



**WWF**

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# **WWF recommendations on the European Investment Bank's Energy Lending Review**

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# KEY RECOMMENDATIONS

## 1. Set up a new European Investment Bank (EIB) energy lending policy consistent with EU climate change goal

- The EIB should reflect the EU's 2050 decarbonisation goal in a substantively revised energy lending policy that precludes investment in assets that lock-in high carbon emissions and instead focuses on delivering a European zero-emission energy system by 2050;
- The default position for the EIB should be that when assessing investment opportunities and it can be proven that the investment will lead to a lock into a high carbon trajectory in a specific Member State or accession country, the investment should not go ahead.

## 2. Immediately phase out EIB support for coal

Given the urgency of combatting climate change there is no room for unabated new coal and lignite fired generation in the EU power system in the medium term. The EIB should stop support for coal including coal-fired Combined Heat and Power (CHP), refurbishment, retrofitting and replacement of coal-fired plants and coal mining operations.

## 3. Avoid the unsustainable expansion of gas

The EIB should limit its gas lending to supporting sustainable biogas, as the EU's gas infrastructure is rapidly approaching a point where further investment may lead to lock-in of this fossil fuel. The EIB should also preclude lending to shale gas, which may have a worse GHG footprint than coal, has a record of local environmental impacts including over-use of freshwater, and competes for finance with renewable energy.

## 4. Ensure sustainability criteria

- **Hydropower:** The EIB should enforce sustainability criteria for hydropower lending in accordance with the World Commission on Dams' guidelines both inside and outside the EU, ensure compliance with EU legislation and make full use of independent assessments and standards (e.g. Hydropower Sustainability Assessment Protocol);
- **Use of Environmental Impact Assessments for projects and Strategic Environmental Assessments for programmes** (e.g. hydropower cascades of projects on a river) for due diligence: The EIB should improve its due diligence and project oversight. EIB projects implemented outside the EU should meet both local

and EU standards in terms of environmental and social issues as well as proper International Financial Institution's due diligence practices (e.g. application of Equator Principles). Project assessment should not be limited to those projects directly financed, but should also consider the impact of connected projects as well as cumulative impacts. The EIB should set up a strong No-go zone policy and respect existing No-go designations (e.g. No-go rivers for hydropower development);

- **Financial intermediaries:** The EIB should apply the same criteria it uses for its own lending to that of the financial intermediaries it supports and enforce these criteria;
- The EIB should use its **GHG (Greenhouse Gas) accounting methodology** - including Scope 3 emissions - to ensure consistency of EIB policy and investments with the EU's 2050 climate goals.

## 5. Boost energy savings and renewable energies

Given the limited resources available to the EIB and as the bank is the EU's policy driven bank, it should place as the top energy priority energy savings that are the key enablers for decarbonising the energy system and the most effective way to limit energy price rise and volatility. There is currently a window of opportunity for boosting renewable energy capacity. A very significant increase in EIB investment in energy savings and renewable energy is required. This includes:

- The EIB should place a much greater emphasis on the refurbishment of buildings and apply the most ambitious available standards to prioritise deep renovation;
- The EIB should significantly tighten up its general 20% energy saving requirement and replace it with specific requirements depending on the sector / project, with levels of performance requirement based on best available technology approaches and 2050 requirements for given sectors, in order to avoid that incremental projects crowd out transformational ones and to lock-in energy savings for the long-term;
- The EIB should support successful initiatives by Member States on energy efficiency funding (such as the Czech Republic or Estonia) and the quick start-up of National Energy Efficiency Funds. Together with the European Commission it should refocus and scale up support of existing financial instruments related to the EU Budget (notably Cohesion Policy instruments) and focus Project Bonds on energy savings and renewable energy;
- The EIB should play a pivotal role in securitization platforms targeted at supporting energy efficiency and renewable energy (consistent with sustainability criteria) lending, with the goal of allowing fragmented and sub-investment grade loans to be collected, packaged and re-financed through debt capital markets (e.g. with asset-backed or in the style of covered bonds). This should involve a consultation process.

# GENERAL PRINCIPLES ON CLIMATE CHANGE AND EIB

## ENERGY LENDING

### **WWF vision for combatting climate change**

Unacceptable risks of climate change can only be avoided if developed countries reduce their greenhouse gas emissions by 40% by 2020 and by 95% by 2050. Achieving this will increase the odds of staying below 2°C warming<sup>1</sup>. WWF has a vision of a world that is powered by 100% renewable energy sources by 2050<sup>2</sup>. While this transformative effort demands significant investment, delivering it means global savings of nearly €4 trillion per year by 2050 through energy savings and reduced fuel costs than the current scenario<sup>3</sup>.

### **The EU policy framework to fight climate change**

The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050<sup>4</sup>. According to the European Commission's estimates, the most technologically and economically feasible means of achieving this is a total decarbonisation of the energy sector by 2050<sup>5</sup>. Existing measures to deliver the 20-20-20 climate and energy package are having a positive impact<sup>6</sup>. But without further action they will only cut greenhouse gas emissions by approximately 40% by 2050<sup>7</sup>. The EU is clearly off-track if it is to reach its 2050 climate goal. To make an adequate reduction in the EU's energy-related greenhouse gas emissions, our efforts have to be significantly increased.

### **The consequences for energy investments**

To have a reasonable chance of staying within a 2°C rise for the global climate, the IEA has stated that only zero-carbon utilities and infrastructure should be developed beyond 2017 since 80% of cumulative emissions allowable between 2010 and 2035 are already locked-into existing power plants, factories, buildings and services<sup>8</sup> - unless existing infrastructure is scrapped before the end of its economic lifespan. In addition, it implies that investments that prolong the overall lifetime emissions of a project actually add to the cumulative total annual GHG emissions.

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<sup>1</sup> WWF European Policy Office, EU climate change and energy policy, <http://www.wwf.eu/climate/>

<sup>2</sup> WWF and Ecofys *The Energy Report; 100% renewable energy by 2050* (2011)

<sup>3</sup> Ibid

<sup>4</sup> European Council, <http://register.consilium.europa.eu/pdf/en/09/st15/st15265-re01.en09.pdf>, October 2009

<sup>5</sup> European Commission, A Roadmap for moving to a competitive low carbon economy in 2050, March 2011

<sup>6</sup> European Council, 8/9 March 2007: By 2020, a 20% reduction in greenhouse gas emissions compared to 1990 (30% if international conditions are right, European Council, 10-11 December 2009); saving of 20 % of EU energy consumption compared to projections for 2020; 20 % share of renewable energies in EU energy consumption

<sup>7</sup> European Commission, Energy Roadmap 2050 COM(2011) 855/2

<sup>8</sup> IEA, World Energy Outlook 2011

## **The EIB role in energy lending**

The EIB is by far the world's largest public lending institution. Its energy portfolio is growing. Since 2002 the energy lending policy of the EIB has largely evolved in favour of renewable energy. From 2002 to 2006, only 11% of its energy portfolio was dedicated to renewable sources. That share has constantly grown, reaching 28% in 2007-2010, and 40% in 2011-2012, or €7.2 bn. Nevertheless, the share of harmful investments remains high. For the whole period 2007-2012, 29.4% (€19.5 bn) of the total energy lending capacity was invested in fossil fuels, and reached a peak of €5 bn in 2010. Of most concern is the €1.88 bn in support to coal-fired power plants for the period 2007-2012.

### **WWF Ask: Alignment of the EIB energy investments with the EU 2050 climate goal**

- The EIB's objective should support the EU's 2050 decarbonisation goal. An EIB substantively revised energy lending policy should preclude investment in assets that lock-in high carbon emissions and instead focuses on delivering a European zero-emission energy system by 2050.

# FOSSIL FUELS

## Focus:

1. Coal;
2. Gas, shale gas and CCS.

## 1. Coal

### The EIB's significant support for coal currently

In 2012, the World Resources Institute ranked the EIB as the fifth public financial institution in terms of lending to coal power plants, with 9 projects financed for a total USD 2,510.94 million<sup>9</sup>. Taking a broader definition (including any project associated with EIB support that has a coal component), the number of EIB-financed projects rises to 11 in the 2007-2012 period alone. This amounts to €1.88 billion in funding to coal-fired plants comprising the following projects:

- Advanced Coal-Power Plant Du-Walsum in Germany, € 397m (2007);
- PPC Environment in Greece, € 80m (2007);
- Enel Energia Rinnovabile & Ambiente in Italy, €90m (2007);
- TES - THERMAL Power Plant Sostanj in Slovenia, € 110m (2007);
- Power Plant Karlsruhe in Germany, €500m (2008);
- Fortum CHP And E-Metering in Poland, €100m (2009);
- SE Power Plant And Forest Industry R&D, Poland €65m (2010);
- TES - Thermal Power Plant Sostanj B, Slovenia €440m (2010);
- South Poland CHP in Poland, €68.1m (2011);
- Paroseni Power Plant in Romania, €32.7m (2011);
- TES - Thermal Power Plant Sostanj B, Slovenia €440m (EIB financing secured pending state loan guarantee, which was put in place on 6 December 2012).

### The EU is a net importer of coal

In the EU, coal is predominantly an imported fossil fuel. In 2010 24 out of 27 EU Member States have been net importers of coal<sup>10</sup>. The total EU-27 coal consumption exceeded 725 million tones and outstripped the production of EU Member States by over 175 million tons, increasing energy insecurity related to the fossil fuel dependence of the EU-27. Thirteen EU Member States have no coal production at all and thus are fully dependent on coal imports from abroad. Eighteen Member States have no plans to build new coal power stations<sup>11</sup>

### Additional costs of coal use

On top of its well documented disastrous climate impact, coal has enormous external costs on human health and environment. Black lung disease is caused by inhaling coal dust during

<sup>9</sup> World Resources Institute, *Global Coal Risk Assessment: Data Analysis and Market Research*, [http://pdf.wri.org/global\\_coal\\_risk\\_assessment.pdf](http://pdf.wri.org/global_coal_risk_assessment.pdf), p. 19, 2012

<sup>10</sup> Eurostat Coal Consumption Statistics

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Coal\\_consumption\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Coal_consumption_statistics)

<sup>11</sup> <http://www.greenpeace.org/international/en/news/Blogs/makingwaves/will-the-carbon-monoxide-man-endfinlands-rel/blog/42704/>

mining. The European Environment Agency concluded that air pollution from coal plants costs Europe an astronomic €112 billion in 2009<sup>12</sup>. Of the industrial sectors included in the pollutant register, emissions from power generation contribute the largest share of the total damage costs and three quarters of the total, damage costs is caused by the emissions of 622 facilities (6 % of the total number), showing the disproportionately high impact of coal power plants. According to UNEP, the coal-fired power sector is also the second biggest emitter of mercury accounting for 24% of global emissions<sup>13</sup>. As a result in real terms coal is much more costly to society than the present market price indicates when all the externalities are factored into the equation.

In addition to GHG emission reduction, phasing out EIB lending to coal mining companies and coal-fired power plants would support additional benefits of contributing to achieve the European goals of improving air quality and water quality enshrined in the Water Framework Directive<sup>14</sup> and the CAFE Directive (Clean Air for Europe)<sup>15</sup>.

### **EIB coal policy lagging behind best practice**

The US Overseas Private Investment Corporation (OPIC) has a greenhouse gas cap<sup>16</sup> that limits the emissions it can have ‘on its books’ for any fiscal year. Policy requires a 30% reduction in portfolio GHG emissions by 2018 and 50% by 2023. The OPIC must account for the direct GHG impact of any project it finances and account for it within its target. Given the legacy emissions from past projects the OPIC no longer has sufficient capacity within its cap to finance new large fossil fuel projects. In 2011 it financed \$1.3 billion clean energy and no fossil fuel projects.

Private banks such as HSBC and West LB have even more stringent rules on coal-fired power plant financing than the EIB. HSBC energy sector policy excludes any new coal-fired power plant deal in developed countries by requiring emission intensity of no more than 550g CO<sub>2</sub>/kWh. West LB requires its clients “to ensure that there is no feasible less GHG-intensive alternative/fuel/energy source” and to have “GHG reduction targets (to) be in place, monitored and audited in accordance with the 2 degrees Celsius target of the EU and UNFCCC”<sup>17</sup>. It is important to mention that both of these institutions are private banks and unlike the EIB they are not bound to the EU climate policy objectives.

### **The EIB role**

**It is difficult to see a rationale for the EU’s policy-driven bank continued support for energy infrastructure that work against the attainment of EU climate objectives, increases EU energy import dependence, results in significant external costs, creates difficulties in achieving EU Directives for water and air, places energy savings and renewable energy cleaner alternatives at a disadvantage by enhancing the competitiveness of coal-fired power.**

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<sup>12</sup> European Environment Agency, Revealing the costs of air pollution from industrial facilities in Europe, Technical report 15/2011

<sup>13</sup> UNEP (2013), Global Mercury Assessment

<sup>14</sup> Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy

<sup>15</sup> Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

<sup>16</sup> <http://www.wri.org/stories/2007/06/opics-greenhouse-gas-initiative>

<sup>17</sup> [http://www.portigon.com/cm/content/portigon/i/en/ueberportigon/unsereverantwortung/nachhaltigkeit/\\_jcr\\_content/contentparsys/box\\_2/download\\_0/file.res/WestLB\\_Policy\\_Coal-Fired\\_Power\\_Generation.pdf](http://www.portigon.com/cm/content/portigon/i/en/ueberportigon/unsereverantwortung/nachhaltigkeit/_jcr_content/contentparsys/box_2/download_0/file.res/WestLB_Policy_Coal-Fired_Power_Generation.pdf)



All this indicates that EIB's coal policy needs to be made fully coherent with EU Climate goals:

### **WWF Asks: Immediate phase out of coal support**

- Given the urgency of climate change there is no room for a policy that supports new coal and lignite fired generation in the EU power system. This implies that coal- and lignite-fired generation should not be supported by the EIB. This ban should include coal-fired combined heat and power (CHP): given the long plant lifetime and marginal efficiency gains, the risk of failure of the EU decarbonisation goal by 2050 is too high;
- This ban should include refurbishment, retrofitting and replacement of coal-fired plants. While focussed refurbishment can limit the emissions of various types of particles and lead to an improvement of air quality in the area, when refurbishment prolongs the lifespan of the plant it leads to an absolute increase in GHG emissions compared to energy saving or renewable alternatives. It creates a high risk scenario to contradict the decarbonisation of the EU energy sector committed by 2050;
- In the medium term, CCS (carbon capture and storage) technology is very unlikely to be technically effective and commercially available as part of a competitive energy option, so CCS for coal should not be considered by the EIB;
- The ban should also include coal mining operations and related activities.

## **2. Gas, shale gas and CCS**

### **Risk of gas overinvestment**

In each of the European Commission 2050 energy roadmap scenarios, gas consumption in the EU declines in absolute terms – this indicates caution is needed to avoid over-building gas infrastructure, which may have a lock-in effect. Furthermore, a proliferation of new transmission pipes, LNG terminals, and intra-EU connections risk stranding assets and raising energy prices, since they are at risk of being over-built compared to requirements.

### **Significant non-delivery risks of CCS**

In addition, analysis undertaken by Element Energy<sup>18</sup> on the practical potential for gas CCS in 2030 identified that over 60% of the likely European gas power plant fleet will either not have been assessed for capture readiness or will face difficulties in accessing CO<sub>2</sub> storage. The research highlights a large gap between the conditions that define minimal and meaningful capture readiness of gas plant currently. These issues highlight the risk of new investments locking in generating plants to locations unsuitable for CCS and increasing the future costs of decarbonisation. This adds to the concern that in the medium term CCS technology is very unlikely to be technically effective and commercially available as a

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<sup>18</sup> Green Alliance, C. Littlecott & E. Attal (2012) , *The CCS Challenge: practical potential for gas carbon capture and storage in Europe in 2030*, [http://www.green-alliance.org.uk/grea\\_p.aspx?id=6334](http://www.green-alliance.org.uk/grea_p.aspx?id=6334)

competitive energy option. Reliance on CCS to decarbonise the EU's energy system therefore carries significant non-delivery risks.

### **Risk of shale gas crowding out renewables**

In the US shale gas sector concerns have arisen over the life cycle footprint of shale gas, with some scientific research suggesting that it could be more than twice as high as for coal<sup>19</sup>. Several studies including European Parliament reports show the potential socio-environmental impacts of unconventional gas exploration and exploitation are highly concerning, and include a high risk of leakage, air pollution, high water use, water and land contamination, extra traffic generation and noise, risk of earthquakes and vibrations.

Financially, shale gas is most likely a “substitute not for coal but for renewables”<sup>20</sup> thus stifling the growing renewable sector. As pointed out by the IEA (World Energy Outlook 2011), unconventional gas investments would, in turn, distract public and private investors and operators from the real opportunities to invest in greater energy efficiency and to develop the renewables sector – both guaranteeing long-term supply. A UK cost comparison conducted in 2011 between shale gas and wind power found that investing in offshore wind would generate 17 % more electricity compared to the same level of investment in shale gas. If the same amount is invested in onshore wind, it would generate up to twice as much power<sup>21</sup>.

#### **WWF Asks:**

The EIB should therefore limit gas support to the development of local or regional approaches to the development of renewable biogas, as a means of extending the lifespan of existing assets, instead of investments in long-distance gas pipeline infrastructure which would lock-in high carbon assets over a longer timeframe than what is required for EU decarbonisation objectives.

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<sup>19</sup> Howarth, R. Ingraffea, A. Santoro, R. (2011), *Methane and the Greenhouse Gas Footprint of Natural Gas from Shale Formations*

<sup>20</sup> Stevens, P. (2012), *The 'Shale Gas Revolution': Developments and Changes*, Chatham House, <http://www.chathamhouse.org/publications/papers/view/185311%20>

<sup>21</sup> Tyndall Centre, Broderick J. et al (2011), *Shale gas: an updated assessment of environmental and climate change impacts*, p 71-72

# SUSTAINABILITY CRITERIA

There are specific energy sectors or thematic issues of concern where the EIB should set and enforce strengthened sustainability criteria:

1. Hydropower;
2. Use of Environmental Impact Assessment and Strategic Environmental Assessment for due diligence (including related to renewable energy projects);
3. Financial intermediaries;
4. Greenhouse gas accounting.

## 1. Hydropower

The EIB is significantly involved in the hydropower sector, including the Bujagali dam in Uganda, where the European Ombudsman is investigating the EIB's failure to handle satisfactorily complaints about a lack of environmental assessment, a lack of adequate compensation for affected communities and inadequate mitigation measures<sup>22</sup>.

### **Unnecessary harmful impacts from small and large dams**

Dams for hydropower production can bring substantial social benefits, however the impacts of dams on the environment – in particular freshwater ecosystems – and on people's livelihoods are always significant, while their benefits are often overestimated and the social and environmental costs underestimated<sup>23</sup>. It is crucial to avoid the adverse social and environmental impact of such infrastructure and to ensure investors' and tax payers' money is used effectively. Badly located and designed projects, exaggerated forecasts for returns and reputational risk have made many dam projects risky investments. Following a set of recommendations forwarded by the World Commission on Dams (WCD), including comprehensive needs and options assessments, stakeholder involvement and the avoidance or minimisation of environmental and social impacts, will significantly reduce investment risk.

The 50,000 large dams <sup>24</sup> in the world have had a major impact on freshwater ecosystems. Together with canals and other diversions they are responsible for the fragmentation of more than 60% of the world's largest rivers. Dams have also contributed to a huge loss in freshwater biodiversity. More than half of nearly 200 key freshwater species have declining populations and, of the approximately 177 rivers in the world greater than 1,000km in length, only around a third remain free-flowing (Living Planet Report, WWF).

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<sup>22</sup> EIB complaint : [www.counterbalance-eib.org/?p=136](http://www.counterbalance-eib.org/?p=136) and complaint to the European Ombudsman: [www.counterbalance-eib.org/?p=1455](http://www.counterbalance-eib.org/?p=1455)

<sup>23</sup> WWF, Seven Sins of Dam Building, March 2013

<sup>24</sup> According to the International Commission on Large Dams, a large dam is 15 metres or higher. Dams between 5 and 15 metres with a reservoir volume of more than 3 million cubic metres are also classified as large dams. However, impacts of dams are not determined by dam size alone

In addition, the impact of the fragmentation of small rivers by hydropower facilities should not be underestimated. A series of small hydropower plants can be more destructive to freshwater ecosystems than one well sited large plant with adequate mitigation measures.

### **Sustainability principles for EIB's investment in sustainable hydropower**

- Proposals for new hydropower plants must meet internationally recognised sustainability standards e.g. World Commission on Dams guidelines<sup>25</sup>. New hydropower plants should only be considered if, after a thorough assessment, they prove to be the best option, including when compared against energy efficiency, energy savings and other renewable energy sources;
- EIB should encourage and respect the designation by the governments of “No-go” areas for hydropower schemes — large or small — on some of the remaining unregulated rivers (or their tributaries) in areas of high conservation value<sup>26</sup> (see the No-go section in the next chapter);
- Decisions regarding the location of hydropower plants should be made in order to minimize the environmental impacts in the whole river basin. Efficient hydropower sites that minimize the area flooded per unit of energy produced should be favoured (but taking into account the point above);
- Mitigation measures, such as environmental flow regimes, habitat restoration and protection, fish ladders, can significantly reduce the impact of hydropower projects and should always be planned for;
- Wherever possible, the capacity of existing hydropower plants should be increased and existing infrastructures refurbished (optimized) in order to minimize the need for new plants. Optimisation should also be linked to environmental improvements;
- Small hydropower plants, which can supply rural areas in developing countries with renewable energy, must include mitigation measures and their cumulative impact must be considered;
- Developers must ensure fair resettlement, in accordance with WCD principles, by involving all stakeholders — including displaced residents and downstream users — in decision making;
- EIB should encourage governments to prioritise a sound energy mix, including energy efficiency measures and various renewable energy solutions, to balance environmental and social impacts and foster energy security.

### **Complying with EU legal requirements**

Complying with the relevant EU legal framework, notably the Water Framework Directive, the Birds and Habitat Directives and the Directives on Environmental Impact Assessments

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<sup>25</sup> [http://wwf.panda.org/what\\_we\\_do/footprint/water/dams\\_initiative/dams/wcd/](http://wwf.panda.org/what_we_do/footprint/water/dams_initiative/dams/wcd/)

<sup>26</sup> [http://awsassets.panda.org/downloads/wwf\\_guide\\_water\\_for\\_life\\_web.pdf](http://awsassets.panda.org/downloads/wwf_guide_water_for_life_web.pdf)

(EIA) and Strategic Environmental Assessments (SEA) is a good way for the EIB ensure the necessary measures have been taken when developing or funding a new infrastructure project. While compulsory only within the European Union, alignment with the *acquis communautaire* is an important requirement for countries on the road to EU accession, and compliance with EU standards should be a requirement for EIB investments globally. Developments in National Parks and internationally recognized nature reserves such as Ramsar sites, Biosphere reserves and Emerald Networks should be avoided.

### **Using full potential of voluntary assessments and standards**

The Hydropower Sustainability Assessment Protocol (HSAP)<sup>27</sup> is making operational WCD recommendations and can prove a useful assessment tool which is mainly designed for developers, to measure and guide the hydropower sector's performance in matters of sustainability. The HSAP assesses the four main stages of hydropower project development and implementation: the early stage, preparation, implementation and operation. Assessments rely on evidence to create a sustainability profile against some 20 criteria depending on the relevant stage and covering a broad range of sustainability aspects.

WWF was closely involved in the development of this state-of-the art tool and strongly supports its use, especially in countries lacking legislation on EIAs and/or SEAs.

Another scheme supported by WWF is the Gold Standard (GS)<sup>28</sup> in carbon credits, a certification standard for carbon mitigation projects, which is recognised internationally as the benchmark for quality and rigour in both the compliance and voluntary carbon markets. The GS certifies renewable energy and energy efficiency carbon offset projects to ensure that they demonstrate real and permanent greenhouse gas (GHG) reductions and sustainable development benefits in local communities that are measured, reported and verified.

Gold Standard projects must adhere to a stringent and transparent set of criteria that are developed by the Secretariat, overseen by an independent Technical Advisory Committee and verified by UN accredited independent auditors. This certification process is unique as it requires the involvement of local stakeholders and NGOs.

### **Implement International Financial Institutions' performance standards and safeguards**

Most International Financial Institutions (IFIs) have developed their own sustainability principles, standards or safeguards when it comes to screening infrastructure projects before approving loans. They will seek to ensure that the projects they finance are socially and environmentally sustainable, respect the rights of workers and affected communities and are designed and operated in compliance with applicable regulatory requirements and good international practices. The World Bank and the International Finance Corporation (IFC)

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<sup>27</sup> The HSAP is the result of intensive work between 2008-2010 by the Hydropower Sustainability Assessment Forum, a multi-stakeholder body with representatives from social and environmental NGOs (Oxfam, The Nature Conservancy, Transparency International, WWF); governments (China, Germany, Iceland, Norway, Zambia); commercial and development banks (Equator Principles Financial Institutions Group, The World Bank), and the hydropower sector, represented by the International Hydropower Association (IHA). <http://hydrosustainability.org>

<sup>28</sup> Established in 2003 by WWF, the Gold Standard is the only certification standard trusted and endorsed by more than 80 NGOs worldwide, including Care International, World Vision Australia Forum for the Future and Mercy Corps. It is also the standard of choice for governments and multinational companies, including H&M, DHL, Swiss Post, Nokia, Virgin Atlantic, Panasonic, TUI Travel and FIFA. United Nations agencies use the Gold Standard for the development of their own carbon mitigation and sustainable development projects.

have a series of “Performance Standards” that were recently updated to reflect increasing challenges such as resource efficiency, climate change and human rights.

IFIs also conduct Environmental and Social Impact Assessments (ESIAs) to identify, avoid and mitigate the potential adverse social and environmental impacts associated with their operations. Several large international and national banks have moreover subscribed to the “Equator Principles” or the “Principles for Sustainable Investment”, a voluntary framework established by UNEP by which investors can incorporate environmental, social and governance issues into their decision-making processes to better align their objectives with those of society at large.

#### **WWF Asks:**

The EIB should enforce sustainability criteria for hydropower lending according to the WCD guidelines both inside and outside the EU and ensure compliance with EU legislation and make full use of independent assessments and standards (e.g. Hydropower Sustainability Assessment Protocol), as well as implement IFIs due diligence practices (e.g. application of Equator Principles).

## **2. Use of Environmental Impact Assessment and Strategic Environmental Assessment for due diligence**

In February 2010, the EIB updated its 2006 Environmental and Social Practices Handbook, identifying why and how the EIB conducts its own environmental and social assessments of projects. There remains a notable discrepancy between the standards the EIB is adhering to inside and outside the EU: whereas projects in the former are required to “comply” with EU laws and standards (notably the Environmental Impact Assessment – EIA - Directive<sup>29</sup> and the Strategic Environmental Assessment – SEA - Directive<sup>30</sup>), those that fall in the latter case are only “benchmarked” against them. The EIB argues that the application of EU standards to non-EU projects is subject to local conditions and international good practice. Regrettably the EIB still lacks explicit operational procedures based on EU law, which would constitute a consistent and effective framework for managing environmental and social issues in projects outside the EU.

### **No double standards**

It is therefore important for the EIB to improve its practice and performance when it comes to the environmental and social impact assessment of projects. To ensure proper due diligence, EIB projects implemented outside the EU should meet both local and EU environmental and social standards. Projects should undergo an adequate appraisal process, including consultation with the local population and country representatives at all levels, transparency (revenues, monitoring) and an ex-post evaluation of each project.

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<sup>29</sup> EIA Directive (85/337/EEC)

<sup>30</sup> SEA Directive (2001/42/EC)

Project assessment should not be limited to those projects financed, but should also consider impacts related to connected projects:

- any financed pipeline projects should also consider the impacts of wells and the climate impact of the transported fuel when it is combusted;
- transmission line projects should also consider the associated impacts of power plants or the impact of electricity production and its potential export;
- Strategic Environmental Assessment should be required where relevant, notably in case of large and small dams located on the same waterway or on tributary rivers, to assess their cumulative impacts.

For all energy projects outside the EU, the EIB should include in its ex-post evaluations performance indicators that relate to the development, environmental and human rights aspects of the projects funded – to ensure that the EIB performance is in line with the EU’s development policy and the EU Policy Coherence for Development.

### **No-go zones and circumstances**

Some specific areas worldwide host such a valuable biodiversity that they should be protected from significant conversion or degradation. Therefore public lenders such as the EIB should not support projects that harm these areas. Other projects of concern for the EIB are those involving processes or substances banned under international law. So called ‘no go zones’ or ‘no go circumstances’ are nothing new <sup>31</sup>, but need to be regularly updated and enhanced to follow recent international moves in order to take into account environmental and social requirements for a more sustainable development. The EIB should set up a No go zone policy such as the one proposed in Annex.

#### **WWF Asks:**

The EIB should significantly improve its due diligence process and project oversight:

- Projects implemented outside the EU should meet both local and EU standards in terms of environmental and social issues, and firstly undergo a proper Environmental Impact Assessment;
- Project assessment should not be limited to those projects directly financed but should also consider impacts related to connected projects (transmission lines / power plants, etc.);
- When several projects lead to cumulative impacts (large dams on the same waterway or tributaries), a Strategic Environmental Assessment should be required;
- Transparency throughout the process should be ensured - i.e EIAs and SEAs made available before project implementation, along with plans to address problems identified;
- The EIB should set up a No go zone policy such as the one proposed in Annex.

<sup>31</sup> See Platform for Rights, Rules and Responsibilities (2004) about the IFC’s Safeguard Policy Review, <http://www.grrr-now.org/doc/Dec%20Comments%20on%20IFC%20Draft%20E%26S%20Policy.doc> or the ECA-Watch Network about Export Credit Agencies’ safeguards, [www.eca-watch.org](http://www.eca-watch.org)



### **3. Financial intermediaries**

#### **Intermediated lending on the rise**

The EIB provides loans and investments to banks and investment funds who act as intermediaries. These intermediaries are then required to provide funding, usually with certain conditions attached. There are some uniform conditions such as a ban on certain sectors or the minimum and maximum loan size and there are also loan specific conditions which are negotiated individually (such as allocating the funding to a specific targeted sector). The EIB calls these loans ‘credit lines’ which are more commonly known as global loans.

Intermediated lending now represents over 20% of the EIB total annual lending and this figure is increasing. More frequently it is used as a policy tool by the EIB to support key areas such as micro finance or renewables. The justification for this is that through intermediaries smaller loans and investments can be provided than the EIB can provide, and more businesses can thus be supported by the EIB than would otherwise be possible.

#### **Lack of transparency and accountability**

There are however many concerns with the use of financial intermediaries:

- As shown in two reports<sup>32</sup>, the whole process of how the intermediaries lend or invest the money is totally opaque despite the fact that it is public money that is being handed out. Little or no information is provided to the public by the intermediaries or the EIB on where the money ends up and who actually benefits from it (both inside and outside the EU);
- The EIB does not do any ex ante due diligence on the ultimate projects or benefactors of the money and very little ex post evaluation either. As a consequence it is impossible to evaluate the impact of these loans;
- The EIB has very little say in who the final beneficiaries of the loans/investments are. As the intermediaries take on the risk of the final loan or investment so they ultimately control the process of selecting and approving the end project;
- There is often only a standard credit assessment done by the EIB of the intermediary banks or private equity firms before it provides lending to them or invests in them, but ex-post assessment is practically non-existent. In politically weaker states or jurisdictions this can raise serious risks of corruption;
- Outside the EU, the financial intermediaries are mostly foreign owned and based entities so their local expertise and commitment to local development needs is questionable;

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<sup>32</sup> CEE Bankwatch (2010), *Missing in action - The winners, the losers and the unknowns of the European Investment Bank's anti-crisis SME offensive in central and eastern Europe*; see also Counter Balance (2010), *Hit and run development*



- It seems that these financial intermediaries derive the most benefit from the funding rather than the end recipients: e.g. an interest rate discount to end recipient SME of between 0.20% and 0.40% is so small that it is practically within the discretion of individual commercial bankers and does not reflect the supposed financial clout and advantage which the EIB claims to bring to these loans. The financial intermediaries are often slow in financing businesses and projects and do not pass on the full financial benefit which they receive from the EIB. Seemingly many use the money to support their capital needs.

#### **WWF Asks:**

The EIB should apply the same criteria it uses for its own lending to that of the financial intermediaries it supports and enforce those criteria.

## **4. Greenhouse gas accounting**

### **The EIB methodology**

Most projects financed by the EIB emit greenhouse gases (GHG) into the atmosphere, either directly (e.g. fuel combustion or production process emissions) or indirectly through purchased electricity and/or heat. Many projects result in emission reductions or increases when compared to what would have happened in the absence of the project, referred to as the “baseline”.

In January 2009, the EIB launched a 3-year pilot exercise to assess the carbon footprint of projects financed by the Bank<sup>33</sup>. The methodology draws on several internationally recognised sources such as the IPCC guidelines, the World Resources Institute’s GHG Protocol, EU ETS benchmarking methods as well as sectoral GHG accounting protocols. According to the EIB, the objective of the methodology is twofold:

- to assess the absolute GHG emissions of the projects financed by the EIB;
- to assess any emission variations compared to a baseline, referred to as the relative emission.

### **The need to account Scope 3 emissions**

The EIB methodology uses the WRI GHG Protocol concept of “scope” when defining the boundary of a project. Scope 1 is related to direct GHG emissions (e.g. emissions produced by the combustion of fossil fuels); scope 2 is related to indirect emissions (emissions from the generation of electricity that is then purchased by the project and/or heating/cooling consumed by the project). Scope 3 is related to other indirect GHG emissions (consequences of the activities of the project but that derive from sources not operated by the project developer).

<sup>33</sup> EIB Pilot Carbon Footprint Exercise: A Summary of the Draft Methodologies used during the pilot phase for the Assessment of Project GHG Emissions and Emission Variations, 26 October 2011

Problematically the EIB states that “In general only scope 1 and scope 2 GHG emissions of projects are to be assessed”<sup>34</sup>. The EIB justifies its decision to not account for scope 3 emissions in the majority of cases because their quantification is not technically feasible and they only provide a limited contribution to total emissions.

However, it should be noted that access to data needed to evaluate scope 3 emissions has rapidly made progress in a few years, and many methodological issues related to double counting of emissions among the various scopes have been resolved. In fact the GHG Protocol released a comprehensive Scope 3 Accounting and Reporting Standard at the end of 2011, which provides guidance on identifying the scope 3 emissions that should be accounted for to ensure that major emissions are included while making the exercise manageable and not too cumbersome.

In addition, a study estimated that in all 491 economic sectors in the United States scope 3 emissions comprise at least 75% of total emissions from two-thirds of sectors providing goods and services<sup>35</sup>. **This shows that Scope 3 emissions are much too significant to be ignored in a meaningful GHG accounting methodology.** For example in the life cycle analysis of a car, fuel typically accounts for 75-85% of the total carbon footprint of the car<sup>36</sup>. Scope 1 and 2 emissions of a car manufacturer (15-25% of total car emissions) are therefore of relatively less importance to reduce emissions from the car transport - the key issue is the emissions when driving which largely depend from the motorisation designed by the car manufacturer. Consequently, financed emissions assessments are far too potent to be ignored in financial decision making – especially for a policy bank like the EIB.

The EIB should further explore how to translate the EU 2050 climate goals within its lending/investment policy and portfolio. It should notably take part in the ongoing UNEP Finance Initiative/World Resources Institute process to develop “financed emissions” guidelines for financial institutions in the GHG Protocol, and the 2° Investing Initiative<sup>37</sup>, a multi-stakeholder think tank gathering financial institutions, research institutes, experts and NGOs and coordinating research projects on the framework and tools needed for investments in a 2°C scenario.

#### WWF Asks:

- The EIB should include Scope 3 emissions in its GHG accounting methodology and make the GHG accounting mandatory;
- The EIB should adopt baselines established on the most environmentally, economically and socially sustainable option (including energy savings) rather than the one most likely in the absence of the project, and release its baseline methodology for each sector;
- The EIB should develop a clear policy on how the bank will use the GHG accounting results to prevent the financing of projects which will increase emissions or not decrease them sufficiently to be in line with the EU's 2050 climate goal.

<sup>34</sup> Ibid, p 4

<sup>35</sup> Matthews, H. S., C. T. Hendrickson and C. L. Weber (2008) *The importance of carbon footprint boundaries*, Environmental Science and Technology, 42, 5839-5842

<sup>36</sup> See <http://www.carbontrust.co.uk/policy-legislation/international-carbon-flows/automotive/Pages/10.aspx>

<sup>37</sup> [www.2degrees-investing.org](http://www.2degrees-investing.org)

# ENERGY SAVINGS AND RENEWABLE ENERGIES

## Focus:

1. Energy savings;
2. The 20% energy efficiency requirement for EIB lending;
3. Renewable energy;
4. Infrastructure needed for supporting renewable energy development: smart grids and energy storage;
5. The need for new targeted financial vehicles from the EIB for energy savings and renewables.

## 1. Energy savings

Energy savings are the key enablers for decarbonising the energy system<sup>38</sup>. The risk of not achieving the EU 20% energy savings target by 2020 is high, and needs to be addressed much more effectively than is currently the case, including with additional and better focused financing. The recent World Energy Outlook from the IEA acknowledges that energy efficiency is an option fulfilling all three criteria of energy security, economic and environmental objectives: in other words, it is the best potential for win-win-win outcomes. Energy efficiency is critical to ensuring that decarbonisation is delivered in a way that minimises costs for end-users. But it faces market failures around enabling, aggregating and scaling investments: this is where the EIB has a role to play.

In addition, implementation of energy efficiency policy also has huge employment benefits: the EU Energy Efficiency Plan estimates that achieving the 20% energy saving target will mean up to 2 million new jobs created or retained in Europe<sup>39</sup>. Another analysis, by the European Trade Union Confederation, estimates that by 2030 up to 2.59 million jobs could be created in the EU buildings sector alone<sup>40</sup>. In this time of crisis, such a high job potential cannot be missed.

### Important obstacles to overcome

The numerous barriers to energy efficiency investment are well-documented in the latest IEA World Energy Outlook 2012<sup>41</sup> and include barriers such as split incentives, lack of awareness, scarce access to finance and project fragmentations. Some of the barriers can be addressed with regulations, others with the provision of information or financial support, or through a combination of the above.

**The EIB has a crucial role to play in one very significant market barrier; access to affordable capital to address high upfront costs.**

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<sup>38</sup> WWF (2012), *Re-energising Europe – Cutting energy related emissions the right way*

<sup>39</sup> European Commission (2011), *Energy Efficiency Plan 2011*. COM(2011) 109 final

<sup>40</sup> European Trade Union Confederation (2010) *Climate Disturbances: The new industrial policies and ways out of the crisis*

<sup>41</sup> IEA, World Energy Outlook 2012

## Priority focus on buildings

Energy savings represent the largest untapped opportunity for emissions reductions. The building sector, in particular, is responsible for around 40% of EU final energy consumption and 36% of total EU CO<sub>2</sub> emissions, but at the same time energy efficiency improvements in this area have the biggest technical and economic potential<sup>42</sup>. The greatest untapped potential lies in building refurbishments, rather than in new buildings, as the former constitutes nearly all building stock (there is only approximately 1% growth of the total building stock each year).

With the adoption of the Energy Efficiency Directive there is a greater focus on delivering energy efficiency across Europe in building renovations, as Member States are required to prepare long-term strategies for mobilising investments in the renovation of the national stock. This new focus should be reflected in EIB priorities and capital allocation to this sector, because a substantial amount of funding needs to be mobilized. A recent Fraunhofer ISI and Ecofys analysis indicates that up to €65 billion needs to be invested in building retrofitting every year up to 2020 to meet the 20 % energy efficiency target<sup>43</sup>.

When dealing with building renovations, the EIB should go beyond financing business-as-usual renovations that will happen anyway, but finance deep renovations (refurbishment that reduces the energy performance of a building to a level comparable to the passive house standard if technically feasible; or a reduction of at least 75% of energy consumption compared to the building's performance before renovation).

Large investors, including the EIB, might find difficult or ordinarily unattractive opportunities to finance building renovations, especially in the residential sector as this means dealing with a myriad of small projects and different stakeholders. It is therefore crucial that the EIB develops way of working with other relevant stakeholders leading to the aggregation of renovation opportunities to make the projects larger and therefore more attractive to large size investors.

## Energy efficiency categorization in the EIB portfolio

There are several concerns on the criteria and access of information related to the energy efficiency projects as categorized by the EIB:

- It is currently unclear how the EIB calculates the energy efficiency components of combined heat and power (CHP) projects;
- There are also some EIB projects outside the energy sector classified as 'energy efficiency' projects, or projects with energy efficiency components, for which it is unclear what energy efficiency criteria were used. An example is Vodafone IT Universal Mobile Broadband where energy efficiency criteria to classify the project as an energy efficiency project and the GHG emissions reductions expected are unknown. The EIB should make such crucial elements clear in the relevant project information document;
- In the building sector, it is obvious that new buildings are more energy efficient when compared to older buildings, however this should not mean that the EIB simply classifies all new constructions as being 'energy efficient'. It is recommended that the

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<sup>42</sup> Brussels, 22.6.2011, SEC(2011) 779 final, Impact Assessment accompanying the Directive of the European Parliament and of the Council on energy efficiency and amending and consequently repealing Directives 2004/8/EC and 2006/32/EC, page 9.

<sup>43</sup> Fraunhofer ISI and Ecofys *The upfront investments required to double energy savings in the European Union in 2020* (2011),

EIB obtains a solid overview of current and coming building technologies, to be applied as benchmark in lending decisions for building and/or retrofit projects.

### WWF Asks:

Energy savings are the key enabler for decarbonising the energy system and should therefore become the top energy priority of the EIB, given its limited resources. The EIB has a crucial role to play in one significant market barrier: access to affordable capital to address high upfront costs. An increased amount of EIB investment in energy savings is critical.

- The EIB should place a greater emphasis on the refurbishment of existing buildings (dwellings, public buildings) that have largely untapped energy efficiency potential. Closer cooperation with municipalities, towns and cities will deliver positive results;
- With respect to buildings, the EIB should apply the most ambitious available standards for renovation and new buildings, thereby driving the sector away from a high-carbon lock-in;
- EIB categorization: only specific measures that go beyond the current normal practice should be classified by the bank as energy efficient and supported as such;
- Furthermore, energy efficiency criteria should be officially integrated in all of the EIB's official documents, including lending policies and application documents. Improved energy efficiency should be a condition for obtaining funding – becoming a consideration as important as a project's financial viability and its respect for environmental and procurement policies. The EIB should verify that these criteria are met. Such EIB project conditions, energy efficiency assumptions and their results should be transparent and publicly available.

## 2. The 20% energy efficiency requirement for EIB lending

The EIB states that “For projects to be considered for financing by the Bank as energy efficiency projects, they must demonstrate that they will reduce energy consumption by at least 20% compared to the situation before their implementation, or ensure that the energy savings resulting from the project account for at least 50% of the investment cost over the project's life.”

Reducing energy consumption by at least 20% is far from being an ambitious requirement for an energy efficiency project. For example, the renovation of existing buildings with state of the art technologies could easily reduce energy consumption in a building by at least 75% compared to pre-renovation levels and in some cases further reductions are technically feasible. In this situation, an investment that would encourage only a 20% reduction of energy consumption means financing a sub-optimal refurbishment that locks in energy saving potentials until the next renovation cycle.

One example, in Estonia is the minimum energy efficiency requirement that benefits a national favourable loan in housing is already 30%, and actually the expected results are

39%<sup>44</sup> - showing how much the general EIB 20% requirement falls and should therefore be substantially increased.

Also when looking at energy saving potentials of measures with shorter pay-back period than building renovations, such as energy audits, the 20% figure seems inappropriate. According to the European Commission's Impact Assessment of the Energy Efficiency Directive, a typical audit that is complemented with follow-up measures with a very short pay-back period of 2-3 years already achieves 20% energy savings; if measures with a relatively longer pay-back period are introduced, the savings can increase to 30%<sup>45</sup>.

If a large number of energy efficiency projects applying for financing, there is a risk that incremental projects will crowd out transformational ones (saving well beyond 20% energy) because they are less innovative and easier to implement. EIB lending criteria and products must be designed to favour transformative measures with long-term effects.

The energy efficiency requirement should also entirely exclude unabated coal and lignite plants – including CHP projects – because they carry an excessive risk of high carbon lock-in.

**All this indicates that the EIB's 20% energy efficiency requirement needs to be tightened up:**

#### **WWF Asks:**

We propose an alternative approach of defining performance requirements per type of project (e.g. for new buildings, building renovations, energy efficiency in industry or energy services) which any project deemed energy efficient would have to meet. The level of performance requirement would be based on the best available technology approaches, be in line with 2050 requirements for given sectors, and ensure that energy savings lock-in is not facilitated.

The Climate Bonds Initiative<sup>46</sup> is currently working with a wide group of institutions (e.g. the International Energy Agency), investors, industry, academics and policy think-tanks (e.g. the Buildings Performance Institute of Europe), to develop such criteria to be related to fixed income investments for buildings. Although developed for Climate Bond certification, the methodology and criteria can be adapted to other financial instruments including lending policies.

### **3. Renewable energy**

#### **Shortage of private finance**

In the wake of disruption of the financial system 2007 banking collapse and the wider economic problems in the Eurozone, there has been a rolling back in the availability of affordable and long-term bank debt for renewables. This reflects the commercial banks'

<sup>44</sup> KredEx, Presentation from Mirja Adler in Brussels conference under Cyprus Presidency, « Securing financing for energy efficiency», 06/11/12

<sup>45</sup> Impact Assessment accompanying the Directive of the European Parliament and of the Council on energy efficiency and amending and consequently repealing Directives 2004/8/EC and 2006/32/EC (22.6.2011), SEC(2011) 779 final, page 50

<sup>46</sup> <http://climatebonds.net/>

collective response to Basel III regulation, which requires a deleveraging, but also increases concerns about the stability of political support for low carbon investments and renewables especially. The task of shifting investors' preferences is made even more difficult in the current economic climate. Thus public banks such as the EIB should be prioritising lending to low carbon projects and business, which are finding it increasingly difficult to secure affordable loans despite the fact that they build on solid long-term fundamentals.

### Successful development curve

Several solutions for renewable energy are technologically mature, tested and proven and show considerable potential increased for reducing costs. It has been shown since 1980 that each time solar photovoltaic technology sales double, the costs diminish by 22%. Onshore wind in certain countries is now almost cost-competitive with Combined Cycle Gas Turbine (CCGT) on a level cost basis. In addition, research by the UK Energy Research Centre shows that the costs of renewables including offshore wind will be equal to gas-fired CCGT from approximately 2025<sup>47</sup>. For renewable technologies such as these the challenge is primarily related to market awareness and policy frameworks. As a policy-driven bank, the EIB is correct in supporting technologies in the earlier stages of commercialisation .

High capital expenditure and low operational expenditure projects - typically renewable energy projects - are more at risk to costs of capital increases than gas plants that can pass-on volatile fuel prices to the wholesale electricity market hedge price risks. Current EIB lending policy requires "projects to demonstrate that their economic cost is equal to or below those of the least cost alternative". This would typically be a CCGT in continental Europe for projects in the power sector or an individual gas boiler for heating projects. However, such an additionality approach to lending does not take into account how the costs of CCGT gas plants would increase due to the achievement of renewable energy policies in Europe as many plants would not be running at optimal times. **The least cost alternative should be evaluated against the requirements following from the EU goal of a fully decarbonised energy sector by 2050.**

#### WWF Asks:

A window of opportunity exists to boost renewable energy capacity which are essential, given the larger role such infrastructure plays in the low carbon energy system beyond 2020:

- The support of the bank is crucial for renewables given the disproportionate effect that costs of capital have on renewable energy projects compared to fossil fuel competitors;
- The least cost alternative should be evaluated against the requirements following from the EU goal of a decarbonised energy sector by 2050;
- Given that renewables involve a mix of different technologies at different levels of maturity, a portfolio of renewable technologies is needed for the EIB to manage overall delivery risks;
- Further support for Research & Development and Demonstration (RD&D) and innovation will be critical for reducing the cost of some key renewable technologies.

<sup>47</sup> [http://www.wwf.org.uk/wwf\\_articles.cfm?unewsid=6263](http://www.wwf.org.uk/wwf_articles.cfm?unewsid=6263)



## **4. Infrastructure needed for supporting renewable energy development: smart grids and energy storage;**

### **Grids**

Large electricity network investment is foreseen across Europe in coming years. Electricity TSOs are currently planning to increase their rate of investment by 70% by 2020<sup>48</sup>. ‘Smart grid’ investments at the distribution level are particularly important for enabling decentralised generation. Investments requirements for distribution grids are several times larger than transmission grids and investment could exceed €700bn by 2030 and €1.4trn by 2050<sup>49</sup>. ‘Offshore grids’ are also needed both to connect offshore wind farms to shore and to help to manage variability through interconnecting power markets around the North and Baltic Seas region.

### **Energy storage**

Financial support from the EIB should be selective and concentrate on near-commercialised projects, particularly in energy storage, which has significant short to medium term potential to alter energy infrastructure investments and achieve policy objectives.

#### **WWF Asks:**

The EIB has an important role in supporting smart grids:

- Public funding can be used to leverage greater levels of private capital investment, thereby addressing market capacity limits, for example through the use of EU Project Bonds;
- Helping to address future uncertainty triggered by policy risk through co-investment;
- Working as an ‘honest broker’ to overcome the specific risks and challenges associated with cross-border collaboration, providing the right incentives to projects where the benefits are primarily regional rather than national.
- For energy storage, EIB support should be selective and concentrate on near-commercialised projects.

## **5. The need for new targeted financial vehicles from the EIB for energy savings and renewables**

### **Prioritising EIB lending to sectors least capable of securing finance from the private sector**

Shifting the EU economy towards a low carbon path is a hugely ambitious task, requiring an unprecedented upfront ‘pulse’ of investment. Power sector investment needs to increase by

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<sup>48</sup> Roland Berger 2010

<sup>49</sup> European Commission, DG ENER Roadmap 2050



2.5 times over from current levels over the next 10–20 years. Investment in energy efficiency needs to increase much more than this and has a far weaker supply chain and financial infrastructure supporting it. Given the pressing need to renew much of the EU's infrastructure, low carbon technologies will need to be developed and deployed simultaneously if lock-in to inefficient and high carbon investments is to be avoided.

### **Scale up support for Member States initiatives and national energy efficiency funds**

Experience should be drawn from the utilisation of resources received through state initiatives in individual Member States. The Green Investments Scheme in the Czech Republic<sup>50</sup> is widely regarded as a successful model which involves citizens and businesses in energy efficiency actions. The German initiative led by KfW<sup>51</sup>, the Estonian revolving fund for housing through KredEx and the French experience with Caisse des Dépôts are also viewed as successful programmes that should be scaled up with increased EIB support.

In addition the Energy Efficiency Directive encourages the development of National Energy Efficiency Funds. Such a national fund, working as a one-stop-shop for energy efficiency funding, would encourage the possibility for potential beneficiaries to draft a single funding request that is used to access all types of funding (EU subsidies, national subsidies, regional subsidies, private money from banks). This would make the system - much less complex and more accessible, cheaper and more attractive, by reducing transaction costs and gathering different projects as well as making them more visible. The funds should be built on already existing structures where possible to enable more rapid implementation and start-up.

### **Refocus and scale up support for existing financial instruments related to the EU Budget**

To enable a quick development of energy efficiency and renewable energy funding, an important opportunity for the EIB is to use the several financial instruments in existence and related to the EU Budget<sup>52</sup>. As much as possible they should be simultaneously refocused on energy saving and renewable energy projects and scaled up by additional EIB support:

- Cohesion Policy financial instruments:
  - JESSICA (Joint European Support for Sustainable Investments in City Areas): providing loans, guarantees and equity investments to cities
  - JEREMIE (Joint European Resources for Micro to medium Enterprises): providing loans, guarantees and equity investments to SMEs
- Technical assistance schemes:
  - JASPERS: supporting managing authorities in EU12 for large scale projects with Cohesion Fund or ERDF;
  - ELENA: technical assistance for energy efficiency and renewable energy investments;
- Equity instruments:
  - Marguerite fund: Direct equity investment in a risk capital fund investing in TEN-E, TEN-T and RES projects in EU27;

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<sup>50</sup> CEE Bankwatch (2002), *Home is where the heat is. Thermal insulation programs for buildings in the Czech Republic and its positive effect on job creation*

<sup>51</sup> KfW Banken gruppe, *KfW Programmes: Energy efficient Construction and Refurbishment* (2011)

<sup>52</sup> For more information see WWF *Unlocking the potential of the EU Budget*, Volume Two (2011)

- GEEREF (Global Energy Efficiency and Renewable Energy Fund): Equity investments in SMEs in third countries;
- Guarantee schemes:
  - Portfolio guarantee: SME guarantee facility;
  - EU Guarantee Fund for External Action: Covering EIB loans to projects in third countries;
- Risk sharing instruments:
  - RSFF (Risk Sharing Finance Facility): Supporting R&D in EU27 (funds from FP7 and from Horizon 2020 in the future);
  - LGTT (Loan Guarantee Facility for TEN-Transport): Supporting TEN-T investments.

The European Commission will structure these (and other) financial instruments through two general mechanisms for the next EU budget 2014-2020:

- an EU Equity Platform Mechanism – to provide equity;
- a Risk Sharing Platform Mechanism – to provide loans and guarantees.

It is likely that the Cohesion Policy financial instruments will remain specific. The EIB should work with the European Commission to ensure that the relatively well known financial instruments are scaled up and not replaced by new ones that will need several years to be up and running.

### **Focus Project Bonds on energy savings and renewable energy projects**

Current analysis suggests that this level of investment cannot be supported on the balance sheets of existing companies and banks alone<sup>53</sup>. This indicates a need for new financial products and mechanisms for shifting liabilities off balance sheet and recycling this capital (for example through low carbon asset-backed securities). In the US, the project bond market for wind and solar projects has taken off with over ten investment-grade bonds over \$500m issued in recent years. The EIB should play a role, for example through the Project Bonds 2020 Initiative, in supporting the development of an investment-grade project bond market for energy efficiency and renewable energy projects in Europe to attract large-scale institutional investor capital.

The fact that financing renewable energies might be considered as challenging shows precisely where the Project Bond Initiative could have an added value in supporting these projects, instead of continuing as is. This proposal has been backed by the Italian Finance Minister Giulio Tremonti, who proposed “*that the European Union launch eurobonds to develop renewable energy sources*”<sup>54</sup>.

Many individual investments in renewable energy and emission reduction areas are too small for a typical bond issuance (€200 million-1 billion). Wind farms are typically built in €10-50 million batches; as is the case with solar plants. Energy storage technologies are often under €100 million; district heating initiatives might be up to €200 million.

<sup>53</sup> For example Green Investment Bank analysis of the UK’s Round 3 offshore wind investment requirements shows that the two biggest projects – Dogger Bank and Norfolk Bank – are bigger than the market cap of the UK’s largest energy company Centrica. Similarly the top 7 projects by capital requirement are bigger than the FTSE 100 market cap threshold

<sup>54</sup> Financial Times, 20 April 2011, Italy freezes return to nuclear power, <http://www.ft.com/cms/s/0/d7989d14-6ab4-11e0-80a1-00144feab49a.html>

Aggregators are needed in the market to pool investments into offerings suitable for the scaled up appetite of institutional investors. These provide exit strategies for risk taking developers, helping them churn their higher risk equity at a faster rate and thus develop more projects.

Because of the lack of experience with the underlying investments and the novelty of their scale, investors and rating agencies remain cautious for the moment about their creditworthiness. This caution has been exacerbated by concerns over the political risk of various government funding frameworks. But aggregating projects has already been done successfully.

**On top of single projects, the Project Bond Initiative should be able to be used to support the establishment of a market for aggregation vehicles as part of necessary financial infrastructure.** Support would, as per the 2020 Project Bonds model, be in the form of narrow tranches of guarantee for such funds. That would allow them to quickly take their place in the market and channel institutional investment.

### **Aggregation of small-middle scale projects through securitization platforms**

Even with the Project Bonds 2020 model, projects which may be smaller in absolute amounts but significant for curbing longer term emission trajectories will still face challenges. As previously mentioned, a large part of the development of renewables and energy efficiency in Europe involves smaller scale projects but the lack of aggregation of these projects makes it difficult to access debt capital markets, where scale of issuance is important to both low transaction costs and required liquidity. Aggregators might be companies or they can be bond vehicles, whether asset-backed or in the style of covered bonds: diversity is required. Bank lending remains the primary source of project lending for these smaller renewable energy and energy efficiency investments, but recapitalisation of banks has and will continue to squeeze business lending.

Historically banks have used securitization of loans - pooling assets and using the cash flows to back securities – to efficiently recycle limited capital and to increase lending. When they can't do this they have to cut back lending. This system worked well for many years to unlock the value of illiquid assets, drive down the cost of finance and increase access to finance. But the system broke down when a toxic mix of misguided deregulation, excess liquidity and opaque and complex financial instruments led to the financial crash. Our regulatory and market reaction has been to throw the baby out with the bathwater: securitization has stalled just when Europe needs huge capital investment in energy transition.

Financing the transition to a low carbon economy requires increasing, not cutting back, business lending. This will be next to impossible without securitization. **But we can recalibrate and rebuild securitization as a tool controlled and targeted to prioritize the green low carbon economy.** According to Barclays/Accenture, “*an estimated €1.4 trillion (...) could be securitized in green bonds in Europe alone between 2011 and 2012*”<sup>55</sup>. Pro-active steps are needed to develop securitized platforms that allow fragmented and sub-investment grade loans to be collected, packaged and re-financed through the debt capital markets. **This should involve a consultation process with central banks, regulators, bond issuers, institutional investors, NGOs and academics – including the EIB.**

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<sup>55</sup> Accenture and Barclays (2011), *Carbon capital, Financing the low carbon economy*

**Covered bonds** should be one of the tools used for financing energy savings and renewable energy projects through securitization. They benefit from a huge market and expertise in Germany where they are called Pfandbriefe and have been used for more than a century. Covered bonds are highly regulated and enjoy superior credit ratings and lower funding costs compared with unsecured debt issued by banks. This is achieved through a dual recourse structure where bond investors have a claim over a dedicated ‘cover pool’ of assets, as well as a general claim against the issuer itself. The ultimate risk in covered bonds is borne by the issuing bank as it provides a back-up guarantee: it is this factor that maintains a high degree of discipline in originating the loans that comprise the cover pool. Another particular feature of covered bonds is that in most jurisdictions the cover pool is transparent, so bond analysts have the opportunity to gain experience on how renewable energy assets perform without taking a direct exposure: this is crucial in a market where most portfolio managers still lack the expertise and experience in energy finance that currently resides in banks. Covered bonds enjoy other regulatory privileges: they are repo-eligible at the European Central Bank (and some other central banks) alongside government bonds. In May 2009 the ECB brought up to €60 billion of covered bonds as part of its open market operations.

We are at a time when several Member States and significant stakeholders are looking at green bond schemes, for instance the UK Green Investment Bank, the World Bank, the EBRD, the IFC and others. This indicates strong demand for such green bonds. The EIB shouldn’t lag behind but be more pro-active. It launched its first “Climate Awareness Bond” in euros in 2007 and has a huge potential to do much more and sooner. It should play a pivotal role in securitization platforms supporting energy efficiency and renewable energy lending. The involvement of the EIB would reduce financing costs and provide critical confidence needed to attract institutional investors back into the primary and secondary market for such securities. It would kick-start a market that is vital in facilitating bank lending to renewable energy and energy efficiency projects.

### **Support for private equity and PSS providers**

Additionally, the market needs “catalysts” to channel capital from institutional investors to increasing investments in private equity and ventures, since this is where some genuinely transformative solutions will be found for the long term energy transition.

Yet another actor which the EIB should stimulate are “enablers”, e.g. product-service-system (PSS) providers who develop business models based on dematerialization and offer energy efficiency or renewable solutions as a service, eliminating the customers need to make an upfront investment. However, to do so the PSS firm needs a financial partner. This concept is already “market proven” and should be scaled up.

#### **WWF Asks:**

- The EIB should support successful Member States initiatives on energy efficiency funding such as in Czech Republic, France or Estonia and support the quick set up and start-up of National Energy Efficiency Funds built on existing structures where possible;
- The EIB should together with the European Commission refocus and scale up support of existing financial instruments related to the EU Budget, notably

Cohesion Policy instruments;

- The EIB should together with the European Commission focus Project Bonds on energy savings and renewable energy projects and ensure that on top of single projects, the Project Bond Initiative is used to support the establishment of a market for aggregation vehicles;
- The EIB should play a pivotal role in securitization platforms controlled and targeted to support energy efficiency and renewable energy lending, with the goal of allowing fragmented and sub-investment grade loans to be collected, packaged and re-financed through debt capital markets (e.g. with asset-backed or in the style of Covered Bonds). The involvement of the EIB would reduce financing costs and provide critical confidence needed to attract institutional investors back into the primary and secondary market for such securities. This should involve a consultation process with central banks, regulators, bond issuers, institutional investors, NGOs and academics.
- The EIB should act as a catalyser to increase investment in private equity for energy efficiency and renewable energy solutions and support product-service-systems (PSS) providers.

# NUCLEAR ENERGY

As shown by the recent Fukushima catastrophe – in a highly developed OECD country considered as one of the safest in the world - , nuclear energy is intrinsically unsafe and poses serious environmental and social risks.

Post-Fukushima measures will largely increase the safety bill for existing nuclear reactors. In addition, costs of recent projects nuclear projects in Finland and France have skyrocketed way beyond budget, putting their very cost-effectiveness in doubt<sup>56</sup>.

Therefore reliance on nuclear power to decarbonise the EU's energy system carries significant non-delivery risks.

Last but not least, many European Member States have opted against using nuclear energy. Germany and Belgium have decided to phase out nuclear power by 2022 and 2025 and Italians confirmed in a referendum in June 2011 that they want to stick to their no-nuclear policy. As a result, EU Member States are split or even opposed on such a sensitive issue. **The EIB, as a community policy bank, should therefore disengage from this sector and refocus on the safe and more sustainable alternatives of energy savings and renewable energies.**

## WWF Asks:

- EIB support in the nuclear sector should be focused on the decommissioning of nuclear facilities for those countries or companies that have decided to abandon the use of nuclear power;
- EIB expertise in nuclear projects should be utilised solely for projects that directly and clearly lead to the early closure of reactors.

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<sup>56</sup> La Tribune, *L'EPR de Flamanville plus cher que l'éolien terrestre*, 04/12/12 and La Tribune, *En pleine polémique sur Flamanville, EDF se prépare à abandonner le modèle EPR*, 13/11/11

# ANNEX: EIB EXCLUSION LIST

## **No-Go Circumstances: The EIB shall not support following sectors and projects:**

- Any projects that involve the significant conversion or degradation of critical natural habitats, impact primary forests, high biodiversity value free-flowing rivers, National Parks and other protected areas (1) and those protected by the Ramsar Convention;
- Trade in wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species (CITES) or supporting the illegal exploitation of natural resources
- Projects involving the intentional introduction of alien species or any living modified organism;
- Drift net fishing using nets in excess of 2.5km in length or any other fishing techniques banned by international law;
- Petroleum extraction or refining projects that flare significant amounts of associated gas;
- New or expansion of old/delayed nuclear project, uranium mining, nuclear waste and transport;
- Projects involving the commercial manufacturing of ozone-depleting substances (ODS) or the production or use of persistent organic pollutants (POPS) that are banned or scheduled to be phased out of production and use by international agreement during the life of the project;
- Projects that request the use of chemicals listed in the World Health Organization's Recommended Classification of Pesticides by Hazard and Guidelines to Classification (Geneva: WHO, 1994-95);
- Transboundary trade in hazardous wastes prohibited under the Basel Convention;
- Production of or trade in pharmaceuticals subject and in pesticides/herbicides subject to international phase-outs or bans;
- Production of or trade in or use of unbonded asbestos fibres;
- Mining projects that use cyanide heap leaching to extract metals or involving submarine or riverine tailings disposal to discard wastes
- Projects that use forced or harmful child labour, with respect to no. 138 of the Minimum Age Convention, 1973;
- Projects in areas where the local affected people cannot be adequately consulted, particularly in conflict areas where they are not free to express their opinions on a project, or in areas where the people live in voluntary isolation;
- Projects in which companies cannot demonstrate compliance with recommended international accounting practices;

- Projects in which the companies involved have been black listed for bribery or corruption, or where the companies involved cannot demonstrate that they have a corporate compliance programme to deter and check bribery and corruption;
- For Financial Intermediary Lending, any Category A project supported through Financial Intermediary Lending, unless the FI has sufficient capacity and commitment to monitor and supervise implementation of the projects in accordance with EIB performance standards.

## Notes

1 : Protected areas defined in the following categories :

- a) Highly protected areas (IUCN categories I-IV, marine category I-V protected areas, UNESCO World Heritage sites, core areas of UNESCO biosphere reserves and in European Union countries Natura 2000 sites);
- b) Proposed protected areas within priority conservation areas selected through ecoregional planning exercises;
- c) Areas containing the last remaining examples of particular endangered ecosystems or species even if these lie outside protected areas (i.e. Protection Status CITES: Appendix I and II/ Population Status: Category 1 to 5).

For more information, see Guidelines for Protected Area Management Categories (Gland, Switzerland, and Cambridge, UK: IUCN, 1994), and the United Nations List of National Parks and Protected Areas (Gland, Switzerland, and Cambridge, UK: IUCN, 1994).

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