targets through a strong, coherent and clearly communicated policy on energy efficiency. The following high-level proposals aim to maximise the effectiveness of the Commission's current portfolio of energy efficiency policies, while moving to close the gap to 2020.

Conviction

The creation of a sound legislative environment to promote Energy Efficiency requires leadership at the highest political level. It also requires sufficient Commission resources (i.e. manpower and expertise).

Cash

Financing is the tool to enable and accelerate the transition to an energyefficient economy and to foster a change of behaviour in citizens.

Compliance

This is a key aspect to provide a level economic playing field and to ensure the effective implementation of existing policy.

Communication

Dialogue aimed at citizens, policy makers and professionals so that they receive the right message on the pervasiveness and power of energy efficiency.

Compulsory targets

A mandatory energy savings target is needed to direct policy and define clear goals for policy makers and industry. This will guide Member States to focus attention on the speed of diffusion of technologies and services for energy efficiency.

Our main recommendations

Conviction	Energy efficiency to be a key element of the new Energy Action Plan. The next revision of the EU Energy Efficiency Action Plan should be presented by the end of 2010 and should include additional actions addressing: the non-financial barriers to energy efficiency; the gap to 20% energy saving; and mandatory actions for energy distributors and suppliers.
Cash	Available funds from the recovery package to be immediately reallocated to energy efficiency initiatives. Existing funds and ETS revenues to be prioritised for cost-effective energy efficiency financing and technology diffusion which recognise diverse funding needs.
Compliance	Prompt Commission action on implementation issues in Member States. Stricter enforcement timescale. Thorough scrutiny of implementation by Commission and legal action if necessary.
Communication	Commission communication plan covering 2010-2014 to give full visibility to policy intention and progress on energy efficiency.
Compulsory targets	Inclusion of a binding energy saving target in the revised Energy Efficiency Action Plan.

The spirit of our recommendations

The industries of the **Energy Efficiency Industrial Forum** are fully committed to the continued support of the European Union in its energy and climate goals. Missing the 2020 energy savings target would fundamentally jeopardise Europe's energy and climate targets for both 2020 and 2050. It would also significantly increase their cost.

We want to convey to the Commission and, through it, to Member States and other stakeholders, the message that **political leadership**, **binding objectives** and **accelerated action** are a must to secure the vital 2020 objective. We invite the Commission to join with industry and civil society in a dedicated High Level Task Force to discuss and decide on solutions to this modern challenge to reduce energy needs across Europe.

The nature of the "5 Cs"

The policies and proposals that we have chosen to highlight are broad and overarching. They are cross-sectoral in nature and highlight the shared nature of much of what needs to be done to complete the Commission's policy portfolio. Specific sectors will, nevertheless, have additional or individual requirements which may necessitate some variation to policies or bespoke solutions.

Conviction

The creation of sound legislation requires both leadership at the highest political levels and sufficient manpower and expertise so that words can be backed up by concrete actions. In other words "conviction", from early stages through to finalisation, is needed to drive an effective energy efficiency policy.

While the European Union's policies have demonstrated its concern for energy efficiency there is no real championing of the energy Efficiency case. Energy Efficiency was not made part of the original SET plan and is still not included as a specific sector. No funds were targeted to energy efficiency in the first round of the recovery package, even though it clearly had a compelling case. None of the ETS new entrants quota has been given to energy efficiency.

Current Position

Energy Action Plan EAP

The EU's 2006 Energy Efficiency Action Plan sets out the Commission's strategy and states that "a major mid-term review will take place in 2009 during the implementation of the Action Plan". This review has not yet occurred. Of even greater concern, a large number of the actions identified as necessary in 2006 have still not been implemented in 2010 and the general low level of implementation of the EEAP 2006 signals a poor level of commitment by the Commission as a whole on energy efficiency. It is vital that this review takes place as soon as possible.

The Commission is currently working on a large number of energy efficiency measures, each requiring a detailed technical analysis and an elaborate legislative process. More Commission resources, at all levels, are needed to ensure that current bottlenecks, at the level of technical analyses, policy development, Member State and stakeholder discussions, inter-service consultations, and Parliamentary and Council proposals are addressed and that there is no unnecessary delay in the implementation of measures.

- > In creating its Energy Action Plan the Commission should reinforce its position in the Third strategic Energy Review and make energy Efficiency the cornerstone. All future EU energy planning must work with a basic requirement that energy efficiency is one of the key criteria used in Europe's energy planning. It should consider the creation of a separate High Level Task Force on energy efficiency made up of industry, policy makers and civil society groups which would be charged with the important task of making recommendations on the co-ordination and implementation of the wide ranging and diverse set of initiatives required to move Europe to a high efficiency energy network by 2050.
- > The major mid-term review of the EU's 2006 Energy Efficiency Action Plan scheduled for 2009 must happen soon. Ideally such a review would include:
 - > A mandatory energy efficiency target;
 - Reinforcement and implementation of the 2006 plan, reflecting current priorities, including measures targeting transformation efficiency in the electricity sector;
 - > An ambitious buildings strategy with a focus on the refurbishment of existing buildings;
 - > A financing strategy for moving buildings and products to a very low energy level;
 - Promotion of Energy Service Contracting;
 - Evaluation of national White Certificate schemes (compatibility with other support schemes / legislation, rate of savings compared to other policy measures / lowest hanging fruits versus holistic approach etc.) to ascertain whether their further promotion is appropriate.
 - > Training and promotion of a new energy-efficient labour force.
- > Ways to enhance Commission resources should be explored. Two suggestions could be to:
 - Allocate more Commission staff to energy efficiency units. Currently, DG Energy has two energy efficiency units, totalling 20-30 staff. This level of staff is insufficient to handle the implementation of several large and complex directives, especially as each of these involves the development and adoption of a large number of implementing measures or technical standards. More Commission resources are needed for this important area, and particularly for legislative tasks. Re-allocation from within the Commission services would be a first option to increase staff levels.
 - Make more use of Member State experts. The Commission could supplement its staff by drawing on the knowledge of Member State government institutions or research establishments with staff experienced in the relevant sectors, in temporary assignments or by creating working groups, for example those already in place in the EPBD Concerted Action group, to develop implementing measures or standards. This has the dual advantage of avoiding bottlenecks in the legislative procedure and being able to draw on the best expertise available. The Commission could work closely with Member States or institutions driving forward a project or proposal, strengthening their role and resulting in a more expeditious process.

Cash

Finding optimal incentives, including the right subsidies, is important. Subsidy programmes must be targeted to ensure the highest rates of success. They must also be stable and predictable. Unlike stop-and-go subsidies, this would allow industry to plan optimally for market introduction of new technologies and transformation of their current product ranges.

The implementation of many energy-efficiency technologies can be done at costand environmentally optimal levels. Consumers and commercial end-users often under-invest in technologies that would save them, and society, substantial amounts of energy and money in the long term. Past studies have identified several barriers that have led to this under-investment; the availability of suitably priced financing is a recurring theme of these analyses.

Existing Policy Tools EuP/ErP & EPBD: Incentives for going beyond minimum standards

For a number of products for which energy labelling is in force, the market is driven not just by the minimum standards but also by the energy label. Supporting higher energy classes could drive the market even faster towards the most energy efficient products. It could also encourage market development and speed up transformation of the whole market towards higher efficiencies (including enabling the next level of minimum standards to be more ambitious). The same could apply to other energy-related products, such as windows, provided that an energy label is put in place quickly. It also applies to incentives for going beyond the minimum requirements under EPBD. This, for example, has been successfully implemented in Germany, where State bank KfW offers incentives to buildings going beyond the legal requirements for energy efficient retrofits of public buildings, dwellings and social housing, and for ecological new buildings. Other countries should consider similar incentives, through banks or other means and for a wider range of energy efficiency actions.

Structural funds: Linking structural funds to energy efficiency criteria

Currently only a small portion of structural funds are linked to energy efficiency criteria. This means, for example, that in order to receive financing, a new hospital wing would not need to upgrade its heating system to a cost-effective level. Requiring an energy audit and implementation of cost-effective measures as a requirement for receiving support, as is common practice for loans by the European Bank for Reconstruction and Development (EBRD), would result in significant energy savings, significant financial savings for the recipient of the funds and the country being assisted.

There is also significant scope to utilise Structural Funds strategically for energy efficient residential developments and energy efficiency improvements in distributed generation and distribution systems.

The Cohesion Fund currently enables some investment in urban renewal, including energy upgrades, but only within strictly defined boundaries. This effectively excludes most dwellings from this support. Opening up Structural Funds to a wider range of building and building system upgrades, especially in the form of preferential loans to private building owners, would facilitate a much stronger drive towards a greatly-needed upgrade on existing buildings, especially in the lesser-developed parts of the EU.

- Policy makers need, as a priority, to direct a higher proportion of EU funds directly to energy efficiency, for example via the EU recovery plan, ETS revenue spend, Structural Funds and other routes.
- > The process for channelling Structural Funds to energy efficient residential developments must be improved. The Commission, working with the European Investment Bank (EIB), needs to clearly identify new proposals to bridge the gap between large grants as provided via the Structural Funds and EIB loans and the small investments typically required in many energy efficiency projects. These could include:
 - Providing a structure to allow new intermediaries to accept and distribute EIB minimum lending amounts against standardised criteria specifically designed for local energy efficiency projects within scope;
 - Engaging the broader banking sector in energy efficiency investment through allocation of specific funds for lending, especially via dedicated revolving funds, backed by EIB loans and Structural Fund grants, for small energy efficiency investments;
 - Identifying qualified energy efficiency specialist intermediaries at the local level, and providing standardised tools for the assessment of investment projects.
- Structural Funds should be linked to energy efficiency criteria, so that supported building investments always include all cost-optimal energy efficiency measures.
- Member States should be encouraged to develop schemes that provide incentives to go beyond the minimum legal requirements for energy efficient measures e.g. for energy efficient retrofits of public buildings, dwellings and social housing, and for ecological new buildings.
- > The role of Energy Performance Contracts (EPCs) should be evaluated, and their application be made an integral part of implementing NEEAPs. The evaluation would need to address limitations around taxation and length of EPCs, and the lack of a standard protocol for the measurement and verification of energy efficiency from EPCs.
- > The Commission and Member states should explore options for supporting energy-efficient products and services. Financial support needs to be predictable, reliable and significant to have a lasting effect without disturbing the market. Funding mechanisms should be set up and targeted for the needs of the key sector segments. These could include:
 - Use of revenues from the auctioning of ETS emission rights to provide income for such funds;
 - Investigate existing and additional tax/fiscal policies as an incentive to adopt energy efficiency solutions;
 - Harmonising the Guarantee of Origin scheme of the CHP Directive with the CHP measurement process, to create a basis for trading of Guarantee of Origins in the EU;
 - Creating loan schemes to assist in the uptake of energy efficient measures, especially for buildings where upfront costs can be high and for new, highly efficient energy-using products. These loans could, over time, be repaid by the borrower in line with the energy savings made;
 - Finding new ways of supporting novel energy efficient products, including development subsidies and strategies such as collaborative procurement, where Member States could agree criteria for novel products that they intend to support or purchase in coming years, and invite manufacturers to develop and supply such products.
- > The Commission should ensure that all energy efficiency legislation is of sufficient clarity and sufficiently long duration to allow investors in energy efficiency to understand clearly the return on their investment.

Rigorous compliance and compliance checking, supported by enforcement action if needed, increases the chances of targets being achieved and promotes a level playing field and, therefore, genuine competition between industry players.

Existing Policy Tools EPBD

The Energy Performance of Buildings Directive includes requirements for Member States to implement improvements in building energy performance standards for new buildings and renovations, inspections of heating and cooling systems and energy performance certificates for buildings. However, compliance monitoring of requirements is underdeveloped. Few Member States systematically check whether new or renovated buildings actually meet the requirements of the standards.

EuP/ErP and labelling

Member States are required to check compliance and take enforcement action in cases of non-compliance of products covered by the Eco-design of Energy-using Energy-related Products Directive and the Energy Labelling Framework Directive. However, only a handful of Member States have implemented a comprehensive compliance-monitoring programme and very few have actually brought enforcement actions against the suppliers of non-complying products. Non-compliers can, therefore, escape detection and have limited incentives to invest in compliance themselves. Market surveillance is a precondition for any effort to make the switch to more energy efficient products possible, and Member States are called upon to allocate sufficient funding to market surveillance in order to detect and ban non-compliant products.

ESD

Member State progress monitoring of achievements towards ESD targets is underdeveloped. The requirements for Member States to monitor progress are vague and there is, therefore, little incentive for Member States to thoroughly do so. Moreover, proactive Member States wanting to plan and monitor progress optimally in order to support their national policy efforts each have to develop their own approach.

Co-Gen

Implementation of all of Co-Gen energy efficiency Directives has progressed slowly, in member states. Despite the clear expression of a timetable within the Directive itself less than 20% of member states achieved a reasonable timescale, resulting in delays in assessment of the significant cogeneration potential in Europe which remains to be exploited. At the time of writing there are still significant gaps in the member state reporting suggesting that little urgency is felt to implement the Directive in full. The absence of a template for Member States reporting under the Directive has led to a variable level of reporting which makes effective monitoring of progress difficult.

➤ Compliance monitoring should be accompanied by credible enforcement activities. Lean procedures, adequate resources and dissuasive sanctions should be implemented in order to improve effectiveness and speed of enforcement activity. For example, the German Energy Savings Act 2009 (Energieeinsparungsgesetz) enforces penalties of between €,000 and €0,000 for deliberate or negligent regulatory offences against thermal protection and energy efficiency of building systems requirements.

- > The Commission should require Member States to provide more information about their compliance checking activities and suggest improvements, so that expected improvements in buildings are also actually delivered.
- > The Commission should require Member States to live up to their obligations under the EuP/ErP Directives, and start infringement procedures if needed. This would include encouraging Member States to develop substantial, comprehensive compliance checking programmes with penalty schemes, and accelerating the work of the Administrative Co-operation (ADCO) for Member States on compliance. An alternative would be for the Commission to enforce eco-design requirements or energy labels, rather than the Member States. Naming and shaming of non-compliant producers could be a further tool, to be implemented by Member States or the Commission.
- The active involvement of stakeholders consumers, distributors and producers – can substantially improve the effectiveness of market surveillance. ADCO is encouraged to seek a proactive co-operation with other stakeholders.
- A clearly defined Community-wide methodology for monitoring progress against ESD targets is required to enable a concerted active effort towards energy efficiency.
- > A harmonised and transparent monitoring framework should be put in place to assess the effectiveness of national White Certificate Schemes. A sound, reliable and harmonised scheme would ensure that savings were made at the lowest cost and encourage electricity distributors to invest in the diffusion of energy efficiency services, supporting innovation and resulting in the most cost-effective savings across the EU.
- > The Commission should adopt a practise of issuing an effective and minimal template for Directive reporting which does not overburden either Member States or the Commission with reporting requirements.
- > The Commission should carry out the requirements under the CHP Directive and follow through with procedures on non-compliance.

Communication

As with any policy making process, targeted and timely communication is vital to the success of energy efficiency measures. The energy efficiency field is complex. There are many categories of stakeholders from National Government policy makers to producers/manufacturers to installers/ retailers to end-users. Their information requirements are varied. Different types of information need to be disseminated to different categories of people to inform their decisions and guide their behaviours. In order to be truly effective, information processes and campaigns need to be targeted at the correct level and come from a trusted source close to the recipient.

The Commission has a responsibility to encourage and coordinate Member States and Regions, to run information campaigns and to facilitate the sharing of knowledge. Nevertheless, in general, information transfer is more effective at the local or regional level. Member States and regions are better placed to provide information on energy efficiency and building measures to their citizens and constituents. Similarly, Energy suppliers and installers/ retailers have direct access to their customers and are better placed to communicate effectively with the end-user.

Current Position Member States are required to ensure that billing performed by energy distributors, distribution system operators and retail energy sales companies is based on actual energy consumption and is presented in clear and understandable terms in order to enable customers to regulate their own energy consumption. Customers should be able to understand:

- a) Current prices and their actual consumption of energy;
- b) Their current energy consumption compared to consumption for the same period in the previous year;
- c) How their usage compares to that of similar users;
- d) How to get information about available energy efficiency improvement measures.

Energy Labelling as required under EuP/ErP, and Building Energy Labels as introduced by EPBD, are important communication tools and effective instruments with which to influence consumer behaviour.

- > The Commission should consider setting up an information-sharing network to inform Member States of the type of energy efficiency schemes that are most effective and to encourage the sharing of best practice.
- > The Energy Services Directive should require energy suppliers and retailers to keep consumers up to date with the latest energy efficiency requirements and other energy efficiency topics agreed by the European Union or in the Member State relevant to the consumer, and encourage them to play their part as informed consumers in transforming the market for energy efficient products and services.
- Energy labelling should be extended and clarified to provide both consumers and authorities with an unambiguous and comprehensible way of rating the energy performance of products such as windows. It is important that a labelling scheme can be updated frequently and easily, to keep pace with ongoing technological development, avoiding confusion and encouraging innovative products to enter the market.
- > The European Commission should prepare a communications initiative highlighting to Member States the available funding mechanisms for energy efficiency investment and how they should be accessed.
- > The measurement of energy savings should be codified and standardised at the European level.
- > Energy-using Products and Energy-related Products legislation imposes minimum energy efficiency standards on new products coming onto the market after a certain date. The Commission should consider, with Member States, how it can use information and communication tools to encouraging consumers to replace appliances at an environmentally optimal time.
- > A communication campaign from the EU to member state regions clearly highlighting the current best practise on energy efficiency in the EU, the policy requirements and the availability of funding of all kinds.
- The European Commission and other stakeholders are to be encouraged to intensify the dialogue with international organizations like UNEP, UNDP, IEA etc on related projects, political and legislative initiatives as well as general policies in other regions of the globe in order to achieve a forum for international information exchange, and to avoid parallel or even contradicting activities.

Clear compulsory targets are essential. They can help set a clear agenda and horizon for policy makers to aim for and for industry to work towards. They show commitment. They allow Member States and Industry to align fully behind an aim and a vision and encourage the use and development of innovation and competition to meet them. Compulsory targets oblige Member States to focus their attention on the speed of the diffusion of energy efficiency technologies. This is vital to enabling Member States to meet the 20% target by 2020 as well as promoting innovation and rewarding innovators. Goals and ambitions, or unclear targets, do not provide the same impetus for change.

Existing Policy Tools ESD, NEEAPS and ECCP: Mandatory targets and clarified methodologies

The success of the EU Renewable Energy Sources Directive in promoting the European renewables strategy and the massive effort on reducing CO_2 emissions through carbon pricing under ETS show the effectiveness of mandatory binding By comparison, the focus and effort on implementing the energy targets. efficiency agenda is poor. The energy efficiency target set out in the Energy Enduse Efficiency and Energy Services Directive (ESD) remains a non-binding goal. This is considerably diminishing its effect and Europe's determination (both industry and governments) to achieve it. As examples of this, many National Energy Efficiency Action Plans (NEEAPs) required by ESD were un-ambitious and/or late, major energy efficiency dossiers at the European level have made slow progress, and the sector is faced with significant and quite specialised funding and training issues with no structure to address these. Moreover, targets set are vague, with no clear baseline and no means of enforcement. A lack of clarity in the proposed methodology has resulted in Member States interpreting the available implementation methodologies and attributions differently.

EPBD: Mandatory minimum performance level and targets for existing buildings

Responsible for around 40% of the EU's total and final energy consumption and CO2 emissions, the Buildings sector is the largest user of energy and emitter of CO2 in the EU. Energy efficiency measures for buildings are the most costeffective, resulting in the highest net financial gains for society. The sector is currently not operating close to least life cycle cost level and has significant untapped potential for cost effective energy savings which, if realised, would mean that in 2020 the EU would consume 11% less final energy overall. Targets in the Energy Performance of Buildings Directive for existing buildings are not specified, leaving it up to Member States to decide which minimum levels to set.

EuP/ErP: Product life-span optimisation targets.

Energy-related Products legislation imposes minimum energy efficiency standards on new products coming onto the market after a certain date. It is highly cost-effective. Efficiency targets accompanied by labelling have had a significant effect on markets. Encouraging consumers to replace appliances at an environmentally optimal time has not received much attention yet.

Co-Gen: Methodology in place but no target

The Co-Gen Directive creates a sound basis for progress on CHP, with a clear if complex methodology to guarantee the delivery of primary energy savings. However there is no trigger to implementation. In the absence of such a trigger the Directive implementation has been patchy with slow progress to eliminate the non-financial barriers. Real encouragement for new users to take up CHP is lacking.

Recommendations for > The EEAP 2006 indicative target for European Energy Savings of 20% compared to 2005 consumption levels by 2020 should be made mandatory. The data needed by Member States to understand where their national energy savings potential lies and to allow them to plan to meet this target is already available in national reporting and is being reviewed on a regular basis through the ESD and EEAP reporting process.

- > A number of more precise and ambitious targets with accompanying enforcement measures should be set under the ESD, preferably as part of a general update and refresh of the Directive.
- > The Commission should set out a binding target with an accompanying system for planning and reporting progress on targets and interim targets, linking energy efficiency, CO_2 and renewables, for example, as is currently the aim of the UK's Climate Change Act. This is required to drive policies and provide the guidance that society and industry need. Further clarity could be achieved by ensuring that the energy efficiency target has sub-targets based on identified national potentials, along similar lines as the renewables target. In addition, specific sub-targets could be introduced, for the promotion and easier grid connection of cogeneration and improvements to existing buildings.
- Compulsory targets should be used to oblige Member States to focus their attention on the speed of the diffusion of more efficient technologies. This is vital to enabling Member States to meet the 20% target by 2020 as well as promoting innovation and rewarding innovators.
- > The Commission should identify best practice and improvement measures for White Certificate schemes so as to maximise their energy savings potential whilst stimulating competition and innovation in the energy efficiency market. On the basis of this, Member States should be encouraged to examine whether such schemes could significantly contribute to energy savings targets.
- Clarity in methodology is needed to enable Member States to draw up coherent and consistent National Energy Efficiency Action Plans for the second round in 2011 and to ensure that the targets are met fully and systematically.
- Given the quantity of the current building stock and the vast potential for cost-effective savings, more ambitious targets are required for the refurbishment of existing building-stock. The Commission's framework for calculating cost-optimal levels of minimum energy performance levels in existing buildings should lead to mandatory requirements in Member States, ensuring that all cost-effective savings can be made. These could include obligations on Member States to address the lack of energy efficiency improvements in buildings renovations, such as requirements for the replacement of components of buildings.
- Product lifespan should not simply be technically optimised (which may result in energy inefficient products remaining in use after it would have been cost-effective to replace them) but also optimised from an environmental perspective, so that products would be replaced at the most cost and energy effective time. This should be taken into account in EuP/ErP studies, and the Commission should provide Member States with recommendations about optimal strategies for product replacement programmes.
- ➤ In the EuP/ErP area, complementary systems-based approaches which focus on improving the energy efficiency of entire installations or systems should be encouraged, where appropriate. In the case of the lighting sector for example, the adoption of a new EU wide Lighting System legislation has the potential to save a further 25% in energy compared with the existing EuP regulations alone.

Overview table: R	commendations per	Policy Area			
	EPBD	EuP/ErP	Co-Gen	ESD	Other
Compulsory target	Mandatory minimum performance levels, and targets for existing buildings	Product life-span optimisation targets	Binding energy efficiency targets	Mandatory targets and clarified methodologies	ECCP: Binding energy efficiency targets
Cash	Financial support for new	energy-efficient products a	nd systems		Structural funds: Linking structural funds
	Incentives for going beyo standards required	nd the minimum			to energy efficiency criteria
Conviction	 Member States and the Cor Allocate more Cc Make more use o Increase the use c 	nmission together ensure ad nmnission staff to energy ef f Member State experts of Joint Research Centres	lequate resources: ficiency units		<i>EEAP</i> : Review of the EU Energy Efficiency Action Plan
Compliance	More monitoring and enforcement of implementation needed	More compliance checking and action against non-complying products needed		Monitoring of progress and compliance with national targets needs attention	
Communication	Information sharing betwo	een Member States and othe	sr stakeholders		
		Improved use of Energy Labelling		Targeted and appropriate information to consumers and business end-users	
EPBD: Energy perform EuP/ErP: Energy perfo Co-Gen: Co-generation ESD: Energy Services a	ance of buildings rmance of energy-using / en as a means to improve end- nd national energy efficienc	tergy-related products use energy efficiency cy targets	Other includes: ECCP: EU Energy and Cli EEAP: EC Energy Efficien NEEAPS: National Energy	mate Change Package; ncy Action Plan; ' Efficiency Action Plans; Si	ructural Funds.

Annex 1. Scope of this Analysis

This note takes account of the following policy tools

EPBD: Energy performance of buildings (key legislation: Energy Performance of Buildings Directive, 2002/91/EC and recast (not yet formally adopted) 2008/0222/COD).

EuP/ErP: Energy performance of products (key legislation: Eco-design of Energy-using Products Directive, 2005/32/EC and new Eco-design of Energy-related products directive, 2009/125/EC; Energy Labelling Framework Directive, 92/75/EC and recast (not yet formally adopted) 2008/0223/COD).

Co-Gen: Co-generation as a means to improve end-use energy efficiency (key legislation: Directive on the Promotion of Cogeneration, 2004/8/EC).

ESD: Energy Services and national energy efficiency targets (key legislation: Energy End-use Efficiency and Energy Services Directive, 2006/32/EC).

> And related policy documents:

EU Energy and Climate Change Package (ECCP).

> EC Energy Efficiency Action Plan (EEAP), National Energy Efficiency Action Plans (NEEAPs), Structural Funds.

Energy Efficiency Industrial Forum Membership

CECED represents the household appliance manufacturing industry in Europe. Direct Members are Arçelik, BSH Bosch und Siemens Hausgeräte GmbH, Candy Group, De'Longhi, Electrolux AB, Fagor Group, Gorenje, Liebherr, Indesit Company, Ariston Thermo Group, Miele, Philips, Groupe SEB and Whirlpool Europe. CECED's member associations cover the following countries: Austria, Belgium, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

COGEN Europe is Europe's umbrella organisation representing the interests of the cogeneration industry and promoting its benefits in the EU and the wider Europe. The association is backed by the key players in the industry including gas and electricity companies, ESCOs, equipment suppliers, consultancies, national promotion organisations, financial and other service companies.

The European Copper Institute (ECI) is a joint venture between the world's mining companies (represented by the International Copper Association, Ltd) and the European copper industry. Its mission is to promote copper's benefits to modern society across Europe through its headquarters in Brussels and a network of eleven Copper Development Associations.

ELC Federation - Created in 1985, the European Lamp Companies Federation (ELC) is both the forum and the voice of the lamp industry in Europe. It represents the leading European lamp manufacturers, which collectively directly employ 50,000 people, and account for 95 percent of total European production, with an annual turnover in Europe of 5 billion euros. From the outset, ELC objectives have been to promote efficient lighting practice for a sustainable environment and the advancement of human comfort, health and safety. To this end, ELC monitors, advises and co-operates with legislative bodies in developing European Directives and Regulations relevant to the European lamp industry. **Eurima** is the European Insulation Manufacturers Association and represents the interests of all major mineral wool insulation producers throughout Europe. Eurima members employ over 20,000 people across Europe, with the installation of insulation products accounting for an estimated 300,000 man-years.

EuroACE, the European Alliance of Companies for Energy Efficiency in Buildings, was formed by twenty of Europe's leading companies involved with the manufacture, distribution and installation of energy saving goods and services in buildings. EuroACE members have a total turnover of 140 billion euros and employ 328,000 people. The mission of EuroACE is to work together with the European institutions to help Europe move towards a more sustainable pattern of energy use in buildings, thereby contributing to Europe's commitments on carbon emission reductions, employment and energy security.

Glass for Europe is the trade association for Europe's manufacturers of flat glass. Flat glass is the material that goes into a variety of end-products such as windows and façades for buildings, windscreens and windows for transports, solar panels, furniture, electronics, etc. Glass for Europe has four members: AGC Glass Europe, NSG-Pilkington, Saint-Gobain Glass and Sisecam-Trakya Cam and works in association with Guardian. Altogether, these five companies represent 90% of Europe's flat glass production.Glass for Europe firmly believes that state-of-the-art glass, such as Low-E insulating glass and Solar-Control glass, can play a vital role in achieving the EU's energy saving targets and promotes ambitious mechanisms to support the market uptake of energy-efficient glass technologies.

PU Europe is the European association representing the polyurethane (PU) insulation industry. Its membership comprises both SMEs and large multinational companies. PU insulation products help to save energy in a wide variety of applications in buildings, district heating, cooling and refrigeration, and industrial systems. PU Europe members have a total turnover of Euro 4 billion and provide 18,000 direct jobs.