

## ***(1) Addressing market failures***

### ***(a) Are the barriers identified in this document the most important ones? If not, which barriers are missing and why are they important?***

Generally speaking, the consultation paper describes the relevant barriers. Besides financial aspects we would like to mention that there is a lack of information regarding the further benefits of thermal insulation such as increased living comfort, healthy living conditions, upgrade of city districts, etc. These aspects should be kept in mind besides pure financial calculation although difficult to measure. But it can be expected that in future - with increasing prices for oil and gas – the value of energy efficient dwellings will increase. In Germany e. g. the ABG Frankfurt Holding GmbH reports that well-insulated dwellings can be sold or rented easily, reducing the economic risk for real estate companies. This shows: there is a demand for energy efficient projects.

Regarding the barriers mentioned in the consultation paper, we would like to add these comments:

1. As energy costs are relatively low and most households have to pay only once per year for it, energy consumption of buildings is not in the main focus. In contrast to that e.g. the fuel price (for cars) is discussed regularly thanks to great awareness, transparency and frequent refills. And we recognize that consumers take into account the fuel consumption of vehicles when purchasing a new car. Today the fuel consumption of cars is one of the main arguments of manufacturers in advertisements. This indicates that if the general awareness of energy costs of buildings increases the demand for energy efficient dwellings or offices will increase, too.
2. Regarding the argument that the price for energy does not take into account all environmental costs, we absolutely agree to that point. Especially when considering the long-term costs and risks of nuclear power, the price seems to be too low – causing misallocations. We have a similar situation with the long-term costs of climate change caused by fossil energy sources. Finally, dependency on energy imports is difficult to express in terms of price.
3. A stable long-term regulatory perspective (road maps of energy efficiency obligations) and subsidy framework is essential for stimulating a constant growth of investments. According to the latest 2052 report of the Club of Rome this is considered to be one of the major barriers. Frequent changes of the framework cause confusion and a lack of transparency. Transparency and long-term perspectives are fundamental as investments in improvements of e.g. the insulation of buildings' envelopes have to be considered as long-term investments. Investors have to be sure, that there will be a return of investment. This is evident not only for owners but also for the industry and for applicators as with increasing refurbishment rates - which are urgently required to achieve the 2020 objectives - they will have to invest in further capacities and staff. The impact on investments caused by frequent changes or a long parliamentary decision making process can be seen e.g. in Germany considering the subsidy

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schemes for renewables which cause great amplitudes of demand. A stable framework is even more important if financing models like contracting should become more popular. Such models need contract periods of much more than one decade to be attractive for both partners - owners and service providers.

4. In recent years the public awareness was strongly focused on renewable energy generation. For sure, the increase of renewable energy generation will still be necessary in the future. But the shift in Europe's energy mix from nuclear and fossil energy to "green energies" will be much easier if the total energy consumption can be reduced significantly at a first step. Political decisions should keep this in mind: save energy at first; then replace energy generation by renewables.
5. In countries with a high percentage of rental housing e.g. Germany, the UK and many Eastern European Member States the problem of split incentives between owners and tenants has to be solved. Often owners are willing to invest in improvements of e.g. thermal insulation of walls, but as they face difficulties in increasing the rent, they postpone investments – and therefore further postpone improvements of the climate situation.

### ***(b) Which market failures would be most urgent to address? At what level (i.e. EU, national/regional/local) would these failures be best addressed?***

The most important point is to create a stable, transparent and long-term oriented European framework. This should especially include binding milestones at European level to be transferred into mandatory national action plans and regulation (road maps). In this cascading process, national and probably regional requirements and different situations of Member States have to be taken into account carefully.

Finally, all measures have to contribute to the major objectives of the EU for 2020 (mid-term perspective: 20% improvements), but already taking into account the long-term objectives by 2050 (80% reductions of energy consumption).

To increase transparency, it seems that the number of national, regional and local stimulating programs and initiatives should be reduced. This enables concentrated information and more transparency will be a good stimulus for investors.

### ***(c) How could these failures be best addressed? For example; how could behavioural change needed for quicker uptake of energy efficiency measures by society be triggered at the national level? How could the development of an energy services market for households be further stimulated? What could be done to increase awareness raising and promotion of energy efficiency in buildings? How could the business community (e.g. building sector, ESCOs, local banks, etc.) be better supported in delivering energy efficiency in buildings? How could the split incentive problem be best tackled?***

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1. Again, both a stable and binding regulatory framework and a cascading system of national regulation setting goals but leaving the door open for individual ways to achieve these goals would be helpful.
2. Still there is information necessary to influence the behavior of people. This has to be done at all levels: national as well as local. Following just some ideas to increase awareness:
  - a. governmental communication campaigns at national level
  - b. influence the behavior by teaching energy efficiency at school
  - c. energy efficiency as part of regular trainings in companies or public authorities (e.g. regular safety instructions are quite usual or even mandatory today)
  - d. energy suppliers could add leaflets to their invoices providing useful information how to reduce the energy consumption of buildings; many of them already deal with this issue in their customers' magazines. Furthermore they could add a kind of index or ratio comparing the individual consumption with the average consumption in the relevant city/town/region.
  - e. web-based power metering for heating costs could be helpful, especially if individual consumption is compared to the average of a region and the next stage of national energy efficiency obligations (e.g. Google launched a service but retired in September 2011, reporting positive experiences)
3. The energy label of buildings should be similar to the ones used for cars and electric/electronic devices as consumers are used to these and nowadays have adopted this pattern of information. Furthermore the energy label should be mandatory if buildings are sold or rented (e.g. mentioned in advertisements). The energy label of buildings should be based on a unique calculation method European wide to create transparency for both users and investors. Refrigerators with energy label "C" e.g. are difficult to sell these days. Many customers even ask for "A++" level – no matter if this will be cost-effective or not. This indicates that the label and its promotion are really useful if implemented and communicated consequently.
4. Looking at the unsolved problem of owners and tenants, owners should on the one hand be obliged to invest in improved energy efficiency of their buildings not only in case of new built but also in case that refurbishments are planned due to the fact that investments in energy efficiency are much more cost-effective when combined with renovation or maintenance. On the other hand owners must be able to increase the rent taking into account savings as calculated. Finally, there should be a win-win-situation: owners will have a pay-back for their investments; tenants will benefit from reduced total costs. Note: according to a research of the German ETICS association, 39% of tenants in Germany would accept this. Only 24% vote against any increase of the rent (Energiesparkompass 2012, Fachverband WDVS).

5. To create better awareness of energy consumption of buildings, it might be useful to inform owners and tenants frequently about their energy consumption – not only once per year. Probably this would help to stimulate energy contracting as well (compare to point 2 above).
6. Taking into account the experiences with increased taxes on fuel and the effect on the availability of energy efficient engines (see German “Ökosteuer”), the question is, if tax instruments might help to increase the pressure on both energy efficiency measures and renewables. This could create a win-win situation: pressure on reducing energy consumption plus shift in EU’s energy mix from “traditional” sources of energy (becoming more expensive thanks to extra taxes) to renewables. On the other hand it has to be taken into account that this will hit especially households with low income. A fair balance could be achieved by reduced income taxes for low-income households.

## ***(2) Improving access to financing***

***(a) Are the current EU-level financial tools for energy efficiency in buildings effective? How could the uptake of EU-level funding for energy efficiency (including cohesion policy funding) be improved? As a complement to tailor-made national or regional financial instruments (e.g. set up with a contribution from cohesion policy funds), what could be the future role of centrally-managed financial instruments at EU level in this context?***

The necessity to improve access to financing differs from county to country due to the economic situation. In countries with major economic problems it could be an option to minimize interest rates or to offer mid-term income tax reductions (e.g. by linear depreciation of the total investment over 10 years) as this could help to stimulate their economy and to reduce social costs such as unemployment, which could be a critical problem for the future. As e.g. thermal insulation of walls is comparably labor intensive and even the manufacturing process is more or less local, such subsidies seem to be an appropriate instrument to drive the market according to national requirements. Here financial tools at EU-level could support national governments by funds or offering money at very low interest rates.

Looking at member states with powerful economies, the interest rates could be different according to the national support schemes. In these countries it seems to be interesting to offer different subsidy schemes related to the efficiency level after refurbishment. The more efficient the renovated building the lower the interest rate should be. This again could be supported by financial instruments offered at EU level. For examples compare to the Minergie (Switzerland) or KfW patterns (Germany).

***(b) How could more private financing (both from institutional investors as well as building owners) for energy efficiency projects be mobilised? What would be the role of public funding (both at EU and national level) in this context? Is access to (project development) technical assistance an issue and how could it be provided most efficiently at the national, regional and local level? How could both national and EU financing schemes be improved to best cover all segments of the market (residential, commercial, public buildings, etc.)?***

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1. In those Member States facing severe economic problems, funds or special credits at low or even zero interest rates to stimulate investments in energy efficiency might be very effective to support national economies. Remember: on the one hand governmental expenditures have to be cut sharply to escape the deadly spiral of debts; on the other hand we face dramatically increasing rates of unemployment. As the German KfW study proves national subsidies finally pay off as they stimulate growth and thus tax incomes.
2. In Member States with fewer problems, private investors often prefer not to have loans but profit from tax reductions or direct subsidies when investing in energy efficiency. Nevertheless loans at low interest rates will be necessary for those investors planning major refurbishments.
3. Probably a mixture of financial support patterns might be helpful. Tax reductions and direct subsidies for small private projects; tax reductions for companies; loans at low interest rates for big projects, public projects or private projects that want to achieve NZEB standard. At the end however support schemes must be most simple and easy to understand to achieve maximum transparency.
4. The idea of enforcing energy supply companies to reduce the annual energy amount sold at a fixed level might increase the pressure to invest in contracting schemes. This could be a leading instrument to stimulate private investments. The Green Deal program in the U.K. to be launched in October 2012 could be a shining example. It will offer private capital to real estate owners, will provide a long-term stable framework, will ensure to invest in the most cost-effective means (as it will be most profitable), will change the business models of energy supply companies; it will stimulate financial investors to invest money in real economy; it will help households to save money (that could be spent for further consumption) – and finally will support the climate change policies. In Germany energy supply companies very often only offer contracting in combination in new heating systems. At least, this might be the first step.

***(c) Is there a need for guarantee systems related to building efficiency investments? If so, what guarantee systems for efficiency investments would be necessary and how should they be designed? Is there a need for other enabling mechanisms (e.g. risk-sharing, investment vehicles)?***

1. One problem might come up between owners and tenants. If owners will be allowed to increase the monthly rent according to the calculated energy savings, there will always be a difference between calculated consumption after thermal renovation and consumption in practice. That means that discussions might arise which are not easy to handle as the real consumption also depends on the behavior of tenants.
2. A similar situation might happen in the field of energy contracting as investors depend on the payback earned by annual savings.
3. Especially in those member states that suffer most under the financial crises the accessibility of loans must be insured for investors. Probably there could be a risk-sharing between private

banks and the state bank implemented as the whole nation (the state) will draw benefits out of investments in energy efficiency. Or the state bank guarantees an annual loan pool for private banks to be used for energy efficiency investments. The availability of loans will be essential for contracting.

4. In many countries less energy-efficient single family houses are owned by old people. These people suffer from a lack of money to invest in energetic improvements. Furthermore they estimate that they might die before full amortization – and therefore decide not to invest. If the heir would be enabled to profit as well the stimulus to invest could be increased. This could be enabled by depreciations that can be shifted to heirs or by reduced inheritance taxes.

***(d) How could the capacity, knowledge and risk perception regarding energy efficiency investments be improved, both at financial institutions as well as with private investors and administrations at all levels?***

As mentioned above permanent penetration with information and results of case studies will be necessary to change the situation. Note: according to a German study there is still a lack of information (Energiesparkompass 2012, Fachverband WDVS). Although the majority of people think that they are well-informed about how to improve energy efficiency, they think that reduced fuel consumption of cars will cause the greatest effects. In fact, improving the thermal insulation of walls offers one of the greatest leverages.

Very ambitious energy efficiency objectives for the building stock often threaten investors and tenants. As the renovation cycle of buildings is about 30 years one option could be not to further improve the obligations for existing building stock towards NZEB level at a first stage (by 2020) but to increase the annual number of renovated buildings to at least e.g. low-energy standard. That would help to reduce the initial investment, the burden for owners and tenants will be lower, and will create much more jobs than increasing the obligations dramatically.

Such “less energy-effective” buildings can be further improved at a second stage (as a mid-term objective on the way to the 2050 objectives) during the regular refurbishment cycle. E.g. existing External Thermal Insulation Systems (ETICS) can easily be improved by application of another layer of ETICS after 25 years for example. At that time usually the paint will be renewed anyway and maintenance costs arise. It will be cost-effective to install a second ETICS layer exactly at that moment.

According to our experiences it will be more effective to increase the number of renovated buildings significantly at affordable cost than increasing the minimum requirements for those that are already willing to invest. Those might be threatened by very ambitious legal obligations.

***(e) Are there examples of good practice at national or regional level (with data on costs and benefits) that could be applied more widely?***

The Energy agencies of the Netherlands and Germany for example already offer case studies in data bases on their websites. Even huge housing companies have good documentation about the results of their thermal renovation projects. The results are convincing: they proof that improved thermal insulation of buildings' envelopes really leads to a significant reduction of energy consumption. Nevertheless, there are still many doubts in the market. Therefore it seems that permanent penetration of such positive examples is necessary. Finally owners and tenants must rely on the EE related investments.

Probably existing data could be used to calculate the average energy consumption of thermal renovated buildings per region. Consumers could type their annual consumption in regional websites and receive a comparison to the average level. Furthermore these data could be mandatory to be supplied by housing companied together with the annual invoiced just to create awareness.

The study Energiesparkompass 2012 of the German ETICS association Fachverband WDVS mentions that more than 80% of tenants living in energy improved dwellings confirm that they see positive results after renovation. German KfW bank says: German subsidies for thermal renovation in 2010 created or supported 287,000 jobs – mainly in SMUs. With 2010 subsidies of €1.4 billion total investments could be initiated reaching up to 16 times greater volumes. The KfW programs to stimulate thermal renovation finally generated various win-win situations: the German state draws benefits from increased tax income (mainly VAT); owners profit from stable and increased values of their properties and improved rent ability of their apartments; end users or tenants enjoy increased living comfort, less and calculable energy costs, being more independent from future increase of oil and gas prices.

***(3) Strengthening the regulatory framework***

***(a) Is there any need for further EU-level regulation to stimulate energy efficiency investments in buildings beyond the Commission proposal for a new Energy Efficiency Directive? If so, what should these measures entail?***

As the building sector offers the greatest leverage for improvements of energy efficiency - especially by reducing the thermal transmission through the envelope – and as new built rates and demolition rates are quite low, binding targets will be necessary to drive Member States to implement binding action plans for both new and existing building stock. As already mentioned under (2d) no further strengthening of the legal requirements for the energy efficiency of existing buildings are necessary at the first stage. For new buildings the existing obligations seem to be adequate.

National governments have to understand that Europe's energy goals are not voluntary but essential for future generations (see also 2052 report of the Club of Rome recently published). Moreover they should recognize that further delays will definitely increase the challenge in the future.

***(b) What could be specific measures to be taken at national level to implement and complement most effectively the EU-level regulatory framework for energy efficiency?***

1. Binding targets per Member State regarding the reduction of energy consumption by 2020 (mid-term perspective) and outlook on 2050 targets (long-term perspective).
2. Intermediate targets would be helpful to evaluate the progress.
3. The maximum allowed total energy consumption of a building should be reduced step-by-step.
4. Probably tax increases for energy consumption can support these steps.
5. It must be ensured that not only those investors that are willing to invest in thermal renovation have to achieve increasing efficiency levels. At the same time the refurbishment rate has to be increased (more than doubled).

***(c) What are the specific needs for policy guidance and awareness raising among different stakeholder groups?***

1. The building materials industry requires a reliable long-term framework to decide about investments in additional capacities (production facilities, staff) and R&D.
2. Construction companies and applicators need this long-term framework as well as they often have the need to employ, train and educate specialized staff.
3. Owners should understand why at the first step improvements in energy efficiency are more effective than investments in renewable energy. They should be informed that improvements in external thermal insulation are one of the most effective ways to reduce energy consumption. Probably certified energy consultants could help to analyze the individual situation and set up individual master plans for subsequent investments. These consultations could be financially supported by governments.
4. Owners of rental apartments or offices must have the chance to increase monthly rents taking into account the expected energy savings.
5. Owners need reliable long-term perspectives when further improvements of energy efficiency will be set into force to decide when investments will be cost-optimal according to their individual situation.
6. Tenants or end-users must be able to trust in calculated energy savings. Information campaigns at national and local level might promote that improving the energy efficiency of buildings is the greatest leverage to improve Europe's energy efficiency; and among this thermal insulation of outside walls offers greatest effects, using approved technologies and being cost-effective.

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7. Politicians at national and local level should be informed that subsidies in thermal renovation of the building stock finally will not have negative results on their national state budgets. These subsidies finally cause positive effects by stimulating investments. These investments increase tax incomes, avoid extra costs for social security systems as jobs can be created and energy poverty can be avoided now and in the future.

Baden-Baden, 18/05/2012



A handwritten signature in blue ink, appearing to read 'Ralf Pasker', is enclosed in a light blue rectangular box.

Ralf Pasker  
General Manager Technical & Marketing Affairs

The European Association for External Thermal Insulation Composite Systems (EAE) is the European umbrella association of 11 national ETICS associations and 4 major European insulation materials associations. We are registered in the Transparency Register, ID number 95685238783-07.