

Financing Energy Efficiency (EE) in Buildings



Executive Summary

Input to the European Roundtable

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EXECUTIVE SUMMARY

Buildings account for 40% of total energy consumption in the European Union¹, with more than half from the residential sector. While only some new buildings benefit from model energy performance, the greater part of the saving potential has to be realised in the vast building stock already in existence.

The need to improve energy efficiency in buildings is now greater than ever and presents a unique opportunity to address the challenges of energy security, climate change and economic development. An increase in Member States' building energy performance would allow the European Union to comply with the Kyoto Protocol, and to honour both its long term commitment to maintain the global temperature rise below 2°C and its effort to achieve the 20/20/20 targets by 2020.

Financing Energy Efficiency in buildings is still a major challenge. Despite the proven cost-effective opportunity to reduce energy consumption, a significant proportion of the energy efficiency improvement potential is not being realised. Several barriers and market failures inhibit energy efficiency improvements in buildings. Information failure, high subsidies, lack of technical expertise, uncertainty over savings, and externalities still characterise the energy efficiency market. Residents of established households do not easily change their energy consumption habits and, in most cases, the so called "split incentive" discourages both building owners and building occupiers from investing in energy efficiency measures if direct benefits are not perceived. Financial barriers are crucial in inhibiting investment in energy-efficient building refurbishment. Such barriers include, inter alia, initial cost barrier, high transaction costs, long payback time, and risk exposure. Furthermore, traditional financing investment criteria do not apply to energy efficiency investments, lack of knowledge among finance providers of energy efficiency specificities prevents customers from accessing capital, and the absence of standardised measurement and verification practice further increases transaction costs. Due to the considerable impact of these financial barriers on the financing of energy-efficient building refurbishments, the paper focuses primarily on these barriers.

It is important to address existing barriers and stimulate a more active uptake by the market. Specific instruments have been successfully implemented both at the European and national level to overcome financial barriers. European Union financial instruments and other measures are being put into place or adapted with the aim of stimulating energy efficiency related measures. These include, inter alia, structural and cohesion funds, the public-private partnership on 'European energy-

¹ Directive 2010/31/EU

efficient buildings' initiative², the Competitiveness and Innovation Framework Programme, the Covenant of Mayors and the Seventh Research Framework Programme. Member States have launched several programmes³ and instruments ranging from R&D actions, educational measures, public investment measures, financial instruments and incentives/subsidies, to regulatory instruments. Private actors, such as banks, have increasingly joined forces with large public institutions to offer preferential loans and other financial incentives to customers. Europe's financial institutions have also been adapting their products and services to the energy efficiency market.

It is also important to identify which are the most promising approaches with the highest potential for larger-scale implementation. Funding programmes and financing tools should be better employed to support energy-efficient retrofitting projects and to boost investment in this area. Providing technical assistance, for instance, for the development of energy efficiency investment projects. The application of grants and fiscal incentives for energy saving measures in the household sector have contributed to CO₂ reduction, energy saving, and the creation of market demand. A combination of different tools may be more effective than single measures over the long-term. Examples include the creation of revolving funds using part of the ERDF allocation funds with additional funding from other investors (public and private), preferential loans within national programmes (e.g. combination of funding originating from capital markets and interest rates subsidised by government), and new ESCo business models. Energy savings obligations imposed by governments could possibly increase investment in energy efficiency as in the White Certificate Scheme, or the creation of an agency which manages retrofitting of private buildings where average CO₂ reductions are clear criteria of public tenders. Strong political will is essential to pave the way for private investors. The building sector should be seen as a priority area, and market-based instruments could be turned into funding streams to support investment in energy efficiency. Finally, public-private partnerships will offer great opportunities to simultaneously address different aspects of these financial barriers as new links between the public sector, industry and research organisations are established.

There are a number of key questions that need to be addressed in order to help the market transformation. Even if we are not going to solve all of them, we can see these as a good starting point. It is one of the biggest challenges of today, but in order to advance, we need concerted actions.

² <http://www.e2b-ei.eu/default.php>

³ Major renovation programmes put in place by Member States include: Klima:aktiv Programme 2004-2012 (Austria), National Programme for Renovation of Residential Buildings in the Republic of Bulgaria 2006-2020 (Bulgaria), National Environmental Fund: "Green to Savings" 2009-2012 (Czech Republic), Renovation Fund 2009 ongoing (Denmark), No interest loans for Energy retrofits (ECO PTZ) 2009 ongoing (France), KfW CO₂ Building Rehabilitation Programme 2001 ongoing (Germany), National Energy Conservation Programme 2002 ongoing (Hungary), More with Less Programme 2008-2020 (The Netherlands), Thermo-modernisation fund 1999-2016 (Poland), Programs for the thermal rehabilitation of multi-level residential buildings 2002 ongoing (Romania), Financial stimulation for Energy efficiency renovation and sustainable building of new buildings 2008-2016 (Slovenia), Support for Energy Efficiency in Buildings 2008-2012 (Spain), Carbon Emissions Reduction Target 2008-2012 (UK).

- ▶ **Which instruments and measures suit most in addressing first cost barriers?** Financial incentives and fiscal measures are important in reducing transaction costs and perceived risks; Preferential loans specifically target the initial cost barrier; Market-based mechanisms also stands to have a great impact; ESCOs have a strong transition impact to deliver energy savings and offer a win-win solution to end-users; Public-private partnerships offer vast opportunities to address different aspects of the financial barrier simultaneously. What other types of policies and measures should accompany the financial instruments?
- ▶ **How to put in practice the right mix of policies and measures that will induce decision-makers to make these heavy investments in view of long payback periods?** The financial viability of major projects to improve the thermal integrity of buildings is highly site specific. Even in the best cases, investment payback periods for such projects are usually significantly longer than for efficiency measures in new buildings.
- ▶ **How to best make use of European instruments?** Several programmes and initiatives, including R&D activities, have been set up at European level to support energy efficient retrofitting projects; In the short term, structural funds have a key role to play in greening national and regional spending programs, however appears not to be fully used. Why? The establishment of revolving funds is also a promising option to overcome long repayment period of the projects.
- ▶ **How to create a market for improved EE of buildings?** The deep renovation of a huge amount of European buildings, further than its other remarkable benefits, is expected to have a consistent impact on employment both directly and indirectly. Ambitious major renovation programmes would have the capacity to re-launch not only the construction industry, but to help the entire economic recovery process. Industry and commercial banks should be encouraged to exploit the advantages that such an EE market can offer.
- ▶ **Who should do what?** Why have some examples worked and some others not? There is perhaps a need to define at country level the role and responsibilities of the various governmental organisations, banks and professional associations. What can the IFIs (International Financial Institutions) do at Member State level? The private sector also has to assume a key role and be rewarded for it.