

1. Introduction:

The Quaker Council for European Affairs (QCEA) represents the concerns of the Religious Society of Friends (Quakers) at European Level. Quakers honour beliefs such as integrity - doing what you say -, simplicity, peace, equality and human rights, and the earth. Our answers to this consultation are determined by these values. We have not attempted to address all questions posed by the EIB but those most relevant to our expertise.

Two key elements to consider regarding EIB energy and energy lending are:

1. The opportunity to use funding to create the solutions to today's problems. These solutions may need to be more far-reaching than usually considered, to address the very fundamental problems that Europe, and the rest of the world, faces today.
2. The need for coherence, that EIB lending consistently supports EU policies.

Coherence means, for example, that reducing energy use must be part of the energy policy receiving financial support from the EIB - inline with the EU Roadmap objective of reducing emissions by 80% by 2050. Investments must consider all elements of EU policies simultaneously, rather than considering only one pillar. Consideration of only one aspect, such as security of supply, has resulted in investments which fulfil only one EU objective and in fact inhibit the fulfilment of other EU energy objectives. Examples are recent investments in high-carbon energy sources.

Coherence is also necessary with other EU policies and directives, such as the Water Framework Directive.

The EIB, like all lending institutions, is in a privileged position: with the capacity to make policy reality. The choice of guidelines and conditions becomes more important than when implementation is only theoretical. It is essential that the EIB carry out energy lending that completely and coherently supports a sustainable Europe - and, indeed, world.

QCEA has published a number of briefing papers, available at www.qcea.org. For example: Energy Efficiency and Savings: The under-utilisation of Europe's energy savings potential, available at <http://www.qcea.org/2011/05/bp-energy-efficiency-and-savings/>

2. EIB questions as listed in the consultation document

2.1 EIB questions:

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? 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)?

QCEA: It seems that the EIB has here framed the issues in a manner that prevents finding adequate solutions. It is now clear that any development must be sustainable in the purest sense of the word: able to be continued into the future. In order for this to be possible, we must maintain the natural resources and ecosystem which are the foundation of our entire

economic system, the source of all our goods, from food to stone to minerals. The time of investing for short-term solutions is gone. We have a crisis in terms of global climatic change, in terms of our dependence on natural resources including land, and in terms of social sustainability due to the economic crisis.

Fully evaluating inputs and outputs

The EU and the EIB should be at the forefront of challenging the misconception that increased consumption is equal to improved well-being. In our modelling of economic activity, and, especially now, of how to stimulate greater economic activity, we often forget that the entire basis of our economy is the natural world in which we live. We could not drink water, clean our bodies, cars, or streets, grow food - rainfed or irrigated, cool industrial complexes or even have many of the chemical recreations on which our manufacturing is dependent, catch or cultivate fish, or perform any of a myriad of economic activities without waterways. The list goes on. Yet, our entire economic model is founded on resources we have been taking for granted. Climate change is one example of the sort of drastic problems that can arise when the natural regulations are put out of balance by human activity - particularly, waste (emissions). But it is not the only regulatory function of the earth. The role of the environment in regulating our natural world, such as action on climate and regulation of pests and diseases, involves other functions we are only starting to factor into our financial paradigms.

The utter dependence of our economic and social system on natural resources and functioning means that investment truly supporting EU policy aims must protect these scarce natural functions. Not only do we need to consider emissions of all greenhouse gases (GHG, not only carbon dioxide), but also impacts of investment such as land used for building and infrastructure and land used to produce energy, whether it be biofuel or the land mined, flooded, or built upon to create centres of capture of renewable energy such as dams and windfarms.

Economic crisis

John Woolman, an 18th century Quaker, reflected on his life: "May we look upon our treasures, and the furniture of our houses, and the garments in which we array ourselves, and try whether the seeds of war have nourishment in these our possessions, or not." The same is true for us in Europe today: how is the manner in which we are living damaging social and environmental sustainability? Do we need a growing economy - more consumerism - to create jobs, or do we need jobs from which people can feed themselves and their dependents? Will our policies reduce the likelihood of conflicts arising from competition for scarce resources? A crisis is an opportunity to approach the problem differently.

Two of the core assumptions of the neo-liberal free market economic paradigm are that economies must grow, and that growth is good. Often, it is implied that global economic growth is necessary in order for poor countries to develop, and more specifically, to enable the eradication of poverty. However, there is strong and compelling evidence that aggregate economic growth is an absurd means to end poverty because of the structural tendencies towards inequality. The same structural tendencies gear us towards environmental degradation. Natural resources are becoming more scarce (and expensive) due to overuse; waste of all kinds is a problem. We cannot consume endlessly: it is time to create opportunities for income and meaning in a different way. The current crisis offers an opportunity to create investments to a steady-state economy.

Fully sustainable

QCEA considers that energy security in the European Union must be environmentally and socially sustainable. Environmental sustainability means securing energy that does not damage

our global ecosystems or contribute towards climate change. Socially sustainable means supporting need for people's capacity to be able to fulfil their basic needs and to survive, and environmentally sustainable means providing energy in a manner in which also addresses the environmental crises of climate change. The development of new structures and technologies in energy efficiency and renewable energy (chosen in full consideration of all EU policy objectives) could contribute to social sustainability, with the creation of local jobs. It is better that such jobs be in improving energy efficiency than, for example, in building new roads, as is often the case.

Social sustainability also requires an external energy policy that does not put Europe's energy interests above human rights, democracy and peace, and an internal energy policy that recognises the need to reduce demand for energy, to increase efficiency in how we use it, and to ensure that the least well-off do not carry an unfair burden, including that of the impact of pollution, or of more expensive natural resources, on people's health. It is not possible to consider a sustainable energy future without examining the economic systems which have created and perpetuated the overconsumption of energy and other resources in some parts of society in some regions of the world, whilst much of the world's population remains marginalised and suffers the negative environmental effects of this overconsumption.

Coherence of objectives

Climate change is not merely an additional concern, to be added to a pot of existing and competing interests. It is the overarching challenge facing humanity. As such, it is not appropriate to treat it as a peripheral concern, to be addressed subject to the compatibility with the demands of other areas. In other words, all policies must be assessed in terms of their capacity to affect climate change for good or ill, and neither the EU nor the EIB will fulfil their duty if they consider energy matters as a self-contained area of policy. To a certain degree, the numbers used to describe the economic problems of today also do us a disservice. A couple of degrees of warming: it sounds small. In addition, if we can add the numbers, we tend to assume we can also subtract. After all, weren't there warnings only a few decades ago about a cooling trend? It could even be an opportunity to invest: *Time* magazine carried not so long ago a prediction that global warming would make the Baltic countries new summer tourist destinations, implying a wise financial move would be to invest now in beach front property in northern climes.

But this is an overly simplistic approach. The earth is far more complex than these arithmetical approaches allow. Natural systems include feedback and regulation. There is the risk of some huge systems halting - like the circulation of the Gulf Stream (North Atlantic Drift). There are the complexities of wind circulation and evaporation, temperature decrease in the atmosphere, and clouds dropping rain they have collected elsewhere. All of this means that, now that we know that the disturbance of the Earth's natural regulation due to accumulation of certain gases in the atmosphere - and not only carbon dioxide - is causing a global problem that threatens our entire system (economic and social as well as natural), we should ensure that every action helps reduce the threat. This means that building coal-fired plants - or, indeed, investing in supporting new energy demand - is not a responsible investment for the future. The EIB should invest only in projects that fulfil all three pillars of the EU energy policy targets - as well as ideally not interfering with other environmental and social targets. Demand-side energy efficiency and renewable energy sources are both examples of types of projects which could fulfil these objectives.

When considering the demands of sustainable energy security, it must first be considered whether we are looking at how we use energy today, or simply at how we can replace one form of overconsumption with another. Energy choices are at the very heart of the environmental, economic and quality-of-life challenges we face. The sustainability challenge is well identified,

and 'business as usual' will not get us there¹. We urgently need a new appreciation of our energy choices, reflecting their true social and environmental costs. Ideally, new infrastructure, including that for renewable energy goals, should not be at odds with the CO₂ goal. New investment projects should be evaluated with robust life cycle assessments (LCA) that consider the emissions, and absorption, of the element under consideration (e.g. carbon, or other elements), from cradle to grave. In the case of carbon in renewable wind projects, this means examining carbon emissions resulting from mining or quarrying, manufacture, transportation, installation including soil disturbance, operation, maintenance, dismantling, and disposal of the wind turbines. It also means including loss of carbon storage capacity of the soil and ecosystem on which the infrastructure, including roads and other subsidiary infrastructure, is being built. All inputs and outputs should be included. The factors considered can vary but should include not only the materials used but also consumption of water and energy in each of these processes, pollution or the costs of 'scrubbing' pollutants, impact of outputs like clean but hot water on waterways, the effect regionally of the land use change, etc.

Each of these components of the life of a wind farm has an impact on the real contribution of the wind farm to Europe's emissions of GHG. This means not a banking consideration of the costs or consumer utility, but rather a calculation of carbon consumption and emissions at each stage of the life of a wind turbine. This would help ensure that EU policies are being coherently implemented: ensuring building to achieve renewable energy targets does not interfere with carbon emission reduction targets. There is no way around this: in order to be able to state whether a project contributes to a reduction in CO₂, one must crunch the real numbers. Comprehensive evaluation must consider the carbon implications of a renewable energy project. In fact, one could argue that additional considerations, like connection to the grid and local electrical consumption, should also be considered. It is also common to evaluate possible impact on the carbon balance of the change in land use, especially where peat has been storing carbon for centuries.

Connected thinking also means including the assessment of increased forest use (in northern boreal forest) in the environmental impact of reconstructing a pulp mill with a stated purpose of increasing the use of timber in a boreal zone where the unused timber has stood for centuries in pristine forest. It means having in-house qualified experts making the ecological, environmental, and social assessments, as well as the financial assessments. Coherence means considering the other uses and functions of the waterway proposed to be used for hydroelectric generation, both within and outside the EU, and whether the industrial complex being built might contribute to soil sealing. It means considering the drainage of peats and heat island effects on permafrost peats. We will only achieve our range of targets with connected analysis.

Therefore, the contrast between economic recovery and environmental sustainability is a false dichotomy. We need to support those whose means of livelihood is no longer possible in their environs, certainly. But to do that at the expense of the natural resources on which our entire society and economy, however complex, depend, would be folly.

2.2 EIB questions:

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?

¹ DG Climate Action 'Leading global action to 2020 and beyond', available at http://ec.europa.eu/clima/publications/docs/post_2012_en.pdf

QCEA: We agree with supporting emerging renewable methods as well as making decisions based on the entirety of the demand on natural resources (e.g. life cycle assessment, consideration of land footprint, etc.). This is an example of the opportunity, which the Bank could grasp, to be at the forefront of implementing policy goals and thereby making the social and environmental goals of the EU operational realities.

A banking assessment considers returns and externalities. The EIB has a Statement of Environmental and Social Principles and Standards, but it does not always succeed in ensuring complete environmental assessment of a proposed project. A recent example is the reason given for the lack of carbon life cycle assessment in a wind farm project on peatland. The EIB, as it is implementing through funding the policies of the European Union, should go further: it should consider what is being created by its funds. What land use, what landscape, what loss of other ecosystem services, what realistic jobs into the future, what contribution to society?

2.3 EIB questions:

What evidence is there that the cost of emerging renewable technology is falling? 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? Do you agree that there is significant scope for investment in renewable heating and cooling? What are the barriers to investments in this sector and how might these be overcome?

QCEA: While supporting, in principle, an increasing proportion of energy from renewable sources, QCEA reiterates its view that the total cost of emerging renewable technology, including the full cost of the social and environmental impact of adopting such technology, must be taken into account in any assessment of opportunities for investment. It is important to ask what energy is used for and whether the overall input of resources is justified by the projected use of the energy.

2.4 EIB questions:

What do you think are the main barriers to energy efficiency investments? What might be done to overcome these? What role can Energy Service Companies (ESCOs) play in developing energy efficiency investments?

QCEA: Reduction of energy consumption is a societal challenge that requires combination of technical, economical, and social means. So far, energy conservation has focused on new technologies and commercial savings, treating users as passive consumers. However, strong evidence suggests that users can adapt actively their behaviour to energy saving with suitable feedback, support, and incentives, reducing significantly and cost-effectively energy use without impacting adversely their comfort. Research has also found that the perception of the environment being a middle-class concern is false; all social groups made efficiency improvements, with working-class households making the most.

At the Quaker Council for European Affairs, we believe the energy savings potential continues to be greatly underutilised, with the public particularly underestimated for its capacity to deliver on energy policy. We also believe that innovative methods must be developed so as to address the issues of information and financing for end-users more directly. Most important is to ensure a profound, sustainable, long-term development towards much better energy efficiency, as a continuation of our middling, short-term outcomes is unlikely to lead to sustainable results. Energy efficiency also includes many non-energy benefits, including additional resource savings (e.g. water), building durability, health and safety.

Although the message is clear - energy efficiency in housing is a “no regrets” option - market and regulatory failures, as well as disincentives at the local level, inhibit access to energy efficiency financing. Support and incentive schemes must also be continued over the long-term, preferably within a single, integrated, demanding, and exacting legal framework. This argues strongly in favour of better, simplified, increased co-ordination between the funds, or better yet, a single funding stream, and the bringing together of all the possible funding and functions (such as technical assistance, loans for refurbishment, and operational programmes). Such an integrated, or “flagship”, approach, if accomplished, could also result in the benefit of being seen to prioritise energy savings at the highest European level by consolidating efforts, and ensuring ease of access to all.

Given the impossibility of ever-increasing consumption, and, from the standpoint of the Quaker value of simplicity, we propose that the right direction is not to build more power generation stations, which must take up land and landscape, use natural resources and produce waste. We must remember that what we are building is the landscape of the future - the power stations future generations will have to dismantle and recycle. Waste - nuclear or carbon or other - that will have to be stored or recycled.... Investment is not only about the new building, with the shiny corners and the newly employed workers, but the creation of a new land use and waste products in the future. A banking assessment must take the long view.

2.5 EIB question:

What is the potential for energy efficiency outside Europe?

QCEA: Energy efficiency- and renewable energy- as part of the EIB funding outside Europe is as viable as it is within the very different 27 Member States. The EU’s development goals incorporate the commitment to achieving the Millennium Development Goals, which include eradicating extreme poverty and hunger and ensuring environmental sustainability.⁶

This holds for many policy areas, from trade and transport policy to energy and economic policy. Moreover, it is apparent that many of our individual actions, and more significantly, the sum of these actions, add up to a system - a socio-economic system - that denies one of the tenets of Quaker belief - the fundamental equality of all human beings.

Interestingly, in our drive for consumerism and technology, we may forget the simple solutions, like the use of evaporating water on floors and clothes to cool air in hot climates - used in both the southeastern USA and Central American villages.

In parts of the world where industry has not developed as much as in Europe and North America, the EIB should seize the opportunity to support poorer countries in developing along a different path, one which avoids the stage of high emissions associated with industrial development, one which instead is innovative and develops industries using low carbon technologies.

2.6 EIB questions:

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? Is the traditional model for electricity transmission and distribution changing? What implications does this have for future investments in electricity networks? What is the future role of smart grids, offshore grids and energy storage solutions?

QCEA: As stated above, QCEA encourages the Bank to include in its evaluation the coherence and consistency in addressing EU objectives.

2.7 EIB questions:

Gas is an important bridging fuel source in the transition to a low carbon economy: to what extent and under what conditions should gas-fired generation be supported?

What role will coal and lignite fired generation have in the EU power system in the medium term, with or without CCS, and how is this consistent with the EU's Climate Action goals and its security of supply objectives? What will be the role of local coal supplies as input for highly efficient CHPs? What evaluation criteria should the Bank use to assess the economic, environmental and financial viability of coal and lignite fired generation?

QCEA: Like hydrofracking (discussed below), carbon capture and storage (CCS) is not a technology that is known to be adequate to our imaginings. It is similar to one of the main problems with human technologies: what to do with the waste, whether spoil heaps at mines, carbon dioxide, methane from intensive dairying, or nuclear waste. CCS should not be relied upon without confirmation of its long-term utility.

The EIB should avoid the temptation to rely on slightly improved version of a technology with which we are familiar, and should avoid funding coal and gas fired plants. The reason for this is that funding such plants means there are fewer funds for the type of plants we do need. Investment should be long-term and support the development of technologies and infrastructure for the energy source of the future. Investing now in plants for old-fashioned, if slightly improved fossil fuel combustion, is creating a long-term problem (for example, later dismantling and recycling/waste, the loss of ecosystem services of the built site, etc.) whereas the real solutions lie in increased energy efficiency and a higher proportion of use of renewable sources.

2.8 EIB questions:

What is the scope for the development of shale gas resources in the EU?

Extraction of shale gas is a relatively new technology which has been greatly expanded in the US in the past decade or so. The effect of this technology on greenhouse gas emissions (during the extraction phase), heavy metal contamination of surface waters, possible contamination of ground waters, and other problems like transport and vibrations, are not known. The amount of water used and possible impacts on ground water mean that this technology could have major long term effects on one of our most precious and heavily used natural resources: water.

Quakers are organized into regional and national groups, called Meetings, each of which is free to discern its own thinking on current issues. Quakers in New York have been the first group to publish a statement on fracking. QCEA is grateful to the New York Quakers for sharing their thinking on this issue, and QCEA broadly agrees with the New York Quakers' conclusions. "As Quakers, we experience the Divine through loving and truthful relationships with all people and all creation. After extensive efforts to inform ourselves about fracking we have concluded that it is inconsistent with our faith and practices which include a commitment to integrity, community, equality and care of God's creation. ... We support legislation and incentives which promote research, development, and use of renewable and sustainable energy; support local farms and farmers; protect the air and water; enforce accountability for industries that risk environmental harm; and create economic policies that promote work for New York State residents that they can do in good conscience. We urge all citizens to thoughtfully consider the long term effects of hydrofracking on the water, land, local economy, infrastructure, services, and the community as a whole. We are encouraged by the many communities coming together to seek a way forward based on truth and respect. We are called to stand against fracking, and invite others to join us in opposition to this practice." (New York Yearly Meeting Minute on hydrofracking: http://nyym.org/sites/default/files/NYYM_Minute-on-fracking_11-11-12.pdf)

Water is an ecosystem service in huge demand for personal consumption and for industry. Water is not an optional good: without (clean) water, human beings do not survive. Hydrofracking uses huge quantities of this scarce good, potentially leaving groundwater polluted. It is possible that water is not properly priced, as the use of an essential foodstuff for fuel production seems to be unbalanced. There is some doubt also as to whether the mooted productivity or profits of companies engaging in hydrofracking are valid - and profits will certainly be lower if the costs of damage to essential ecosystem services are included in the calculation.

Other issues are unknown as yet and so cannot be adequately incorporated into a comprehensive comparison: the impact of methane produced in hydrofracking on the climate, the impact of the foul odours produced on local residents' quality of life, impact of possible contamination on health. In the face of these risks, the EIB should act in accordance with the precautionary principle and not invest in a technology for which it has not been shown to have less than high levels of risk to the environment, to the natural resources humans need such as groundwater, and to human health and well-being.

2.9 EIB questions:

Do you expect the share of natural gas in EU primary energy consumption to grow further? What would be the best approach to increase security of gas supply and reduce import dependency? Given the large uncertainty on future gas demand, what is the risk that investment in natural gas infrastructure may be stranded?

What role do you expect nuclear power to play in the European energy market? As nuclear power stations are ageing, should their life be extended (where possible) or should they be replaced with other generation sources? What will be the impact on electricity generation and climate action of the reconsideration of nuclear policies within EU member states, in particular after the Fukushima accident?

QCEA: [no response]

2.9 EIB questions:

Which are the key innovative energy technologies under development? The development of which key innovative low-carbon energy technologies should receive most financial support? Which barrier(s) are hindering the deployment of innovative, low-carbon energy technologies most significantly?

QCEA:

The major barrier to innovative, low-GHG ways of living are human beings and our rather fixed minds. This includes not only the consumer and the company manager, but also the banker and the policy-maker. Behavioural and cultural changes are the most powerful, cost-effective and fastest means to achieve a sustainable future. While demand reduction is often mentioned alongside supply security,² it is rarely a priority for implementation, whether through policy, or through the search for innovation. In particular, commercial energy suppliers can hardly be expected to look at demand reduction objectively, as policy-makers must do. A much higher political urgency for energy efficiency and savings is essential if we are to have any chance of meeting Europe's climate and energy goals.

Building fossil fuel stations as bridging is investing in the wrong direction.

² For example, European Commission, DG Energy (2010) 'Energy 2020: A strategy for competitive, sustainable and secure energy'. Available at http://ec.europa.eu/energy/publications/doc/2011_energy2020_en.pdf

2.10 EIB questions:

Should financial support be spread across a large number of small research projects or be selective and concentrated on a few promising large research projects?

QCEA: As pointed out above, the main obstacle to change, is human resistance to change. Innovative projects addressing all pillars of EU environmental and social goals, whatever the size, should be targeted.

2.11 EIB questions:

In a developing market context, where should the balance lie between meeting local energy needs at least cost and reducing global greenhouse gas emissions - the trade-off between affordable energy for all and sustainable energy for all?

QCEA: [no response]

2.12 EIB questions:

What should be the role of the EIB in promoting new technology and helping to transfer existing technologies to new markets? Where can sources of low-cost finance be more effectively used by the private sector to develop energy projects? What are the main barriers to developing sustainable energy sources in developing markets?

QCEA: Although emerging technologies may be very helpful in meeting the need for energy with increased efficiency and reduced reliance on fossil or nuclear sources, technology is not always the answer. The efficiency savings potential in our built environment stands out. The potential efficiency savings are enormous, via widespread retrofitting of homes into passive and low-carbon buildings, with decentralised and renewable energy sources.

3. Summary

In summary, QCEA recommends to the EIB:

- Commitment to coherence between EU energy policies in making investment decisions,
- Incorporation of full consideration of environmental impacts of investment proposals, from full life cycle assessments to consideration of land use, soil sealing, habitat loss, and thereby loss of ecosystem services,
- Commitment to energy efficiency and provision of social sustainability as well as true environmental sustainability.
- Avoidance of funding of unproven and possibly unsafe technologies including extraction of shale gas and CCS.