4.1 General energy and economic context

Particularly in the current economic climate, is there a trade-off between promoting a competitive and secure energy supply and one which is environmentally sustainable? Where should the balance lie and what implications does this have for energy sector investments?

At present the EIB claims to support all three pillars of EU energy policy. However in justifying its financing operations it can be quite selective about which arguments, and which pillars it uses. For example, for a gas combined heat and power generation plant the EIB will tend to refer to efficiency and sustainability. Yet its justifications for investments in coal power plants is based only on security of supply considerations – ignoring the fact that such projects are in direct contradiction to one of the other pillars (sustainability).

Achieving one objective cannot take place at the clear expense of another. And the EIB does not have to contribute to a trade-off between security of supply and competitiveness on the one hand, and sustainability on the other. Instead it should seek to invest in projects which simultaneously address all three pillars, which in practice means investing in projects in energy efficiency and renewable energy: projects which reduce EU dependency on imported hydrocarbons, reduce greenhouse gas emissions and offer a range of other environmental benefits if properly designed, and are fully cost competitive (especially when factoring in social and environmental externalities). The Bank’s mandate should be better clarified and focused to make the bank a lead institution to promote the decarbonisation of the energy sector and of our societies in general.

The development of renewable energy technologies and the potential for energy and resource savings presents enormous investment potentials, coupled with the possibility of creating millions of jobs across Europe. This aspect is particularly strong with demand side energy efficiency. The construction sector is a sector with high labour intensity and any created jobs cannot be outsourced to other countries, unlike manufacturing jobs for example. Within the construction sector, efficiency measures in buildings are champions in terms of job creation: investing in deep renovations offers more than twice the job creation potential per Euro invested than the standard rate in the construction sector. Meanwhile HSBC has estimated that if the EU invests sufficiently in energy efficiency to meet its 2020 target, then it could attain a 28% share in a global market for energy efficiency technologies and services worth been $897 billion and $1.4 trillion. Ecofys and Fraunhofer estimate that meeting the 20% target could reverse the upward trend in the EU’s energy import dependency, taking it back down to 1990 levels by 2020.
The most recent World Energy Outlook by the International Energy Agency recognizes the fact that policy makers looking for simultaneous progress towards energy security, economic and environmental objectives are facing increasingly complex – and sometimes contradictory – choices. It admits that energy efficiency is key here, but points out that even with the existing policies in place like the EU’s 2020 objectives, a significant share of the potential to improve energy efficiency still remains untapped.

In conclusion we consider it is a duty and could become also Bank’s virtue to focus its investments in projects and programs that bring win-win-win solutions for EU in terms of economic, social and climate benefits.

**How does investment in the energy sector contribute to growth and employment? Are investments in all energy sub-sectors equally valuable? And how does investment in the energy sector rank relative to other investments in the economy which support growth and employment? What impact do you consider the current economic crisis will have on the energy sector (demand, policies, supply)?**

**4.2 Renewable Energy**

The Bank’s economic justification for supporting emerging renewable energy technologies, whose cost is significantly above that of conventional and mature renewable energy technologies, is that continued investments in these technologies will eventually lead to cost reductions and will ultimately be the least-cost approach to meeting the EU’s renewable energy targets. Do you agree with this approach? Is there an alternative approach to the economic justification of these technologies which you consider more appropriate?

We totally agree with this approach (continued support to further decrease costs). However, the support should not just be justified in order to meeting EU’s renewable energy targets (it should not spot once EU reaches its 2020 binding targets). The support should aim at reducing the cost of these technologies even further so that they provide the most competitive energy solution for the whole economy in the medium and long term. So that the transition from a fossil-fuel dependent economy to an economy based on renewable and environmental friendly energy sources is achieved in the most cost effective way and that the position of the European industry is establish as a global technological leader.

**What evidence is there that the cost of emerging renewable technology is falling?**

There several examples to show the sharp decrease of renewable energy sources costs. The best examples are found for technologies that have been benefiting from financial support/stimulus at two fronts (R&D in one side and deployment policies in the other side). In the photovoltaic sector, for instance, there are several sources that provide those evidences (e.g. European Photovoltaic industry association, the EU PV technology Platform through their Strategic research Agenda). In the wind sector, organizations such as the European Wind Energy Association can provide the best estimates for off-shore wind.

However, the best evidence of the continued fast cost decrease can be seen in the (decreasing) level of support that members states have provided (e.g. through feed-in-tariffs in Germany or Italy) to those technologies. We can observe that even if that support has been reduced every year (or even faster), the industry has continued to find competitive solutions.

**What level of investment in RE do you expect in the short and medium term?**
What are the barriers to investment in renewable energy outside Europe? How might these be overcome?

Outside Europe, as well as within Europe, the main barriers to investments are the lack of regulatory certainty and political stability. Another very important barrier is the lack of regulatory transparency and the existence of complex administrative producers.

Currently, due to the economic crisis, access to capital can be even more crucial than all the elements above mentioned. However, capital will be more easily available if the barriers early mentioned are well removed.

Do you agree that there is significant scope for investment in renewable heating and cooling?

Renewable energy sources have a great potential to satisfy the energy demand of the heating and cooling sector. By 2020, half of the RES contribution to the 20% target would be satisfying the needs of the heating and cooling sector. A lot can be done in the building sector, especially among residential consumers. Of course, the number of investments needed is very high and the volume of those investments relatively small, so there is a need to set up specific programs at national and regional level, together with energy agencies, to ensure the correct information (with awareness campaigns) and participation from citizens.

What are the barriers to investments in this sector and how might these be overcome?

4.3 Energy Efficiency

What do you think are the main barriers to energy efficiency investments? What might be done to overcome these?

From the perspective of individual energy consumers (households or businesses) the barriers vary somewhat according to the category of energy use, but in general terms include

- split incentives (notably between landlords and tenants) or unclear responsibilities (e.g. in the case of different departments in a business)
- lack of knowledge and information about their own energy consumption or which savings measures to take (and how)
- lack of access to, or the opportunity cost of, upfront capital
- non-availability of relevant workforce or efficient services (e.g. well-integrated public transport) in the local area
- hassle
- higher capital costs of efficient products, appliances, vehicles etc.

Regarding upfront capital, a number of issues stand in the way of financial investors who might otherwise be able to provide this. It should be noted that energy savings are potentially a very interesting area, offering guaranteed returns over a long period of time, and with a vast as yet untapped investment potential. Barriers include lack of familiarity with the area or of demonstrated large-scale viability, the dispersed nature of the opportunities and the lack of bankable project pipelines.
The EIB can play a potentially very important role in terms of both helping to demonstrate the viability of efficiency investments to private investors, and in helping to directly leverage their funds by offering loan guarantees. Its practice of offering technical assistance to help match up project with money is a valuable complement to this. We would recommend that the EIB concentrate considerable funds in this area, and also work with governments to help them establish the financing facilities referred to in the new Energy Efficiency Directive. Such facilities can help join up a number of ‘dots’: aggregating numerous sources of public finance (e.g. ETS revenues, funds flowing from the new energy company obligation schemes foreseen by the EED, structural funds, etc); using these to leverage private funds; aggregating efficiency opportunities into bankable projects, and linking these up with funds. As such these facilities could serve as a ‘one stop shop’ for both customers and efficiency service providers.

The manifold nature of the barriers to energy efficiency (from both consumer and investor perspective) means that concerted policy interventions are needed to address the issues simultaneously. For example, rolling out a successful programme of building renovations in a particular area will require ways to be found to create consumer demand - which will mean raising the awareness and interest of householders about the potential and interest of carrying out such work, including offering appropriate incentives to overcome inertia related to hassle and opportunity costs. The above approach will need to be taken to provide upfront capital flows and match them up with aggregated projects. Meanwhile it will be necessary to interest and train the workforce to an appropriate level, offer certification of the work done, and ensure that all this is done with a sequencing that will ensure the supply chain is built up as necessary.

None of this is impossible, but finding the right combination of solutions and putting them in place with right sequencing is potentially complex. In practice this has tended to cause governments or their relevant implementing agencies to shy away from developing such comprehensive strategies (or if they have tried, often they have not fully succeeded).

This is why CAN-Europe strongly recommends the establishment of binding targets for energy savings: both as an overall policy goal, and specifically for building renovations. Targets by themselves are not a magic solution, but they do provide compulsion, political focus – and also certainty for investors. With these in place governments may start to make better use of the burgeoning body of evidence on good practice and effective policy intervention to start putting in place programmes to comprehensively address the barriers to potentially great gains offered by energy efficiency.

**What role can Energy Service Companies (ESCOs) play in developing energy efficiency investments?**

ESCOs can play a valuable role in delivering energy efficiency services. They offer expertise in energy management systems and services, and potentially a win-win business model that can overcome the problems of upfront finance and consumer inertia. For example, if an Energy Performance Contracts is used then in principle a small business owner will be able to receive efficiency improvements to his enterprise without needing to provide the upfront finance from his own assets. The capital, which was put up either by the ESCO itself or by a third party financer, will be repaid from the savings on his energy bills – but at a rate which means he still pays out a lower amount each month than he did previously. Thus, he will then enjoy the
increased comfort and functionality which result from the efficiency improvements, as well as financial savings, even as the provider of the finance gets their money back, probably at a profit.

This is the theory; however it should be noted that a majority of functional ESCOs in both the US and EU market have tended to concentrate on large, public sector projects – which offer scale, certainty of long-term ownership, and the possibility of self-finance of the upfront investment (even where ESCOs have the possibility to do this from their own funds, they will tend to prefer not to do so). In order for ESCOs to play more of a role in delivering private and smaller-scale projects, more ready availability of third party financing and / or means of aggregating individual projects will need to be found. As outlined above the EIB could play a helpful role here, both through direct loans and through supporting governments (financially and technically) to establish effective, multi-tasking financing facilities.

What is the potential for energy efficiency outside Europe?
Do you consider the criteria used by the Bank to categorise projects as Energy Efficiency projects appropriate (see Annex 1)? What alternative would you propose?

The Bank’s current criteria are a) that projects must be able to demonstrate they will reduce energy consumption by at least 20% compared to pre-implementation levels, or b) ensure that energy savings from the project cover at least 50% of the investment cost over the project’s lifetime.

Until now the project pipeline for efficiency projects has been quite weak. It is therefore understandable that efficiency projects currently receive only about a third of the volume of lending that renewable energy projects do. However in view of the substantial investment needed to tap the available efficiency potential (and the importance of doing so for reasons of sustainability, competitiveness and security of supply) the volume of lending needs to increase.

There are reasons to expect that the project pipeline will improve, notably an increased focus by governments on energy savings (and on mobilising financing) thanks to the new Energy Efficiency Directive and an expected continued emphasis on energy savings moving forward to 2030. More financing should be forthcoming through the structural funds, ETS revenues and revenues from energy company obligation schemes. Rising energy prices can also be expected to increase interest in savings measures. However, the EIB can also play an important role in facilitating this project pipeline, including as mentioned above in supporting governments in ‘organising’ and improving the links between public and private sources of finance, projects, service providers and customers. The level of direct loans provided by the EIB should also increase.

Until such time as the project pipeline is better established, and efficiency can still be seen as somewhat of a ‘developing market’, the current criteria seem reasonable – with the caveat that unabated coal and lignite plant projects (including CHP) should be excluded entirely, due to the risk of high carbon lock-in. A review should also be built in so that the criteria can be made more stringent once a stronger pipeline develops (e.g. once all available structural funds are being used and indeed competed for), so that EIB loans are prioritised towards projects that will generate savings well beyond 20% and serve a strong public interest.
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Climate Action Network (CAN) Europe is Europe's largest NGOs coalition working on climate and energy issues. With over 140 member organisations in 27 European countries, CAN-Europe works to prevent dangerous climate change and promote sustainable energy and environment policy in Europe.