

**An economic incentives framework for carbon accountability
in the financial sector**

Submitted August 2009, in partial fulfilment of
the conditions of the award of the degree MSc in Carbon Management

Guilherme Rossi de Souza

Dumfries Campus

University of Glasgow

I hereby declare that this scientific report is all my own work, except as indicated in
the text:

Signature _____

Date ____/____/____

Executive Summary

This scientific report is the product of research carried out for the Carbon Accountability Programme (CAP) within Friends of the Earth – Scotland during the period of June and July 2009. It aims at contributing to the debate of climate policy looking into the role of financial investments, carbon footprint of financial institutions and opportunities for promoting the transition to renewable sources of energy from a UK perspective.

The foremost impact and, therefore, the area that can yield the best opportunities for emission cut in the financial sector is **financed emission**. More important still than the emissions today is the effect investment decisions made today have in the carbon-intensity of the economy in the future.

We recognise that we can have the greatest impact and can generate the greatest environmental improvement through our products and services, lending decisions and encouraging investments in low carbon technologies.

(Standard Chartered 2007, p.5)

The most important environmental protocols for British financial institutions today are:

- Companies Act and Defra-issued reporting guidelines;
- Carbon Disclosure Project;
- Global Reporting Initiative; and
- The Equator Principles.

Assessing and comparing them it was found that **they are limited as they do not:**

- Cover **financed emissions**;
- Provide **comparable basis**; and
- Have any **enforcement mechanism** that focuses on change.

Other protocols used to assess British financial institutions were analysed in this report in two categories:

- Governance-based
 - CERES; and

- ZHAW, ETH and SAM;
- Footprint-based
 - Groupe Caisse d’Epargne and Utopies; and
 - Milieudéfense and Profundo.

Despite major differences between each other, the four systems are far superior to the ones currently in use because they **integrate the notion of financed emissions and they allow easy comparison of companies**, if yet not ideal.

Besides the positive and negative aspects of the protocols examined, the report identifies the following **key points**:

- 63% of the investment in new renewable energy was made through **project finance**;
- The Government set **stringent emissions reduction targets** that will require heavy investments in renewable energy to be achieved;
- The market expresses a **need for clear, stable governmental regulation** on carbon accountability; and
- **Making money for the clients is the goal of asset managers.**

Based on the findings, the report proposes a basic theoretical framework of economic incentives for benchmarking banks and fostering the investment in renewable energy sources. This aligns the interest of financial investors with emission reduction targets by making investments in renewables more profitable. The idea behind proposing this framework being to introduce concepts that could be incorporated into public policy.

PROPOSED FRAMEWORK

MECHANISM 1:

Fossil energy displacement investment ratio (FEDIR), the ratio between units fossil energy displaced from the grid by projects financed by a bank and the value of its whole portfolio in a given year will determine tax discounts on profits from products of the bank.

MECHANISM 2:

The estimated carbon-intensity of the grid in the year to come determines tax discounts on profits from bonds from renewable energy projects.

Table of Contents

Executive Summary.....	ii
Acknowledgements.....	v
Glossary and abbreviations.....	vi
Introduction	1
Methods.....	4
Chapter 1: Current accountability protocols	6
1.1 - Companies Act	6
1.2 – Carbon Disclosure Project	8
1.3 – Global Reporting Initiative	9
1.4 – The Equator Principles	12
1.5 – Summary and Considerations for a future scheme	14
Chapter 2: New accountability protocols	16
2.1 – Governance-based	16
2.1.1 – CERES.....	16
2.1.2 - ZHAW, ETH and SAM	17
2.2 – Footprint-based.....	19
2.2.1 – Groupe Caisse d’Epargne and Utopies.....	19
2.2.2 – Milieudefensie and Profundo	21
2.3 – Considerations	23
Chapter 3: Proposed framework	24
3.1 - Background	24
3.2 – Proposed framework	26
3.3 – Limitations.....	31
Conclusion.....	34
Annex 1 – Companies Act 2006, clause 417	42
Annex 2 – The Equator Principles	44

“Honrará teu pai e tua mãe”
Êx. 20:12

Acknowledgements

I would like to express my deepest appreciation to all those who in various forms contributed to this report, which represents the conclusion of a long journey. In particular, I thank Professor Jorge Vianna Monteiro, an inspiring example of intellectual courage; Mei and Faisal, who have been my family in Scotland; and Friends of the Earth Scotland, a group of remarkable people.

Glossary and abbreviations

CDP: Carbon Disclosure Project

CRC: Carbon Reduction Commitment

EU ETS: European Union Emissions Trading Scheme

FTSE 350: index of the 350 highest market-capitalization companies listed in the London Stock Exchange.

Global 500: index published by Fortune magazine of the 500 largest world companies in revenues.

GRI: Global Reporting Initiative

IPCC: Intergovernmental Panel on Climate Change

Mt of oil equivalent (Mtoe): the equivalent to the energy produced by burning one tonne of oil and is used by the Department of Business Innovations and Skills to as a unit to measure the output of the energy supply infrastructure.

NEF: New Energy Finance

RBS: The Royal Bank of Scotland

Renewable or clean energy sources: the terms in the report refer to wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas.

S&P 500: index of the 500 largest companies traded in the American stock market in market value.

S&P/TSX Global Mining Index: an index of publicly-traded mining companies.

Introduction

The IPCC stated scientific evidence makes it undisputable the rising temperature trend in the global climate system is causing negative impacts on natural environments and human activities (IPCC, 2007). Moreover, it concludes humans are very likely contributors to the imbalance (IPCC, 2007). This consensus drives the need to shifting the way human activities are carried out. Energy generation is a central point in climate change agenda. The reason being very obvious. Taking the British case, in 2007, carbon dioxide (CO₂) accounted for 85% of the UK's greenhouse gas (GHG) emissions (Defra, 2008). Energy supply in the same year was responsible for 215 MtCO₂ out of a total of 544 MtCO₂ excluding that from land use change and forestry (Defra, 2008). This means over 39% of the CO₂ emissions and more than a third of the total GHG emissions came from energy supply. Heavy reliance on fossil fuels explains such figures. Whilst renewables (including hydropower) and energy from waste generated in 2007 the equivalent in energy to 5.3 Mtoe (Mt of oil equivalent), coal and natural gas stood for 130.8 Mtoe, i.e., 24 fold plus the output of low-carbon sources (Department for Business Innovations & Skills, 2008). Not by accident, the European Commission set two targets for 2020 at the same time: reduce GHG emission by 20% and include 20% of energy from renewable sources in the European Union's energy mix (COM (2008) 30).

What the European policy says is that there must be a shift in the way energy is produced. It does not refer only to electricity, but the rationale behind it applies to every GHG source. The targets were set in 2008 because change takes time and infrastructure is long-lived. Lock-in effect is well summarized as "present investments determine the carbon intensity of the future to come" (Banktrack, 2007). If, for example, it is decided today to substitute an obsolete coal-fired power station by a cleaner gas-burning one, while a better option in the short term, it may prove to be a terrible mistake in the long run. Power stations are expensive and last for decades. So, while emitting less than the coal-fired power station and possibly promoting the necessary cuts for achieving an intermediate target, the gas substitute will still commit the country to a level of emissions that may make the achievement of more stringent long-term targets both more difficult and more costly, if not impossible. From this it is clear that, in order to build up a cleaner energy supply infrastructure, directing investments today is what will make the difference between

success and failure. And it will be a steep way, considering global investments in clean energy reached US\$ 155 billion in 2008 (NEF, 2009a), while the estimated capital commitment necessary for building a new, clean energy supply infrastructure ranges between US\$ 515 and 800 billion annually over the next 20-25 years (Cogan, 2008; NEF, 2009).

Investments could be driven by governments and/or private investors. In the UK, the framework for investments in electricity generation set by the Department of Trade and Industry (2007) recognises the need for significant capital expending over the next twenty years. It also acknowledges that there are many uncertainties in the medium and long term regarding energy demand and profitability of developing energy generation technology (Department of Trade and Industry, 2007). Based on these facts, the framework is built so to make private agents the leading force in this process, instead of the government, due to their flexibility and more rapid response (Department of Trade and Industry, 2007). Therefore, financial institutions have a very important role to play.

Banks, and more generally the financial sector, are a special kind of economic agent. They are a hub through which the monetary resources flow from those who have them in excess to the ones who need them. Acting as intermediaries, they bridge the gap between savers and investors whilst assessing risks and opportunities in the money allocation. In this sense it is fair to say they bear a mandate from society to decide, according to their own criteria, which economic activities are worthy of receiving resources to be taken forward.

Looking from this angle, it is strange to learn that banks decline their responsibility for the GHG emissions resulting from the projects they choose to finance (Smith 2008; Minio-Paluello 2007). Apart from energy-related sources, in 2005 The RBS Group, for example, only reported emissions from travel, giving the impression this is the largest single source of emissions after electricity, gas and fuel used in company-owned vehicles (Carbon Disclosure Project, 2006). In fact, it is exactly what the institution declared in 2007 (Carbon Disclosure Project, 2008). Air travel summed up to 27,619 tonnes of CO₂ equivalent (CO₂e) in 2005 (Carbon Disclosure Project, 2006). Inquired about the estimated downstream emissions of its products and services, it responded: "Commercial Banking financial products don't really lend themselves to measurement in these terms" (CDP 2006,

question 7). Contrasting with this statement is the figure calculated to be the 2005 emissions from oil and gas projects financed by RBS at massive 36.9 million tonnes of CO₂ (Minio-Paluello, 2007). This mismatch between the reported emissions and the wider range of indirect emissions over which financial institutions actually have influence needs addressing in order to allow climate policy to be more effective and investors to have a full picture of the carbon-intensity of investments when selecting banking products.

The aim of this study is to contribute to the debate of climate policy looking into the role of financial investments, carbon footprint of financial institutions and opportunities for promoting the transition to renewable sources of energy.

The objectives of this report are:

- i. Critically assess the carbon accountability protocols currently in force for financial institutions (chapter 1);
- ii. Critically assess more recently developed carbon accountability systems for financial institutions that have not yet reached a mainstream status (chapter 2);
- iii. Propose a basic theoretical framework that allows benchmarking banks according to their carbon-performance and promotes investments in renewable sources of energy (chapter 3). This framework contains the elements that the author argues, fully developed, would be of benefit to be incorporated into public policy.

Methods

This study comprises desk-based research. Specifically:

To conduct a thorough assessment of existing protocols and systems with regards to financial service sector, identifying strengths and weaknesses and examining how well these protocols and systems serve the purposes of climate-policy of preventing and mitigating dangerous anthropogenic interference with the climate system.

Step 1: Identification of current protocols and systems, both compulsory and voluntary, which apply, or may apply, to the financial service sector. The host organisation provided a starting point of texts they had already selected and needed to be examined. The list of readings was:

- Cogan (2008);
- Entec (2007);
- Global Reporting Initiative and UNEP-FI (2008);
- New Energy Finance (2008);
- The Equator Principles (2006);
- Groupe Caisse d'Épargne and Utopies (2008);
- Milieudéfense (2007);
- Minio-Paluello (2007);
- Denies et al (2008);
- Furrer, Hoffmann and Swoboda (2009).

Step 2: To address objectives (i) and (ii), critical review of the literature – analysis of which parts of the footprint of a service sector company the available systems cover, comparing approaches and applicability of each one of them in contributing effectively to dealing with climate change. In this stage, sources other than the primary list were extensively used in search mainly of the numeric data, information in related areas and behaviour of agents.

Step 3: To address objective (iii), the author formulated a theoretical framework that addressed the weaknesses identified above. This framework is the result of a synthesis of

ideas combining aspects of examined protocols, ideas that already existed in the CAP and conclusions reached along the research project.

The framework has not been tested, nor has any impact assessment been carried out for they are beyond the scope of this report. The competence for these task lies with public organs.

Chapter 1: Current accountability protocols

Environmental accountability is not a new concept and there are protocols in force, both lawfully compulsory and voluntary. In this section, it will be examined four of the most important for British institutions.

1.1 - Companies Act

The Companies Act 2006 (c. 46), the umbrella British corporate law, determines large companies must publish an annual report including their environmental policy and impact (see Box 1.1). The act requires reporting of key performance indicators, detailed by *Environmental key performance indicators: reporting guidelines for UK business*, by Defra and Trucost (2006). The guidelines are thought of to give “clear guidance” (Defra and Trucost 2006, p. 7) on how companies should report without making any mandatory requirements.

BOX 1.1

COMPANIES ACT 2006 CHAPTER 46

In clause 417 - Contents of directors' report: business review – it says that:

- The objective of the director's report is to allow stakeholders to assess the directors' performance in pursuing the success of the company;
- The report must contain:
 - Analysis of identified risks and uncertainties to the company;
 - Environmental performance and policies of the company;
- In order to ensure a better understanding of the performance of the company, there must be analysis of key performance indicators, defined as factors that allow an effective assessment of the performance of the company.

For the full text of clause 417, please refer to Annex 1.

From the beginning, it states GHG emissions stand for the biggest environmental impact for the majority of firms, stressing it is the Government's expectation that companies act to reduce their contribution to climate change (Defra and Trucost 2006, p. 7). Reporting significant impacts regardless if direct or indirect is another expectation of the Government (p. 22). Further on, indicating a direction for how to determine the boundaries of the

report, it says “companies may decide to report on impacts that occur outside their normal financial reporting boundaries” (p. 31). In June 2009, Defra released for public consultation draft guidance for businesses on how to measure and report their GHG emissions (Defra, 2009). It is based on the GHG Protocol (WBCSD and WRI, 2004), adopting the 3-scope approach and gives general advice on how to use it making recommendations of what is the standard practice and the best practice for the most common issues. Regarding the setting of footprinting boundaries, it says measuring and reporting scope 1 and 2 emissions is the standard practice and that best practice is including the most significant scope 3 sources in the analysis too (Defra 2009, p.16). Here, once again, the reporting companies are to decide which the relevant emissions are, and as such the document does not add anything new to reporting culture.

Judging by the guidelines given for reporting companies, it is not surprising to find out the level of transparency in such reports is far from ideal. Taking RBS –an iconic institution that enjoys the reputation of being the “oil and gas bank” and the “primary UK bank financing new extraction of fossil fuels” (Minio-Paluello, 2007, p. 1) – as an example, it is easy to see the big issues. In their corporate responsibility report 2007 (The RBS Group, 2008), there is no mention whatsoever to financed emissions. The guidelines are good in performing their role of guidelines. If a company is trying to be more transparent but does not know the way to do it, the guidelines will show the direction to be followed. But hitting the target does not mean success if the target was wrong in the first place. In this case, how many companies are genuinely seeking to be more transparent? How many companies wish to portray themselves in full in their annual reports, showing as much of their triumphs as of their weaknesses so that actual and prospective shareholders can make a realistic assessment rather than overvalue them? Corporate reports are usually seen with scepticism by analysts and the general public because they tend to be biased, telling nothing but good news or problems already dealt with (Henriques, 2007). So, it is not really a matter of prescribing the best way for companies to voluntarily disclose their environmental impacts, but much more one of extracting the information companies try to keep out of public knowledge.

1.2 – Carbon Disclosure Project

Sending a questionnaire on environmental policy and impacts to companies around the world, the Carbon Disclosure Project's objective is to gather information that will be of use by decision-makers in the private and public sectors in acting against climate change (CDP, 2009a) (Box 1.2). The CDP selects a wide sample of questionnaire recipients (3,000 in 2008) encompassing the largest companies in market capitalization in the major international stock exchanges, among which, Global 500, FTSE 350 and S&P 500 indices (CDP, 2009b). The results of the survey are meant to give a good idea of the trends in climate related behaviour among large corporations and, since the sample comprises blue chip companies, to inform the majority of the stock market investment decisions.

BOX 1.2

CARBON DISCLOSURE PROJECT

- Beginning: 2004;
- Self-applied questionnaire on carbon footprint and carbon policy;
- Voluntary disclosure;
- Sent to the 3000 largest companies in the world.

Problems start to appear when one looks at the rate of response. In 2008, only 1550 respondents fully completed the questionnaire (CDP, 2009b). That is little more than 50%. The fact companies that refused to respond appear in the CDP results as such is positive for it provides a public indication of the low level of importance the organisation attributes to environmental transparency, but, in fact, does not do much more than that. The complete lack of information does not serve the purpose of assessing the company's environmental impact.

On the other hand, a full response can be just as uninformative in that sense as no response at all. While doing a good job in showing the companies' perception of climate change issues by asking, for example, about identified risks and opportunities posed by global warming and its wide economic and social effects, the questionnaire leaves it to the companies' discretion to determine the way in which they assess their carbon footprint

when it comes to indirect emissions. Electricity, gas and fuel consumption are areas in which there is little a company can do to improve its image without incurring in major fraud. In contrast, free choice in selecting the indirect emission sources to be counted for the business's footprint offers room for some serious cherry picking. Allowing companies to decide the boundaries of their indirect emission sources could be viewed as a fundamental flaw, not only in evaluating banks, but for the service provision sector as a whole. Excluding the transport sector, the service sector, as a rule, comprises businesses that are not so energy-intensive as industrial firms. Therefore, indirect emissions are large contributors to their carbon footprint and, consequently, provide good opportunities for emission cuts. To fix this problem, guidelines aimed at each field of activity would be useful by listing those most likely indirect emissions sources that should be considered in a carbon footprint assessment and asking the respondents to justify the exclusion of any of them from their assessments. The Universities & Colleges Climate Commitment for Scotland (EAUC, 2009), for example, lists the scope 3 emissions that should be recorded and encourages signatories to go further naming a few more sources that could make the footprinting more accurate.

1.3 – Global Reporting Initiative

BOX 1.3.1

REPORTING GUIDELINES & FINANCIAL SERVICES SECTOR SUPPLEMENT

- Beginning: 1999
- Developed by Global Reporting Initiative and UNEP-FI;
- Quantitative and qualitative indicators of social, economic and environmental sustainability;
- Voluntary.

The Global Reporting Initiative (Box 1.3.1) proposes a social, economic and environmental sustainability reporting framework described in the Reporting Guidelines and adapted to different sectors and countries in the Sector Supplements and Country Annexes (GRI, n.d.). The objective of the framework is to provide a standardized assessment of organizations making it possible to compare results across the economy and over time, hence “stimulating demand for sustainability information – which will benefit reporting

organizations and those who use report information alike” (GRI, n.d.). Financial sector organizations have their own supplement, the Sustainability Reporting Guidelines & Financial Services Sector Supplement (GRI and UNEP-FI, 2008). It recommends industry-specific product and service impact performance indicators companies of the sector should assess and report as well as managerial actions that led to the results (GRI and UNEP-FI, 2008). Despite the name though, the performance indicators are less focused in showing the concrete results of an environmental policy than in analysing the policy itself. The approach of the protocol is to dissociate internal management policy from environmental results presenting them in separate sections. So, instead of evaluating the positive and negative impacts of the environmental policy, the product and service impact performance indicators serve to measure how well the policy was implemented. In the end, it is an assessment of internal compliance.

BOX 1.3.2
SUSTAINABILITY REPORTING GUIDELINES & FINANCIAL SERVICES SECTOR SUPPLEMENT
 Financial Services Sector Specific Performance Indicators

Aspect	Indicator
Product Portfolio	FS6. Percentage of the portfolio for business lines by specific region, size (e.g. micro/SME/large) and by sector.
	FS7. Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose.
	FS8. Monetary value of products and services designed to deliver a specific environmental benefit for each business line broken down by purpose.
Audit	FS9. Coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures.
Active Ownership	FS10. Percentage and number of companies held in the institution's portfolio with which the reporting organization has interacted on environmental or social issues.
	FS11. Percentage of assets subject to positive and negative environmental or social screening.
	FS12. Voting polic(ies) applied to environmental or social issues for shares over which the reporting organization holds the right to vote shares or advises on voting.

(Global Reporting Initiative and UNEP-FI 2008. p. 4)

In indicating how to define the content of the report, the supplement says relevant indicators should be identified using “principles of materiality, stakeholder inclusiveness,

sustainability context” (GRI and UNEP-FI 2008, p. 9). For each principle there are tests to determine if an indicator complies with that principle. An indicator is considered to be material if, among other things, it is a general sustainability issue or identified by stakeholders as one that affects them, if it can have assessable impacts, pose risks or opportunities and if the organisation has influence on it (GRI and UNEP-FI, 2008).

BOX 1.3.3**SUSTAINABILITY REPORTING GUIDELINES & FINANCIAL SERVICES SECTOR SUPPLEMENT**

Environmental Performance Indicators

Aspect: emissions, effluents, and waste

EN16 Total direct and indirect greenhouse gas emissions by weight.

Commentary on EN16

Total direct and indirect greenhouse gas emissions by weight:

The term “indirect” is used based on the definitions of direct and indirect used in the WRI-WBCSD GHG Protocol.

Financial institutions should estimate the greenhouse gas (GHG) emissions resulting from their business travel as this represents one of the major direct impacts of financial institutions. This estimate should:

- Include travel on behalf of the company or use of the company feet;
- Include the use of courier services;

The financial institution should check if the courier service is counting own GHG emissions in order to avoid double counting.

If the financial also produces estimates related to the emissions of the financing portfolio, these figures should be disclosed separately from data related to EN16.

(Global Reporting Initiative and UNEP-FI 2008, p. 34)

Applying the criteria listed above, financed emissions would certainly figure among the indicators to be reported. Surprisingly, though, the commentary on environmental indicator EN16 (Box 1.3.3) – total direct and indirect GHG emissions – says (emphasis added by the author) “If the financial [institution] also produces estimates related to the emissions of the financing portfolio, these figures should be disclosed separately from data related to EN16.” (GRI and UNEP-FI 2008, p. 34). Environmental indicator EN17, “other relevant indirect greenhouse gas emissions by weight” (GRI and UNEP-FI 2008, p. 34), does not add in clarity either. So, the choice of whether to report financed emissions or not, is entirely up to the organisation. And, in case it does assess them, they should be reported separately from the total GHG emissions. One more protocol demonstrates how shallow is

the mainstream understanding of the GHG impact of the financial sector and what opportunities it presents in terms of emission cuts.

Other fact that corroborates the conclusion of poor comprehension of GHG emission accountability is the indication for courier service emissions assessment. The same commentary box that says financed emissions should be reported if, and only if, banks estimate them out of their own will, rules that emissions from courier service should not be reported if the courier company does not do it already to avoid double counting (GRI and UNEP-FI, 2008). Unless there is a carbon emissions allowance scheme in place, double counting should not be a problem. Financial institutions are not included in the EU ETS (Council Directive 2003/87/EC) and the British CRC, which is proposed to start working in 2010 and would include large corporations left out of the EU ETS, does not include emissions from transport (Department of Energy and Climate Change et al, 2009). Furthermore, from the point of view of the bank hiring a courier service, it is indifferent if it has high or low emissions, provided it does its own emissions assessment and reporting. There is no incentive for the banks to choose service provider with lower level of emissions.

1.4 – The Equator Principles

Private banks developed a set of guidelines containing ten principles to be applied in project financing. They are based on the standards of the World Bank and of International Finance Corporation, a multilateral development institution under the World Bank Group. The intention is that signatories - private institutions that adopt them publicly and voluntarily – use them as guiding principles for internal policies and control mechanisms with respect to social and environmental issues in the project finance scope.

The ten principles are very reasonable themselves and convey an intention of including social and environmental sustainability parameters among the investment decision criteria. Critical issues exist, however. Despite the apparent oxymoron, they are anterior to the principles. In the preamble of the document, it is stated “negative impacts on project-affected ecosystems and communities should be avoided where possible, and if these impacts are unavoidable, they should be reduced, mitigated and/or compensated for appropriately.” (Equator Principles, 2006). Firstly, impacts are always avoidable by not

undertaking a project. Who should decide if a given negative impact is avoidable or should be mitigated or compensated for? Maybe it is not too much cynicism to think the decision would be based on the assessment of what has the least negative impact on the financier's profit: deny the loan or grant it and pay for mitigation and compensation for social and environmental side-effects.

BOX 1.4**THE EQUATOR PRINCIPLES**

[Principle 1](#): Review and Categorisation

[Principle 2](#): Social and Environmental Assessment

[Principle 3](#): Applicable Social and Environmental Standards

[Principle 4](#): Action Plan and Management System

[Principle 5](#): Consultation and Disclosure

[Principle 6](#): Grievance Mechanism

[Principle 7](#): Independent Review

[Principle 8](#): Covenants

[Principle 9](#): Independent Monitoring and Reporting

[Principle 10](#): EPFI Reporting

(The Equator Principles, 2006)

For explanatory notes on the principles, please refer to Annex 2.

Appraising damaged social and natural environments can be extremely difficult. Establishing how much should be paid in compensation for producing radioactive waste that will last for millennia, flooding archaeological treasures or emitting GHG that affect the whole planet and human generations not yet born is an exercise almost sure to produce just the same number of different results as the number of experts dedicated to solving it. Besides, the financier may demand the financed take the due precautions, but once the loan has been made, there is not much the financial institution can do to counter-act misconduct in the implementation and running of the project.

Above all, the Equator Principles add very little in terms of accountability. A bank that signs the Principles does not commit to any overseeing organ. Serving only to limit common grounds for formulation of internal policies, the Principles obviously do not have sanction mechanisms for deviations of conduct. The single punishment a bank that breaches the Principles may receive is to experience public exposure of its wrong doings, which seems to

be a small price to pay in face of such large profits to make. The cases of signatory banks involved in financing environmentally harmful projects abound. Large hydroelectric plants, nuclear power plants, chlorine bleaching pulp mill, oil extraction from tar sands are only a small sample of high-impact projects financed by Equator Protocol Financial Institutions (Banktrack, 2009).

1.5 – Summary and Considerations for a future scheme

Table 1.5

Protocols	Approach	Compulsory/voluntary	Considers financed emissions?	Makes it easy to compare companies?	Sanctions
Companies Act	Key environmental performance indicators reporting	Compulsory	No	No	None
CDP	Questionnaire on emissions and managerial aspects	Voluntary	No	No	None
RG & FSSS	Key environmental performance indicators reporting	Voluntary	No	No	None
Equator Principles	Principles for project financing	Voluntary	No	No	None

The four protocols have different approaches and levels of required transparency. While the CDP questionnaire looks at governance matters as well as the companies' carbon footprint, the Government's guidelines for environmental reporting is a purely quantitative analysis of the businesses' most apparent impacts, the Reporting Guidelines & Financial Service Sector Supplement has the two aspects and the Equator Principles do not even directly touch upon the emissions issue. They have three points in common, however: firstly, they do not cover financed emissions, secondly, they do not provide comparable basis and thirdly, they do not have any enforcement mechanism focusing on change.

Although Defra and Trucost (2006) propose a list of key environmental performance indicators, the resulting reported figures are meaningless for the banking sector for the very reason of this not being a resource-intensive industry whose main impacts are indirect. The CDP questionnaire and the Reporting Guidelines & Financial Service Sector Supplement fall victim of the same problem.

Three procedures examined in this chapter use quantitative indicators. Nonetheless, it is difficult to compare companies based on them. Because they are designed to be comprehensive in their assessments, the results they produce are multidimensional. Therefore, unless one institution has better performance in every indicator than another, concluding who is doing better overall remains somewhat subjective.

Not any of the protocols have a mechanism to enforce change. As none targets indirect emissions, they are all pretty much blunt tools in promoting emissions cuts from shifting the investment pattern of banks. Therefore, it is not unfair to say that they completely miss the point with regard to the potential for emissions reduction in the financial sector. There is a need for a standard with different focus.

Chapter 2: New accountability protocols

Available carbon accountability procedures are not ideal. As identified in chapter 1, they do not account for financed emissions, do not provide comparable results and lack sanctions for poor performance. The shortcomings of current reporting procedures, in combination with an ever increasing awareness of the high risk posed by financial investments to the climate system, have recently led a number of institutions and experts to develop and apply new benchmarking systems that enable a comparative evaluation of the current performance of financial institutions. The ability of four of these systems to capture emissions-related criteria is critically evaluated here. These systems can be grouped according to the approach taken; those focused on governance parameters and the carbon footprinting tools. This chapter investigates to which extent the methodologies used in these assessments would be suitable to be made into a standard carbon accountability protocol.

2.1 – Governance-based

2.1.1 – CERES

CERES is the organisation that created the GRI protocol. Here they use the information available from the GRI questionnaire responses to evaluate banks (Box 2.1.1). Cogan (2008) based the assessment of 40 of the world's largest banks on a checklist of governance aspects of the Sustainability Reporting Guidelines & Financial Services Sector Supplement (GRI and UNEP-FI, 2008) climate change-related criteria. "Board oversight; management execution; public disclosure; GHG emissions accounting; strategic planning" (Cogan 2008, p. i) are the broad categories. With over 30 items in the list, it gives a comprehensive view of the organisations' policies and institutional structure devoted to sustainability matters. Points are attributed to each item resulting in an overall score for the company.

While seeking to improve transparency in corporate governance reporting, the report itself lacks transparency by not disclosing the criteria used for attributing scoring points for each indicator. Hence, it is difficult to determine why in the 'board oversight' area, an institution can make 16 points, while a full mark in 'emissions accounting' yields only 14. Though

coherent with its objective of benchmarking the banks according to their performance in corporate governance, the methodology is flawed exactly because it is more suitable to assess the institutional mechanisms of environmental management than their efficiency in achieving significant results. A large and complex structure does not necessarily mean a more environment-friendly bank.

BOX 2.1.1**CERES**

- Specific for the banking sector;
- Questionnaire on climate policy;
- Uses information available from GRI questionnaire responses to benchmark banks.

Perhaps a more fundamental question is whether meaningful comparative results can be obtained by scoring banks according to a criteria list of 14 items. It is far from clear how equivalence between diverse and unrelated criteria has been derived. For example, scope 2 emissions reporting and participation in climate change external working groups are given equal weighting in this scoring system. According to the logic of this method, one company very active in climate change working groups, but not reporting GHG emissions could score the same as another that did thoroughly report its emissions, but did not participate in climate change working groups. The two criteria are valid, but by no means could they be compared and rated with the same yardstick because the first only indicates the bank is engaged in climate change discussions denoting, at best, a good intention, whereas the second has to do with disclosure of objective performance figures arising from the action already taken.

2.1.2 - ZHAW, ETH and SAM

Resulting from a broad literature review, this framework is a joint initiative of the Zurich University of Applied Sciences (ZHAW), the Swiss Federal Institute of Technology Zurich (ETH), and Sustainable Asset Management (SAM) (Box 2.1.2).

After adjusting language, eliminating redundancies and conducting a pre-test with a reduced sample of institutions, Furrer, Hoffmann and Swoboda (2009) got to trim down the more than 500 parameters found in academic and practitioner texts to a questionnaire

with over 70 items divided into 3 dimensions – operations, business and governance – each of which with variable number of elements. Answers are in binary scale and dimensions and elements were all weighted according to SAM’s findings of contribution to value creation (Furrer, Hoffmann and Swoboda, 2009).

BOX 2.1.2**ZHAW, ETH AND SAM REPORT**

- Specific for the banking sector;
- Questionnaire on climate policy;
- Benchmarks banks according to value-adding climate policy criteria;
- Analyses results showing case studies of best practices in the market and indicates what could be further improvements.

Once the banks are ranked, they are grouped into four categories according to their climate strategies: “hesitators, product innovators, process developers and forerunners” (Furrer, Hoffmann and Swoboda 2009, p. 7). Strategies used by ranking leading organisations are analysed to serve as example of good practices. The main objective of this report is strategies improvement and best practices dissemination through periodic re-assessments.

Contrasting with CERES’ methodology, this assesses very specific and applied items of policy. Worthy of highlight are disclosure of emissions mitigation targets; pricing of carbon-risk in lending and investment operations; development and enhancement of climate change commodities and their markets; assessment of client companies’ emissions, cost of cuts and adaptations; elimination of high-emission industries from portfolio; requirement of climate change-related risks insurance from clients; and hedging portfolio climate change-risks (Furrer, Hoffmann and Swoboda 2009, pp. 19-21). These have to do with banks’ direct emissions, but, most important, the framework incorporates the ideas of carbon-risk and financed emissions.

Furrer, Hoffman and Swoboda (2009) get to some interesting conclusions. From the sample encompassing 114 institutions, 9 assess carbon intensity of lending portfolio, 3 do it also for investments and a single one tests annually its business performance response to different climate change scenarios (Furrer, Hoffmann and Swoboda 2009, p. 35). The

methodology used by the organizations to measure financed emissions is not analysed in the report, but the low number of banks that do it is explained by the complexity of the task and the lack of consensus in how to estimate these emissions (Furrer, Hoffmann and Swoboda 2009, p. 10). Oceania banks overall leadership in incorporating climate change into their business strategies is attributed to higher incidence of negative global warming effects in that continent (Furrer, Hoffmann and Swoboda 2009, p. 24). Despite the global commons character of the atmosphere, impacts of climate change on businesses will not be equally distributed across the planet and not even necessarily negative. The report acknowledges that saying different regions may have different required levels of carbon reductions and, above all, face particular risks and opportunities (Furrer, Hoffmann and Swoboda 2009, p. 15). So, it appears banks that are moving forward in implementing stricter climate policy are doing so voluntarily and in self interest. The perception high exposure to carbon-intensive sectors can potentially have deleterious effects to financial results should the climate change effects be aggravated seems to be what drives culture change in these organisations. Risk management officers of such institutions have learned the concept of carbon-risk.

2.2 – Footprint-based

2.2.1 – Groupe Caisse d’Epargne and Utopies

French financial services group Groupe Caisse d’Epargne and consultancy Utopies developed a sustainability assessment and labelling system for banking products (Groupe Caisse d’Epargne and Utopies, 2008) (Box 2.2.1). It aims at giving private customers an easy and reliable insight into the implications of financial services with regard to three aspects: client’s own financial security, social responsibility and climate change. The part of interest for this report is, obviously, the last section, which takes into consideration both the bank’s operational and financed emissions. Using indications given in the form of diagrams similar to electrical appliances energy-efficiency labels, the bank’s clients will be able to choose from the bank’s product range the ones that suit their preferences.

Devised initially for savings products with the intention of being later adapted to the whole range of financial services offered by the group – insurance, loans etc – it adopts a 3-scope approach for the footprinting. Financed emissions fall into the scope 3 category. The bank

is considered responsible for the whole life cycle emissions of the portion of the production it funds. “Each company’s environmental report (for Scope 1 and 2 in particular); each company’s response to CDP (Scopes 1 and 2); national statistics databases for the sector; various life-cycle assessment databases (for purchases, use and end-of-use in Scope 3 in particular); economic and environmental I/O databases” (Groupe Caisse d’Epargne and Utopies 2008, section III p. 11) are the recommended sources of information for determining the life cycle carbon footprint of financed production. Assessing the life cycle emissions of a single product is a complex task and may involve a great deal of uncertainties. The prospect of having to measure emissions from all the products and services produced by all companies in a bank’s portfolio with some degree of accuracy sounds monumental to say the least. As said before, this is one of the very reasons why banks have avoided footprinting their indirect emissions. Even if it involves only applying input/output data, it will inevitably require quite a number of choices that must be well thought out of in order to produce a reasonable protocol. And unless these choices are agreed upon by the entire sector, comparability will be severely compromised.

BOX 2.2.1**GROUPE CAISSE D’EPARGNE AND UTOPIES**

- Labelling system for financial products that indicates to client: financial security, social responsibility and climate change impacts;
- The climate change part assesses life cycle footprint of products;
- Intended to be used in the whole range of financial products of the group.

In the case of a loan or of shares held by the bank, the emissions are the company’s emissions multiplied by the ratio between the value of the securities or debt and the sum of shareholders’ equity plus gross financial debt (Groupe Caisse d’Epargne and Utopies 2008, p. 13). Tax and suppliers debt are not included, as they do not accumulate interest (Groupe Caisse d’Epargne and Utopies 2008, p. 13), i.e., they are debts not created by financial investment. Accounting rigour on this side contrasts with the use of Carnegie Mellon input/output database for the US economy in 1997 (Groupe Caisse d’Epargne and Utopies 2008, p. 13) on the other, which used to analyse the carbon-intensity of the 2008 portfolio of a French institution will most likely lead to rather inaccurate results.

Investments in countries' debt are also addressed by this methodology. Like with the corporate debt, banks are considered responsible for the emissions of the portion of production they finance when they lend money to a country. Resources borrowed by a country, however, have much more diversified application than those lent to a company. To estimate the emissions arising from the capital invested in sovereign debt, the method goes into the breakdown of the public expenditures of the country and the carbon intensity of the particular economy (Groupe Caisse d'Épargne and Utopies 2008, p. 14). Comparability problems come to mind again. Figures of national emissions are still rare and even if one day they become common, they must be produced according to the exact same protocol to be comparable. Apart from that, estimates for national public expenditure will have to be based on broad categories, what means more inaccuracies. Otherwise, the method will require trawling through national budgets of many countries of a typically risk-diversified portfolio making the process of footprinting even more costly.

2.2.2 – Milieudéfensie and Profundo

The assessment of Dutch banks' climate performance by Milieudéfensie (2007) looks at, both, financed emissions and climate change policies (Box 2.2.2). The system focuses on financing of fossil fuels production and renewable energy as these are, respectively, "main cause of climate change" and "main alternative to fossil fuels" (Milieudéfensie 2007, p. 9). Fossil fuels in the portfolio have twice the weight of renewables in the overall score of the Climate Performance Index (Milieudéfensie, 2007), the benchmarking tool. The idea behind this asymmetry being that investments in renewables cannot compensate those in fossil fuels (Milieudéfensie, 2007).

Climate change policies stand for the remaining one quarter of the index score. Seventeen indicators with different weights divided into three categories - policy, transparency and climate-related products for citizens – form this part of the model (Milieudéfensie, 2007).

Rainforest Action Network commissioned the evaluation of seven Canadian banks with regard to financing of fossil fuels production and renewable energy to consultancy Profundo, the same responsible for the financed emission part in the Milieudéfensie report (Milieudéfensie, 2007). The methodology adopted (Denie et al, 2008) is the same of the quantitative section of the report on Dutch banks. It uses six criteria to benchmark the

banks. It assesses the total value invested in the production of fossil fuels and in renewables, the proportion of these values on the corporate portfolio, the CO₂ emissions from financed fossil fuels and the ratio of emissions per Canadian dollar invested in the corporate sector.

BOX 2.2.2**MILIEUDEFENSIE AND PROFUNDO**

- Specific for the banking sector ;
- Combined assessment of climate change policy and carbon footprint;
- Focuses the carbon footprint analysis on investments in renewables and fossil fuels estimating how much CO₂ is emitted per monetary unit invested.

Investments in coal include those made in dedicated coal producers, diversified mining companies with coal operations and steel producers that mine their own coal (Denie et al, 2008). For oil and gas, not only the producers themselves are included, but also the providers of products and services for oil and gas exploration (Denie et al, 2008). Similar logic is applied to renewables production, which encompasses renewable energy companies and renewable energy technology producers (Denie et al, 2008).

Three forms of investment count: lending, bonds and shares (Denie et al, 2008). The method considers lending as the outstanding value of loans. This implies that, because the evaluation uses a four-year sample, on one hand it underestimates the value lent because some loans have been partially repaid and, on the other hand, it overestimates the lending portfolio due to outstanding loans conceded before the four-year period (Denie et al, 2008). The authors estimate the underestimation and overestimation compensate each other to produce a true picture of the lending portfolio (Denie et al, 2008), although there is no indication whatsoever of the data on which the estimation was based. Either the authors prefer to keep the dataset secret or the estimation was based on intuition.

Since Canadian banks report their loans to the mining sector, but do not specify which part goes to coal, the authors used a weighted average of a sample from the S&P/TSX Global Mining Index as a proxy of coal intensity of the mining sector (Denie et al, 2008). Exposition to coal, oil and gas in the bonds and shares portfolio is assumed by the authors to be in the

same proportion as the estimated for coal and reported for oil and gas in the lending portfolio (Denie et al, 2008).

Investment banking services serve to advise clients on issuing bonds and share and to arrange loans. Fees charged for these services are reported, but not raised funds. To get to those, Denie et al (2008) used data of total funds raised by each bank from a financial news agency and attributed the same proportion of fossil fuels as in loans.

The most important conclusion of the report is the carbon-intensity of the investment portfolio, which tells how much CO₂ is emitted for each Canadian dollar deposited in the bank. This, however an interesting result because it is a very clear way for the clients to think of their indirect emission, it is heavily based on assumptions rather than on hard data, what might affect its reliability. Besides, it only considers emissions from financed fossil fuels, when most any product or service has embedded emissions. So, even if a bank does not finance any production of fossil fuels, it does not mean its financing portfolio is carbon-zero.

2.3 – Considerations

Described in the same section based on one aspect, the two procedures in each category have very distinct characteristics. Among the governance-based, ZHAW, ETH and SAM report has a much more practical application than CERES report inquiring about very specific and well-thought items of policy. The footprint-based could not be more different. While Groupe Caisse d'Épargne proposes the most comprehensive form of footprinting to the whole range of financial products, Milieudefensie and Profundo employed in their assessment only the figures from fossil and renewable energy.

Although fundamentally different, the four systems examined in the chapter advance a great step in relation to the presently widely accepted protocols. First, because they all integrate in a way or another the notion of financed emissions. Second, and not less important, because they were devised for comparing companies. They show the climate performance in a manner that allows clients to choose the institution that has better climate-risk controls.

Chapter 3: Proposed framework

3.1 - Background

The available accounting methods do not make it easy for a regular client or even for an institutional investor to evaluate the carbon emissions of a bank. Above all, they do not promote investment in clean energy. The carbon market has not had a significant effect either (Forum for the Future, 2007). As mentioned in the introduction, a very high level of investments in renewable energy sources will be needed to build a new energy supply infrastructure, and the current level of investments far below the necessary. According to figures of NEF (2007; 2008 and 2009), new investments in clean energy went from US\$ 70.9 billion in 2006 to US\$ 148.4 billion in 2007 and US\$ 155 billion in 2008. An impressive growth particularly from 2006 to 2007. It is difficult to predict when the annual US\$ 515 billion will be reached, but in keeping the rising trend, it is certain it will eventually. This prospect is not so bright as it may seem to be at first, however. Even if kept stable the concentration of GHG in the atmosphere, the planet would continue to warm up for a very long time (Solomon et al, 2007). The more the emission cuts are postponed, the shaper the fall will have to be to meet the maximum acceptable temperature rise. It is, therefore, critical the substitution of fossil energy sources is not delayed.

The need for higher investments in renewable energy in order to avoid catastrophic environmental consequences of climate change has already been identified. It has been demonstrated through political action the population acknowledges the problem and is willing to deal with it. The Climate Change Act (c. 27) approved in 2008 in Westminster and the even more stringent Scottish Climate Change Act (asp 12) passed in Holyrood in 2009 set, the most ambitious targets for emissions cuts in the world. Democratically elected representatives of the people approved these laws establishing the goals. But when it comes to the means, the people send the wrong signal to their agents that should execute the change. It is not the role of asset managers to choose which values to incorporate into their decision-making processes. Having laws establishing emissions targets only achievable through large investments in clean energy does not mean resources will draw themselves to those projects. If investments in renewables are necessary, there must be rules ensuring

the ones responsible for allocating the resources do what they are expected to do. It is the role of the principal to make sure the agent fulfils its task. Rather than blaming banks for financed emissions, society ought to coherently express its preferences aligning objectives and policies.

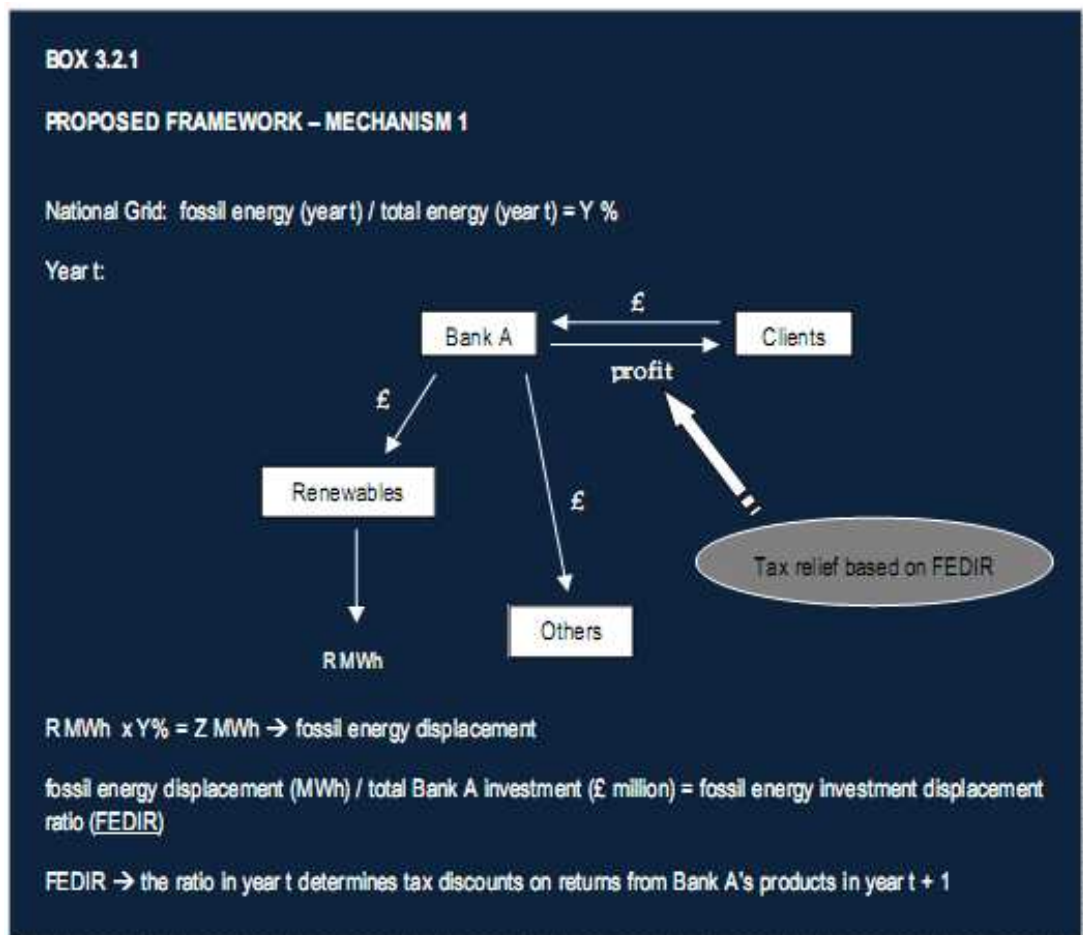
Listening to what the market says and thinks is a good start in correcting the direction of the measures adopted. There is a claim for clear, unified, stable governmental regulation (The Headland Consultancy, 2007; Aldersgate Group, 2007). With a myriad of choices of methodologies, there is no standard or comparable basis (Aldersgate Group, 2007). Each organisation is free to adopt the principles they think best suited to their particular conditions. This only creates obscurity and discredit. For a fair and transparent evaluation of companies, the rules and criteria must be the same for all and compulsory.

Another important aspect is a clearly misidentification of drivers for investment in clean energy. All the systems examined in the previous sections share the mistaken vision that information disclosure is the key to improve environmental performance. Disclosed information alone has no effect. To promote emissions cuts it is necessary good performances be rewarded and bad performances, penalized. For this to work, though, it is imperative the market mentality changes so to understand the value of environmental performance and reward it, what simply does not seem to be happening at the required speed. Instead of trying to create a market force that does not exist, why not take advantage of the one that has always been there? What the minds behind the current methods miss to understand is what can be summarized in the words of an asset manager: "It's all about making money for clients." (The Headland Consultancy 2007, p. 7). For an economic incentive mechanism to work, it must not rely on moral values, but purely on economic rationale. And even if considering the carbon credits market as a way of using the disclosed information to lower emission levels, it would not work. The most important contribution of banks to global warming, as said before, lies in its financed emissions and if those were included in a carbon trading scheme, double counting would be taking place.

Despite being a small fraction of the lending portfolio of banks - £ 97 billion in 2008 (NEF, 2009), while the total net lending to corporations in April 2009 alone was £ 507.6 billion (Bank of England, 2009) - project finance is a very interesting instrument for two aspects.

The first is that 63% of the new investment in clean energy in 2008 was done through project finance, making it the preferred instrument for such investments (NEF, 2009). The second is that it is the best way to keep track of the money because the resources gathered for a particular project are bound by contract to be used in that project and nothing else. This is why it is the best choice of financial tool for the proposed solution.

3.2 – Proposed framework



The idea is to link fiscal benefits to displaced fossil energy (Box 3.2.1). This would channel funds for clean energy projects so to make money for renewable energy cheaper. Each renewable energy project in which the banks invest or for which they structure loans displace a certain amount of fossil fuel energy in new power stations to supply growing demand or substitution of old ones. This is a variable measure because it depends on how much fossil and renewable energy are in the mix at a given time. It changes minute by

minute as the power output is adjusted to the demand and to the supply of renewable energy, which depends on natural conditions. On the year aggregate, however, this measure is much more easily determined. The Department of Business Innovations & Skills publishes the figures based on the consumption of fossil fuels and total energy output for every finished year. So it is possible to say how much fossil energy a renewable energy project would have displaced had it been operational during that year with a certain degree of accuracy. Using this, banks would have to disclose how much fossil energy they displaced with new investment in relation to their total portfolio in the previous year in, say, Watt-hours / £ million. This fossil energy displacement investment ratio (FEDIR) would serve to benchmark banks and to attribute a tax discount to each band of FEDIR for returns paid in that particular year by general-purpose investment products such as savings accounts and bank deposit certificates. This would work to attract retail clients to the banks with a better FEDIR and reward a policy of investing in clean energy. And since this benchmarking would be renovated every year, banks would have an incentive to keep on making and promoting new investments.

Apart from the importance of renewables and the option for project finance, there are other five choices behind FEDIR. The first is tracking saved emissions in opposition to what the examined footprinting methods propose, which is recording emissions from financed production of fossil fuels. It can be argued that not all the extracted crude oil and gas are used as fuels. In fact, 13% of the oil consumed in the US is not burned (Komanoff, 2002), but serves as raw material for the petrochemical industry and for paving roads in the form of tarmac.

The second is using a ratio instead of the absolute figure of displaced fossil energy. In 2007, the Royal Bank of Canada invested C\$ 1.7 billion in renewable energy projects and the Scotiabank, C\$ 1.5 billion (Rain Forest Action Network, 2008). In 2006, ABN Amro invested € 1.4 billion in renewable energy project and ING Bank, € 1.3 billion (Milieudefensie, 2007). Despite impressive at first sight, these figures prove deceiving if compared to the investments in fossil fuels production made by the same banks in the same period, which total respectively: C\$ 15.9 billion and C\$ 12 billion for the Canadian banks (Rain Forest Action Network, 2008); and € 43 billion and € 27 billion for the Dutch banks (Milieudefensie, 2007). From this list, the bank with the smallest proportion financed 8

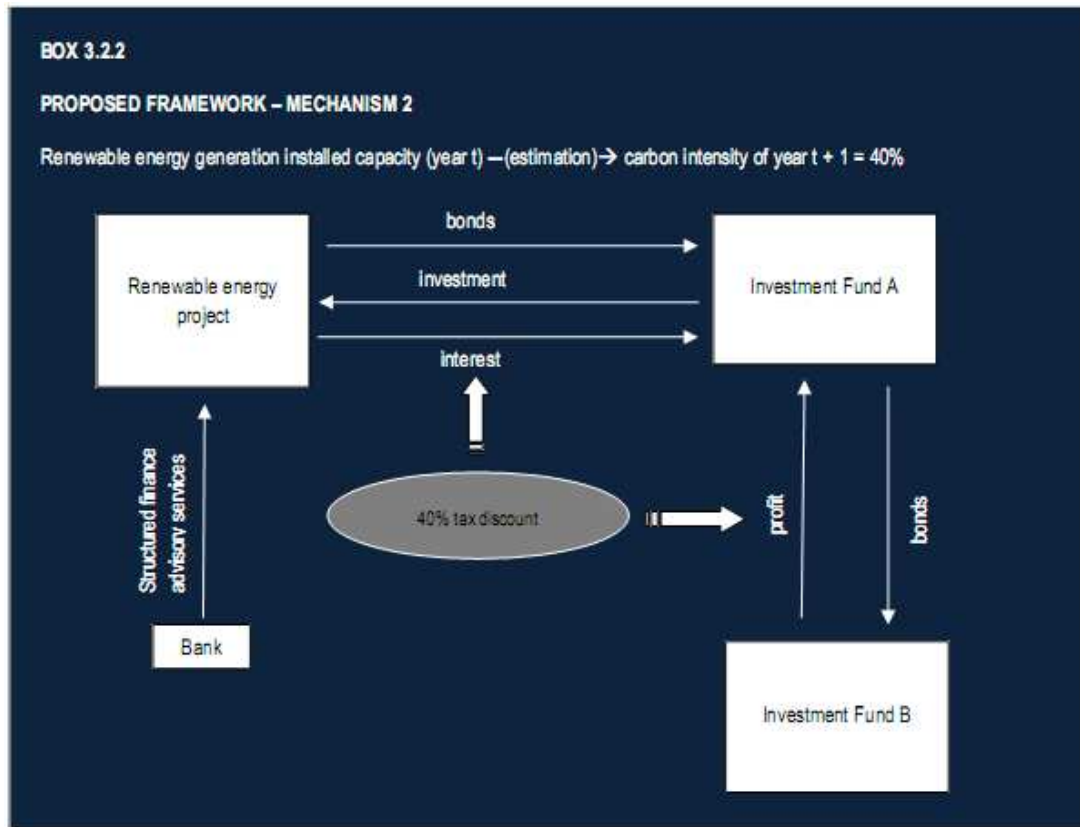
times more fossil fuels than renewables. It is not hard to imagine that in, at least, some of those cases the emissions saved by clean energy might be more than offset by those of financed fossil fuels production.

The third choice to be explained is using displaced energy instead of the amount of money invested in renewables. The reason for this is that different projects have different levels of efficiency. From the point of view of climate change policy, the money spent in planning permissions or personal safety equipment is irrelevant. What counts is how much energy from renewable sources will be delivered once the project is completed and not how much it cost.

Fourth is comparing investments in renewables to the total lending portfolio. Excluding those items such as insulating material for houses or some forestry products, which will have a net negative impact in the carbon budget during their life cycles, all products have embedded emissions. So, assuming the simpler the model, the less barriers it will raise, these exception are neglected and a certain degree of inaccuracy is accepted in order to keep it as simple a model as it can be. This same simplicity principle underlies the fifth choice for grid averages in the place of more precise measures. Likewise, although there are emissions associated with the life cycle of nuclear energy (Fritsche and Lim, 2006), those are ignored in the name of simplification. i.e.

A second feature of the framework targets institutional investors (Box 3.2.2). Project finance credits can be securitized, i.e., the loan is broken into smaller pieces – bonds – and sold in the market allowing investors to take part in the project without having to buy in the risk of the whole enterprise as well as being able to withdraw from it at any time by selling their bonds to other investors (Choudhry, 2004). Given the installed capacity of generation by renewables is known, it would not be too complex to estimate the fossil fuel energy intensity for the year to come. Being so, the renewable energy project bonds issued in a given year would have a tax discount on the profits they generated proportional to the share of fossil fuels in the energy mix in that particular year. So, for instance, if fossil fuels stood for 40% of the energy mix in 2010, all clean energy bonds issued in 2010 would have 40% discount on the interest they paid and on the trading profits. Of course, these numbers only serve the purpose of example and the parity between fossil fuels proportion

in the energy mix and tax discount is a matter for further discussion that transcends the scope of this report. The pension and investment funds that bought such tax-relieved securities would have a potential for performing better than competitors attracting more clients and drawing more resources for the new energy infrastructure.



As the substitution of the energy supply infrastructure by renewable advances, the trend is that the proportion of fossil energy will decrease in the grid mix over time. This means the tax incentives for investment in renewable will never be greater in the future than it is now. This situation creates a positive time preference pattern for such investments. It will generate a great influx in the present and that will diminish as the return attractiveness decreases. At the same time, as the oldest and more subsidised series of bonds expire, the newest will become relatively more attractive, keeping some flow of money to these projects. Naturally, more cost-effective projects will be implemented first. Higher cost technologies, which are still in a maturing phase, will be left for later and, therefore, will be less benefited by the fiscal incentives. This problem is addressed by the Renewable Obligations policy proposed by the energy White Paper (Department of Trade and Industry,

2007) by attributing different Renewable Obligation Certificate allowances for different energy sources.

BOX 3.2.3

WORKED HYPOTETICAL EXAMPLE

GRID FIGURES

year	total electricity output (TWh)	electricity from fossils (TWh)	fossils in the mix
2009	400	398	99.5%
2010	401	380	94.8%
2011	402	365	90.8%

FEDIR-BASED TAX DISCOUNTS

FEDIR bands	10.1-12	12.1-14	14.1-16	16.1-18	18.1-20
tax discount	11%	13%	15%	17%	19%

BANKS

bank	portfolio (£b)	investments in renewables (£m)	financed capacity (MW)	energy displacement (MWh)	FEDIR (MWh/£m)	tax discount rate
A	20	60	48	417,600	20.9	19%
B	120	220	193	1,679,100	14.0	13%
C	120	220	200	1,740,000	14.5	15%

CLEAN ENERGY BONDS TAX DISCOUNT

year	carbon-intensity of the grid	tax discount
2009	99.5%	49.8%
2010	94.8%	47.4%
2011	90.8%	45.4%

COMMENTS:

- Decreasing participation of fossils in the mix and consequent decreasing tax incentive for clean energy bonds;
- Bank A, despite investing the smallest amount, has the highest FEDIR and, hence, the highest tax incentive because it has the highest proportion of portfolio invested in renewables among the three;
- Despite investing the same amount and the same portion of the portfolio, banks B and C have different FEDIR because the investment of bank C is more efficient and displaces more fossil energy.

The expected broad outcome of this framework is that the fiscal incentives will create demand for clean energy bonds and for better-benchmarked banks. This will lead banks to direct clean energy project loans to project finance structure and to securitize the credits. With higher return from such investments, more financial resources will be attracted to

them lowering the interest rate of these assets. This framework is a system of subsidies. Clean energy projects will have cheaper financial resources than other enterprises. Every investment and consumption other than clean energy projects will be paying relatively higher interest rates. It is like they were been taxed and the tax was reverted to the benefit of clean energy projects in a redistribution movement. Ultimately, customers will be paying a relatively higher price for carbon-emitting goods and services. Such difference is not static, though. It follows a descending trend. Over time, as the energy supply infrastructure becomes cleaner, the burden on the rest of the economy lightens until the point it disappears when energy is 100% renewable. The framework, hence, will be acting to correct the market failure pointed out by Stern (2006) by pricing carbon emissions whilst fostering investments in clean energy sources.

3.3 – Limitations

- Mismatch in FEDIR between the proportion of fossil fuels in the grid energy and the displaced emissions;
- Exchange of resources among institutions with different FEDIR through interbank market;
- Loss of fiscal revenue;
- Gives the same treatment to every investment other than in renewables;
- Penalizes banks that do not invest in renewables regardless of the quality of the footprint of their portfolio.

Like any other model, this one has its disadvantages. Five major limitations or unfavourable characteristics were identified in the system. The first is the time mismatch in FEDIR between the proportion of fossil fuels in the grid energy and the displaced emissions. Infrastructure projects take time from the date when the arrangements are finalized until the day when the project becomes operational. So, the fact a bank arranged the financing structure for a clean energy project in 2008 does not mean the project saved emissions in the 2008 energy mix scenario. Taken to the extreme, one could argue documents were signed in the very last working day of the year leaving not more than a few hours for a wind farm or a biomass power station to be built and deliver energy equivalent to one year's production, which is obviously impossible. Albeit, strictly speaking, this is an inaccuracy of

the model, it has a good side. It works as an additional incentive for financing contracts to be signed earlier. And once bonds are subscribed, it is in the interest of all involved the project implementation is completed as fast as possible so it starts generating positive cash flows.

The banking system is a network. Even if competing, banking houses are constantly interacting. Short term excesses and shortages of liquidity are balanced through the interbank market, where banks take loans from which other. So, it is not possible to guarantee money clients put in a bank will not at some point be invested in another with lower FEDIR. Those are marginal amounts of resources, though. And an institution that targets the interbank market as staple business will not have high FEDIR.

Loss of fiscal revenue entailed by the framework is an inconvenient characteristic. Large amounts of Treasury's money have been used to try and avoid the financial collapse of the nation in face of the liquidity crisis increasing the public debt (Smith, 2009). Now there are plans to put the national accounts back in balance by raising taxes and cutting public spending (Smith, 2009). Fiscal austerity and tax incentives may be seen as conflicting ideas, but they are not necessarily mutually exclusive. The fiscal system is very broad and the complexity of national administration lies in part in the inevitable need for the government to pursue several concomitant goals. It is the official position of Downing Street that the green economy is a strategic area in terms of international policy and one that would help the country overcome the economic crisis (Brown, 2009). In this context, lower taxes for investments in the transition to a low-carbon economy are public investment rather than expense.

Another limitation of the framework is it treats all emission sources as if they were homogeneous, when they are clearly not. A fund investing in shares of a gold mining company would pay the same toll as one buying futures of wheat. The level of emissions of the two is different as the social importance of each activity is different. However a deliberate choice in favour of simplicity and of shifting the balance of the general level of prices, the consequences are far from insignificant. It constrains the access to credit of very socially important and, therefore, politically sensitive areas such as agriculture and housing. This might be the cause of severe barriers. Finally, not less severe may be the barriers lifted

by those financial institutions that base their strategies on corporate and social responsibility. Institutions that do not invest in renewables will be penalized in the same way regardless of the carbon-intensity of their portfolios. In other words, two banks that do not invest in renewables will have the same zero FEDIR even if one is specialized in forestry and the other, in tar sands.

Conclusion

Among the economic sectors, electricity generation is one that stands out for its large contribution to the national emissions. Coal and gas fired power stations are still the staple suppliers of the British national grid. To achieve the necessary emission cuts, production of electricity must change from fossil to clean sources. This shift is happening already and at an increasing pace as the level of investments rises. Despite having reached a historic peak, the amount of resources driven to such projects is not enough. Projections say it would be required steady investments of over three times the current level during the next two or three decades to build a new, clean electricity supply infrastructure.

Financial institutions have a crucial role to play in this process. Responsible for the allocation of money that finances every kind of economic activity, they have the power to influence not only today's emissions, but also the carbon-intensity of foreseeable future. Every pound going into development of a new oil field or funding financial needs of a coal mining company translate into enhancement of the greenhouse effect for years. Conversely, each pound invested in clean sources saves emission of greenhouse gases slowing the global warming trend. Hence, financial institutions must be held accountable for their greenhouse gas emissions, but mainly for the ones resulting from projects they choose to finance.

Financed emissions is not a concept well sedimented among policy-makers yet. Not even the non-governmental sector is unanimous to recognize its importance. Of the carbon accountability methodologies being applied by British financial institutions today, none addresses the matter properly. Alternative methodologies, some of which with very good aspects, are nonetheless far from ideal. Besides leaving too much room for choices that may influence the final result and compromise comparability, they are the ones which are just too complex and costly to be voluntarily adopted by any private company. Above all, every and each of the systems assessed above fails to provide the right incentives for emission cuts and investment in renewables. All of them were built on the hope the market will grow an environmental conscience and do its part. Policy-makers and those who want to contribute to the policy-making process must bear in mind the role of policy is to provide the incentives that will drive the agents to act as to achieve predetermined goals. The

agents themselves are clear to express their expectations of clean, long-term regulation that will set the conditions for the incorporation of carbon into their investment decisions that so far envisage nothing but making the biggest profits possible for their clients.

The proposed framework is thought to address all these questions by providing a simple, cost-effective way of comparing banks through the fossil energy displacement. This is used to benchmark banks and in an economic incentive system. The system allows benchmarking banks not as an end in itself, but as a means to achieve emission reduction and investments in renewables while pricing carbon emissions. The present report does not intend to be a readily applicable legislation proposal, but rather a collection of ideas to be further developed. Much deeper assessment would be necessary before implementation. Particularly in what comes to fiscal impact and market response.

Word count: 9,946

References

Aldersgate Group (2007) Carbon costs: corporate carbon accounting and reporting. London, Aldersgate Group.

Bank of England (2009) Monthly amount outstanding of monetary financial institutions' sterling net lending to private non-financial corporation (in sterling millions) seasonally adjusted excluding securitisations LPMBC57 [Internet]. Available from: <<http://www.bankofengland.co.uk/mfsd/iadb/fromshowcolumns.asp?Travel=NixSTxTAXSUx&FromSeries=1&ToSeries=50&DAT=RNG&FD=1&FM=Jan&FY=1963&TD=22&TM=Jun&TY=2009&VFD=N&html.x=28&html.y=19&CSVF=TT&C=EI9&Filter=N>> [Accessed 22 June 2009].

Banktrack (2007) Mind the gap: benchmarking credit policies of international banks. Utrecht, Banktrack, p. 74.

Banktrack (2009) Dodgy deals [Internet]. Available from: <http://www.banktrack.org/manage/ems_dodgydeals/dealslist> [Accessed 17 June 2009].

Brown, G. (2009) Britain's green revolution will power economic recovery [Internet]. Available from: <<http://www.guardian.co.uk/environment/2009/jul/12/ecotowns-green-revolution-climate-change-gordon-brown>> [Accessed 17 July 2009].

Carbon Disclosure Project (2006) Carbon Disclosure Project (CDP4) greenhouse gas emissions questionnaire - The Royal Bank of Scotland Group [Internet]. Available from: <<http://www.cdproject.net/responding-companies.asp>> [Accessed 16 July 2009].

Carbon Disclosure Project (2008) CDP6 greenhouse gas emissions questionnaire - The Royal Bank of Scotland Group [Internet], question 2 (c)(i). Available from: <http://www.cdproject.net/responses/public/Royal_Bank_of_Scotland_Group_3694_Corporate_GHG_Emissions_Response_CDP6_2008.asp> [Accessed 09 June 2009].

Carbon Disclosure Project (2009a) About CDP [Internet]. Available from: <http://www.cdproject.net/about_cdp.asp>. [Accessed 16 June 2009].

Carbon Disclosure Project (2009b) FAQs [Internet]. Available from: <<http://www.cdproject.net/faqs.asp>>. [Accessed 16 June 2009].

Choudhry, M. (2004) Corporate bonds and structured financial products. Oxford, Elsevier Butterworth-Heinemann.

Climate Change (Scotland) Act 2009 (asp 12) Edinburgh, OQPS.

Climate Change Act 2008 (c. 27) London, HMSO.

Cogan, D. (2008) Corporate governance and climate change: the banking sector. Boston, CERES.

20 20 by 2020: Europe's climate change opportunity, COM (2008) 30, final.

Companies Act 2006 (c. 46) London, OPSI.

Council Directive (EC) No. 87/2003 of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/91/EC, final.

Defra (2008) UK emissions of carbon dioxide, methane and nitrous oxide by national communication source category [Internet]. Available from: <<http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>> [Accessed 10 June 2009].

Defra and Trucost (2006) Environmental key performance indicators: reporting guidelines for UK business. London, Defra.

Defra. (2009) Draft guidance on how to measure and report your greenhouse gas emissions. 5th June. London, Defra.

Denie, S. et al (2008) Financing of fossil fuels and renewable energy by Canadian banks [Internet]. Available from: <<http://climatefriendlybanking.com/fileadmin/materials/>>

comms/mediaccontent/reports/profundo_bank_report.pdf> [Accessed 06 July 2009].

Department for Business Innovations & Skills (2008) Digest UK energy statistics (DUKES) table 1.1.1 - Inland consumption of primary fuels and equivalents for energy use [Internet]. Available from: <<http://www.berr.gov.uk/energy/statistics/source/total/page18424.html>> [Accessed 29 June 2009].

Department of Trade and Industry. (2007) Meeting the energy challenge: a white paper on energy. London, HMSO.

EAUC (2009) Universities & Colleges Commitment for Scotland planning and implementation guide [Internet]. Available from: <http://www.eauc.org.uk/file_uploads/uccfs_implementation_guide_february_2009.pdf> [Accessed 09 August 2009].

Entec (2007) Low carbon banking: the role banks can play in a move towards a low carbon economy [Internet]. Available from: <http://www.entecuk.com/lowcarbonbanking/images/Low_Carbon_Banking.pdf> [Accessed 02 June 2009].

Fearnside, P. (2006) Dams in the Amazon: Belo Monte and Brazil's development of the Xingu River Basin. In: *Environmental Management*, Vol.38, No. 1, July 2006, pp. 16-27.

Forum for the Future (2007) Investments to combat climate change: exploring the sustainable solution. London, The London Accord.

Fritsche, U. and Lim, S. (2006) Comparison of greenhouse gas emissions and abatement cost of nuclear and alternative energy from a life cycle perspective. Darnstadt, Institute for Applied Ecology.

Furrer, B., Hoffmann, V. and Swoboda, M. (2009) Banking & climate change - opportunities and risks: an analysis of climate strategies in more than 100 banks worldwide [Internet]. Available from: <http://www.sam-group.com/downloads/publications/sam_study_banking_e.pdf> [Accessed 01 July 2009].

Global Reporting Initiative (n.d.) What we do [Internet]. Available from: <<http://www.globalreporting.org/AboutGRI/WhatWeDo/>> [Accessed 30 June 2009].

Global Reporting Initiative and UNEP-FI (2008) Sustainability reporting guidelines & financial services sector supplement. Amsterdam, Global Reporting Initiative.

Groupe Caisse d'Epargne and Utopies (2008) Sustainable development labelling of banking products [Internet]. Available from: <<http://www.utopies.com/docs/Methodologie-Generale-Juin2008-GB.pdf>> [Accessed 03 July 2009].

Henriques, A (2007) Corporate truth: the limits of transparency. London, Earthscan.

Hornig, J. (1999) Social and environmental impacts of the James Bay Hydroelectric Project. Montreal, McGill-Queen's Press.

IPCC (2007) Climate change 2007: synthesis report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva, IPCC.

Komanoff, C. (2002) Ending the oil age: a plan to kick the Saudi habit. New York, Komanoff Energy Associates.

Milieudéfense (2007) Investing in climate change: Dutch banks compared 2007 [Internet]. Available from: <<http://www.milieudéfense.nl/klimaat/publicaties/rapporten/investinginclimatechange2007.pdf>> [Accessed 06 July 2009].

Minio-Paluello, M (2007) The oil & gas bank: RBS & the financing of climate change. No place of publication, Banktrack, Friends of the Earth - Scotland, New Economics Foundation, People & Planet, Platform, p. 10.

New Energy Finance (2007) Clean energy league tables 2006. London, New Energy Finance, p. 3.

New Energy Finance (2008) Clean energy league tables: 2007. London, New Energy Finance, p. 5.

New Energy Finance (2009) Clean energy league tables: March 2009. London, New Energy Finance, p. 1.

Rain Forest Action Network (2008) Financing global warming: Canadian Banks and fossil fuels. San Francisco, Rain Forest Action Network.

Smith, K. (2008) Cashing in coal: RBS, UK banks and the global coal industry. No place of publication, Banktrack, Friends of the Earth - Scotland, People & Planet, Scottish Education and Action for development, Stop Climate Chaos and Platform, p. 10.

Smith, M. (2009) Brand new challenges [Internet]. Available from: <<http://www.guardian.co.uk/society/2009/jul/15/recession-public-service-delivery>> [Accessed 17 July 2009].

Solomon, S. et al (2007) Technical summary. In: Solomon, S. et al eds. Climate change 2007: the physical science basis. Contribution of Work Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge and New York, Cambridge University Press.

Stern, N. (2006) Stern Review launch presentation speaking notes, 30th October 2006 [Internet]. Available from: <http://www.hm-treasury.gov.uk/d/stern_speakingnotes.pdf> [Accessed 17 July 2009].

Sustainable Development Commission. (2006) Paper 3: Landscape, environment and community impacts of nuclear power. London, Sustainable Development Commission (The role of nuclear power in a low carbon economy, 05 March).

The Headland Consultancy (2007) Has the debate on climate change affected institutional investment behaviour?. London, The Headland Consultancy.

The Royal Bank of Scotland (2008) Corporate responsibility report 2007: 10 issues that matter the most. Edinburgh, The Royal Bank of Scotland Group plc.

WBCSD and WRI (2004) The greenhouse gas protocol: a corporate accounting and reporting standard. Revised edition. Washington D.C., WRI.

Winfield, M. Janison, A., Wong, R. and Czajkowsky, P. (2006) Nuclear power in Canada: An examination of risks, impacts and sustainability. No place of publication, The Pembina Institute, 14 December 2006.

Annex 1 – Companies Act 2006, clause 417

COMPANIES ACT 2006 CHAPTER 46

417 Contents of directors' report: business review

(1) Unless the company is subject to the small companies' regime, the directors' report must contain a business review.

(2) The purpose of the business review is to inform members of the company and help them assess how the directors have performed their duty under section 172 (duty to promote the success of the company).

(3) The business review must contain—

(a) a fair review of the company's business, and

(b) a description of the principal risks and uncertainties facing the company.

(4) The review required is a balanced and comprehensive analysis of—

(a) the development and performance of the company's business during the financial year, and

(b) the position of the company's business at the end of that year, consistent with the size and complexity of the business.

(5) In the case of a quoted company the business review must, to the extent necessary for an understanding of the development, performance or position of the company's business, include—

(a) the main trends and factors likely to affect the future development, performance and position of the company's business; and

(b) information about—

(i) environmental matters (including the impact of the company's business on the environment),

(ii) the company's employees, and

(iii) social and community issues,

including information about any policies of the company in relation to those matters and the effectiveness of those policies; and

(c) subject to subsection (11), information about persons with whom the company has contractual or other arrangements which are essential to the business of the company. If the review does not contain information of each kind mentioned in paragraphs (b)(i), (ii) and (iii) and (c), it must state which of those kinds of information it does not contain.

(6) The review must, to the extent necessary for an understanding of the development, performance or position of the company's business, include—

(a) analysis using financial key performance indicators, and

(b) where appropriate, analysis using other key performance indicators, including information relating to environmental matters and employee matters.

“Key performance indicators” means factors by reference to which the development, performance or position of the company's business can be measured effectively.

Annex 2 – The Equator Principles

THE EQUATOR PRINCIPLES

Principle 1: Review and Categorisation

When a project is proposed for financing, the EPFI will, as part of its internal social and environmental review and due diligence, categorise such project based on the magnitude of its potential impacts and risks in accordance with the environmental and social screening criteria of the International Finance Corporation (IFC) (Exhibit I).

Principle 2: Social and Environmental Assessment

For each project assessed as being either Category A or Category B, the borrower has conducted a Social and Environmental Assessment (“Assessment”) process² to address, as appropriate and to the EPFI’s satisfaction, the relevant social and environmental impacts and risks of the proposed project (which may include, if relevant, the illustrative list of issues as found in Exhibit II). The Assessment should also propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project.

Principle 3: Applicable Social and Environmental Standards

For projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development indicators Database, the Assessment will refer to the then applicable IFC Performance Standards (Exhibit III) and the then applicable Industry Specific EHS Guidelines (“EHS Guidelines”) (Exhibit IV). The Assessment will establish to a participating EPFI’s satisfaction the project’s overall compliance with, or justified deviation from, the respective Performance Standards and EHS Guidelines.

The regulatory, permitting and public comment process requirements in High-Income OECD Countries, as defined by the World Bank Development Indicators Database, generally meet or exceed the requirements of the IFC Performance Standards (Exhibit III) and EHS Guidelines (Exhibit IV). Consequently, to avoid duplication and streamline EPFI’s review of these projects, successful completion of an Assessment (or its equivalent) process under and in compliance with local or national law in High-Income OECD Countries is considered to be an acceptable substitute for the IFC Performance Standards, EHS Guidelines and further requirements as detailed in Principles 4, 5 and 6 below. For these projects,

however, the EPFI still categorises and reviews the project in accordance with Principles 1 and 2 above.

The Assessment process in both cases should address compliance with relevant host country laws, regulations and permits that pertain to social and environmental matters.

Principle 4: Action Plan and Management System

For all Category A and Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, the borrower has prepared an Action Plan (AP) which addresses the relevant findings, and draws on the conclusions of the Assessment. The AP will describe and prioritise the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the Assessment. Borrowers will build on, maintain or establish a Social and Environmental

Management System that addresses the management of these impacts, risks, and corrective actions required to comply with applicable host country social and environmental laws and regulations, and requirements of the applicable Performance Standards and EHS Guidelines, as defined in the AP.

For projects located in High-Income OECD countries, EPFIs may require development of an Action Plan based on relevant permitting and regulatory requirements, and as defined by host-country law.

Principle 5: Consultation and Disclosure

For all Category A and, as appropriate, Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, the government, borrower or third party expert has consulted with project affected communities in a structured and culturally appropriate manner. For projects with significant adverse impacts on affected communities, the process will ensure their free, prior and informed consultation and facilitate their informed participation as a means to establish, to the satisfaction of the EPFI, whether a project has adequately incorporated affected communities' concerns.

In order to accomplish this, the Assessment documentation and AP, or non-technical summaries thereof, will be made available to the public by the borrower for a reasonable minimum period in the relevant local language and in a culturally appropriate manner. The borrower will take account of and document the process and results of the consultation,

including any actions agreed resulting from the consultation. For projects with adverse social or environmental impacts, disclosure should occur early in the Assessment process and in any event before the project construction commences, and on an ongoing basis.

Principle 6: Grievance Mechanism

For all Category A and, as appropriate, Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, to ensure that consultation, disclosure and community engagement continues throughout construction and operation of the project, the borrower will, scaled to the risks and adverse impacts of the project, establish a grievance mechanism as part of the management system. This will allow the borrower to receive and facilitate resolution of concerns and grievances about the project's social and environmental performance raised by individuals or groups from among project-affected communities. The borrower will inform the affected communities about the mechanism in the course of its community engagement process and ensure that the mechanism addresses concerns promptly and transparently, in a culturally appropriate manner, and is readily accessible to all segments of the affected communities.

Principle 7: Independent Review

For all Category A projects and, as appropriate, for Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Assessment, AP and consultation process documentation in order to assist EPFI' s due diligence, and assess Equator Principles compliance.

Principle 8: Covenants

An important strength of the Principles is the incorporation of covenants linked to compliance. For Category A and B projects, the borrower will covenant in financing documentation:

- a) to comply with all relevant host country social and environmental laws, regulations and permits in all material respects;
- b) to comply with the AP (where applicable) during the construction and operation of the project in all material respects;
- c) to provide periodic reports in a format agreed with EPFIs (with the frequency of these reports proportionate to the severity of impacts, or as required by law, but not less than annually), prepared by in-house staff or third party experts, that i) document compliance

with the AP (where applicable), and ii) provide representation of compliance with relevant local, state and host country social and environmental laws, regulations and permits; and d) to decommission the facilities, where applicable and appropriate, in accordance with an agreed decommissioning plan.

Where a borrower is not in compliance with its social and environmental covenants, EPFIs will work with the borrower to bring it back into compliance to the extent feasible, and if the borrower fails to re-establish compliance within an agreed grace period, EPFIs reserve the right to exercise remedies, as they consider appropriate.

Principle 9: Independent Monitoring and Reporting

To ensure ongoing monitoring and reporting over the life of the loan, EPFIs will, for all Category A projects, and as appropriate, for Category B projects, require appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information which would be shared with EPFIs.

Principle 10: EPFI Reporting

Each EPFI adopting the Equator Principles commits to report publicly at least annually about its Equator Principles implementation processes and experience, taking into account appropriate confidentiality considerations.

(The Equator Principles, 2006)