Bachelor Assignment

Climate Change at ING

Supporting the strategic debate about implementation of the Climate Change policy

November 2010

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UNIVERSITY OF TWENTE.

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Preface

This report is the result of my bachelor assignment executed on behalf of ING, located in Amsterdam, the Netherlands. This bachelor assignment was part of my graduation assignment of the study Industrial Engineering & Management at the University of Twente.

For conducting this research and presenting this report, I would like to specially thank the following people: Dhr. Henk Kroon for providing useful feedback and giving direction on my research; for giving me the opportunity to conduct my assignment at ING and for being my company supervisor; for being my 'direct' company supervisor providing me with very useful feedback, helping me conduct my research, and keeping an important eye on the planning; Dhr. Bas Heijink for introducing me at ING, eventually leading to this research; and all employees of the Environmental & Social Risk Management, Corporate Credit Risk Management department and other departments within ING for their help during the past three months and for making it a very pleasant and learning experience.

Jesse Leeuwendal, 11 November 2010
Enschede, the Netherlands

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Executive Summary

This research is executed on behalf of ING and is dedicated to provide useful information for the strategic debate about implementing the new Climate Change Policy of ING. The information that is provided can be divided into three main parts: 1) Portfolio impact analysis; 2) Benchmark of the policy; 3) Renewable energy research.

The Climate Change Policy is a set of guidelines and restrictions that apply on business engagements of ING with companies in certain high greenhouse gas emitting sectors. Its goal is to move towards a low-carbon economy and to reduce the indirect impact of ING on the climate.

Implementing the policy has consequences for ING. An amount of more than X Euro and Y companies are in scope of the policy. These companies should be screened to see if they comply with the guidelines and restrictions of the Climate Change Policy. The developed risk filter in this research is an easy applicable instrument to facilitate the screening process. The application on three business cases in this research shows that the actual impact of implementing the policy is less than expected since those clients are already compliant.

ING is not the only financial institution that addresses climate change into their business. The benchmark concludes that five of the ten banks that are included in the research have a specific climate policy in place. HSBC and Standard Chartered are awarded as the best-in-class performers on several criteria and all peers present lessons for ING to learn in order to improve their own stand.

Another way of moving towards a low-carbon economy and to address climate change into the business of ING is by financially engaging in renewable energy. Main opportunities in this sector are wind and solar projects. Also investing in energy efficiency is seen as a business opportunity for ING. To make use of these opportunities it is necessary for ING to implement a clear strategy on this topic, improve internal and external communication, ensure consistency within the organization and engage with governments, other banks and the industry to gain knowledge and to cooperate.

The results of this research facilitate the implementation of the Climate Change Policy by offering useful information for the strategic debate. An overview of all conclusions and recommendations can be found in chapter 6, page 63.

Samenvatting

Dit onderzoek is uitgevoerd voor de ING met als doel om bruikbare informatie te verschaffen voor het strategische debat dat gevoerd wordt over het implementeren van het nieuwe beleid omtrent klimaatverandering. De informatie die dit onderzoek verschaft kan worden onderverdeeld in drie onderdelen: 1) Portfolio impact analyse; 2) Benchmark van het beleid; en 3) Onderzoek naar duurzame energie.

Het nieuwe klimaatverandering beleid is een set van richtlijnen en restricties die van toepassing zijn op zakelijke ondernemingen van ING met bedrijven die zich bevinden in sectors die beschouwd worden als enorm milieuvervuilend. Het doel van het beleid is om naar een economie te gaan die weinig milieuvervuilend is en om de indirecte impact van ING op het klimaat te verminderen.

Implementatie van het beleid heeft consequenties voor ING. Meer dan X euro en meer dan Y bedrijven bevinden zich in het zogenoemde bereik van het beleid. Deze bedrijven moeten allemaal geanalyseerd worden om te onderzoeken of zij voldoen aan de eisen die het klimaatverandering beleid stelt. Het in dit onderzoek ontwikkelde risico filter is een gemakkelijk toepasbaar instrument om deze analyses te faciliteren. Door dit risico filter op drie verschillende bedrijven toe te passen, laat dit onderzoek zien dat de werkelijke impact van implementatie van het beleid minder groot is dan aanvankelijk wellicht gedacht werd, aangezien deze bedrijven al blijken te voldoen aan de eisen van het beleid.

ING is niet de enige bank die klimaatverandering in hun zakelijke ondernemingen adresseert. De benchmark in dit onderzoek concludeert dat vijf van de tien onderzochte banken een specifiek beleid hebben voor klimaatverandering. HSBC en Standard Chartered worden beoordeeld als beste van de klas op bepaalde klimaat gerelateerde onderdelen en alle concurrenten verschaffen lessen en aandachtspunten voor ING om hun eigen manier van het adresseren van klimaatverandering in hun zakelijke ondernemingen te verbeteren.

Naast het invoeren van een specifiek beleid, bestaan er andere manieren waarop ING kan aansturen op een laag milieuvervuilende economie en om klimaatverandering te verwerken in hun zakelijke ondernemingen. Eén daarvan is door te investeren in duurzame energie. De grootste kansen in deze sector zijn wind- en zonne-energie projecten. Daarnaast wordt ook het investeren in energie-efficiëntie gezien als een grote kans voor ING. Om deze kansen optimaal te benutten is het noodzakelijk dat ING een duidelijke strategie met betrekking tot dit onderwerp invoert. Ook moet de interne en externe communicatie verbeterd worden, moet er voor consistentie gezorgd worden tussen verschillende afdelingen en moet er samengewerkt worden met overheden, andere banken en de industrie om kennis te vergaren en om samen projecten te ondernemen.

De resultaten van dit onderzoek faciliteren het implementeren van het klimaatverandering beleid door bruikbare informatie te verschaffen voor het strategische debat dat daarvoor nodig is. Een overzicht van alle conclusies en aanbevelingen is te vinden in hoofdstuk 6, pagina 63.

Chapter 1 - Introduction

1.1 Background

This bachelor assignment is executed on behalf of ING. ING is a global financial institution, with their roots in the Netherlands and with their headquarters in Amsterdam. The company offers banking, investments, life insurance and retirement services to customers all over the world (ING Group N.V., n.d.). Their mission is to help their customers manage their financial future (ING Group N.V., 2010).

Due to the financial crisis ING is forced to undertake the operational division of their banking and insurance companies. This assignment is situated in the banking activity and more specifically in the Environmental and Social Risk Management team, part of the Corporate Credit Risk Management / Policy. The ESR team has four main responsibilities:

1. Develop policies
2. Implement policies
3. Give advice in high risk transactions
4. Stakeholder engagement

ING avoids business dealings that are not in line with their Business Principles. Therefore environmental and social policies have been developed to help identify deals that carry sustainability and ethical challenges (ING Group N.V., n.d.). In other words, these policies help ING to make sound investment and financing decisions. The Environmental and Social Risk department main activity is to develop and implement these policies across ING Group.

Besides the already existing policies of ING, a new policy is being developed, focusing on climate change. The goal of this new policy is to move towards a low-carbon economy by encouraging customers to work in a more environmental responsible manner and by restricting the involvement of ING in high greenhouse gas (GHG) emitting sectors. This policy is called the Climate Change Policy and forms the main research object of this study. Since it is still in development, it is often referred to as the *draft* Climate Change Policy in the upcoming chapters.

1.2 Problem Definition

The main problem that raised the need for this study is the implementation of the Climate Change Policy within ING. As will be described in section 2.2 'Development of a Policy', a lot of different factors and phases come into play by implementing a policy. For instance, internal and external stakeholders have to be convinced of the necessity of implementing such a policy and discussions about the contents of the Climate Change Policy are needed. All such kind of meetings, conferences and discussions are referred to as the strategic debate needed for implementing the policy. Goal of this bachelor assignment is to support this strategic debate about implementing the new Climate Change Policy by providing answers to the three questions summarized below in section 1.3.

1.3 Central Questions

After discussion with my supervisors, it is decided that this research will try to answer the following questions to support the strategic debate about implementing the Climate Change Policy:

1. What will the impact of the draft Climate Change Policy be on the portfolio of ING?
2. What are other peers doing with regard to climate change? (Benchmark)
3. What are the risks, opportunities and mitigants for financial involvement in renewable energy for ING?

1.4 Relevance of Study

Answering the three questions will provide information for implementing the policy which will eventually help to actually implement the Climate Change Policy at ING. It could be the case that for instance changes to the content of the policy will be made based on the results of this research. Also by researching renewable energy, opportunities for addressing climate change in a different way could appear. Consequences of the restrictions imposed by the policy could thereby be mitigated by providing business opportunities in other/new sectors.

Insight of the impact of the draft Climate Change Policy on the portfolio of ING will show how much money and how many companies are affected and what the consequences are for ING. If the impact is low, implementation of the policy will be easier, than when the impact is high. The higher the impact, the higher the efforts for consistent implementation across different regions and the higher the likelihood of resistance from commercial teams.

The benchmark will tell where ING stands nowadays with respect to climate change compared to other banks. Perhaps the outcome will be that ING is too progressive with their policy compared to other banks and as a consequence will lose some of their business to peers. If it however concludes that ING is not too progressive and other banks are also addressing climate change in the same way, it would make the implementation of the policy easier. A third option would be that peers are more advanced in implementing climate change concerns and that ING can be lagging behind in this regard.

The renewable energy part will analyse ING's stand on renewable energy nowadays and try to identify the main opportunities and obstacles for financial engagement of ING. By including mitigation methods to remove those obstacles, the goal is to show possibilities for financial engagement in renewable energy and make recommendations for ING to improve their business in this market. This acts as a counterweight towards the policy itself and the impact analysis, because it represents opportunities for addressing climate change into their business instead of restrictions. Briefly, ING will gain information that facilitates doing more business in this market segment and it presents an alternative business opportunity for some restricted areas imposed by the policy.

The storyline of the research is visualized below. On top of the figure there is the need or desire to address climate change at ING. This can be done in many different ways. The three central questions are translated into three different aspects of addressing climate change: 1) Restrictions: What businesses does ING not want to engage in order to fight climate change; 2) Market: What are other peers doing with regard to climate change; and 3) Opportunities: What can ING do to address climate change into their business.

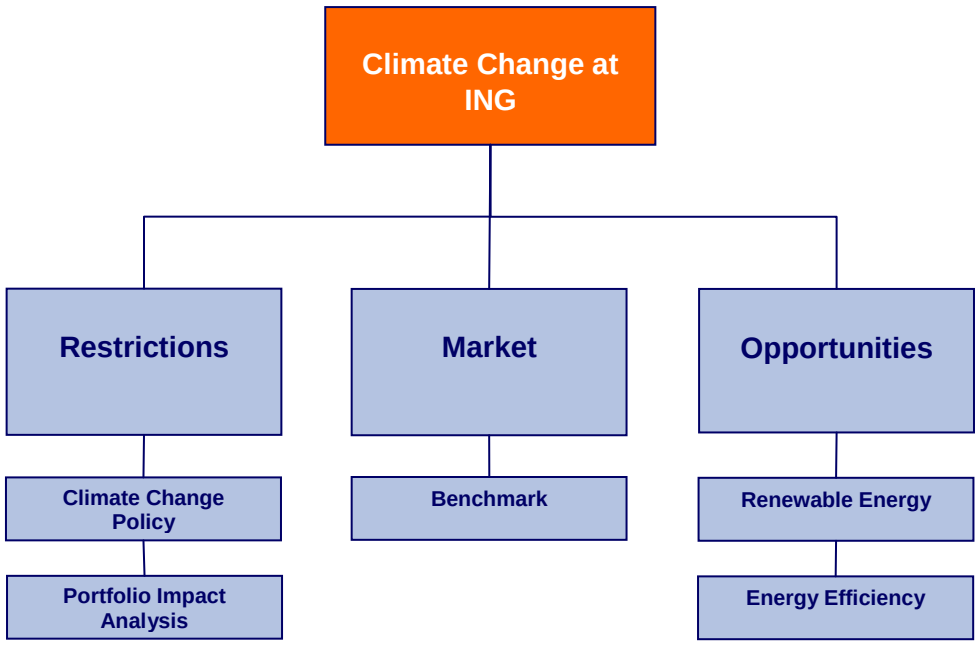

Figure 1: Story line in a snapshot

The Climate Change Policy itself and the portfolio impact analysis introduce some restrictions when addressing climate change. The policy consists of conditions that limit certain business engagements, while the impact analysis actually shows what the consequences are of these conditions. At the market part of this research, a benchmark is performed. Goal is to compare ING's stand on climate change with that of other financial institutions. Focus in the last part of opportunities is on renewable energy *and* on energy efficiency. Both are identified by employees of ING as business opportunities that can address climate change and form a contrast towards the restriction side of the Climate Change Policy.

1.5 Organization of Study

This bachelor assignment will consist of six chapters: The first chapter is the chapter you are reading now, introducing the research and explaining the background of the bachelor assignment. Chapter 2 deals with the topic of policies. The Climate Change Policy of ING represents the main research object of this study and therefore background information about policies in general and the specific Climate Change Policy is needed to understand the upcoming chapters. Chapter 3 aims to present an overview of the portfolio of ING and the impact of implementing the policy on this portfolio. Chapter 4 consists of the benchmark of ING's stand on climate change compared to others. Chapter 5 presents recommendations for ING to engage in renewable energy and energy efficiency by identifying opportunities and mitigating obstacles. Chapter 6 summarizes all conclusions from the previous chapters and also includes recommendations based on my findings. References and appendix can be found at the end of this research.

Chapter 2 - Policies

This chapter is dedicated to provide information about the Climate Change Policy of ING. Since the policy is the main object of this research it is necessary to know and understand the basics of it. The next chapters are based on the Climate Change Policy of ING and therefore this chapter provides useful information for reading those chapters.

The following questions formed the basis for the content of this chapter:
- What is the background of the Climate Change Policy?
- In which stage of development is the policy?
- What is the content of the Climate Change Policy?

Answering the first question puts the Climate Change Policy in the right context. In other words, it tells which policies ING has, what policies entail and why this specific policy was developed. Since the Climate Change Policy is still being developed, the development process of policies is analysed. By doing so, I am able to position my own research with regard to this process and thereby perhaps gain better understanding of what is needed for supporting the strategic debate about implementing the policy. The third question deals with the actual Climate Change Policy itself. We need to know the contents of the policy in order to fulfil the portfolio impact analysis in chapter 3, the policy benchmark in chapter 4 and the renewable energy part in chapter 5.

The background information of the policy is covered by the topic of Organizational Policies, presenting the proper context for the policy and offering other policies of ING. Along with the other two questions, this results in dividing the chapter in the following parts:

2.1 Organizational Policies
2.2 Policy Development
2.3 Climate Change Policy
2.4 Conclusions

2.1 Organizational Policies

A policy is a set of guidelines and restrictions that are appealed on in decision processes in order to achieve a certain rational outcome. In general, policies should accomplish something and a policy becomes necessary whenever there is a need to control, direct or inform (Campbell, 1999). Policies appear in all different sizes and shapes. Within this research we focus on organizational policies: Policies that regulate organizational action and explain the organization's stand on subjects and why there are rules about them (Campbell, 1999).

ING has also seen the need to develop and implement policies because it avoids business dealings that are not in line with their Business Principles. These policies address topics and declare ING´s stand on subjects that are not covered by laws and regulations. The policies of ING can be divided in internal and external policies. Internal policies are aimed at employees and internal processes. External policies focus on clients and investors. The earlier mentioned draft Climate Change Policy is an external policy, part of the Environmental and Social Risk Policies (ESR policies). Because the research its main topic is the Climate Change Policy, the focus will be on this policy and on the ESR policies.

2.1.1 ESR Policies

Environmental and Social risk policies are an important part of Credit Risk policies of ING, and are applicable to all business lines and locations where ING has operations. ESR policies have been developed to help identify and address client engagements and transactions that carry sustainability and ethical challenges (ING Group N.V., n.d.). They can be divided into the following types of policies (ING Group N.V., 2010):

a) General ESR Policy
   Consists of eight policies which deal with a variety of issues potentially present in a sector or business activity that may be controversial and/or carry reputational risk. General policies contain clear guidelines about potential exclusion of engagements.

b) Sector-specific ESR Policies
ING has three sector policies that deal with environmental, labour and human rights issues that are particular to sectors considered more disposed to significant ESR fallout.

c) Project Finance-specific ESR Policies
Also known as Equator Principles. This policy deals with environmental and social aspects related to projects financing and is based on a standard approach adopted by more than 65 financial institutions worldwide

The ESR policies are based upon ING's Business Principles and are applicable to all businesses of ING. They are formulated from a risk management point of view, focusing on environmental and social risk and in addition also on reputation risk (ING Group N.V., 2010). Bad reputation of business deals can have a negative effect for ING e.g. by affecting the ability to engage in new relations or by a decline in its customer base (ERM Academy, n.d.). There is a thin line between ESR and reputation risk because it is intertwined in many different aspects. When for instance ING wants to do business with a highly controversial coal mine, targeted by non-governmental organizations (NGOs; e.g. Greenpeace) and heavily polluting the river next to it, both environmental and reputation risk arise.

The ESR Framework below shows all the Environmental and Social Risk policies divided into the three different policy types (ING Group N.V., 2009). Human Rights Policy and the Environmental Compliance Policy are embedded in all ESR policies, therefore they have an overarching role.

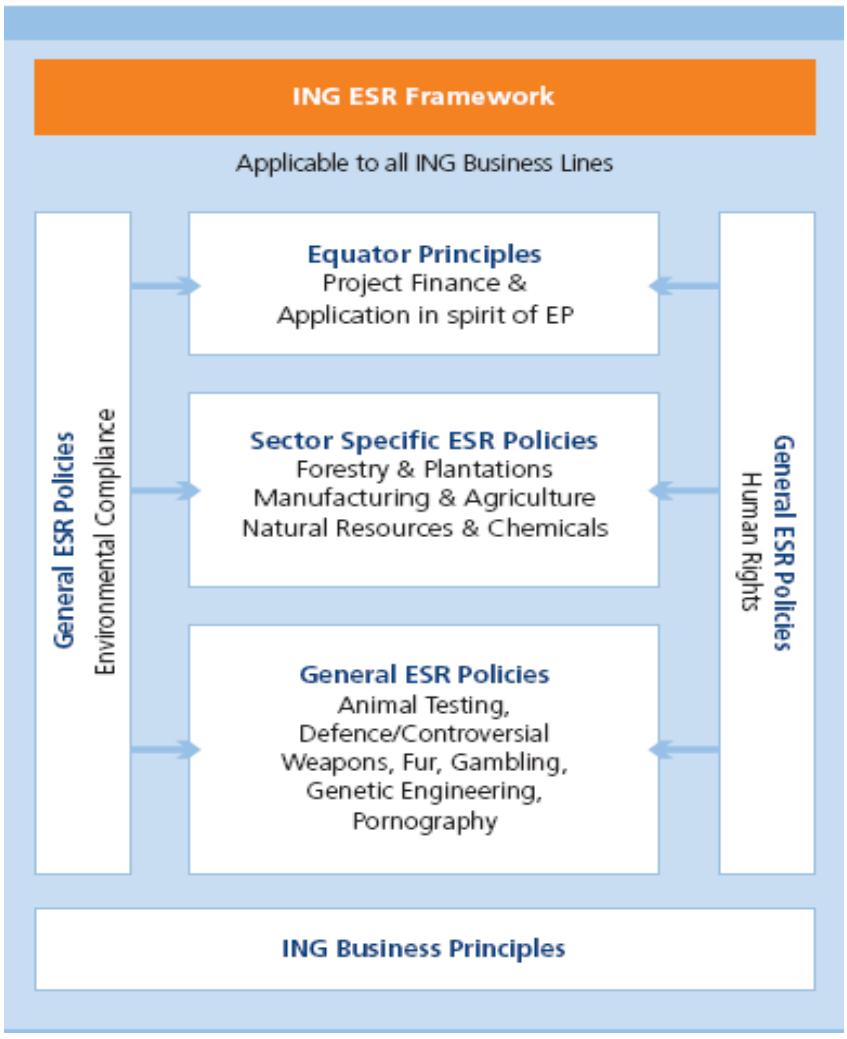

Figure 2: ESR Framework
Source: ING Group N.V. – Corporate Responsibility report 2008

To give an indication of what these policies actually entail, three highlights of the Defence / Controversial Weapons policy are presented below (ING Group N.V., 2010). The summarized highlights represent concrete and clear guidelines / restrictions and therefore provide a proper insight in the kind of content of ESR policies.

- ING will not finance companies that are involved in the production, maintenance or trade of anti-personnel landmines, cluster munitions, depleted uranium ammunition, biological or chemical weapons;
- ING will not do business with companies who deliver arms to countries that are under a weapons embargo or to terrorist and other non-governmental groups;
- ING does not finance the trade of weapons to countries where there is a clear risk that the weapons can be used for internal repression, serious human rights violation or for provoking or aggravating tensions or conflict.

2.2 Policy Development

Policies are developed to accomplish something. Within ING there are several departments that develop, implement, control and have an advisory role with regard to policies. The Climate Change Policy is a corporate credit risk policy, managed by Corporate Credit Risk Management (CCRM). CCRM has the responsibility to ensure that ING's business, ING's transaction approval, its systems and methodologies are all in line with the overall risk standards and risk appetite of ING and that it is all consistent (v/d Meulen, 2009). Within CCRM, there is a dedicated team that deals with Environmental and Social risk, the so-called Environmental and Social Risk Management team. They are responsible for developing and advising on the application of ESR policies. In addition to its advisory role, the team is responsible for the development of the policies (ING Group N.V., 2010).

CCRM and ESR have developed a policy development process that acts as the general guideline to develop, implement and maintain CCRM Policies. Providing an overview of this development process will help to identify in which phase my research is situated, what my contribution can be and possibly which stakeholders to involve or which steps to take to complete that specific phase.

There are six general phases in the Policy Development Process (Sotoca, n.d.):

Figure 3: Policy Development Process Cycle
Source: Sotoca, M. – Policy Development Process Memo

1. Identification of Issues
   When a new policy is developed or when an existing policy is being revised, there are a few points of consideration: The purpose and need for the policy must be clear; the objectives of the policy should be well defined and accepted by all key stakeholders; the sphere of influence and scope of exposure; Also the roles and responsibilities of the development process should be identified and allocated; and timelines & milestones should be set.
2. Drafting of a policy
   A draft version of the policy should be written and must be sent to all stakeholder representatives.
3. Stakeholder engagement
   After the draft version of the policy has been sent to all the stakeholders, they should be given the opportunity to provide feedback. The nature and scale of the policy will determine the degree of stakeholder engagement. Policies with minimal impacts may only need to focus on information disclosure and communication, whereas policies with a bigger impact and higher complexity need to adopt a more strategic and sophisticated approach in this process.
4. Final Draft & Approval
   Feedback of stakeholders has been discussed and possible changes to the policy will be made. If the final draft is written, it has to be sent to the approval authorities.
5. Roll-out & Implementation
   When the final policy has been approved, the policy must be implemented in the organization. This is done by communication (inform internal and external stakeholders), training in the adaption and application of the new policy, system changes, monitoring and reporting.
6. Maintenance & Review
   After successful implementation of the policy, it will be reviewed and if necessary changed. In this phase a proactive approach is needed. Reviewing of policies could lead to the identification of issues which brings the policy development process cycle in action again.

This research is situated between the third and the fourth phase: stakeholder engagement and final draft & approval. A first draft of the Climate Change Policy has been sent to stakeholders and initial feedback has been received. This feedback is used to adapt and finalize the policy and is also incorporated in this thesis, as you will read in chapter 4. Since this policy is expected to have quite an impact, stakeholder engagement is an important part of the development process. The results of this research will be used in the strategic debate with stakeholders: The impact analysis shows ING the consequences of implementing the policy; the benchmark tells what other peers are doing with regard to climate change and thereby indicates what could be changed or improved with regard to the contents in the Climate Change Policy; the renewable energy part identifies other business opportunities to compensate the restrictions imposed by the policy.

2.3 Climate Change Policy

Although scientists do not agree upon the question if climate change is real or not, the ESR team of ING does feel that climate change is a significant environmental and social challenge of current times and therefore requires serious attention. Climate change impacts overall society, including ING and its customers (Oliveira, 2010). In addition to managing their own footprint, ING also deals with their indirect impact through their lending, investment and insurance products and services. Due to pressure from society and overall expectations, failure to address climate change will increasingly expose ING to financial and reputation risk (Òliveira, 2010).

The Climate Change Policy is developed to also manage the indirect impact of ING. As mentioned earlier on, the goal of the policy is move towards a low-carbon economy by encouraging customers to work in a more environmental responsible manner and by restricting the involvement of ING in high greenhouse gas (GHG) emitting sectors.

Looking back at the ING ESR Framework (figure 2, page 18), the Climate Change Policy would be regarded as a General ESR policy. Just like the Human Right Policy, it has an all-embracing scope. It not only covers high GHG emitting sectors but also applies to project finance (subject to Equator Principles), as we will see in the next section about the contents of the policy.

2.3.1 Contents of the Climate Change Policy

Only some aspects of the Climate Change Policy (Oliveira, 2010) are presented here. This short overview provides enough information to understand the discussion and the information in the upcoming chapters. The complete version of the policy can not be found in this version of my research.

2.4 Conclusions

Step by step this chapter has introduced the Climate Change Policy to its reader. As explained earlier, the goal of this chapter was to provide enough information about the Climate Change Policy so that the upcoming chapters can be understand, since these are based upon this policy.

This chapter provided the answers to the questions raised in the introduction of the chapter:

1. What is the background of the Climate Change Policy?
2. In which stage of development is the policy?
3. What is the content of the Climate Change Policy?

Main conclusions of the answers to these questions are summarized below and provide the necessary guidance and information to understand the upcoming chapters. Please keep in mind:

Chapter 3 – Portfolio Impact Analysis

The goal of this chapter is to provide a clear overview of the scope and the impact of the policy on the portfolio of ING. This information helps the ESR team implement the Climate Change Policy: it tells them which sectors are mainly targeted by the policy and by doing so, which departments to contact; It shows how many companies are in scope, which percentage of companies are in scope and thereby how many companies need to be analysed to check compliance with the policy.

The following questions formed the basis for this chapter:

- How does the portfolio of ING look like?
- Which part of the portfolio is in scope of the policy?
- What will the impact of policy be on this part of the portfolio?

To get to know the impact of the policy on the portfolio, it is necessary to start with the basics: The portfolio itself. Information of the portfolio is needed to compare it to the contents of the policy. Combining these two leads to a link between the sectors mentioned in the policy and the contents of the portfolio: the so-called scope of the policy. This scope is necessary to visualize the consequences of the policy and it is used as the input for the third question, since it provides the sectors, including exposure and number of companies, of the portfolio to look at for the impact of the policy. To give a good indication of what the impact is, the consequences of implementing the policy will be presented for three cases and for one specific sector.

The answers to the questions above are used to divide the chapter in the following parts:

3.1 Portfolio of ING
3.2 Scope
3.3 Impact
3.4 Conclusions & Recommendations

3.1 Portfolio of ING

From a financial perspective, with a portfolio is meant the package of all the investments and financial engagements of financial institutions. This includes all stocks, short-term and long-term-loans, bonds and obligations, to name just a few. To minimize risk, it is common that portfolios are well diversified, that is, to ensure that all the money is not invested in one specific sector or company: You do not want to put all your eggs in one basket. The portfolio of ING is also very diverse, consisting of investments in many different sectors and companies. The Climate Change Policy does not have an influence on all of them, as we will see later on.

For analysing the portfolio of ING, there has been made use of a system called Vortex. Vortex is the sole system within ING for collecting group-wide credit risk data (Vortex, 2010). This system makes use of several possible industry classification systems, like NAICS, BIK and NACE, for grouping the portfolio of ING in different sectors. Because NAICS (North American Industry Classification System) is the primarily used system within Vortex and ING, this research is also based on the classification made by this methodology. The NAICS system divides the portfolio of ING into the following 22 main sectors, with the high GHG emitting sectors identified by the Climate Change Policy marked **bold**:

Sector division of ING's Portfolio by NAICS classification system		
1. Automotive	**8. Food, Beverages & Pers. Care**	**15. Real Estate**
2. Builders & Contractors	9. General Industries	16. Retail
3. Central Banks	10. Lower Public Administration	17. Services
4. Central Governments	11. Media	18. Technology
5. Chemicals, Health & Pharm	**12. Natural Resources**	19. Telecom
6. Civic, Religious & Social Org.	13. Non-Bank Financial Institutions	**20. Transportation**
7. Commercial Banks	14. Private Individuals	21. Unknown
		22. Utilities

Table 1: Sector Division of Portfolio by NAICS
Bold sectors = High GHG emitting sectors (based on Climate Change Policy)

The high GHG emitting sectors and the main sectors in Vortex are linked as followed:

Sectors mentioned in policy		Sectors in Vortex
Utilities & Power	→	Utilities
Mining & Metals	→	Natural Resources
Oil & Gas	→	Natural Resources
Cement	→	Builders & Contractors
Real Estate / Construction	→	Real Estate / Builders & Contractors
Transportation	→	Transportation & Logistics
Agriculture	→	Food, Beverages & Personal Care

Table 2: Link between high GHG emitting sectors and Vortex

The sectors on the left hand side of the arrow in the table do not make a perfect match with the sectors on the right hand side. Fortunately, Vortex provides the possibility to dig a little deeper and examine the subsectors of the main sectors mentioned above. For instance, the sector Real Estate is build up from the subsectors Property Management, Real Estate Holding & Development and Real Estate Investment. These subsectors do also have their own subsectors. This helps to identify the specific sectors stated in the Climate Change Policy and thereby provides more accurate information about the scope and impact of the policy on the portfolio. Suppose for instance that Vortex divides the main sector Utilities in subsectors (A) Fossil Fuel Power Generation and (B) Renewable Energy Power Generation and suppose that ING has the same amount of exposure in both sectors. Since the Climate Change Policy does not have any impact on the renewable energy power generation sector because it is not regarded as a high GHG emitting sector, it means that within Utilities, only Fossil Fuel Power Generation is in scope of the policy and therefore the amount of exposure in scope of the policy decreases by half.

3.2 Scope

To identify the impact of the policy on the portfolio, it is necessary to know which part of the portfolio could be influenced by implementing the policy. This is called the scope of the policy. It actually guides us where we have to focus our research on within the portfolio.

An overview of the scope of the policy (see next page) is based on the following subjects:

- Specific high greenhouse gas (GHG) emitting sectors mentioned in Climate Change Policy
- Outstandings / Exposure
- Number of companies

The basics for the scope of the policy are the high GHG emitting sectors specifically mentioned in the policy (see section 2.3). The policy has conditions and guidelines for only those companies that are in these sectors and therefore all other sectors can be left out. Also the impact analysis does not include the clients or business engagements subject to reputation risks due to Climate Change impact that are not part of the specified industries, while they are covered by the policy itself. Reason for this is that these clients are scattered across all sectors, which would mean that this portfolio impact analysis should include all sectors. Another reason is that these clients will be dealt with on a case-by-case approach.

The second subject for creating an overview of the scope of the policy is outstandings / exposure. It shows how much money is invested in the different sectors. ING will have a higher exposure in some sectors than in others. As a consequence of implementing the Climate Change Policy, some business engagements in high GHG emitting sectors will be prohibited and therefore the exposure in those sectors will decline.

Number of companies is relevant for the screening process of ING. The outcome of the portfolio analysis shows how many companies in which sectors need to be screened as a result of implementing the Climate Change Policy.

The portfolio overview is divided into a bank part and an insurance part. Bearing in mind that ING has to split up their banking and insurance activities in the near future, this could be useful. Unfortunately it is not possible to divide the companies in scope between the banking and insurance departments of ING. These departments are too intertwined on many different levels.

All the sectors in scope of the policy are combined into one group: the high GHG emitting sectors. What is included into this group and why, will be discussed later on in this paragraph. The table below presents an overview of the exposure and the organizations in this high GHG emitting sector compared to the total portfolio of ING.

Based on this table, an amount of X Euros of exposure and more than Y companies are in scope of the Climate Change Policy. These numbers are achieved by using a 'narrow scope' on the portfolio of ING: Instead of incorporating the numbers of the main high GHG emitting sectors (see table 1, page 23), the subsectors have been analysed and only the numbers of the subsectors in scope of the policy are included. A detailed overview of the portfolio with all the relevant (sub)sectors is presented on the next page (table 4). The overview consists of the main high GHG emitting sectors (utilities, natural resources, builders & contractors etc.) further specified by including their subsectors. The subsectors highlighted in yellow are the subsectors that are within the scope of the policy. Further explanation is presented after the detailed overview of the portfolio. Summarizing the exposures and number of companies in these sectors results in the figures presented in the general portfolio overview above and they are also incorporated in the detailed overview on the next page.

All non-relevant main sectors are grouped in *Other Sectors*. They are not relevant because they are not indicated as high GHG emitting sectors by the policy. Not each subsector of the main high GHG emitting sectors is in scope of the policy. The ones highlighted in yellow are and represent the more polluting sectors. A short description of each main sector and its subsectors can be found on the next page and reasoning plus explanation about which subsectors are in the scope of the policy and why is also included.

Utilities – The utilities sector consists of organizations engaged in electric power (generation, transmission and distribution), natural gas (distribution), steam supply (distribution), water supply (treatment and distribution) and sewage removal (collection, treatment and disposal of waste) (e-Portals in Commerce, n.d.). While distribution on itself is not identified as very polluting and also water treatment and sewage removal are not considered as high GHG emitting sectors, electric power generation is. So a first distinction is made between power generation and the rest, grouped in *Other Utilities*.

Within power generation there are four subsectors: Hydroelectric, Fossil fuel, Nuclear and Other. *Hydroelectric* and *nuclear power generation* are quite straightforward and represent facilities that generate power respectively by making use of water power (dams, etc.) and nuclear power. *Other electric power generation* comprises establishments that convert other forms of energy, such as solar, wind or tidal power, into electrical energy (e-Portals in Commerce, n.d.). Therefore, this subsector can be seen as a very global indication for the exposures of ING in renewable energy. Very global indication, because it also includes business engagements in other sectors than specific renewable energy. *Fossil fuel power generation* industry encompasses organizations primarily engaged in facilities that use fossil fuels, such as coal, oil or gas for the generation of power. This sector is high GHG emitting and the Climate Change Policy has specific conditions for coal-fired power generation plants. Unfortunately Vortex does not provide specific sectors for coal-fired power generation.

The only sector in scope of the Climate Change Policy is the *fossil fuel power generation* sector. Therefore, the scope within utilities decreases from X Euros and Y companies (all utilities) to only A and B companies (fossil fuel power generation).

Natural resources – Natural resources sector covers the organizations engaged in extracting (mining) naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases. All activities taking place at the mine site such as quarrying, well operations, beneficiating (e.g. crushing, screening, washing) and other preparations are included (e-Portals in Commerce, n.d.). Distinction is made on base of which resource is being excavated and all subsectors, that is *mining & metals*, *oil & gas* and *coal mining*, are identified by the policy as high GHG emitting.

Within *mining & metals* there are three categories: Aluminium & non-ferrous metals, Iron & steel and other mining. Based on information of the World Resource Institute (2005), the first two subcategories are especially high GHG emitting sectors while the third is a combination of mining support activities and other mining activities such as stone mining. *Oil & Gas* does not provide any more detailed information about extraction, such as detailed information about exposures in tar sand activities or peat excavation. However, the whole sector is identified as high GHG emitting sector based on the policy and is therefore included in the scope. *Coal mining* is mentioned separately from other mining activities because of specific conditions in the Climate Change Policy, especially aimed at the mining of brown coal (also known as bituminous coal or lignite). Therefore a further distinction within coal mining is made to identify the exposures and companies in these sectors.

All subsectors of the main sector of Natural resources are high GHG emitting and therefore in scope of the policy. The scope of specific conditions on subsectors like coal mining is made visible by identifying these subsectors and summarizing ING's exposure and number of companies.

Builders & Contractors – There are three subsectors distinguished in the main sector of Builders & Contractors. First, *Construction*, consisting of companies that for example construct houses and do roofing and siding of buildings. Secondly, *Cement and Concrete*: manufacturing of cement and concrete is in this subsector. The last subsector is *Other Builders & Contractors*: a conglomeration of interior finishing companies and manufacturers of building materials, to name just a few. The first two subsectors, *Construction* and *Cement & Concrete* are regarded as high GHG emitting sectors based on the Climate Change Policy. Therefore, they are in scope and highlighted in yellow.

Food, Beverage & Personal Care – The main goal by distinguishing this sector was to identify the agriculture sector, indicated as high GHG emitting by the policy. However, the policy states that the impact assessment for clients based in agriculture, will be amended as part of the Sector Specific Policy Forestry & Plantations (Oliveira, 2010). That is why none of the subsectors is actually in scope of the policy and highlighted in yellow. If ING decides that agriculture will also be in the scope of the Climate Change Policy, the subsector *Farming & Fishing* gives an indication of its size. Further analysing this subsector is necessary to actually be able to distinguish polluting subsectors from less polluting subsectors. Vortex does not provide the information required for this analysis.

Real Estate - In the real estate sector establishments are grouped that are primarily engaged in renting or leasing real estate to others; managing real estate for others; selling, buying, or renting real estate for others; and providing other real estate related services (e-Portals in Commerce, n.d.). The sector is divided into three subsectors: *Property Management*, *Real Estate Holding & Development* and *Real Estate Investment.*

Within ING, real estate is divided into three different departments: Real Estate Finance, Investment Management and Development. Real Estate Finance provides money to clients to buy buildings, construct buildings and finance improvements of existing buildings. Investment Management manages investment funds. Real Estate Development is focused on buildings that are built by ING itself. In all three departments there is room to address climate change. If ING is developing an office for itself (belonging to the Real Estate Development department), it could develop a sustainable office. For Investment Management it could introduce an investment fund which only includes companies that also address climate change. This actually illustrates ING's own impact and development of a new, sustainable product. Both aspects are not in scope of the Climate Change Policy. The Real Estate Finance department however, finances companies that are building, buying or improving buildings. Building itself is polluting, but also bad or not insulated houses are. The Climate Change Policy has this department in scope because ING can influence its indirect impact here. For instance, you could think of the Best-Available-Technology condition in the Climate Change Policy that should demand the use of the best available and feasible insulation methods when building new buildings.

Internal discussion with employees indicated that the Real Estate Finance department can be identified as the Property Management subsector in the detailed overview. However, this also entails companies that are not dealing with financing real estate. Vortex does unfortunately not provide more information and details to actually define the real scope of the policy in this sector.

Transportation & Logistics - The Transportation and Logistics sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation (e-Portals in Commerce, n.d.). The sector distinguishes three basic types of activities: Subsectors for each mode of transportation, subsectors for warehousing and storage and a subsector for support activities for transportation (e-Portals in Commerce, n.d.). Only the 'real' transportation subsectors, the sectors that cover companies transporting something or someone, are identified as being high polluting. These are the subsectors highlighted in yellow, ranging from airlines to shipping. The supporting activities and warehousing is grouped in 'Other Transportation & Logistics'. Amongst others, shipping dealers, aerospace research and storage subsectors can be found here. This group is not indicated as being high emitting and is therefore not in the scope of the Climate Change Policy.

Other Sectors – All other main sectors identified by the NAICS system in the portfolio of ING are grouped in this sector. The Climate Change Policy does not regard one of them as high GHG emitting and they are therefore not in scope. In total it consists of 16 sectors, including amongst others Media, Private Individuals, Retail, Telecom and Central Banks.

3.3 Impact

To get an idea of what implementation of the draft Climate Change Policy would mean to ING, the perspectives of stakeholders about this subject have been questioned during the stakeholder engagement phase of the policy development process. As an indication of their perspectives, some quotes from their feedback on the policy is presented below.

Main conclusion of these perspectives is that the impact of implementing the policy would be significant. Although it gives a good indication about how the policy and its impact are perceived, these quotes only remain predictions influenced by potential conflicts of interest.

The real impact of the policy should be researched by screening all the companies in scope of the policy. However, it is not feasible to do so in this research. By this observation, one conclusion is that the actual impact on ING is the screening process itself: It takes a lot of effort and time to screen all the organizations in scope and check if they comply with the Climate Change Policy. Compliancy of clients with the policy is necessary for business engagements to be allowed. The results of this screening process will be threefold: (a) Organizations with a positive advice by being compliance; (b) Organizations with a negative advice because they are not compliant; (c) Organizations with a positive advice subject to conditions because they are partially compliant or there is a potential risk of not being compliant in the future. Conditions could be of any kind, for instance: A company should notify ING when they are planning to build a new lignite-facility.

The screening process itself is the first aspect of implementing the policy. The results of the screening process are the second aspect. Involvement and financial engagement in organizations with a negative advice is no longer allowed after implementing the policy. Already existing exposure in such companies should be lowered or preferable removed. Also there is an impact on the organizations that have a positive advice subject to some conditions. This impact will not mainly be on the portfolio of ING itself, but more on the organization, since the conditions set by ING demand them to change, to adapt to ING's values and to ensure that they keep being compliant in the future. This second aspect of the impact of implementing the policy has an effect on the portfolio of ING. It also achieves the real goal of the policy, which is moving towards a low-carbon economy by encouraging customers to work in a more environmental responsible manner and by restricting ING´s own involvement in high GHG emitting sectors.

As mentioned, the main impact of implementing the policy is the screening of all the companies. Potential clients that are prohibited by the policy will come to light by this screening process. To visualize this and make it a bit more concrete, three cases of real companies in scope of the sector are presented in the upcoming section. In corporation with a risk filter is developed that is used to screen the companies. This risk filter is based on the conditions and restrictions of the policy and provides a quick method to screen the companies in scope. Further explanation and application of this risk filter can be found in example 2 on the next page. Besides the cases, also a specific subsector, i.e. coal mining, is analysed to check what the consequences of implementing the policy would be for the companies in this field.

Example 1 – Coal mining

The Climate Change Policy mentions specific conditions on brown coal-fired power plants. The so-called (see section 2.3) implies that business involvements with clients in not coal dependent countries (i.e. have a ratio of coal consumption vs. total consumption) are not allowed. This would be a clear impact on the portfolio of ING based on the restrictions of the policy. Unfortunately, Vortex does not identify a specific coal-fired power plant sector within utilities. Therefore, another approach of analysing the impact on this sector is used, based on the brown coal mining activities which are specifically mentioned in Vortex (see detailed overview in chapter 3). Most coals that are mined in a country are actually used in that same country. Out of the total of 5.85 billion ton coal produced globally on an annual base, only 930 million ton is being traded among the countries, accounting for only 15% of the total (Verein der Kohlenimporteure e.V., 2009). Coal mining therefore gives an indication on which countries would be impacted by the restriction on coal-power plants in the policy. The exposure of ING in brown coal mining activities is divided per country:

Only the countries mentioned in footnote 1 and highlighted in yellow satisfy and therefore brown coal-fired power plants are allowed by the policy in these countries. Exposures in organizations in not-coal dependent countries should be analysed. Business engagement in existing coal mines is allowed, but new lignite activities are not. Based on the table, the main impact will be in Germany, Russia, United Kingdom and the USA.

Example 2 – Companies

As mentioned before, the impact of the implementation of the policy on the portfolio would be the screening and analysing of many companies. The questionnaire of the policy acts as the guideline for this screening process, dealing with all the restrictions and guidelines presented by the policy. In order to give an insight in this process and in what the impact of the policy would be, three different companies from different sectors are being screened below, being: Alexia Group (Utilities), Useless (Oil & Gas), and Brick (Cement). The screening process is visualized by a risk filter, developed in cooperation with . The risk filter is based on the information and the questionnaire of the Climate Change Policy and provides a good way to quickly screen a specific company. It consists of 5 criteria, namely:

1) Prohibited energy source;
2) Country;
3) Asset/facility;
4) BAT; and
5) Emissions disclosure.

These criteria determine the outcome of the screening process. The prohibited energy source criterion relates to the specific conditions in the policy about brown coal activities and to the not allowed business engagements identified by the policy in peat and tar sands. If a company is engaged in peat or tar sands, than the outcome of the screening process is negative. With regard to activities in brown coal, it depends on in which country these activities are based. The country criterion introduces this condition of the policy into the risk filter. It consists of two options: the country is coal dependent or not. If it is not coal dependent, the outcome of the risk filter is negative and vice versa. The third criterion of the risk filter is about what the company aims to do with the money. Do they need it to expand their polluting activities, do they want to build a new facility or is there now change in the current polluting activities. For expanding and building new facilities, the policy states that the company should implement and make use of Best-Available-Technology (BAT). This demand of using BAT in those scenarios is included in the risk filter by criterion 4, identifying if the screened company actually promises to make use of or already makes use of BAT. The final criterion deals with the condition of the Climate Change Policy that a company should need to have mechanisms in place to measure and disclose their GHG emissions in order to achieve a positive outcome in the screening process.

In addition to the criteria, extra comments, a short description of the organizations and explanation of the risk filter are presented at each company separately. On top of each risk filter, the name of the company, the requested performed action (i.e. new review or annual review), the date of the request and other applicable ESR policies are also mentioned.

Information about the companies and their activities act as the input of the risk filter while the criteria determine the final outcome. The potential outcome of the screening process by this risk filter is threefold: (a) Organizations with a positive advice by being compliant; (b) Organizations with a negative advice because they are not compliant; (c) Organizations with a positive advice subject to conditions because they are partially compliant or there is a potential risk of not being compliant in the future. On the upcoming pages, the risk filter is applied to three different companies.

Alexia Group – Utilities sector

Alexia Group is a diversified utility company. It is state-owned and the biggest electricity producer in Poland. To date, there are no nuclear power plants in Poland. The Polish government is considering the construction of nuclear power plants to be launched and Alexia has received a mandate for the construction. Alexia has 8 power plants, 6 power distribution companies and combined heat & power plants. It also has 3 lignite/coal power plants and coal mines. The mines are managed under environmental and social standards that are aligned with SA8000 and ISO14001 (Social and Environmental certificates). Alexia takes some actions to address CO2 emissions:
1) Modernizing and increasing efficiency of existing power units; 2) Investing in BAT; 3) Applying mechanisms to save energy; and 4) Searching for opportunities on renewable energy.

This information is entered into the risk filter:

Risk Filter - Climate Change Policy					
Company	Alexia Group	**Other ESR**			
Request	Annual Review	**policies**			
Date	Sep, 2010				
Not Allowed Energy source	**Tar Sands**	**Peat lands**	**Lignite (brown)**	**Comments**	
	-	-	X	8% of Energy Mix[1]	
Country	**Country**	**Coal dependent**	**Not coal dependent**	**Comments**	
	Poland	X			
Asset/ facility	**New**	**Expansion**	**No changes**	**Comments**	
		X		Corporate Loans	
BAT	**Yes**	**No**		**Comments**	
	X			Co generation	
Emissions disclosure	**Yes**	**No**		**Comments**	
	X				
Outcome	**Alllowed**	**Not Allowed**		**Comments**	
	X				

Table 6: Risk Filter Alexia Group

Footnote:
1. Figure refers to generated energy by coal to the total energy delivered to retail customers.

A small part of the portfolio of Alexia consists of brown coal-fired power plants. Since they are based in Poland, being coal dependent, it is allowed by the Climate Change Policy. Furthermore, Alexia invests and makes use of Best-Available-Technology and has a GHG emissions disclosure and management plan in place. By doing so, Alexia meets the guidelines for an expansion of a brown coal-fired power plant, as is the case in this review and therefore the final outcome is positive: Business engagements of ING with Alexia are allowed.

Useless Oil – Oil & Gas sector

Useless Oil is one of France's largest integrated international oil and gas companies. Useless Oil engages in all aspects of the petroleum industry, including oil and gas exploration, production, LNG, refining, base chemicals and operates in more than 35 countries. Besides, it also has interests in the coal mining and power generation sectors. The coal mines are situated in Kenya and the coal is exported from there. Useless Oil actively invests in Carbon Capture and Storage (CCS) technology and is a partner in carbon injection projects in Norway. It also develops complementary energy, like solar, biomass, nuclear.

Risk Filter - Climate Change Policy			
Company	Useless Oil	**Other ESR policies**	NR&C
Request	Annual Review		
Date	Sep, 2010		

Not Allowed Energy source	Tar Sands	Peat lands	Lignite (brown)	Comments
	-	-	X	

Country	Country	Coal dependent	Not coal dependent	Comments
	France		X	Exports coal from Kenya (latter abundant in lignite)

Asset/ facility	New	Expansion	No changes	Comments
			X	Corporate Loans

BAT	Yes	No	Comments
	X		Reduction of flaring of oilfield gas; Energy efficiency;CCS; renewables

Emissions disclosure	Yes	No	Comments
	X		

Outcome	Alllowed	Not Allowed	With cond.	Comments
			X	ING funds not to be used on the trade of coal

Table 7: Risk Filter Useless Oil

Useless Oil's only engagement in lignite is their trading activities from the mines in Kenya, mainly to Europe and Asia. Since the Climate Change Policy does not have any restrictions or guidelines on trading lignite, this would not be in scope. However, writing and implementing a policy also means interpreting it properly. Since the main goal of the policy is to move clients to a low-carbon economy and since it includes clear restrictions on lignite power plants and mining, trading of lignite could also be seen as controversial. Therefore, this case represents a grey area, which is one of the reasons to include it.

Useless Oil does not have lignite power plants anywhere and to assess if their lignite activities would be allowed, the country of origin is chosen as input for the risk filter, which is France. France is not coal dependent, so supporting lignite activities by ING is prohibited by the policy. Based on the information found, there will be no changes in their lignite activities in the near future. However, they do invest and make use of Best-Available-Technology and disclose their emissions. This makes Useless Oil compliant with actually all prescriptions of the policy, but based on the interpretation of the policy, business engagement in Useless Oil would only be allowed if the ING funds would not be used for the trade of coal. This so-called ring fencing is a common practice within ING, although it is very difficult to assess if funded organizations keep their promises. Besides the Climate Change Policy, also the Natural Resources & Chemicals (NR&C) sector policy applies to Useless Oil. This implies that the company would already be screened and therefore that implementing the Climate Change Policy does not automatically results in screening more companies. Final outcome of the screening process is positive with the condition that the funds are not used for the trade of coal.

Brick – Cement sector

Brick is a French industrial company and the biggest manufacturer of cement today in the world. It is present in 78 countries around the world. Cement accounts for 60% of its revenues and contributes for 98% to the group's CO2 emissions. To deal with climate change and reduce their GHG emissions, Brick is:

- Reducing energy consumption;
- Modernizing its plants and constantly improving its industrial processes to use alternative energy sources;
- Using alternative fuels;
- Using industrial waste to manufacture cement.

As a result their net CO2 emissions per ton of cement fell by more than 20% over the last 20 years. Their research investments focus on reducing CO2 emissions and energy efficiency improvement.

Risk Filter - Climate Change Policy			
Company	Brick	**Other ESR policies**	NR&C
Request	New request		
Date	Sep, 2010		

Not Allowed Energy source	Tar Sands	Peat lands	Lignite (brown)	Comments
	-	-	-	

Country	Country	Coal dependent	Not coal dependent	Comments
	France		X	

Asset/ facility	New	Expansion	No changes	Comments
			X	Working Capital

BAT	Yes	No	Comments
	X		Clean Development Mechanisms

Emissions disclosure	Yes	No	Comments
	X		Net CO2 emissions per cement ton felt by 20.7% in 10 yrs

Outcome	Alllowed	Not Allowed	Comments
	X		

Table 8: Risk Filter Brick

Since ING does not have any business engagements with Brick, this screening process is indicated as being a new request. Cement manufacturing is one of the biggest polluters on the world, and therefore Brick is in scope of the policy. It does not have activities in tar sands, peat or lignite and therefore, the first two criteria (prohibited energy source & country) are not relevant for the risk filter. The Climate Change Policy prescribes that companies should implement BAT and that they should have a proper mechanism in place to reduce, measure and disclose their emissions. Brick meets these conditions, and therefore business engagements of ING with Brick are allowed. Other ESR policies would also be applied to Brick. Since that is the case, the actual amount of companies that needs to be screened by ING would not increase by implementing the Climate Change Policy.

These three cases show that three major companies in scope of the policy already comply with the conditions of the policy, providing an indication that the actual impact of implementation would not have a big influence on the portfolio of ING. The developed risk filter provides a clear and simple method to screen companies that are in scope of the Climate Change Policy. It includes all the conditions of the policy and its application is quite straightforward and applicable to any company. It as well shows the outcome of the screening process as the reasons for it (i.e. the criteria) which makes it comprehensive and complete, while still being easy and simple to understand and to apply.

3.4 Conclusions & Recommendations

The information presented in this chapter aimed to answer the questions introduced at the beginning of the chapter:

1. How does the portfolio of ING look like?
2. Which part of the portfolio is in scope of the policy?
3. What will the impact of policy be on this part of the portfolio?

Since it is quite hard and time intensive to present a simple and relevant overview of the portfolio of ING, unfortunately the presented overviews in this chapter are a bit out-dated (date May, 31st). However, they still give a good idea of the size and the diversified nature of the portfolio of ING. Within this portfolio, the specific high GHG emitting sectors and no-go areas (lignite, tar sands and peat) are identified. The used methodology unfortunately did not provide specific information about each sector. Therefore the scope can be seen as a worst-case scenario which can be enhanced by further analyses. Expectation is that the number of companies and exposures can be significantly downsized.

By identifying the high GHG emitting sectors in the portfolio of ING and its corresponding exposures and companies, and by illustrating the impact of implementing the policy on several cases, the following main conclusions are derived:

-
-
- Main impact of implementing the policy is the screening of all these organizations. This screening process should identify whether the companies are compliant with the Climate Change Policy or not;
- Stakeholders expect higher impacts mainly in lignite in countries less dependent on coal, for instance the
- According to stakeholders, impact on peat and tar sands would be limited. Discussions with specialists indicate the impact on current portfolio to be marginal although potential new business would be impacted;
- Expected impact after screening will be probably lower than initial numbers indicate. The presented cases show that most of the clients in scope comply with the policy.

These conclusions represent the highlights of the information presented in this chapter and can as such be used in the strategic debate about implementation of the Climate Change Policy. Specific information about for instance the scope in specific sectors can be found in table 4, page 26.

For downsizing the amount of exposure and number of companies in scope and for providing a more realistic portfolio impact, some recommendations are presented below:

- ING should further analyse the Real Estate sector. Focus should be on property finance in offices and residential, which accounts for the highest GHG emissions in this sector;
- ING should try to better identify the exposures in coal-fired power plants. Since the policy includes some specific restrictions and guidelines for this sector, the impact will be quite significant. Perhaps other classification systems not currently used in ING credit systems could be used (BIK / NACE);
- ING should try to make their exposure in peat and tar sands clear in the systems. These engagements are no longer allowed when the policy is implemented;
- For analysing the companies in scope, the risk filter introduced in the cases could be used for a quick scan.

The results of this chapter help the ESR team to implement the Climate Change Policy. On the one hand it provides a clear overview of the scope of the policy and thereby it also gives an indication of the impact of the policy. The relatively small scope and potential impact result in lower efforts for

implementation of the policy across different regions and decreases the likelihood of resistance from commercial teams, compared to a high impact. On the other hand, the recommendations present guidelines and directions towards further improvement of the information with regard to the scope and impact of the policy. The developed risk filter can facilitate the screening process since it is a clear and simple method to screen companies that are in scope of the Climate Change Policy.

Chapter 4 – Benchmark

This chapter aims to provide information about how ING's stand on Climate Change compares to what other peers are doing with regard to climate change. The results of this chapter are useful for the implementation of the policy, because ING can learn from their competitors and use the benchmark for improving or changing the policy. It is also necessary to convince employees within the organization that ING is not the only bank doing something on climate change.

The content of this chapter is based on the following questions:
- What are peers doing with regard to climate change?
- Which peer is the best-in-class on each specific key issue?
- What can ING learn from them?

Answering the first question provides the information necessary to compare ING's stand with that of other financial institutions, so-called benchmarking. It is necessary to identify what needs to be included in the benchmark in order to make it relevant with regard to the Climate Change Policy. Therefore the scope and the criteria for the benchmark are defined first. When all data is grouped, it can be compared. For each key issue included in the benchmark the peer which outperforms the others, the so-called best-in-class, will be described. This comparison identifies opportunities for ING to improve and/or identifies challenges ING faces.

This chapter is divided into the following sections:

4.1 Criteria for the Benchmark

The main focus of the Climate Change Policy of ING is on GHG emissions of clients. Some specific high GHG emitting sectors are defined. General conditions as specified in chapter 2 are applicable to these sectors. Besides these general conditions, some specific conditions apply to coal-fired power generation activities, tar sands activities and peat excavation.

The GHG emissions of clients are part of the indirect impact of ING. This so-called indirect impact relates to the external processes and the ecological footprint of its clients (Sotoca, 2006/2007). This in contrast to the direct impact of ING, which deals with internal processes and ING's own ecological footprint. The indirect impact of ING is much bigger than the direct impact; e.g. GHG emissions of hundreds of thousands of clients versus the GHG emissions of ING itself. Therefore, by controlling and mitigating this indirect impact, ING can have a greater influence on the environment and the climate.

This short summary of the contents of the Climate Change Policy helps to identify the issues to take into consideration for the benchmark. The following criteria are based on these findings:
1. **Indirect impact -** All policies / statements / international standards or other commitments of peers that deal with the indirect impact of the organization. Direct impact is not mentioned in the draft Climate Change Policy, hence it is not relevant for this benchmark.
2. **GHG emission -** All policies / statements / international standards or other commitments that peers incorporate in their business dealings that indicate GHG emission.
3. **Sectors -** Policies applicable to all the high GHG emitting sectors mentioned in the draft Climate Change Policy: Utilities, mining, oil & gas, cement, real estate, transportation, agriculture and specific sectors of brown coal, tar sands and peat.

Besides these criteria identified by analysing the Climate Change Policy, there are two other issues to include in the benchmark: ´Green´ products and renewable energy. They can identify opportunities for ING to improve their stand on climate change and reduce indirect impacts. 'Green' products are products that have a direct link with climate change, for instance by providing an opportunity to reduce emissions, by encouraging sustainable investments, or by contributing to sustainable projects. Especially products that are emphasized by banks and products which they are proud off, based on how actively they are promoted, will be included in the benchmark. By investing in renewable energy instead of conventional fossil fuel power generation, ING can also reduce its indirect impact. The summary and comparison of how other peers are engaging this market, can identify opportunities for ING.

4.2 Scope and Sources

The peers included in this benchmark are representative competitors of ING as well as in size, international activities and based on their core markets. The list is made up by the board of ING and is also incorporated in an external produced benchmark, commissioned by ING, which focuses on the overall sustainable activities and commitments of financial institutions. The external benchmark and this benchmark exercise together provide a broad overview of sustainable policies and strategies of relevant peers. The peer group of this study is summarized below:

ABN Amro	Deutsche Bank	Standard Chartered
Barclays	HSBC	UniCredit
BNP Paribas	Rabobank	WestLB

ABN Amro and Rabobank are not included in the external benchmark. They are however in this exercise, because they are the main competitors of ING in the Netherlands, which is the country of origin for all three of them. Since Fortis and ABN Amro merged earlier this year and the name Fortis is not used since the 1st of July, all references to ABN Amro refer to the new organization consisting of ABN Amro and Fortis Bank Nederland, operating under the name of ABN Amro.

To make the benchmark as complete as possible, a lot of different sources have been used to gather information from. All sources are summarized below with next to it the information that was searched for in that specific source. All information included in this benchmark is excluded from the sources mentioned below and references can be found at the end of this research.

Source	Information
Corporate websites	Policies, products, renewable energy, int. standards
Sustainability reports	Policies, products, renewable energy, int. standards
Environmental reports	Policies, products, renewable energy, int. standards
External benchmark report	Sources of information, criteria, policies, products
NGOs researches	
BankTrack	Policies, int. standards
Sustainability indexes	
Dow Jones Sustainability Index	Sources of information, int. standards, criteria
Carbon Disclosure Project	CDP scores, products, renewable energy

Table 9: Overview of Sources and Information

The main starting point was the corporate websites of the peers, which provide the annual, sustainability and environmental reports of the financial institutions. The websites and all the reports were mainly used to identify the policies, products, engagement in renewable energy and international standards of each peer. The external benchmark presented some additional sources of information and criteria to take into account. The non-governmental organization (NGO) research of BankTrack was mainly used to ensure that all international standards of peers were covered in this benchmark. The sustainability indexes provided information about which sources to use, some examples of which criteria to include and also complemented the benchmark by supplying the scoring of ING compared to other peers in their index based on overall sustainability and/or on climate change.

4.3 Benchmark per Peer

The information found was summarized per peer what makes it easier to understand what other financial institutions are doing with regard to climate change. At each peer the same framework is used to summarize the relevant information found in the different sources.

The framework for analysing each peer is divided into five segments. On top there is the name, the country of origin and the net results over 2009 of each bank. This provides some background information of each bank and shows how they performed over the last year but also makes the 'visible' divisions between the different peers clearer. In the middle there are three columns, one for international standards, one for policies and one for products. These are the main aspects by which financial institutions address climate change and their indirect impact. At the bottom of the framework there is a short description of the policies, products and renewable energy engagement to clarify what they actually entail. This already will show some differences between the banks. These descriptions however only give an indication of the contents of the found information. Extended descriptions can be found in Appendix B. The score of each bank at the Carbon Disclosure Project (CDP) is also mentioned at the bottom of the framework, giving a global overview of their sustainable rating based on the CDP research. This creates the following framework:

Name of the bank	Country of origin	Net profit (loss) 2009
International standards	**Policies**	**Products**
- Int. standard 1	- Policy 1	- Product 1
- Int. standard 2	- Policy 2	- Product 2
- Int. standard 3	- Commitment 1	
	- Statement 1	
Short description of CDP score, policies, products and renewable energy		

Based on the *Close the Gap* research of the NGO BankTrack (2010), the main international standards on climate change to take into consideration are: Carbon Disclosure Project, Carbon Principles, UN Global Compact, the Climate Principles and the Equator Principles. A short description of these international standards can be found in Appendix A. The Carbon Disclosure Project awards points to banks based on their environmental performance. These scores are incorporated in the benchmark. Since the Carbon Principles are only applicable in the USA and none of the banks is subscribed, this international standard is not incorporated in the rest of this chapter.

The information in the policies and products columns is both very diverse and broad. Within the policies column, all policies, statements, commitments and other information with a direct link with key issues defined in the Climate Change Policy of ING is grouped. Those are the policies etc. that have a link with the criteria used for the benchmark, being: Indirect impact, GHG emissions and the high GHG emitting sectors of the policy. If there are no policies mentioned at a peer, that does not mean that it does not have any policies but only that there is no link with the criteria mentioned earlier and therefore with the Climate Change Policy of ING itself.

For products, only the 'Green' products which are promoted by each bank are included. By promoting I mean that the products could be easily found on their website and/or are highlighted compared to other, comparable but less 'Green' products.

On the following pages, the provided framework will be applied to each peer of the peer group, presented in alphabetical order.

ABN Amro	The Netherlands	-€4.400 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	- Oil & Gas policy	- Carbon emission trading
- UN global compact	- Mining & Metals policy	- Sustainable investment fund
- Equator Principles		- Environmental loans

ABN Amro is subscribed to the CDP but does not have a score. ABN Amro also does not have a specific climate policy. The Oil & Gas and the Mining & Metals policies cover only project financing because they are based upon the Equator Principles. Further information is not disclosed. Besides, ABN is active in emission trading and offers sustainable investment funds and environmental related loans. The bank sees renewable energy as one of the pillars of their strategy and thinks there is a huge potential in offshore wind energy. Their current portfolio in this sector is not disclosed.

Barclays	United Kingdom	£10.289 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	- Environmental policy	- Carbon emission trading
- Equator Principles	- Mining & Metals policy	- Environmental loan
	- Power Generation policy	- Breathe Credit card
		- Gconomy Credit card

Barclays scores 74 out of 100 points at the CDP. The environmental policy of Barclays states that indirect impacts will be managed by Barclays Environmental and Social Risk Assessment policy, sector-specific guidance and Equator Principles. Amongst others, there is sector-specific guidance for the mining & metals and power generation sector. However they are not disclosed. The environmental loan offers customers a cash-back payment when they invest in environmental projects. Barclays Breathe credit card offers discount on low-carbon products and donates a proportion of the spend money on clean energy projects. Barclays finances onshore wind, PV solar, small hydro and bio-energy projects. Their portfolio now consists of 2.600 MW of renewable energy.

BNP Paribas	France	€5.832 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	-	- Carbon emission trading
- UN global compact		- Energibio loan
- Climate Principles		- Bons Plans Ecologie loan
- Equator Principles		

BNP has a score of 54 at the CPD. There is no climate policy, besides an environmental statement that focuses on internal processes. Sectors Mining, Oil & Gas and Power Generation are managed by Equator Principles. The Energibio loan and Bons Plans Ecologie loans offer interesting conditions for investments in energy savings and sustainable developments. BNP views itself as a major player within the renewable energy sector and has a special team working in this area. Portfolio size is not disclosed.

Deutsche Bank	Germany	€4.958 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	- Green Filter Statement	- Carbon emission trading
- UN Global Compact		- Sustainable investment fund

Deutsche Bank sets a score of 66 on the CDP. There is no climate policy disclosed at the website of Deutsche Bank. There is however a Green Filter Statement that states that 'All decisions are influenced by the question if an individual transaction helps enhance carbon efficiency'. Deutsche bank does not have specific green products, but mentions that there are sustainable funds to invest in. Deutsche Bank has a portfolio of 700 MW in renewable energy (wind and solar) and is actively involved in the Solar Impulse project, which will help further development of the solar technology.

HSBC	Hong Kong	$6.694 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	- Energy sector policy	- Green Bank account
- UN global compact	- Mining & Metals, Peat policy	- Green Credit Card
- Climate Principles		- Green Home Insurance
- Equator Principles		- Climate Change Fund

CDP awards HSBC with the highest score of all peers: 92 points. Energy sector policy of HSBC sets guidelines for GHG emissions. The updated version which is due to be implemented this year will look quite similar to the Climate Change Policy of ING. They will take a careful approach for business dealings in peat. HSBC also offers quite some 'Green products'. The green bank account and credit card focus on reducing paper usage. In addition to that, the green credit card also donates a percentage of clients spending on HSBC green roofs for school programme. Green home insurance encourages energy savings and carbon emissions reduction. HSBC actively promotes their engagement in renewable energy projects and aims to develop a 500MW portfolio of renewable energy projects in the UK this year.

ING	The Netherlands	-€935 million
International standards	**Policies**	**Products**
- Carbon Disclosure Project	- Climate policy	- Sustainable investment funds
- UN global compact		- Green loans
- Equator Principles		- Carbon neutral EcoLease
		- Green savings account
		- Green energy service

ING scores average on the CDP with 56 points out of the 100. Its Climate Change Policy is described in chapter 2 of this research. There are no other policies disclosed with a link to the Climate Change Policy. ING offers some 'green' products, like sustainable investment funds, green loans and EcoLease arrangements. The latter includes the leasing of an energy-efficient car, a customer training course on how to improve car safety and adopt a more efficient and environmentally friendly driving style and a CO_2 emission compensation service. There are several sustainable funds: ING Climate Focus, ING Sustainable Equity, ING Sustainable Fixed Income, ING Global Equity. ING is also the exclusive seller of the Generation Global Fund for private clients, co headed by Al Gore. The green energy service is an insurance product that offers a discount on green energy. ING does not actively trade commodities nor engages in carbon credit trading. The portfolio of ING in renewable energy has increased significantly over the past years to a limit of X Euros. Besides, the Greenbank of ING is the second largest of the Netherlands, investing in a broad range of 'green' projects.

Rabobank	The Netherlands	€2.288 million
International standards	**Policies**	**Products**
- Carbon Disclosure project	- Mining policy	- Rabo Green Bond
- UN global compact	- Oil & Gas policy	- Green Tech Fund
- Equator Principles		

Rabobank does not have a score in the CDP. An environmental and social impact assessment (SEIA) should be performed for new activities in the mining and the oil & gas sector. The focus in this SEIA is on continuous improvement of the environmental impact of their activities. In addition, Rabobank will not finance unconventional fossil fuel projects like oil sands / tar sands and oil shale's. Rabo Green Bond offers Dutch retail investors tax free interest income and the Green tech fund is a sustainable fund. All project financing in the utilities sector of Rabobank is in the renewable energy sector, mainly in solar, wind and hydro projects. There programme will be expended in the near future.

Standard Chartered	United Kingdom	$3.477 million
International standards	**Policies**	**Products**
- Carbon Disclosure project	- Climate policy	- Carbon emission trading
- UN global compact	- Fossil fuel power policy	
- Climate Principles		
- Equator Principles		

CDP awards Standard Chartered with 66 points. The focus in their climate policy is on GHG emissions and is country-dependent. Besides, Standard Chartered encourages integrating climate change risks and opportunities into business strategies and plans, including a GHG reduction strategy. The fossil fuel power generation policy also has guidelines on GHG emissions and Best-Available-Technologies. The bank has a dedicated team on renewable energy (REEF). They have invested more than $4.2 billion across all segments of the renewable energy market, mainly in solar, wind and water.

UniCredit	Italy	€692.605
International standards	**Policies**	**Products**
- Carbon Disclosure project	- Environmental policy	- Carbon emission trading
- UN global compact	- Mining & Metals policy	- WWF UniCreditCard
- Equator Principles		- Climate protection bond
		- Credit Express Energie

CDP score: 48. Unicredit's Environmental policy deals as well with direct as indirect impacts. It promotes a sustainable culture and the achievement of the Kyoto Protocol goals in all countries where it operates. Other policies are being revised in order to combat climate change and manage direct and indirect emissions. For instance, the new version of the mining policy will contain emission guidelines. Other policies are not disclosed. The WWF UniCreditCard donates a percentage of all clients spending to the Oasis WWF project in Italy. CreditExpress Energie is a credit line for energy-saving building renovations and photovoltaic installations. Unicredit has a portfolio of €4 billion in loans for renewable energy projects, mainly in wind farms, photovoltaic, solar thermal and biomass installations.

West LB	Germany	-€531 million
International standards	**Policies**	**Products**
- Carbon Disclosure project	- Climate Change Policy	-
- UN global compact	- Pollutants statement	
- Equator Principles	- Coal-fired power policy	

West LB's score in CDP is not available. Its climate policy supports objectives of the UN and EU and is promoting efficient technologies and renewable energy. Further guidance on emissions is provided by their pollutants / limiting values statement, including support for Best-Available-Technology. In high OECD (Organisation for Economic Co-operation and Development) economies, the coal-fired policy is applied, including guidance on emissions, technologies and plant efficiency. Besides, a new carbon policy is coming up. Further information is however not disclosed. West LB does not disclose or actively promote green products. They do support projects for the generation of bio energy, alongside photovoltaic, solar thermal power plants, wind energy and geothermal energy. The size of their portfolio in renewable energy is not disclosed.

4.4 Summary of Climate Change Statements

All the peers are taking actions to fight climate change although they differ in depth and extent. Some on a smaller, more abstract level like subscribing to the UN Global Compact, others on a broader and more in-depth manner, by providing extensive climate related policies. A summary of all their commitments is provided in table 10.

The criteria of the benchmark mentioned in section 4.1 can be found in this table, divided into 'International Standards', 'Climate Policy' (CP) and 'Other relevant Policies'. The latter includes all other statements, policies, guidelines and restrictions disclosed by the peer group with a link to climate change and ING's Climate Change Policy, besides the specific climate policies. The information of the peers in this last criterion is very diverse. An attempt is made to group the overlapping or similar policies together so that it is easy to compare the found information and it is possible to make a simple summary. The group 'Energy Policy' consists of all fossil-fuel-power plant policies, power generation policies and other policies dealing with energy. The same goes for all the statements and policies dealing with mining and oil & gas. Other information that cannot be grouped in these three subcategories, are identified as other statements.

As none of the peers is subscribed to the Carbon Principles, it is not included in the summary. The main reason for not subscribing is that the Carbon Principles only apply to the market of the USA while the peer group only consists of European banks.

Financial Institution	International Standards				CP	Other relevant Policies			
	Equator Principles	Carbon Disclosure	Global Compact	Climate Principles	Climate Policy	Energy Policy	Mining Policy	Oil & Gas Policy	Other statements
ABN Amro	X	X	X						
Barclays	X	X			X	X	X		
BNP Paribas	X	X	X	X					
Deutsche Bank		X	X						X
HSBC	X	X	X	X		X	X		
ING	X	X	X		X				
Rabobank	X	X	X				X	X	
Standard Chartered	X	X	X	X	X	X			
UniCredit	X	X	X		X		X		
West LB	X	X	X		X	X			X

Table 10: Summary of Climate Change Statements

Explanation of table:

While the table above represents all the information of each peer and therefore should only summarizes what is already known, there is a chance for misunderstanding the overview. Therefore some explanatory bullets are presented:

- There is a difference between what a cross (or an X) means at the different criteria. At International Standards and Climate Policy, not having a cross means not having subscribed to for instance the Equator Principles or Climate Principles or not having a specific Climate Policy. This is a black or white story. On the other hand, at the criterion of Other relevant Policies, it is less clear. Not having a cross for e.g. an Energy Policy does not mean that a bank does not have an energy policy. It only tells that there is no energy policy *that has an overlap or link with the Climate Change Policy of ING*. For instance, it could be the case that there is an Energy Policy but that it does not deal with GHG emissions, coal-fired power plants or implementation of Best-Available-Technology. This also is the case for mining policies, oil & gas policies and other statements. There has to be an overlap or link with climate change and/or the Climate Change Policy of ING to be awarded with a cross.

- A cross for climate policy is only given if a bank has a specific climate / environmental policy that addresses indirect impact and not only direct impact. Although some of the energy policies mentioned do resemble conditions stated in the Climate Change Policy, both criteria are seen as separate criteria mainly to put an emphasis on climate change policy.
- Policies that are only referring to Equator Principles are not awarded with a cross. For instance the policies on mining and oil & gas of ABN Amro only indicate that the Equator Principles are being applied to business transactions in these sectors. Since ABN has already been awarded with a cross for subscribing to the Equator Principles, it would be double (even triple) awarded if a cross is being put in the respective boxes.
- Deutsche Bank is not subscribed to the Equator Principles. Instead they refer to their own standards (Bergius, n.d.). Specific standards for project financing, and therefore a substitute for the EP are not disclosed. However, compared to the other banks or the peer analysis, Deutsche Bank does not finance as many projects, which could also be a reason for not subscribing to the EP's.
- There are only two other relevant statements found besides the climate policies and energy, mining and oil & gas policies: The pollutant / limiting values statement of West LB and the Green Filter statement of Deutsche Bank. Since they are not focussed on specific sectors, they cannot be classified as one of the other policies. Because they are also not promoted as a specific climate policy, they cannot be identified as being one. Therefore they are grouped in a separate category called other statements.

An overview of the products that all the banks offer is presented below. Remember, these are only the products that are well promoted and disclosed. Therefore it could be the case that this overview does not represent all green products of all banks. For instance, it is almost certain that all banks do have a sustainable fund and offer green loans (PwC, 2010). In this research I was looking for products that distinguish a bank from other peers, as well as products that are actively promoted.

There are eight different product categories, based on the information found in the benchmark. ING only has four of them, marked by an 'X' in the overview table 11 below. What other banks have is not dealt with in a case-by-case manner. Instead there is chosen to summarize how many banks are having a specific product. For instance, there are six banks that are actively trading Carbon Emissions and three banks that have a 'green' credit card. By taking this approach, it is easy to see which 'green' products ING does not offer, which other products are common (offered by many banks) and which are not that common (offered by none or few banks). Based on that information, ING can find opportunities to distinguish itself from other banks and/or identify where it is lagging behind since many other banks are already offering them. Although the table provide a good overview of ING´s green products and services in comparison to the market it does not detail to which extent the banks are doing it. In other words, it is possible to see where ING could start new business but it is difficult to see where ING has potential to growth or it is already in a leading position. Therefore, this comparison should be taken only as an indication of market penetration with regard to green products and services.

Products	ING	Others
Carbon Emission Trading		6
Green Bank Account	X	1
Green Bond	X	2
Green Credit card		3
Green Lease Product	X	0
Green Insurance Product	X	1
Green Loan	X	4
Sustainable Fund	X	4

Table 11: Summary of Products

Another aspect in the benchmark was the engagement of the financial institutions in renewable energy. First outcome is that all banks are financing renewable energy projects in a certain extent. However, since not all banks disclose the same information such as portfolio size in renewable energy or financed amount of Megawatts, it is hard to actually compare each other or to create an overview that has added value. Based on that, I decided to create a best-in-class section (see next part) to identify the outperformer in this market to provide at least an indication of the best-in-class banks with regard to renewable energy.

4.5 Best-in-Class

As stated in the previous section, all peers are doing something with regard to climate change. Instead of only summarizing what has been done, it is interesting to indicate which bank is outperforming the competitors, i.e. is the best-in-class. The analysis of these best practices can help ING to improve and enhance its performance and also demonstrates that climate change is in the agenda of other financial institutions.

The best-in-class peer is identified according to the criteria in the previous section (table 10). This is based both on facts, namely the information the banks publically disclose, and also on my own interpretation and opinion. Interpretation of each peer´s stand on climate change is based on how easy the information was found and how well it was promoted on e.g. their website. In summary, I looked at the overall outlook of each peer in this field. The criteria mining policy, oil & gas policy and other statements are combined to 'Other relevant policies'. Reason for that is that the first two criteria showed little resemblance with the Climate Change Policy and dealing with them in a separate way would not be of any added value. An overview of the best-in-class, per criteria, is provided below:

Criteria	Best-in-Class	Reason
Equator Principles	-	-
Carbon Disclosure Project	HSBC	Highest CDP score: 92
UN Global Compact	-	-
Climate Principles	BNP, HSBC, SC	Only banks subscribed
Climate Policy	ING	Most comprehensive policy
Energy Policy	HSBC	Most comprehensive policy
Other relevant policies	West LB	High level resemblance CCP
Products	Barclays	Differentiated & well promoted
Renewable Energy	Standard Chartered	Big portfolio; team; strategy

Table 12: Overview of Best-in-Class performers per criterion

For some criteria there is no best-in-class performer. This is identified by an '-' in the table above. Information about the best-in-class performers and explanation about why they are classified as outperformers, is dealt with per criteria, following the same order as presented in table 12.

Equator Principles (n.a.)

There is only one financial institution that is not applying the Equator Principles (EP) and therefore underperforms: Deutsche Bank. Instead of subscribing to the Equator Principles, they refer to their own standards (Bergius, n.d.), which are not disclosed. However, Deutsche Bank is not as heavily engaged in project financing as other peers what could justify the non-adaption of the principles. There is no way to assess best-in-class performance in EP. It is a fact that there are differences in applying the principles amongst banks, but information available does not allow such differentiation. Gossip is however that some French banks do not master in applying the principles due to their relatively later subscription to the EP. But that remains a rumour. Thus, there is no best-in-class performer identified.

Lessons for ING: Since there is no best-in-class practice, there are no lessons for ING to learn from it. However, there are opportunities in profiling ING as being a bank that always applies the EPs consistently and by promoting the fact that ING is consistent with EP. Another possibility is to join forces with other peers and seek actions to improve the level playing field and therefore ensuring that all participants apply the same principles in the same way. In order to align different approaches and strategies, ING is actively participating in EP Steering Committee discussions and should continue to do so. Although, participation in the steering committee does not necessarily lead to improved standards. It might help to anticipate market trends and adjust the bank policies accordingly.

Carbon Disclosure Project (HSBC)
All peers are subscribed to the Carbon Disclosure Project (CDP). Since the CDP awards each bank with a certain amount of points, it is easy to identify the best-in-class: HSBC with a score of 92 out of 100. The gap with the number two, Barclays, that scores 74 points, is quite significant and the rest of the pack follows below with Unicredit scoring the lowest (48 points). ABN Amro, Rabobank and West LB do not provide the necessary information to the Carbon Disclosure Project. Reason for this is unclear. ING has a score of 56 points and is in the middle of the pack.
Lessons for ING: The scoring methodology of the Carbon Disclosure Project based on their questionnaire is very extensive and covers a lot of different areas ranging from indirect impact, direct impact, renewable energy, and communication performances. If the scores of all banks at each question / subject were disclosed, it could easily be concluded where ING should improve in order to become a sector leader. Unfortunately, this is not the case. Companies that score the highest in the CDP demonstrate the following characteristics (Carbon Disclosure Project, 2009): Climate-related priorities are integrated in their overall business strategy; excellence governance of climate change by management is present; they have transparent and quality disclosure to stakeholders; climate-related goals are set and achieved. Based on my own experience, ING could achieve a big improvement by integrating climate-related priorities in its strategy. Communication with stakeholders could improve by clearly explaining what ING is doing and what it wants to do more. Also ING should ensure that it is going in one, clear direction, instead of multiple. Chapter 5 provides more in-depth information and recommendations on this subject.

UN Global Compact (n.a.)
Barclays is not subscribed to the UN Global Compact, although it has a guide for business and human rights based on the UN Global Compact (Barclays, 2009). There is no way to decide which bank is the best-in-class because it is simply a matter of being subscribed or not. Therefore, there is no best-in-class performer nor lessons for ING to learn.

Climate Principles (BNP, HSBC, SC)
Only three financial institutions are subscribed to the Climate Principles. As happens to the UN Global Compact, the application is voluntary, therefore it cannot be concluded that there is a best-in-class. As a result, all the three banks are awarded as best-in-class (BNP Paribas, HSBC & SC).
Lessons for ING: Since ING is not subscribed to the Climate Principles, the main lesson or improvement would be to do so. By adopting the principles, ING would commit to minimise their own footprint and make business decisions that would reduce climate change risks and allow the development of climate change related opportunities. However, the Climate Principles are a vague and voluntary statement that does not imply taking 'real' action to address climate change. You can see it as stating that *'We are going to implement a Climate Policy in the future'* instead of really implementing one. Since it is that abstract and voluntary, ING decided not to subscribe to it as explained above. However, such subscription could have positive effects in ING's overall climate change scope of activities because it is a well-known international standard that publicly shows commitment to address climate change.

Climate Policy (ING)
There are a few banks with a specific climate policy, namely Barclays, ING, Standard Chartered, Unicredit and West LB. The scope of the policy of Barclays is only on project financing and therefore it only affects part of the business. The policy of Unicredit only states that it promotes the achievement of the Kyoto goals, but specific content of the climate policy is not presented. West LB's policy applies to all businesses and includes guidelines on GHG emissions such as promotion of efficient technologies and renewable energy. Standard Chartered policy covers all sectors and all services of the bank. The focus is on GHG emissions, with a bit more specific information disclosed compared to West LB. The policy also encourages integrating climate change risks and opportunities into business strategies and clients, including a GHG reduction strategy. ING's policy also has a group wide application and contains all the aspects of Standard Chartereds policy. Besides, it identifies no-go areas, namely lignite, peat and tar sands. Therefore the policy of ING is awarded as the best-in-class.
Lessons for ING: Main question / learning point would be: Is the Climate Change Policy of ING really a climate policy? Compared to climate policies of other banks, the focus of the policy is mainly

on the utilities sector and on GHG emissions, while climate change is a lot broader than that (water, etc.). The name could be altered for instance in: Emissions policy / Energy policy. Besides, many topics covered in ING's Climate Change Policy, are actually divided among multiple policies at other financial institutions. Therefore, ING should consider (a) or to alter the name of the policy; and/or (b) to spread the content of the policy among other (new) policies.

Energy policy (HSBC)
The energy policy of HSBC is perceived as being the best-in-class. It covers all businesses of the bank, sets restrictions and guidelines according to Kyoto Protocol, European regulations, national guidelines and IFC Performance Standards, encourages the use of Best-Available-Technology and implementation of a GHG emissions reduction, management, measurement and disclosure strategy. Also HSBC is reviewing its energy policy and will include guidance on coal-fired, nuclear power plants, oil sands and other carbon-intensive sectors, which makes it more comprehensive and outperforms energy policies of peers. As one of the other peers, Standard Chartered has an energy policy with the same statements and guidelines, but its scope is bit narrower, not covering asset management. West LB also has an energy policy, but only includes guidelines on coal-fired power plants in high-income countries, which makes it less comprehensive. Other banks do not have or do not disclose an energy policy that has a direct link with the Climate Change Policy and they could therefore not be seen as best-in-class.
Lessons for ING: The Climate Change Policy of ING can be compared to the energy policies of HSBC and Standard Chartered, because its specific restrictions also focus on the energy sector. With that in mind, ING would also be seen as one of the best performance on this criterion. From this observation, the same lessons could be learned as mentioned at the climate policy section on the previous page. Another aspect of the energy policies of peers is that they are based on globally or multi-national regulations and guidelines. The energy policies of HSBC and Standard Chartered for instance use the Kyoto Protocol, European regulations, national guidelines and IFC performance standards as guidelines for their own policy. By doing so, they refer to already known and accepted standards. Because they are well known and generally accepted, the implementation and adoption of the policy is easier. By setting their own regulations and standards, ING can be perceived as being presumptuous: The EU regulations and other accepted guidelines are not good enough for business engagements of ING. The main lessons for ING could therefore be: In countries were strict regulations are already applied, these are perceived as being sufficient to engage in business dealings.

Other Relevant Policies (West LB)
While the energy policies are mentioned separately, due to similarities with the Climate Change Policy, there are other relevant policies for the benchmark. ABN Amro used to have quite some ESR policies, but the current integration and merge with Fortis compromises this analysis. HSBC has a mining & metals policy which prohibits activities in certain locations and indicates that peat activities will be dealt with carefully. Rabobank will not finance oil sands and oil shale's based on their oil & gas policy. Unicredit is working on a mining & metals policy containing guidelines on GHG emissions. Deutsche Bank has a high-level Green filter statement which states that all decisions are influenced by the question whether it helps to enhance carbon efficiency. Actual guidelines are however not disclosed. West LB, instead, scores the highest with their pollutants/limiting values statement. It includes restrictions on emissions and supports implementation of Best-Available-Technologies, which is also mentioned in the Climate Change Policy of ING. Compared to the other relevant policies, it has clear guidelines and covers all businesses of the bank and therefore has the biggest overlap content wise with the Climate Change Policy of ING. The mining policy of Barclays is not disclosed.
Lessons for ING: Since ING has ESR policies for many different sectors, the main lesson to learn is to include climate change related conditions and regulations into each ESR policy. This would mean that e.g. the oil & gas policy would have conditions for GHG emissions, BAT and a GHG reduction and measurement plan. By doing so, only the specific oil & gas policy would be used for the screening process of an organization in that sector, instead of also the Climate Change Policy. The latter could then be changed in an abstract, high-level statement covering all aspects of Climate Change (also water treatment, energy efficiency, etc.).

Products (Barclays)
Although it is not mentioned at each bank, it is a fact that almost all banks do provide opportunities to invest in a sustainable / environmental fund and/or get a 'green' loan (PwC, 2010). Also, most of the peers included in the benchmark actively trade carbon emissions. The best-in-class in this criterion should be the bank that better differentiates and promotes its products from the rest. Barclays fits this description and is therefore awarded as the best-in-class. They offer an environmental loan, which encourages investing in low carbon premises and equipment by offering good loan conditions. Barclays also has two sustainable credit cards, the Breath Card and the Gconomy Credit Card. Amongst others, they offer discounts on low-carbon products and donate a proportion of the spending by customers to clean energy projects. On top of this, Barclays is actively engaged in carbon emissions trading. HSBC also scores well on the criterion of products by offering a wide range of 'green' products but they are not engaged in emissions trading. On the other side of the table is West LB that does not actively promote 'green' products on their website. This does not mean that West LB does not have any products, but perhaps disclosure is limited. ING also offers quite common green products such as a green loan, sustainable investment funds and a green savings account. ING lease offers some more interesting and distinguished products, such as the carbon neutral car lease while the in the insurance part a ´green´ energy service is available.
Lessons for ING: ING is missing out on some products. For instance, they do not have a green credit card. Introducing one to the product range would be a good way to show clients that climate change is an issue within ING and that ING addresses the issue on many different ways. Besides that, ING should have more and better promote green products. Instead of listing the green savings account as the third option on their website, it should be presented as the first choice.

Renewable Energy (Standard Chartered)
As probably expected, all banks are engaged in renewable energy particularly via project financing and advisory. Some banks outperform market average, such as Rabobank, Unicredit and Standard Chartered. Outperformance is based on portfolio size of renewable energy (if disclosed), promotion of and public commitment to renewable energy. The percentage renewable energy in Rabobank´s project financing in relation to the total utilities sector is 100%. Rabobank has decided to only finance renewable energy. Unicredit has a portfolio of €4 billion in loans for renewable energy projects only, mainly in wind farms, photovoltaic, solar thermal and biomass installations, what is considered significant. ING´s current limit surpasses . Standard Chartered is however perceived as being the best-in-class based on its substantial portfolio in renewables (€4.2 billion), its dedicated REEF team (Renewable Energy Environmental Financing) focussing on solar, wind and water sectors, and its clear strategy, highlighting not only opportunities in renewable energy, but also in energy efficiency and water treatment.
Lessons for ING: Compared to some other peers, ING should expand their portfolio in renewable energy. ING should also join sector initiatives and take the leading role in new projects, mainly in wind, solar and biomass projects. ING should also improve the way it communicates its current actions and plans with regard to renewable energy, moving towards an active external communication. I noticed that some other peers, probably less active in this sector than ING, do promote their actions in such a way that make clients to perceive them as being more 'renewable' oriented. Chapter 5 deals with opportunities in renewable energy and therefore this topic will be further analysed there.

4.6 Conclusions & Recommendations

This chapter has tried to provide answers to the questions raised in the introduction, being:

1. What are peers doing with regard to climate change?
2. Which peer is the best-in-class on each specific key issue?
3. What can ING learn from them?

Concluding, all banks in the peer group are doing something to address climate change. Most of them are subscribed to the international standards which address climate change partly, namely Carbon Disclosure Project and the Global Compact. The more specific to climate change related international standard, i.e. the Climate Principles, is only subscribed by three of the 10 banks included in the benchmark. Another conclusion from the performed benchmark is that 5 of the 10 banks do have some kind of a climate policy. However, there are big differences between these climate policies. Some are high-level and do not disclose their specific guidelines, others are quite detailed and extensive. The same goes for the energy policies and all other policies and statements mentioned in the benchmark. The best-in-class analysis tried to compare these different policies and to identify the outperformers at each criterion.

HSBC is awarded three times with a best-in-class performance. Especially its energy policy stands out. The policy is comprehensive and covers quite some aspects also mentioned in the Climate Change Policy of ING. Standard Chartered is two times identified as being best-in-class. It actually performs well on all criteria. BNP, West LB, Barclays and ING are all awarded with one best-in-class performance. However, some criteria could be perceived as more important than others. For instance, in my perception it is more awarding to have a specific Climate policy in place than to be subscribed to the Equator Principles.

ING is actually classified as best-in-class on the criterion of climate policy based on its comprehensive scope and detailed guidelines for no-go areas. For the fairness of the comparison it is important to note the differences in disclosure: the Climate Change Policy of ING is well known to me, while other banks may not disclose all policies they apply. For example, Standard Chartered could have extra internal guidance, making their climate policy more comprehensive than it seems on the website. On the other hand, in case there are more guidelines available, they should have been disclosed, therefore I re-state my conclusion about ING's climate change policy. Please note that for the climate policy criterion there is a different level of disclosure, while for other criteria, the same approach is used to all banks.

ING can learn from the best-in-class performers in other criteria. Especially the energy policies from HSBC and Standard Chartered are regarded as good policies for addressing climate change. Also some 'other statements' like the Pollutants / Limiting Values statement of West LB and the Green Filter statement of Deutsche Bank provide insight in how to address climate change into business dealings of financial institutions and how to manage indirect impact.

On the product side, ING is also outperformed by some peers, like Barclays and HSBC. They have more 'green' products and also promote them more actively compared to ING. With regard to renewable energy, ING is in the middle of the pack, based on its portfolio size and their strategy. Again Standard Chartered scores high on this criterion since it has a big portfolio and a clear strategy on renewable energy and energy efficiency.

For improving the way ING addresses climate change into their business, the following recommendations are suggested. These recommendations are based on the conclusions above and on the lessons-to-learn from the best-in-class analysis:

- ING should analyse their CDP score. By doing so, opportunities for improving their performance can be found. In my perception, the main opportunities lay in integrating climate-related priorities in ING's strategy and in improving external and internal communication about what ING is doing and what it wants to do more with regard to climate change;

- ING should change the name of the Climate Change Policy, because the focus is more on the energy sector and on pollutants, than on the total picture of climate change;
- ING should include guidelines and restrictions from the Climate Change Policy into their other ESR policies. For instance, the Oil & Gas policy could demand the use of Best-Available-Technology, implementation of a GHG measurement and disclosure plan and prohibit activities in tar sands;
- ING should subscribe to the Climate Principles, although this is recently declined by ESR team;
- ING should state that in countries were strict national and international environmental regulations are in place, for instance in Western-Europe, these regulations are perceived as being sufficient for allowance of business engagements;
- ING should profile the fact they apply the Equator Principles in a consistent manner and promote that it is trying to achieve a level playing field, e.g. by taking seat in the steering committee of raising the level of the EP's;
- ING should introduce some 'green' products, for instance a 'green' credit card which donates a part of client's spending to a 'green' project;
- ING should also better promote 'green' products; for instance by placing them on the first row in the website to increase relevance;
- ING should actively engage in the renewable energy market by coordinating new initiatives and taking the lead role in new projects, mainly in wind, solar and biomass;
- ING's stand on renewable energy, i.e. what it wants to do and could do, should be communicated properly externally and internally.

The conclusions and recommendations of this chapter can be used by the ESR team for the strategic debate about implementation of the Climate Change Policy. With the facts provided in the benchmark, employees can be convinced that ING is not the only bank addressing climate change. All the banks are doing so and therefore the ING will not become less competitive due to implementation of the policy. Besides, the recommendations about the nature and content of the policy can be combined with the feedback of stakeholders to alter the policy itself. It can be used as input for the discussion about the way forward with regard to the development and implementation of the Climate Change Policy.

Chapter 5 – Renewable Energy

While the Climate Change policy focuses on setting some restrictions and influencing a positive change, there are business opportunities in the process of moving to a low-carbon economy. Investments on renewable energy and energy efficiency are definitely an alternative, and the outcomes of investigating such investments are detailed in this chapter. The results of this chapter can be used in the strategic debate about implementing the Climate Change Policy, by identifying what ING wants and can do, instead of pointing out what ING does not want to do.

The chapter is based on the following main questions:

- What are the main opportunities for financial institutions in renewable energy?
- What are the obstacles currently for involvement in these opportunities?
- How could these obstacles be mitigated / removed?

The answers to the first two questions will provide an overview of what ING can do and what the challenges are. This overview is based on literature research and on internal discussions. Those internal discussions led to the addition of energy efficiency in this chapter, since it is also perceived as a big opportunity in addressing climate change into ING's business. Even though, the focus and the main staring point of this chapter will remain renewable energy. Since the overview offers insight in what ING can do in the field of renewable energy and energy efficiency, the next question to be answered is how this can be done. The answer to question 3 provides part of the solution by presenting information about how the obstacles and risks involved in these sectors can be mitigated. To illustrate those findings, projects that were not pursued in the past will be analysed. Focus will be on main risks and how they could have been mitigated in order to allow ING to proceed with the project.

The chapter is divided in the following sectors:

5.1 Opportunities & Obstacles
5.2 Mitigants
5.3 Project Analysis
5.4 Conclusions & Recommendations

5.1 Opportunities & Obstacles

To identify the opportunities and obstacles for ING a good starting point is to analyse and include ING decision-makers' opinions about these subjects. This ultimately provides insight in ING's stand and presents 'tailor-made' information for ING. The interviewed managers have working experience and knowledge about the topics. They are currently working with utilities, renewable energy and/or energy efficiency on a daily basis. To understand their perspectives, a questionnaire is set up. The questionnaire consists of five basic questions, which provide an overview of the renewable energy sector and its future. The questions are:

1. What are the main opportunities for financial institutions within renewable energy (technologies (energy sources), type of project, location, transaction structure)?
2. What are the top 5 obstacles currently for involvement in these opportunities (e.g. regulatory risk)?
3. How could these obstacles be solved?
4. How do you think the market of renewable energy would look like in 5 years?
5. How does ING compare to their competitors with regard to its involvement in renewable energy?

The first two questions identify opportunities and obstacles perceived by the interviewees. The third question tries to find mitigation measures to remove these obstacles and risks. To put the answers into context, the vision of the interviewees about the renewable energy market is being asked as a fourth question. This can provide some underlying reasons for why the interviewees indicate something as an opportunity / an obstacle. The final question acts as an addition to the benchmark

in the previous chapter and identifies what peers are doing with regard to renewable energy and thereby perhaps explain how ING could engage more in the opportunities summarized at question 1. The following managers have been interviewed:

Function
Global Head of Energy and Utilities
Head Renewable Energy Netherlands
Specialist Green Financing (Greenbank)
Head of Corporate & Structured Finance Risk
Director Structured Finance Utilities-Power
Senior Credit Officer Utilities-Power
Global Head Emissions Products

Table 13: Overview of interviewed managers

As can be seen, the interviewees are people with different functions, providing a diverse insight in the possibilities and obstacles in renewable energy. The main conclusions are described below in sections 5.1.1 till 5.1.3. ING's stand on renewable energy is described first as background information for the other two parts.

5.1.1 ING's Stand on Renewable Energy

In general ING has a cautious approach with regard to financial involvement in renewable energy, what in my opinion is very conservative. The reasoning of my conclusion comes from the fact that portfolio growth seems to have more to deal with the European targets with regard to renewable energy and due to pressure from the society instead of internal belief in renewable energy as a viable and economically feasible business opportunity. Nonetheless, the portfolio in renewable energy projects has grown significantly over the past 5 years. In my opinion, there is an overall belief that ING does not want to be a frontrunner in the renewable energy. Instead ING wants to be in the middle of the pack, by supporting clients if they are moving towards renewable energy, by investing in renewables to achieve a diversified portfolio and by realizing a proper energy mix (interview Head of Corporate & Structured Finance Risk, September 8th 2010). In my opinion, these are the actual main drivers for ING´s involvement in renewable energy instead of the goal to move towards a low-carbon economy.

Based on the interviews, almost all interviewees indicate that the focus for moving towards a low-carbon economy should be on energy efficiency instead of financing renewable energy. When you take into account facts such as population, economic and corresponding energy consumption growth rates, it is clear that there is a high probability of energy shortages in the future (interview Global Head Emissions Products, August 31st 2010). Although the market keeps growing in relation to further supply of energy, more effective results are expected from improvements on energy efficiency, which is also believed to be much more effective and beneficial with regard to reducing emissions in the short term..

Besides being perceived by me as being quite conservative in renewable energy, ING is also lacking consistency and missing a strategic view with regard to renewable energy. There are many different approaches by different product and client groups in the organisation. For instance, ING Lease has many businesses in solar projects, whereas the Commercial Banking side declines transactions in solar that have mostly the same types of risks (interview Global Head of Energy and Utilities, September 7th 2010). There are internal studies that indicate high hesitancy with regard to renewable energy technologies in general resulting in little risk appetite to engage in these projects. At the same time, there are departments actually engaging in renewable energy projects and making a profit. This inconsistency and lack of global strategy result in conservatism towards engagement in renewable energy, what was evidenced by internal business statements on different strategies by team.

The overall opinion of the interviewees is however that ING is doing well in the field of renewable energy. The portfolio of projects has grown significantly over the past few years, ING's Greenbank is the second largest of the Netherlands, and overall result is profitable. However, as mentioned

above, a strategic view and balance between the high-moral ground and greed (financing everything) should be set. The focus should be on what ING can do in this sector instead of what it cannot do. A strategic view and a consistent approach to renewable energy and high emitting sectors are fundamental to build a strong position in this market (interview Global Head of Energy and Utilities, September 7th 2010). Despite the fact that ING is already engaged in renewable energy, it is not properly communicated to the outside world. Smarter profiling and a focus on public relations and customer relations is needed to show the outside world what ING is actually doing and wants to do with regard to renewable energy.

5.1.2 Opportunities

Main opportunities identified by the interviewees can be divided in two sectors: Renewable Energy and Energy Efficiency. Within **renewable energy** wind and solar projects are identified as the main opportunities. Despite the fact that ING has mainly focussed its project financing on onshore wind farms in the past, offshore wind is also regarded as a big opportunity for ING. Wind energy projects are the most commercially viable renewable energy technology and the technology with which the insurance industry and ING has the most experience (UNEP, 2004). Along with the solar energy, it also has the highest technical potential (see figure 4). The figure shows the potential of renewable energy sources compared to the current global energy needs (Greenpeace, 2010).

As figure 4 indicates, renewable energy sources have quite a big potential. Combined they actually have a potential of providing 3078 times the amount of energy that is the current global energy need. The sun on its own accounts for 2850 times the current global energy need, visualized by the big yellow circle. Together with wind energy (200 times the current global energy need), they represent the biggest potential of all available renewable energy technologies nowadays.

Based on the interviews and on the consulted literature, solar and wind technologies provide the main opportunities for ING in renewable energy. Therefore, with regard to renewable energy, the rest of this chapter will only deal with these technologies and analyse the risks and mitigants of these two technologies.

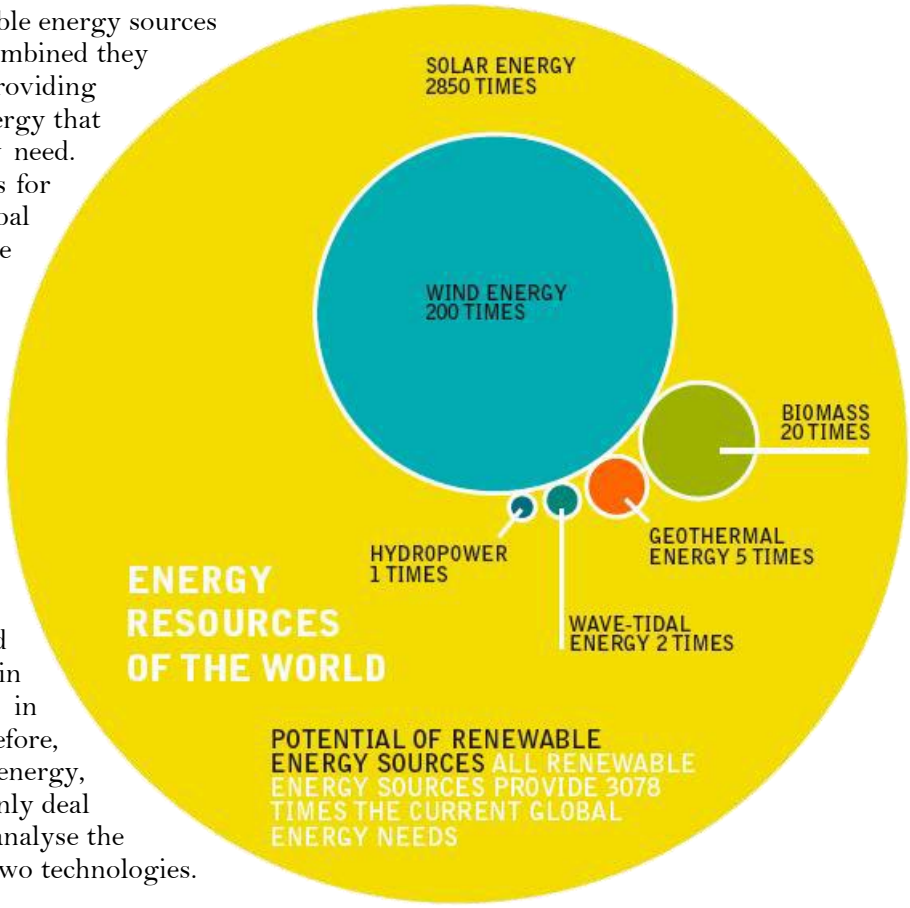

Figure 4: Potential of Renewable Energy Sources
Source: www.greenpeace.org

The other opportunity identified by the interviewees is **energy efficiency**. Improving efficiency is much more effective and beneficial with regard to reducing emissions than investing in renewable energy projects, according to most interviewees. A boost in energy efficiency could create a win-win solution that both helps improve the economic competitiveness of energy-intensive companies and offers investment opportunities for banks (Allianz Group & WWF, 2005). When improving energy efficiency, there is a broad scale of opportunities: from transport (electrified cars, fuel dynamics of BMW), till power generation facilities (implementing BAT, putting generated heat to good use), and Real Estate (insulation of new buildings). A lot of sectors present opportunities for implementing

and/or developing energy efficiency technologies. Note that with electrified cars, it is still important which source is used to generate the necessary electricity. If it is coal power generated, electrified cars contribute less to reducing GHG emissions than when this is done by renewable energy sources.

5.1.3 Obstacles

There are many different obstacles in project finance in renewable energy and energy efficiency. The left hand side of figure 5 presents an overview of the risks present at financing renewable energy projects:

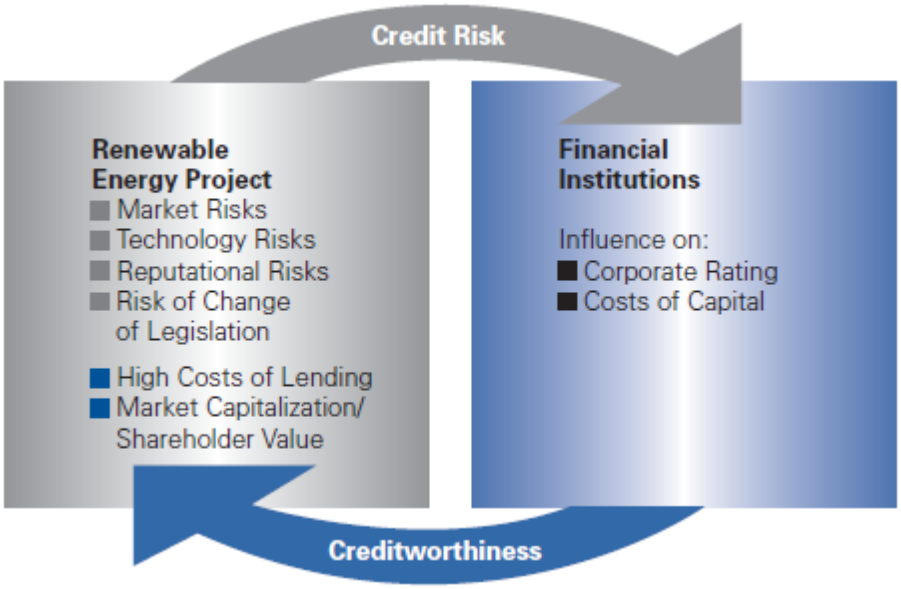

Figure 5: Risks in Renewable Energy Projects
Source: Allianz Group & WWF (2005) - Climate Change & the Financial Sector

Based on the interviews there are three main obstacles that ING experiences when it finances renewable energy and energy efficiency projects: 1) Technology risk; 2) Regulatory Risk; 3) Lack of consistency and strategic view within ING. Other barriers such as market risk, reputational risk, long lead times, high up-front costs, construction delays, business interruption and physical damage issues are generally applicable to utility projects (UNEP, 2004). Since technology risk, regulatory risk and lack of consistency and strategic view are indicated by the interviewees as the main obstacles for financial engagement of ING in renewable energy, other risks are not dealt with in this research. By doing so, the results of this chapter will be relevant for ING.

The first main obstacle is t**echnology risk.** It indicates that new technologies have not proven themselves on the 'battlefield' and that the chance for malfunctioning is a lot higher when compared to proven technologies. They are referred to as immature technologies. Also there is a risk of becoming obsolete, in the sense that new technologies could become out-dated before they are actually matured because another technology is evolving in a much higher rate and/or is showing a lot more progress and thereby a brighter future. This directly relates to the technology availability factor. When a project is built and something brakes down, there is a risk that the used technology is no longer available and that the skills and knowledge to repair it is no longer present, because it is out-dated. This risk can significantly reduce the lifespan of a project.

Both technologies used in renewable energy projects and for improving energy efficiency are in general quite new technologies. However, onshore windmills and also solar technology are becoming more and more mature since they have proven themselves in the past. Energy efficiency technologies like insulation of houses are also not in general something new, although there are always new developments and discoveries. In the contrast, offshore wind is still quite immature and presents relatively more uncertainties, thus risks. The same goes for the Carbon Capturing and Storage technology for energy power plants, although this technology perhaps does not even present a 'real' reduction of GHG emission, since the carbon is only stored. So although renewable energy

technologies and energy efficiency are perceived as quite new technologies, within these fields there is a distinction between mature and immature technologies.

Besides the technology risk, there is **regulatory risk.** It is also incorporated in figure 5, namely by the risk of change of legislation, and it is actually only an obstacle for renewable energy projects. The possibilities in renewable energy are mostly presented because it is supported by governmental subsidies and incentives. Due to this, the market is growing and will keep on growing for the upcoming years but it will stay dependent on subsidies, regulations and governmental policy. In other words, it will stay an artificial market, not able to gain a natural balance on its own (interview Global Head Emissions Products, August 31st 2010). Regulatory risk consists of a conglomeration of uncertainties: for instance there is the uncertainty of governmental changes, such as falling apart, cutting down on expenses, changing direction and altering the subsidies regulations. Because renewable energy projects rely considerably on subsidies, regulatory risk presents an uncertainty for financial institutions and other stakeholders. It creates uncertainty because of uncertain future cash flows. That is, subsidies are being paid during the lifespan of a project and in this period the subsidies can change. Therefore it is not certain which amount of money will be received eventually. Finally, regulatory risk can also imply the aspect of obtaining the necessary authorisations and permits and conducting an Environmental Impact Assessment (E.I.A.). However, this is not treated in this research since the developers of a project should have conducted and obtained this before financial institutions are involved in the project.

The last main obstacle that came forth after analysing the interviews is a **lack of consistency and strategic view** within ING with regard to renewable energy and energy efficiency. A lot of different departments are doing something on these topics, but are not (always) aware of what others are doing. There is no cooperation resulting in completely opposite statements for instance on financing solar projects. ING lease is doing a lot of business in solar projects, whereas the Commercial banking side declines transactions in solar that have mostly the same types of risks (interview Global Head of Energy and Utilities, September 7th 2010). There are internal studies that indicate high hesitancy with regard to renewable energy technologies in general resulting in little risk appetite to engage in these projects. At the same time, there are departments actually engaging in renewable energy projects and making a profit. This lack of consistency is in my opinion a result of the lack of a clear strategic view and internal guidance on renewable energy and energy efficiency as well as a result of not optimal internal communications and knowledge transfer.

A summary of the main opportunities and obstacles mentioned by the interviewees is provided below:

Opportunities	Main Obstacles
Renewable Energy - Onshore and offshore wind - Solar	- Lack of consistency and strategic view - Technology risk - Regulatory risk
Energy Efficiency - Electrified cars - Usage of power - Sustainable building	- Lack of consistency and strategic view - Technology risk

Table 14: Overview of Opportunities and Obstacles

5.2 Mitigants

Of the many different risks present in project financing in renewable energy and energy efficiency, only three are selected to conduct a research in mitigation measurements, since they are identified in the interviews as the main obstacles: technology risk, regulatory risk and the lack of consistency and strategic view within ING. As mentioned earlier, the other risks are found in the Utility sector in general and therefore left out due to the limited scope of this chapter. Per main obstacle, mitigation methods are presented on the upcoming pages. Mitigation methods include all actions, contracts and instruments that can remove or reduce the specific obstacle.

Regulatory risk

Regulatory risk actually deals with a lot of uncertainties. Clearly, there is no way to ensure that the current government in a certain country does not fall apart, for instance. However, financial institutions have an important role to play in the public policy process. They should clearly communicate that they support and encourage the establishment of a reliable, transparent and international co-ordinated Climate Change Policy framework as well as for long-term goals and appropriate CO2-reduction goals that provide certainty for investment decisions and initiate business opportunities for clients (Allianz Group & WWF, 2005). Only long-term policies can cause a swift from investment in conventional energy sources to large-scale investment in clean technologies (UNEP, 2004). Such policies would mitigate the uncertainty present nowadays. So ING should support and encourage such a framework but it could even be the case that ING makes commitments and promises, such as *"If a long-term policy is developed and implemented, including condition A, B and C, than we will increase our financial engagement in renewable energy with X% / Y amount of Euros"*. By doing so, the authorities would be certain that there is support for the Climate Change Policy framework which facilitates the development and implementation of such a framework, eventually providing more certainty for the authorities and for the financial institutions.

Another way of mitigating regulatory risk is by collecting proper legal advice on the subsidies regulations. With good legal advice and know-how it is possible to make the future cash flows of a project less uncertain. According to the interviewed Specialist Green Financing and Global Head of Energy and Utilities (interviews on September the 7th and 8th 2010), in the Netherlands it has been decided by law that when a certain subsidy has been formally promised, this subsidy cannot suddenly be withdrawn. Projects already developed on base of the SDE (Dutch renewable energy subsidies regulation) will keep receiving these subsidies during the lifespan of the project. This means that the risk with subsidies only exists before a subsidy disposal has been delivered, thus only exists in the developing phase of the project, before any financing has been done.

Technology risk

One of the main starting points to mitigate technology risk is choosing for a proven technology. By doing so, the uncertainty about performance of the technology and thereby future cash flows of a project is reduced, since there is enough experience with such a proven technology. Operation and maintenance of such a technology are commonly known to all parties and therefore in general fewer problems and unexpected events occur.

Technology and system availability can be covered by guarantee mechanisms of the technology supplier and manager through appropriate contracts (Ferrante, 2007). Also other risks as reputational risk can be covered by contracts. Contracts govern project participant's responsibilities. Investors and lenders like ING attempt to strike a deal that allocates risks cost-effectively and provides adequate transparency as well as monetary safeguards to protect themselves (UNEP, 2004). Two contracts mitigating technology risk are EPC and O&M contracts (Tinsley, 2000). EPC stands for Engineering, Procurement and Construction, while O&M means Operations and Maintenance.

An EPC contract is a 'Turnkey' agreement. The term 'Turnkey' implies that the constructor takes all the risks until the sponsors turn the 'key' to start up the project (Tinsley, 2000). In such a contract a fixed price is agreed on often added by a bonus/malus system. For example, when the project is delivered earlier than planned, a bonus will be paid and vice versa. Besides, also the planning, payment dates, guarantees, insurance risk and interfaces are agreed upon in such a contract (Personal discussion with Jorn Leeuwendal, October 2010). Generally, the risk of an EPC contract lies with the EPC contract party. Therefore it is important that this party is screened to check their ability to deliver, by analysing their credit status and track their record. An EPC contract ensures that the project is 'available' on the moment that is agreed upon and therefore uncertainty about future cash flows is reduced.

An Operations & Maintenance contract is a contract that in general is agreed upon with the supplier of the technology, for instance the supplier of wind turbines. In such a contract there is an agreement upon the general maintenance, possible unforeseen maintenance, which party is paying the bill and within which time frame there should be responded (Personal discussion with Jorn Leeuwendal,

October 2010). This latter is often related to an availability guarantee which acts as a stimulus to do the repairs and maintenance as soon as possible or else the supplier could be held responsible for the missed incomes. Such an O&M contract would need to be signed for the whole financing period of the project. By doing so, it is guaranteed that the project is available during this period and when there is a malfunction, response is as swift as possible. However, success or failure of a project can often be attributed to one or two people. A good project financier will therefore study the people and their track record just as closely as he/she will examine the agreement under which they will operate (Tinsley, 2000).

Besides from engaging with the government to reduce the regulatory risk, ING should also engage more with the industry itself and with other banks to reduce technology risk. Third parties in the industry such as wind farm developers possess a lot of valuable information and knowledge from which ING could take advantage. Other banks like Standard Chartered and some German banks are actively participating in the renewable energy market. ING could learn from these potential clients and competitors, for instance how they mitigate specific risks. According to Szabó, Jäger-Waldau and Szabó (2010) there is also room for improvement on knowledge transfer of technical performance measurement results, for instance on Photovoltaic (PV) solar technology. They state that there is a discrepancy between the industry practice, research experience and the perception of the financial analysts over the PV technology. Results about reliability and efficiency of such a technology is well-known in the industry but not by the decision makers in the financial sector (Szabó, Jäger-Waldau, & Szabó, 2010). Financial institutions should engage with industry to gain this important knowledge so that decisions can be made based on proper figures and facts.

Besides gaining valuable knowledge, it is also a good suggestion for ING to work together with other banks to take on the risks together. The main idea behind this is that projects that are too risky for ING on its own, could be pursued when multiple financial institutions take a small part of that risk, so that it satisfies each bank's risk appetite and therefore the project could continue. Taking on this learn-by-doing approach on such a manner is a win-win situation: more engagement in renewable energy, while not exceeding the risk appetite of the organization.

Lack of consistency and strategy

Besides the technology and regulatory risks, another obstacle was observed in the interviews: there is a lack of consistency between the different departments within ING and a lack of strategic view towards renewable energy and energy efficiency. These two observations are intertwined. A good step towards consistency is implementing climate change related topics in the overall strategy of ING. You can think of statements like: *"ING actively engages in shifting towards a low-carbon economy"* or *"ING supports and encourages the use of and implementation of renewable energy and energy efficiency"*. If the strategy of ING would include statements that specifically address climate change, this should be also communicated clearly, both internally and externally. Internally it should be made clear to every decision-maker that the board of ING including CEO Jan Hommen actually is supporting these statements. Financial engagement and business opportunities in renewable energy and energy efficiency will then be pursued more often because it is a strategic goal of the organization, supported by the board. External communication is of importance for ING's own reputation and perception from its clients. It should be clear what ING wants to do and how it wants to do that, instead of what it does not want to do. A 'greener' perception can give ING a competitive advantage compared to its peers and thereby attract 'consciousness' orientated clients, both in the Retail and in the Commercial Banking sides. In addition, Corporate Communications should improve ING's image profiling

Besides having a clear strategy, there should also be consistency. As mentioned before, the strategy ensures that everyone is going in the same direction. It is vital that departments cooperate and know each other's businesses. Cooperation means transferring knowledge and also sharing projects and risks. Nowadays, decisions or advices are sometimes made without questioning or asking experienced employees in the respective field. This internal communication must be optimized to help each other to follow the strategic goal. Perhaps an idea for ING to consider is setting up a strategic 'green team', responsible for implementing the strategic goal in all departments and ensuring consistency between them. The team should consist of all relevant decision-makers and meet on a regular basis to keep each other updated about their progress and direction.

Another idea of what can be done at ING is that they start working with efficiency labels for clients in high GHG emitting sectors, ranking from an A-label till an E-label. Well performing clients that are energy efficient are awarded with an A-label, while the worst clients are classified as an E-label. With such classification method the utilities department should for instance set a goal to have at least 80% of their portfolio consisting of A and B-labeled clients. Based on these labels, it would be also possible to define a goal for the efficiency of portfolio as a whole. For example, the overall energy efficiency of the clients in the portfolio of the utilities department in 2009 is set as a starting point. From this moment on, the energy efficiency of the portfolio has to improve in a yearly basis. That could be by 5, 10, 20% or whatever percentage is feasible and desirable. Achieving those goals each year could be communicated easily to the outside world and would actually show what ING really does to address climate change.

An overview of the different obstacles and their mitigation methods is presented below:

Main Obstacles	Mitigation
Lack of consistency and strategy view	- Implement clear strategy - Improve CR, PR and internal communications - Set up a 'Green' Team - Include efficiency labels and goals for efficiency of portfolio
Technology risk	- Technology selection - Guarantee Mechanisms (EPC and O&M contracts) - Engage with industry and other banks
Regulatory risk	- Engage with government and authorities - Collect proper legal advice

Table 15: Overview of Obstacles and Mitigation methods renewable energy

5.3 Project Analysis

Main obstacles and ways to remove these obstacles were presented in section 5.1 and 5.2. To illustrate, two different renewable energy projects are analysed in this paragraph. The identified obstacles in these projects can possibly be removed or reduced by making use of the mitigation instruments presented earlier. By reducing the original obstacles responsible for not proceeding the renewable energy projects, this project analyses indicate possibilities and ways for ING to proceed with such projects in the (near) future.

The projects included in this research are based on real business opportunities presented to ING in the past. The information is supplied by the Senior Credit Officer Utilities-Power at ING. Due to confidentially issues, names, amounts and some specific information are fictional. Besides, not all considerations for declining a project are provided. However, the projects are still useful examples to apply the found information of the previous sections.

Project Jerry – Isle of Lewis, Scotland

Project Jerry is an on-shore wind asset sponsored by an U.K. based equity fund. Estimated investment cost for the first phase was GBP 430 million. The project is located in the South East of the Isle of Lewis in Scotland.

The project is eventually declined by ING, because: Involvement in this project would expose ING to reputational risk. This opinion was based on the following facts and considerations:

1. High controversy due to serious opposition from various fronts –communities, government, NGOs-. The main issues raised by those parties were, that the project is located in a site with high density of golden eagles and it is also one of the UK's top spots for the rare white-tailed sea eagle (as sustained by RSPB). Besides, the project will have a significantly damaging effect on the National Scenic Area.

2. RSPB still considers this project as "contentious", despite the approval issued by the Scottish government.
3.
4. Supporting a controversial project, where ING's name could appear in the press linked to conflicts with a community in Scotland, is a situation that should be avoided without hesitation. ING's name connected to a controversial wind project with a history of opposition would be damaging for ING.

Jerry – The main obstacle for engaging in project Jerry was the reputational risk. As mentioned in chapter 2, bad reputation of business deals can have a negative effect for ING's reputation e.g. by affecting the ability to engage in new relations or by declining its customer base. Section 5.2 has not presented methods to mitigate reputational risk, since reputational risk was regarded as being applicable to all utilities projects and not as being of more importance to renewable energy projects specifically. The only way to remove the reputational risk is to move the project to a less controversial location, which is actually not the job of ING. On the other hand, since the Scottish government already issued the approval, it is very likely that the project will be financed anyway (by other banks). ING could therefore engage in this project and try to make the best of it with regard to the habitat of the eagles and to the damage to the National Scenic Area. It is perhaps better to ensure that an environmental and social responsible bank like ING finance the project, with additional conditions to address the reputational risk and environmental damage, than let it be financed by a bank that just does not care about those aspects.

Project Seinfeld – Greater Wash area, England

Project Seinfeld entailed an offshore wind asset sponsored by company B, (50%), company C (25%) and company D (25%), with investment cost of GBP 1.6 billion. The project is located in the Greater Wash area in England.

Reason for decline by ING was: Involvement in this project would expose ING to out of market credit risk. This opinion was based on the following considerations:

1.
2. The project will be equipped with a new turbine model which although based on proven technology lacks operating history and does not yet have IEC certification. Although company C guarantee provides a strong mitigant, this is a substantial risk.
3. Also a modified foundation design which is not yet proven and not certified will be used.
4.
5.

Seinfeld – This project does not represent any reputational risk and is fully compliant with environmental issues. Instead, its main obstacle is technology risk: The project will be equipped with a new type of turbine and a new design for the foundation of the windmills. Both have not proven themselves and are yet to be certified. Section 5.2 provides actions and mitigants to reduce this risk:

- Choose for proven technologies
- Guarantee mechanisms (EPC and O&M contracts)
- Engage with industry and other banks

First of all, the new turbine is based on proven technology and therefore it is not the case that there is a revolutionary new product for which no assumable expectations could be made. Off course, it remains a new technology and choosing for an already proven technology with an extensive operating history presents less risk. This additional risk can be covered by contracts, like the mentioned EPC and O&M contracts. In this case Company C did provide a guarantee that is indicated as a strong mitigant. The same should also be demanded from the company that delivers the foundations. Engaging in this manner with the industry mitigates the technology risk as much as possible. Another way to engage with companies is to engage with competitors or business in the industry. Goal is to learn how they deal with the obstacles and/or to cooperate in the financing of renewable energy projects.

Besides technology risk, there are some obstacles (gearing ratio and reliability of the data used data for calculations). These are actually financial issues and for the sponsor to solve, therefore it could not be mitigated by ING.

This research only focussed on technology risk, regulatory risk and the lack of consistency and strategic view within ING. Project Jerry, not proceeded since it was highly controversial and because of reputation risk, can therefore not be mitigated by the ways presented in the previous section. Project Seinfeld however was not proceeded due to, amongst other reasons, technology risk. Some mitigation methods were presented in this research. In the table below the obstacles and mitigation methods are again summarized and the specific perceived obstacle and found mitigation methods for project Seinfeld are indicated in **bold**.

Project Seinfeld

Obstacles	Mitigation
Lack of consistency and strategy view	- Implement clear strategy - Improve CR, PR and internal communications - Set up a 'Green' Team - Include efficiency labels and goals for efficiency of portfolio
Technology risk	- **Technology selection** - **Guarantee Mechanisms (EPC and O&M contracts)** - **Engage with industry and other banks**
Regulatory risk	- Engage with government and authorities - Collect proper legal advice

Table 16: Obstacle and mitigation methods Project Seinfeld

Besides the mitigation methods for the technology risk, all other mitigation methods and actions could in general contribute to more financial involvement of ING in renewable energy and energy efficiency. Improving and implementing consistency and strategic view form the base for financial engagement in renewable energy projects, since it provides clear information to all internal and external stakeholders about what ING wants to do, what other departments of ING are doing in this field and thereby sharing important knowledge. Together with the mitigation methods mentioned for technology risk, ING can perhaps use this information and knowledge to proceed projects such as Project Seinfeld in the nearby future and/or decide to pick up this specific project.

5.4 Conclusions & Recommendations

This chapter tried to answer the questions introduced in the beginning of this chapter, namely:

1. What are the main opportunities for financial institutions in renewable energy and energy efficiency?
2. What are the obstacles currently for involvement in these opportunities?
3. How could these obstacles be mitigated / removed?

Besides the answers to these questions, ING's stand on renewable energy and other opportunities are also presented, providing the proper context for the rest of the chapter. Analysing the questionnaires of the interviewees and the researched literature, led to the following conclusions:

- ING is quite conservative towards financial engagement in renewable energy projects;
- Main opportunities in renewable energy are in wind and solar power projects;
- Besides renewable energy, ING sees energy efficiency as a big opportunity, as well for business as for moving towards a low-carbon economy;
- Main obstacles in renewable energy are technology risk, regulatory risk and a lack of consistency and strategic view within ING;
- There are several mitigation methods for reducing these obstacles (see recommendations).

The goal of this chapter was to improve the engagement of ING in renewable energy and energy efficiency and this should be done by the following recommendations:

- Focus on what ING wants to do, instead of what it does not want to do;
  - Clear strategy renewable energy and energy efficiency
  - Improve CR, PR and internal communications
- Engage with government, industry and other banks;
  - Actively lobby and support long-term Climate Change Policy framework
  - To improve knowledge
  - Learn-by-doing approach
- Reduce risks by:
  - Collecting proper legal advice on regulations
  - Choosing for proven technologies
  - Guarantee mechanisms (EPC and O&M contracts)
- Set up a ´green´ team to ensure consistency and information transfer;
- Efficiency labels per client in some sectors (utilities);
- Define portfolio goal and monitor efficiency of portfolio.

Further research on mitigation of obstacles and actual financial engagement of ING in renewable energy, be it on its own or in cooperation with other banks, will possibly present more ways to mitigate the observed risks. As mentioned before, ING could learn a lot from working with others but also by actively doing it themselves (learn-by-doing approach).

The conclusions and recommendations of this chapter can be used in the strategic debate about implementing the Climate Change Policy: It identifies what ING can do in addition to their policy to address climate change into their business. Also it offers advice in how to increase financial engagement in renewable energy and energy efficiency, which acts as a counterweight for the restrictions imposed by the Climate Change Policy. This information could be used in the strategic debate about implementing the policy for opening the eyes of stakeholders for new business opportunities but also to encourage to implement a clear strategy on renewable energy and energy efficiency to improve consistency.

Considerations:
It should be noted that this chapter about renewable energy only touches upon a very small part of this research topic. Renewable energy on its own presents more than enough information and interesting topics to conduct multiple researches. Therefore, this research does not aim to cover all aspects of this topic, but only tries to cover those that are more relevant for ING. This is based on my own opinion and of that of the interviewed managers.

With regard to subsidies and regulatory risk, it is a fact that not only renewable energy depends on subsidies but that this is also the case for fossil fuel power generation facilities. In fact, based on research of the International Energy Agency, no less than $557 billion was spent to subsidize fossil fuels in 2008, compared to approximately $46 billion of support to renewable energy facilities (Morales, 2010). However, based on the interviews it is regarded as one of the main risks for financial engagement in renewable energy of ING. Since the goal of this chapter was to increase ING's involvement those specific risks for ING were analysed and were tried to be mitigated.

Besides the presented actions and mitigation methods for the specific risks indicated by ING, there are a lot of other things to take into account for financial engagement in renewable energy (Personal discussion Jorn Leeuwendal, October 2010). For instance, ING could take a look at power purchase agreements. Such contracts agree upon a fixed or bottom price that has to be paid for the electricity produced. On the one hand, this will reduce the uncertainty about future cash flow, on the other hand it will harm the upside potential of the energy price. Also it could be agreed upon to have some repayments of the loan a bit earlier by for instance a cash sweep in the first years. This is a very common approach to reduce the risk at the end of the project's life. Last example for another point to take into consideration is that there are state guarantees of central banks from the country in which wind turbines are being produced, for instance Denmark and Germany. By doing so, again uncertainty about future cash flows is reduced since the governments guarantee that (a certain amount of) the loan will be repaid.

These examples of additional subjects to take into account for financial engagement in renewable energy all cover the aspect of uncertainty about future cash flows. Contracts with energy suppliers, developers or central banks try to take away this uncertainty. The more certainty those contracts can provide, the better it is for financial institutions. Besides, these additional considerations emphasize that the scope of the research conducted in this thesis is very limited and only focused on the main obstacles perceived by ING. For further analysing all the risks for financial engagement in renewable energy and potential mitigation methods for these risks, a separate research should be conducted.

Chapter 6 – Conclusions & Recommendations

The goal of this research was to provide useful information for the strategic debate about implementing the Climate Change Policy at ING. The information was divided into three main parts, namely restrictions (Climate Change Policy and portfolio impact analysis), market (the benchmark) and opportunities (renewable energy / energy efficiency).

6.1 Summary

The main conclusions and recommendations of these parts are summarized below, per part.

Restrictions – Climate Change Policy and Portfolio impact analysis	
Conclusions	**Recommendations**
1.	1. Further analysing some sectors should reduce the scope of the policy
2.	2. The risk filter introduced in this research could be used for a quick scan for screening the companies in scope
3. Main impact of implementing the policy is the screening of all these organizations	3. Perhaps other classification systems could be used (BIK / NACE) to further analyse the scope
4. Stakeholders expect the impact to be high in countries less dependent on coal, for instance USA, Germany, and some countries in Asia	
5. According to stakeholders, impact on peat and tar sands would be limited	
6. Expected impact after screening will be probably lower than initial numbers indicate	

The scope of the policy is quite small in comparison to the total portfolio, but in absolute figures it is significant. More resources should be invested to further analyse the scope of the policy and for screening all the companies in scope and checking their compliance.

Market – Benchmark	
Conclusions	**Recommendations**
1. All banks are doing something to address climate change	1. ING should analyse their CDP score;
2. Almost each bank is subscribed to the relevant international standards	2. ING should change the name of the Climate Change Policy
3. Half of the banks (5 out of 10) do have a certain climate policy in place	3. ING should profile their commitment towards Equator Principles
4. ING is awarded as best-in-class on climate policy (note that there are differences in level of disclosure)	4. ING should subscribe to the Climate Principles
5. Some energy policies have quite an overlap with the Climate Change Policy of ING	5. ING could state that strict regulations are strict enough

6. ING can learn allot from their competitors (see recommendations)	6. ING should introduce more 'green' products
	7. ING should promote these 'green' products
	8. ING should include guidelines and restrictions from the Climate Change Policy into their other ESR policies
	9. ING should actively engage in renewable energy market
	10. ING should communicate its stand on renewable energy properly

The benchmark makes clear that all banks are addressing climate change in some way or another and that there are big differences between the financial institutions. On the one hand, the fact that not all banks disclose the same amount of information might result in bias or partial conclusions; on the other hand it is clear that banks like HSBC and Standard Chartered are frontrunners in this field.

Opportunities – Renewable energy / Energy efficiency	
Conclusions	**Recommendations**
1. ING is quite conservative towards financial engagement in renewable energy projects	1. Focus on what ING wants to do, instead of what it does not want to do
2. Main opportunities in renewable energy are in wind and solar power projects	2. Engage with government, industry and other banks
3. Besides renewable energy, ING sees energy efficiency as a big opportunity	3. Reduce risks by mitigation methods presented
4. Main obstacles in renewable energy are technology risk, regulatory risk and a lack of consistency and strategic view within ING	4. Set up a ´green´ team to ensure consistency and information transfer
5. There are several mitigation methods for reducing these obstacles	5. Introduce efficiency labels per client in some sectors (utilities) and combine it with setting up a goal and monitoring the efficiency of the portfolio

ING could and should improve its engagement with renewable energy. Besides, there are a lot of opportunities in energy efficiency in the sense of economically feasibility and in the sense of shifting towards a low-carbon economy. Obstacles for financial engagement in renewable energy projects could be mitigated on several ways. Main point is to have a clear strategy and consistency with regard to what ING wants to do and what it does not want to do. Such clarity forms the needed foundation to implement the other recommendations. Pro-activity in tackling risks and addressing the mitigants might determine which financial institutions will be front runners in a low-carbon driven economy in the future.

6.2 Discussion

As mentioned, the main goal of this research was to provide useful information for the strategic debate about implementing the Climate Change Policy at ING. Since it is quite a complex policy with a potential big impact, stakeholder engagement in the development process is very important. This discussion deals with the question whether the research has achieved its goal and if so, how it achieved its goal. It is divided per main topic, being 1) portfolio impact analysis; 2) benchmark; and 3) renewable energy.

Main contributions of the portfolio impact analysis to the strategic debate are that the scope of the policy is relatively small; the impact of screening is quite big but the actual impact of implementing the policy could be considerably less; and it also presents an easy, comprehensive tool to facilitate the screening process. The fact that the scope is relatively small facilitates the implementation of the policy since less departments and less people are affected in their business and therefore resulting in less resistance towards implementing the policy. The impact of the policy is mainly the screening process. The developed risk filter can facilitate the screening process since it is a clear and simple method to screen companies that are in scope of the Climate Change Policy and to check if they are compliant with the policy. It includes all the conditions of the policy and its application is quite straightforward and applicable to any company. It shows both the outcome of the screening process and the reasons for it (i.e. the criteria) which makes it comprehensive and complete, while still being easy and simple to understand and to apply. The application of the developed risk filter on three different cases already illustrated that the policy would not affect them since they are already compliant with the policy. This could be used in the strategic debate to convince stakeholders that the actual impact of implementing the policy is perhaps less than what the stakeholders expected. It at least illustrates that the impact is less than the scope of the policy. Further contributions of the portfolio impact analysis are that it tells which departments to contact and that it provides recommendations to further analyse the scope of the policy.

The benchmark provides several useful insights that can be used in the strategic debate about implementing the Climate Change Policy. First of all, all the banks are addressing climate change into their business and therefore the fear of becoming less competitive due to implementation of the policy does not hold ground. Employees can be convinced that ING is not the only bank addressing climate change and is not an frontrunner in this field. Besides, the recommendations about the nature and content of the policy can be combined with the feedback of stakeholders to alter the policy itself. This could result in a compromise that every stakeholder can agree with. Besides illustrating that ING is not the only bank that addresses climate change, the benchmark and its best-in-class analysis also point out quite a lot of recommendations to improve ING's stand on climate change. This on the one hand shows that other banks are even outperforming ING on some areas while on the other hand it can act as input for the strategic debate on how to further address climate change into the business of ING and how to move forward.

Renewable energy and the Climate Change Policy have the same (sub)goal: Moving towards a low-carbon economy. The main contribution of the renewable energy part to the strategic debate of implementing the policy is that it presents opportunities in moving towards a low-carbon economy by giving advice and guidelines in how to increase financial involvement in renewable energy projects and energy efficiency projects. It acts as a counterweight for the restriction side of the Climate Change Policy, since it presents business opportunities in relatively new markets. This information could be used in the strategic debate about implementing the policy for opening the eyes of stakeholders for new business opportunities but also to implement a clear strategy on renewable energy and energy efficiency to improve consistency.

This research has provided useful information for the strategic debate on many different levels. It shows that the scope and the impact of the policy is not that big, it states that all bank do address climate change in their business and therefore ING is no frontrunner in this field and it also presents advices on how to improve ING stand on climate change by implementing lessons of the best-in-class analysis and by giving advice on how to increase financial engagement in renewable energy.

6.3 Recommendations

In addition to the summary of all conclusions and recommendations, the main recommendations of this research are described in more detail below. Of each part of the thesis the main recommendation that in my opinion should have the highest priority are selected.

Recommendation 1: Use risk filter to facilitate screening process

To analyse the real scope of the Climate Change policy, all companies in scope should be screened. The developed risk filter could facilitate this process but also present the outcomes and underlying reasons in an understandable and easy to read manner. Not only could the risk filter be applied for the Climate Change Policy, but it could be used for every other ESR policy. Off course, the criteria should than be altered to cover the restrictions and conditions of each other policies separately. As a result, the screening process would become more consistent since at every screening the same sort of small overview, being the risk filter, is present. Positive feedback from employees of ING also encouraged the use of the risk filter and stated that the outcome of the risk filter was easy to understand, even though they did not have extensive knowledge about the content of the Climate Change Policy. Since this risk filter was developed in cooperation with , I think she should be the one that should address the need for implementing the risk filter into the screening process of ING. In achieving this, many different departments will have to be contacted and convinced of the need and advantages of this risk filter. To ensure consistency, I believe the development of risk filters for other policies should also be done by , since she is already familiar with the concept.

Recommendation 2: Change name or content of the Climate Change Policy

In my opinion the contents of the Climate Change Policy do not match with what a climate policy should be. The current policy is mainly focusing on GHG emissions and has specific guidelines for the utilities sector. It has concrete conditions and considerations and it thereby focuses on several aspects of climate change. Instead, I believe a more abstract and high-level statement about climate change should be developed and implemented. This statement should cover all aspects of climate change and state that ING is addressing these topics into their business on many several ways, for instance: like *"ING is actively addressing climate change into their business by making business decisions that support the move towards a low-carbon economy, by investing in renewable energy and energy efficiency, by offering sustainable products and …"*. The idea and goal of this abstract statement should be incorporated in the business of the different sectors and departments (think of utilities, real estate etc.). Since there are already some ESR policies, specific guidelines could be included in those. For instance, the natural resources sector-specific policy could include restrictions for business dealings that deal with peat and tar sands. The main idea is to have on overarching climate change policy with below it several policies that include guidelines and restrictions that address climate change. The current Climate Change Policy could be one of those policies, as long as it names changes in for instance the Emission policy. By having a clear statement that ING is addressing climate change, and more concrete and sector specific guidelines to actually do so, I think ING will fight climate change more effectively. Also I think this approach will raise less resistance, since specific guidelines are developed that suit each department as best as possible and feasible. Since development and implementation of ESR policies is the job of the ESR team, they should address this need for an abstract climate statement with the board of ING. Also they should implement specific climate change related guidelines into the already existing policies and in the policies that will be developed.

Recommendation 3: Focus on what ING wants to do, instead of what it does not want to do

Final recommendation for ING is that it should focus on what it wants to do instead of what it does not want to do with regard to fighting climate change. Instead of a passive stand by restricting investments in high polluting sectors and stating what it does not want to do, ING should take an active role and state what they want to do, for instance fighting climate change by investing in renewable energy and energy efficiency. In order to do so, a clear strategy and consistency within ING is needed. Strategy wise, the ESR team has to convince the board of ING of the need of a more climate orientated statement, while consistency could be improved by setting up the specific green team mentioned in chapter 5. Also the adoption of efficiency labels and a goal for portfolio efficiency can be used in multiple departments of ING. Not only is it applicable to Utilities, but also to Real Estate and Natural Resources.

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Appendix

Appendix A – International Standards

Carbon Disclosure Project
The Carbon Disclosure Project (CDP) impels companies and other organisations to calculate and disclose the carbon footprint of their operations and assess their exposure to climate risk, thus providing information on the climate impact of every participant. For financial institutions, the initiative is relevant in order to determine exactly which part of this carbon output can be attributed to their own financing of a company. There are no standards or (exclusion) criteria that have a direct and mandatory effect on banks' investments in companies which do not disclose their carbon emissions.

Carbon Principles
The Carbon Principles (CbP) are a procedural approach for assessing carbon risks faced by companies building new electric power plants in the United States. The principles were designed to address the risks associated with regulatory uncertainty, and were a response to growing public concern over the proliferation of plans for more than ones hundred new coal-fired power plants in the United States. By adopting the CbP banks commit to encourage clients to pursue cost-effective energy efficiency, renewable energy and other low-carbon alternatives to conventional generation and to evaluate financial and operational risks to fossil fuel projects through their due diligence process.

Climate Principles
The Climate Principles (CmP) are a voluntary framework to guide the financial sector in managing climate change. By adopting the Climate Principles banks commit to minimise their operational carbon footprint and to make business decisions that will reduce climate change risks and allow the development of climate-change related opportunities. The CmP are not restricted to a specific financial service; they apply to all financial services offered by banks. However, supporting the initiative does not have a direct and mandatory effect on banks' financial services, as the application of particular elements of the principles is voluntary.

UN Global Compact
The UN Global Compact (UNGC) is a set of ten voluntary principles. Signatories promise to avoid complicity to human rights violations, adhere to labour standards, protect the environment, and avoid corruption. As a result, the UNGC cover seven of the issues identified in the study of BankTrack – Close the Gap: Biodiversity, Climate change, Corruption, Human rights, Indigenous peoples, Labour and Toxics.

Equator Principles
The Equator Principles (EP) are a set of voluntary standards that commit signatory banks to take social and environmental risks into account when providing project finance, and to adhere to the environmental and social guidelines (Performance Standards) of the International Finance Corporation (IFC) of the World Bank Group.

Source: BankTrack – Close the Gap

Appendix B – Benchmark (extended information)

ABN AMRO / Fortis **the Netherlands**

Int. Standards
- Carbon Disclosure Project
- UN global compact.
- Equator Principles

Relevant policies
- Oil & Gas policy
- Mining & Metals policy

ABN AMRO has several reputational risk policies to identify, assess and manage the non-financial issues present within business engagements. These policies are referred to as Environmental, Social and Ethical Risk Management policies, and currently include the sectors: Forestry and Tree plantations; Oil & Gas; Mining & Metals; Defence industry; Gambling; Human Rights; Dams; Tobacco and Animal Testing. The Oil & Gas and the Mining & Metals policies cover some of the sectors of INGs Climate Change Policy, namely only project financing because they are based upon the Equator Principles. More information is not disclosed

Oil & Gas: The equator principles are being applied for projects in this sector. Performance Standard 3 of the IFC included in the equator principles is 'pollution prevention and abatement'. Its main objectives are to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities; to promote the reduction of emissions that contribute to climate change (IFC, 2006). Besides, ABN does not finance projects in locations listed on the world heritage list of UNESCO.

Mining & Metals: Also the equator principles are applied to this sector. In case of projects with substantial increased environmental or social risk, extensive procedures will be applied. What these procedures exactly entail is not disclosed. Also projects in locations listed on the world heritage list will not be financed.

No policies about climate change, utilities, agriculture, cement, real estate and transportation are disclosed. No score in Carbon Disclosure Project.

Products:
ABN is active in emission trading and offers sustainable investment funds and environmental related loans.

Renewable Energy:
Fortis Bank N.V. has continued to pursue its commitment to renewable energy by granting new loans and equity to wind, waste-to-energy and solar projects. In addition, the bank provided several renewable energy companies and initiatives with transaction banking services and risk management solutions in 2009. Renewable energy financing remains one of the pillars of the bank's strategy and positioning. There is strong growth potential for wind energy in the Netherlands and its neighbouring countries, especially in off-shore wind energy, which is starting to come of age (Fortis, 2010).

Barclays **United Kingdom**

Int. Standards
- Carbon Disclosure Project
- Equator Principles

Relevant policies
- Environmental policy
- Mining & Metals policy
- Power generation policy

Barclays manages indirect impacts in lending, through Barclays Environmental and Social Risk Assessment Policy; sector-specific lending guidance and by committing to the Equator Principles.

Environmental policy is part of the ESIA policy and includes that Barclays will be compliant with all laws and legalisations, that they will manage their direct impact and other statements that are mainly focussed on the direct impact and their internal processes. However, this policy also discloses that indirect impacts in lending will be managed by Barclays Environmental and Social Risk Assessment Policy, sector-specific guidance and Equator Principles.

Environmental and Social Impact Assessment (ESIA) Policy covers their business worldwide when considering financing, advising or other roles related to projects, and applies in the following circumstances:

- Where there is a legal requirement for the project developer to conduct an environmental and social impact assessment and/or
- Where Equator Principles apply
- Where there is a known application of funds to a potentially sensitive project.
    - There is no minimum financial threshold for the application of Barclays ESIA policy.
    - ESIA by independent consultancy is mandatory and the EP's are applied.

Industry specific guidance is present for many sectors, namely: Agriculture and fisheries; Metals and mining; Oil and Gas; Power generation, supply and distribution; Chemicals, pharmaceuticals manufacturing and bulk storage; General Manufacturing; Utilities and waste management; Service industry; Forestry and logging. However, all these policies are not publically disclosed which makes it impossible to compare them with the Climate Change Policy of ING.

Barclays scores 74 out of 100 points at the CDP.

Products:
Barclays Commercial Bank launched its Environmental Loan. This offers customers a cash-back payment of up to 0.6% when they take out qualifying commercial finance for investment in environmental projects, via the European Investment Bank SME Finance Facility. This helps to reduce the upfront cost of financing environmental projects, encouraging our customers to invest in low carbon premises and equipment. Also Barclays is engaged in carbon emission trading.
Barclay has two green credit cards: Breathe and Gconomy Credit card: Barclaycard Breathe offers discounts on low-carbon products. It also donated a proportion of their spending on clean energy projects. With the Gconomy card, customers earn 1.5 RecycleBank points for every dollar they spend with RecycleBank reward partners – a network of retailers and suppliers across the US selected on the basis of their sustainability credentials. Partners include national brands ranging from Ben & Jerry's ice cream to Bed Bath & Beyond beauty products.

Renewable Energy:
Barclays is one of the largest project finance participants in the renewables market in the UK and Ireland. They have established specialist renewable financing teams in both Madrid and in Milan. Their involvement in the sector spans a range of renewable energy technologies including onshore wind power, PV solar, small scale hydro, landfill gas, and across bio-energy. To date, Barclays has provided long-term finance for over 2,600 MW of renewable generating capacity. Approximately 650-700MW of this has been provided in the UK & Ireland. (Carbon Disclosure Project, 2009).

BNP Paribas **France**

Int. Standards

- Carbon Disclosure Project
- UN Global Compact
- Climate Principles
- Equator Principles

Relevant policies

BNP Paribas does not have a specific environmental policy that deals with their indirect impact or any other policy that includes some restrictions or guidelines about emissions. On their corporate website however a statement called 'ten focuses for managing environmental impact' can be found.

These ten commitments focus on their internal processes and their direct environmental footprint, such as: Reducing their own GHG emission, waste management and raising employee awareness.

For financial engagement in the sectors Mining, Oil & Gas and Power Generation, the Equator Principles apply. As mentioned earlier, Performance Standard 3 does have some guidelines on GHG emissions, but it is only project based with a minimum threshold of 50 million. Nothing is disclosed on agriculture etc. BNP has a score of 54 at the CPD.

Products:
BNP Paribas offers a wide range of loans to promote the use of energy-efficient equipment and materials during building construction, a key issue identified during Grenelle Environment.

- French Retail Banking offers a low-interest personal loan, Energibio, to help clients finance home improvements that focus on energy savings and sustainable development. BNP Paribas Personal Finance offers the Bons Plans Ecologie loan for clients planning to buy a new home and install energy-efficient equipment and materials. This green loan offers a 1% interest rate and is available for any amount up to EUR 6,000.
- BNP Paribas is actively involved in the EU ETS for both proprietary and client trading, and is a major participant in carbon emissions markets.

Renewable Energy:
BNP Paribas is a major player in the field of renewable energy, especially in Europe, and financed numerous projects in 2009. It has a team of 120 employees working across the main countries, who are qualified to make investment decisions for renewable energy projects. In May 2009, BNP Paribas granted a 11.5-year, EUR 130 million loan guaranteed by Coface, and a related 5-year commercial credit facility, to finance a wind farm in Ashegegoda, Ethiopia, for Ethiopian Electric Power Corporation (BNP Paribas, 2009).

Deutsche Bank **Germany**

Int. Standards

- Carbon disclosure project
- UN Global Compact

Relevant policies

- Green Filter Statement

Deutsche Bank regards the responsible treatment of the environment as an integral part of its corporate identity. In addition to complying with the legal provisions relating to environmental protection, Deutsche Bank undertakes actions to protect natural resources such as air, water, and soil (Deutsche Bank, 2010).

The Deutsche Bank is the only bank not subscribed to the Equator Principles. They are however included on the Carbon Disclosure Project and participate in the UN Global Compact.

A reputational risk management policy is in place at the Deutsche Bank. While every financial institution also has such a risk management policy, this one has an additional statement which makes it a relevant policy for the benchmark. Included is namely the so-called **Green filter statement**. This statement states that 'Decisions are influenced by the question if an individual transaction helps enhance carbon efficiency.' This statement and this kind of decision will be particular relevant for transactions in high GHG emitting sectors, such as mining, agriculture and cement. This statement applies on the banks activities world-wide. Although a relevant policy is present, the Deutsche Bank unfortunately does not disclose more information about the further guidelines within the Green filter statement and/or their internal processes. However, this is a very common issue when analysing financial institutions policies.

Products:

- emissions trading
- Sustainable fund

Renewable Energy:
Deutsche Bank has concentrated its expertise in a renewable energy team. They have already developed 28 wind parks (623 MW) and 6 solar parks (70 MW). Its main focus is now on renewable energy and microfinancing, while later on the focus will lay on water and energy efficiency (Carbon Disclosure Project, 2009). Deutsche Bank is also actively promoting their involvement in the Solar Impulse project, a plane which will fly around the world fuelled only by the sun (Deutsche Bank, 2009).

HSBC **Hong Kong**

Int. Standards
- Carbon disclosure project
- UN Global Compact
- Climate Principles
- Equator Principles

Relevant policies
- Energy sector policy
- Mining & Metals / Peat

Within ESR team there are voices to change the new of the Climate Change Policy in energy policy or emission policy. HSBC has such an **energy policy** which encompasses quite some aspect also present in the Climate Change Policy of ING, especially the updated version which is due to be implemented this year. This policy affects all business activities of HSBC, including asset management, and the activities within the scope of the policy are: exploration; mine development; mineral extraction and mine operation; mine closure and reclamation; and primary processing of minerals. The policy includes among others the following guidelines:
- No support in UNESCO, RAMSAR, Tropical Forests, High conversation value forests, critical natural habitats
- Clients in Annex 1 countries must abide to implement GHG reductions under the Kyoto Protocol
    - Annex I countries - industrialized countries and economies in transition
    - Annex II countries - developed countries which pay for costs of developing countries
- EU clients must comply with the EU Emission Trading Scheme
- Where no satisfactory standards exist and potential client impacts are high, the IFC's Performance Standards and EHS Guidelines are used as a benchmark.
- In these and other potentially high impact situations where appropriate, HSBC encourages clients to move towards best practice on sustainable development.
- Clients disclose and reduce GHG

At the moment, this energy policy is being reviewed and the new version will also include guidance on coal-fired, nuclear power plants, oil sands and other carbon-intensive activities.
HSBC also has a **mining & metals policy** in place. This policy prohibits support of activities in projects in locations on the UNESCO list, Ramsar list, in tropical forests, High Conservation Value Forests and in critical habitats. It also states that HSBC will take a careful approach to business proposals in the peat sector (HSBC, 2010).

Other relevant actions HSBC has undertaken to deal with climate change:
- The appointment of Lord Nicholas Stern. Lord Stern is a world renowned economist on climate change. He functions as Special Advisor on Economic Development and Climate Change to the Group Chairman to provide strategic guidance to the business.
- HSBC launched The HSBC Global Climate Change Benchmark Index in 2007. This Index lists companies focused on developing solutions to combat the effects of climate change.

Highest score in Carbon Disclosure Project: 92.

Products:
- Green bank account: Focus is on saving paper by sending most information digital.

- Green Credit Card: Cutting down on paper usage, donating 0.1% of client spending to the HSBC green roof for schools programme.
- Green Home Insurance: Save Energy and Reduce Carbon Emission
- Climate Change Fund: Invest in Climate Change related industries

Renewable Energy:
According to HSBC, wind is currently the most viable renewable energy source in the UK. Paul's Hill is one of two wind farms financed by HSBC in Scotland. Together the wind farms provide enough electricity to power 115,000 homes a year (HSBC , 2010). HSBC committed 200 million US dollars to renewables financing last year in the Asia-Pacific region only. Partnerships for Renewables (PfR) aims to develop a (500 megawatt) portfolio of renewables projects using public sector land across the UK. A lot of case studies (examples) can be found on the website of HSBC. (HSBC, 2010).

ING **the Netherlands**

Int. Standards
- Carbon disclosure project
- UN Global Compact
- Equator Principles

Relevant policies
- Climate Policy

ING scores average on the CDP with 56 points out of the 100. Its Climate Change Policy is described in chapter 1 of this research.

Products:
ING offers a broad range of 'green' products, from sustainable investment funds and green loans to Carbon Neutral Eco lease arrangements. The latter includes the leasing of an energy-efficient car, a customer training course on how to improve car safety and adopt a more efficient and environmentally friendly driving style and a CO_2 emission compensation service. ING does not actively trade commodities nor engages in carbon credit trading.

Renewable Energy:
ING is quite actively engaged in financing renewable energy projects, mainly in wind and solar projects. The portfolio has increase a lot the past few years and now
euro's. Besides structural finance, ING also has a 'Groenbank' which finances green projects. ING lease also has financed a lot of small solar panels. Based on own research and figures of the ´eerlijke bankenwijzer´ research, 25% of all utilities projects financed are renewable energy projects (Eerlijke Bankenwijzer, 2010)

Rabobank **the Netherlands**

Int. Standards
- Carbon disclosure project
- UN Global Compact
- Equator Principles

Relevant policies
- Mining policy
- Oil & Gas policy

Rabobank, like most of the peers, is also subscribed to the Carbon Disclosure Project, the Equator Principles and the UN Global Compact. These initiatives already form an abstract base for dealing with environmental risky activities. However, Rabobank does not have a score in the CDP.

As you could expect from the Rabobank (Raiffeisen-boerenbank) policies on the field of agriculture are quite extensive and include many sectors. However, they do not address any relevant issue on climate change. Only for financial engagement in palm oil, soy and sugarcane, an environmental and

social impact assessment (SEIA) has to be fulfilled. This SEIA is also included in the mining policy and the oil & gas policy. However, what it actually implies is not publicly disclosed.

For new activities in **mining sector**, an environmental and social impact assessment should be performed. On the environmental side of this assessment, the focus is on continuous improvement of the environmental impact of the mining activities and to prevent or mitigate adverse environmental impacts, including water and air pollution, waste storage and disposal, use of hazardous materials and GHG emissions.

The same environmental and social impact assessment also has to be performed when new dealings in the **oil & gas** sector show up. In addition, the Rabobank will not finance unconventional fossil fuel projects like oil sands / tar sands and oil shale's.

For both mining and oil & gas activities, the Rabobank generally does not finance the upstream activities but is focused on the downstream activities (trade). Rabobank believes that these downstream organizations will also take their responsibility in making their production chain sustainable.

Products

- Rabo Green Bond: Offers Dutch retail investors tax free interest income
- Rabobank's Dutch Green Tech Fund aims to invest in talented Dutch techno start-ups with innovative technologies or processes that introduce more sustainability to the chain from raw materials to end products.

Renewable Energy:
At the Rabobank, the number of transactions in solar energy has increased quite significantly in the US. These programs are intended to be extended in the (near) future. Rabobank also finances wind and hydro power projects. In the first half of 2010 the 'Eerlijke Bankenwijzer' publicated a research held among ten Dutch banks with regard to renewable energy. Rabobank was awarded as the biggest bank in financing renewable energy, with 83% of the total amount invested in renewable energy.

Standard Chartered **United Kingdom**

Int. Standards

- Carbon disclosure project
- UN Global Compact
- Climate Principles
- Equator Principles

Relevant policies

- Climate policy
- Fossil fuel power generation

Standard Chartered has a **Group Environmental and Social Risk policy** in place which targets all clients. They state:
"*We recognise that our primary impact on the natural environment and on social issues is through our relationship with our customers and the lending decisions we take.*"

For complying with this statement, Standard Chartered ensures that:

- All lending proposals include consideration of environmental and social issues where appropriate;
- All lending proposals will take account of internationally acceptable environmental and social standards or local laws and regulations where these are more stringent;
- The risks associated with both environmental and social issues will be properly recognised, evaluated and where appropriate mitigated;
- The Businesses (both Wholesale Bank and Consumer Bank) will ensure that appropriate procedures are designed to meet these policy requirements

A client's environmental, social and reputational risk performance is assessed by Standards environmental and social risk assessment tools (ESRAT). These tools comprise a series of questions related to clients operations and their ability to deal with environmental and social risk. Per sector there is a different tool with different questions. Besides this abstract statement, Standard Chartered has some sector specific position statements. The most relevant with regard to climate change are the statements on: Fossil fuel power generation, mining & metals, oil & gas and climate change.

Standard Chartered has a specific **Climate Change Policy**, which covers all sectors and all financial services of the bank. The focus in this Climate Change Policy is on GHG emissions: Clients from annex 1 countries should operate in accordance with the Kyoto Protocol's GHG reduction targets and clients from all other countries must meet national GHG reduction strategies. Besides, Standard Chartered encourages integrating climate change risks and opportunities into business strategies and plans, incl. a GHG reduction strategy.

The **fossil fuel power generation policy** covers all activities involved with the process of producing power by making us of coal, oil and natural gas. Internally, it covers all lending, debt capital markets activities, project finance, principal finance, and advisory work provided to new and existing clients. The guidelines and restrictions for each transaction are country-dependent. For instance, clients in the EU have to operate in accordance with the requirements of the European Union Emissions Trading Scheme and the Integrated Pollution Prevention and Control Directive, with reference to Best Available Technology and associated emissions levels for large combustion plants. Besides, all clients should work towards alignment with the applicable IFC Performance Standards and they are encouraged to develop and implement an environmental policy and management system, including GHG emissions reduction, management, measurement and disclosure strategy. Certainly, there will be no financial assistance to operations located in the UNESCO World Heritage Sites, on the Ramsar list or in Critical Natural Habitats.

Renewable Energy:
A dedicated Renewable Energy and Environmental Finance (REEF) team within Standard Charted focuses minds and resources on the environmental challenge we face. Our REEF team focuses on our core geographies of Africa, Asia and the Middle East encompassing renewable energy, clean technology and environmental finance, such as energy efficiency, carbon, water and waste management. To date, we have provided more than $4.2 billion across all segments of the renewable energy market:

- energy efficient equipment
- geothermal power
- run-of-river hydropower
- solar power
- water treatment
- wind power
- transportation

In 2010, the REEF business will remain focused on the core sectors of solar, wind and water in our key markets. (Standard Chartered, 2010)

Unicredit **Italy**

Int. Standards
- Carbon disclosure project
- UN Global Compact
- Equator Principles

Relevant policies
- Environmental policy
- Mining & metals policy

The **Environmental policy** of Unicredit deals as well with direct as indirect impacts. It promotes a sustainable culture and the achievement of the Kyoto Protocol goals in all countries where it

operates. For the creation of products and credit policies, reducing of emissions of GHG is a key decision-making factor. As they state:
"We are strongly committed to the fight against climate change, a significant environmental issue for our time."

As part of the environmental policy the environmental sustainability program is launched at Unicredit. Its intension is to revise policies for environmentally sensitive industries; Combating climate change by management of direct and indirect emissions and enhance employee awareness. The policies mentioned are however not disclosed.

Nowadays, Unicredit is working on a mining policy which may contain emission restrictions and guidelines. They also have launched a working group to understand how potential future climate change scenarios may affect our business activities;

Products:

- WWF UniCreditCard supports Italy's largest nature conservation program, the Oasis WWF project. 0.3% of every purchase goes to a dedicated fund.
- Compliance carbon trading
- Bond offering innovative features in support of climate protection.
- CreditExpress Energie is a credit line for energy-saving building renovations and photovoltaic installations.

Renewable Energy:
As of the end of the year, Unicredit Corporate and Investment Banking Strategic Business Area had a portfolio of €4 billion in loans for renewable energy projects, mainly in wind farms, photovoltaic, solar thermal and biomass installations. (Unicredit, 2010)

West LB **Germany**

Int. Standards

- Carbon disclosure project
- UN Global Compact
- Equator Principles

Relevant policies

- Climate Change Policy
- Pollutants statement
- Coal-fired power policy

WestLB has a comprehensive policy, covering all business units of West LB and all national and international transactions, that deals with environmental and social risk: **Environmental and Social Issues Policy.** This policy consists mainly of their Climate Change Policy and a statement about pollutants/limiting values of emissions.

WestLB's **Climate Change Policy** supports the objectives formulated in article 2 of the UN framework convention on climate change and also the objectives set out by the European Union. The UNFCC pursues the objective of preventing a dangerous change in climate. The EU determines the limit for fixing the global increase in temperature to a level of 2 degrees centigrade compared to pre-industrial times. The bank is also committed to promoting efficient technologies and renewable energy. A separate Climate Policy document contains further details, but it is not disclosed at this moment. This will include direct and indirect emissions in industrial and developing countries, and in addition, shows the business activities related to the reduction of emissions (emissions trading systems), clean development mechanism, joint implementation, etc.

In order to protect the environment, in addition to the Climate Change Policy, WestLB introduced a **Pollutants/Limiting Values statement.** It states that limits for emissions and imissions of air, noise, waste water and waste material, should be met as prescribed by the World Bank Pollution Prevention and Abatement Handbook (PPAH 1998). Moreover, WestLB will support best-available-technology in the construction of new plants and/or extension or renovation of plants. The extension or renovating of plants will not be supported if the fixed emission limits are exceeded.

Next to this all-embracing policy, there are also some sector specific guidelines. A relevant one for this benchmark is their **Coal-fired power policy**, which has strict regulations for business activities in high income economies. For instance, the customer has to document if any GHG capturing or emissions reducing technology is in place; Best-available-technology must be used for new plants as well as for the expansion or renovation of existing plants. This last statement also includes criteria about minimum efficiency of coal-fired power plants (≥43%) and relative improvement in efficiency if a plant is being expanded/renovated (≥30%). Moreover, a due diligence must be done to ensure that the financed project can adhere to future regulations, for instance that it can implement any new technology to capture greenhouse gases in the future.

Last but not least, WestLB is developing a carbon policy which potentially shows many similarities or overlaps with ING Climate Change Policy, in addition to the already quite comprehensive policies mentioned above.

Renewable Energy:
Apart from photovoltaics, solar thermal power plants, wind energy and geothermal energy, WestLB also supports projects for the generation of bioenergy. According to trade magazine "Project Finance", WestLB was the world's No. 10 clean energy financier in 2008. The readers of renowned trade magazines "Environmental Finance" and "Carbon Finance" voted us the "Best Finance House – Renewable Energy 2008".

Appendix C – Action Plan

This action plan describes background information and the research process that will be used to complete the bachelor assignment, evaluating the draft climate change policy of ING. This action plan provides insight in the planning of the evaluation process and is drawn up as presented in *'Het ontwerpen van een onderzoek'* by Piet Verschuren and Hans Doorewaard (2005).

Actor analysis

This bachelor assignment is going to be executed on behalf of ING. ING is a global financial institution, with their roots in the Netherlands and with their headquarters in Amsterdam. The company offers banking, investments, life insurance and retirement services to customers all over the world ("Profile & Fast facts", n.d.). Their mission is to help their customers manage their financial future (ING Group N.V., 2010).

Due to the financial crisis ING is forced to undertake the operational division of their banking and insurance companies. This assignment is situated in the banking activity and more specifically in the Environmental and Social Risk Management team, part of the Corporate Credit Risk Management / Policy. The ESR team has four main responsibilities:

1. Develop policies
2. Implement policies
3. Give advice in high risk transactions
4. Stakeholder engagement

Project context

ING avoids business dealings that are not in line with their Business Principles. Therefore environmental and social policies have been developed to help identify deals that carry sustainability and ethical challenges ("Sound Compliance Risk Management", n.d.). In other words, these policies help ING to make sound investment decisions. The Environmental and Social Risk department its main activity is developing and implementing these policies across ING Group.

An example of such a policy is their Defense Policy. Some restrictions described in this policy are (ING Group N.V., 2010):

- ING will not finance companies that are involved in the production, maintenance or trade of anti-personnel landmines, cluster munitions, depleted uranium ammunition, biological or chemical weapons.
- ING will not do business with companies who deliver arms to countries that are under a weapons embargo or to terrorist and other non-governmental groups.
- ING does not finance the trade of weapons to countries where there is a clear risk that the weapons can be used for internal repression, serious human rights violation or for provoking or aggravating tensions or conflict.

Besides the already existing policies of ING, a new policy is being developed which focuses on climate change. The goal of this new policy is to encourage customers to work in a more environmental responsible manner and to restrict the involvement in high GHG emitting sectors. Otherwise, ING will not do business with them or will not invest in their activities. For instance, this new policy could include restrictions about doing no investments in or doing business with high-emitting industries.

Before actually implementing this new policy, it is necessary to look at the consequences. In other words, what would the impact of this policy be for ING? If it results in the loss of many customers or in a similar bad outcome, perhaps the policy is not what ING had in mind. Because such a policy deals with huge amounts of money and with big investments there is no room for just a simple trial-and-error process. Instead, there has to be a good analysis of the impact of the policy in order to make a rational decision about implementing the policy or not.

While ING is trying to actually change the way companies operate, in the sense that they encourage working in a more environmental and social responsible manner, they are also willing to help change their customers. With this in mind, ING is willing to support commercial engagement in renewable energy projects. By doing this, ING hopes to create leverage to help implement their new climate change policy. For instance, you could think of a coal mining company who finds in ING not the partner that is willing to invest in their current activities due to restrictions in the climate change policy, but instead is willing to help to develop new, more sustainable technologies and/or to invest in renewable energy projects.

However, commercial engagement in renewable energy still has a low profile at ING. To make sure ING makes the right decisions as well as for their stakeholders as for their shareholders, the challenges and risks of financial involvement in renewable energy have to be analysed.

Research goal

The goal of this bachelor assignment is to support the strategic debate about implementing the new climate change policy by providing insight in the impact of the draft climate change policy on the portfolio of ING, by benchmarking the climate change policy with respect to what other peers are doing on climate change and by analysing the role financial involvement in renewable energy can have for reducing this impact. The focus on reducing the consequences of the policy on the portfolio will be on renewable energy because ING wants to invest more in this sector, partly in the light of environmental and social responsibility. By working in a more environmental and social responsible manner, ING can distinct itself from competitors as being more corporate responsible, while it can also lead to profitable investments. The new climate change policy helps ING in achieving this. My research will provide ING valuable information that can be used for the strategic, internal debate about implementing the climate change policy.

Insight of the impact of the draft climate change policy will be realized by analysing the content of the actual policy, by evaluating the portfolio of ING, by doing market research in order to find out which (potential) customers of ING will be affected by this policy and meanwhile questioning their opinion/view on this new policy, by evaluating the impact of a similar policy of ING had on their portfolio and eventually by concluding what consequences this will have for ING. By doing this portfolio impact analysis ING will gain important insight in the effect the new climate change policy will have for their business. Based on these findings, a research can be started to reduce this effect by searching for business possibilities in renewable energy.

To find out if investing in renewable energy can reduce the effect of the new climate change policy first of all an overview of the challenges and risks of financial involvement in renewable energy will be compiled by doing market research to the different technologies of renewable energy, by analysing the role ING can play in developing and implementing renewable energy projects, by studying the financial structure of these projects, by analysing the governmental laws, subsidies and long-term interest rates and evaluating their impact on renewable energy projects and by studying how competitors are dealing with these challenges and risks. With these results ING will have a proper overview of where the opportunities are with respect to financial involvement in renewable energy, what risks are present and how to deal with these risks. Briefly, ING will have the necessary information to actually do more business in this market segment.

Benchmarking the policy will be done by identifying the peers that should be researched, by summarizing the criteria that must be used for the benchmark, by looking at corporate websites of peers to find information, by searching and analysing relevant reports of NGO's, by identifying and analysing other sources of information relevant for this topic. The benchmark will tell where ING stands nowadays with respect to climate change: Perhaps the outcome will be that ING is too progressive with their policy and as a consequence will lose a lot of business to their peers; Or, on the other hand, it could tell that peers are also addressing climate change in their business and that ING will not lose any business by implementing this policy.

This bachelor assignment will consist of two parts. The first part is a three months internship at ING in which there is room to work on my assignment but also for doing additional fieldwork. The other part is going to be spent on consulting additional theory and actually writing the report.

Research questions

The research questions relevant for the bachelor assignment are summarized below. Answering these questions will provide enough information and knowledge to complete the assignment. The questions are divided in main questions and sub-questions.

1. **What are relevant subjects for analysing the impact of a new policy?**
    a) What does policy theory tell about what a policy is?
    b) What does policy theory tell about how a policy works?
    c) Which departments and/or people are involved by developing a policy?
    d) Which departments and/or people are involved by implementing a policy?
    e) Which instruments of implementing a policy are there based on policy theory and on experience?
    f) Which relevant subjects can be derived from experience with other policies?
    g) Which relevant subjects can be derived from portfolio analysis theory?
    h) Which relevant subjects can be derived from market theory?

2. **What will the impact of the climate change policy be on the portfolio of ING in the light of these subjects?**
    a) What is the content of the climate change policy?
    b) What does the portfolio of ING look like?
    c) Which (potential) customers are affected by this new policy?
    d) What subjects provided by portfolio analysis theory are relevant for this policy?
    e) What subjects found from experience with other policies are relevant for this new policy?
    f) What subjects derived from the market theory are relevant for this policy?
    g) What do stakeholders think about the policy and its potential impact?

3. **What are other peers doing with regard to climate change? (Benchmark)**
    a) Which peers should be included into the benchmark?
    b) Which criteria should be used for identifying what peers are doing with regard to climate change?
    c) What do the corporate websites of the peers disclose about this subject?
    d) What do researches of NGOs disclose about this subject?
    e) What do other sources of information tell about this subject?

4. **What subjects are relevant for identifying risks and opportunities for financial involvement in renewable energy?**
    a) Which renewable energy technologies are there to invest in?
    b) Which departments and/or people are involved with financial engagement in renewable energy?
    c) What does financial structure theory tells us about relevant subjects for identifying risks and opportunities?
    d) Which relevant subjects can be derived from risk analysis theory?
    e) Which relevant subjects can be derived from strategy theory?
    f) Which relevant subjects can be derived from market theory?

5. **What are the risks and opportunities for financial involvement in renewable energy for ING?**

a) Based on strategy theory (SWOT), which technology(ies) is/are the most interesting to invest in?
b) What risks and opportunities do departments and people involved in financial engagement in renewable energy experience?
c) What subjects of risk analysis can be used to identify risks with this technology?
d) What subjects of market theory can be used to identify risk and opportunities with this technology?
e) What subjects of financial structure theory can be used to identify risk and opportunities with this technology?

Concept definition

Policy: Set of guidelines and restrictions developed and implemented by ING over the past 7 years to create a point of view for ethical issues to ensure that ING contributes on a positive and responsible way to society all over the world. The new climate change policy is an exception in the sense that it is not implemented jet.

Portfolio: In this research with portfolio is meant all the activities, products and investments of ING investment department and corporate risk department.

Renewable energy: All the proven and already existing technologies for generating energy out of natural resources that will be present for eternity and which, by using them, do not have a negative influence on the environment and for future generations. Proven and existing technologies are wind power, solar energy, biomass energy and hydropower. Geographic focus will be on the Netherlands or on Spain, because it would become too complex to take multiple countries in account due to the different legal environments.

Strategy and material

In the schedule below all questions are summarized and the way they will be answered is provided. Also an overview of which materials are needed is given.

(Sub) Question	Strategy	Material
1. What are relevant subjects for analysing the impact of a new policy?		
a. What does policy theory tell about what a policy is?	Literature research, bureau research	Information colleagues, policy literature
b. What does policy theory tell about how a policy works?	Literature research, bureau research	Policy documents, policy literature
c. Which departments and people are involved by developing a policy?	Interview, bureau research	Colleagues, structure documents
d. Which departments and people are involved by implementing a policy?	Interview, bureau research	Colleagues, structure documents
e. Which instruments of implementing a policy are there based on policy theory and on experience?	Interview, literature research	Companion/colleagues, policy literature
f. Which relevant subjects can be derived from experience with other policies?	Interview, bureau research	Colleagues, policy documents
g. Which relevant subjects can be derived from portfolio analysis theory?	Literature research	Portfolio analysis literature
h. Which relevant subjects can be derived from market theory?	Literature research, market research	Market theory literature, market info
2. What will the impact of the climate change policy be on the portfolio of ING in the light of these subjects?		
a. What is the content of the climate change policy?	Content analysis	Policy documents, colleagues
b. What does the portfolio of ING look like?	Interview, content analysis, portfolio analysis	Portfolio analysis literature, colleagues, portfolio documents
c. Which (potential) customers are affected by this new policy?	Market research, portfolio analysis	Results question 2b
d. What subjects provided by portfolio analysis theory are relevant for this policy?	Content analysis, calculations	Results questions 1, 2a
e. What subjects found from experience with other policies are relevant for this new policy?	Content analysis, calculations	Results questions 1, 2a
f. What subjects derived from the market theory are relevant for this policy?	Content analysis, calculations	Results questions 1, 2a
g. What do stakeholders think about the policy and its	Interview,	Stakeholders

potential impact?	bureau research	
3. What are other peers doing with regard to climate change? (Benchmark)		
a. Which peers should be included into the benchmark?	Bureau research	Colleagues, other benchmarks
b. Which criteria should be used for identifying what peers are doing with regard to climate change?	Content analysis, bureau research	Policy document, colleagues, other benchmarks
c. What do the corporate website of the peers disclose about this subject?	Website analysis	Corporate websites, (sustainability) annual reports
d. What do researches of NGOs disclose about this subject?	Content analysis	Researches of NGOs
e. What do other sources of information tell about this subject?	Content analysis	
4. What subjects are relevant for identifying risks and opportunities for financial involvement in renewable energy?		
a. Which renewable energy technologies are there to invest in?	Market research	Market/customers documents
b. Which departments and/or people are involved with financial involvement in renewable energy?	Interview, bureau research	Colleagues
c. What does financial structure theory tell us about relevant subjects for identifying risks and opportunities?	Literature research	Financial structuring literature
d. Which relevant subjects can be derived from risk analysis theory?	Literature research	Risk analysis literature
e. Which relevant subjects can be derived from strategy theory?	Literature research	Product and market strategy literature
f. Which relevant subjects can be derived from market theory?	Literature research	Market literature
5. What are the risks and challenges for financial involvement in renewable energy for ING?		
a. Based on strategy theory (SWOT), which technology is the most interesting to invest in?	Content analysis, applying strategy theories	Strategy theory, results question 4a
b. What risks and opportunities do departments and people involved in financial engagement in renewable energy experience?	Interview, bureau analysis	Colleagues
c. What subjects of risk analysis can be used to identify risks with this technology?	Content analysis, applying theory	Results question 4d, 5a
d. What subjects of market theory can be used to identify risks and opportunities with this technology?	Content analysis, applying theory	Results question 4f, 5a
e. What subjects of financial structure theory can be used to identify risks and opportunities with this technology?	Content analysis, applying theory	Results question 4b, 5a

Planning

	wk24	wk25	wk26	wk27	wk28	wk29	wk30	wk31	wk32	wk33	wk34	wk35	wk36	wk37	wk38	wk39	wk40	wk41	wk42	wk43	wk44	wk45	wk46	wk47
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Buffer	
Start BA, work on plan of action																								
Orientation																								
Orientation on policy																								
Orientation on renewable energy																								
Indexing relevant literature																								
Portfolio impact analysis																								
(Re)search necessary information																								
Research portfolio																								
Research impact																								
Policy benchmark																								
Put up peer group and criteria																								
Search information about peers																								
Compare information																								
Renewable energy																								
(Re)search necessary information																								
Summarize risks and opportunities																								
Reporting & literature research																							?	?
Comments										Some days of because of Intro		Start of new college year		End of internship						Exams	Exams			