

BANKERS ON TENTERHOOKS

**Climate change:
co-funded by banks operating in Belgium**



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Bond Beter Leefmilieu
Greenpeace Belgium
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COLOPHON

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SUMMARY OF THE MAIN FINDINGS

- *Energy from coal, oil from tar sands and clear-felling of forests are disastrous for the climate*

The environmental organizations - Bond Beter Leefmilieu (BBL), WWF, Greenpeace and Friends of the Earth Vlaanderen & Brussel (FOE) – together with Netwerk Vlaanderen point out in this report that a number of activities are disastrous for the climate. Electricity from coal is twice as polluting as from natural gas. Coal is responsible for 25% of the total energy generated in the world, but causes 42% of the global CO₂ emissions for the energy production. Still, electricity from coal is growing dramatically by 5-10% per year. These developments threaten the vital efforts to reduce greenhouse gases and to stay away as far as possible from the 2°C warm-up.

- *Some companies stake on climate-damaging practices*

Some companies deliberately choose to stake on climate-damaging activities such as energy from coal, oil from tar sands or clear-felling of rainforests. This report for instance deals with the German energy giants E.ON and RWE, who plan and build new coal power plants all across Europe. Or how about Shell extracting oil from tar sands in Canada and Wilmar massively cutting down the rain forest for palm oil plantations? A constant in this story is that these companies easily find financing for climate-damaging activities through our banks. In this way and without us knowing, our savings and investment money are used for investments which put our future on the line.

- *Almost all the surveyed banks invest in climate-damaging activities*

The study by the environmental organizations and Netwerk Vlaanderen reveals that each surveyed large bank (ING, BNP Paribas, Dexia, Citibank, Deutsche Bank, KBC and AXA) invested in several of the probed climate-damaging companies during the last two years. A total of almost €25 billion worth of credit loans, asset management or investments were found for these surveyed companies. Contrary to what many of their green promotional tales suggest, each of the banks probed, except Triodos, invest in climate-damaging practices. Yet, there are notable differences. Of the big banks, KBC and Dexia invest significantly less than the other banks in the examined climate-threatening

activities. Nevertheless, as long as those institutions do not introduce a policy at group level, excluding the use of savings and investment funds for climate-damaging operations, there is no guarantee that they improve their climate performance.

Table 1: Belgian investors in climate-damaging companies in 2008-2009 (in million €)¹

Investor	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total Investment
Deutsche Bank	2,445.4	232.7	1,563.0	-	5,695.9	9,937.0
BNP Paribas	693.9	126.3	2,503.0	-	4,102.9	7,426.1
Citigroup	-	-	1,527.0	-	1,349.2	2,876.2
AXA	2,709.2	75.8	-	-	-	2,785.0
ING	235.6	122.3	100.0	-	1,000.0	1,457.9
Dexia	175.3	-	-	-	-	175.3
KBC	85.5	25.8	-	-	-	111.3
Triodos	-	-	-	-	-	-
Total	6,334.9	582.9	5,693.0	-	12,148.0	24,768.8

RECOMMENDATIONS

Netwerk Vlaanderen, WWF, Bond Beter Leefmilieu, Friends of the Earth and Greenpeace therefore call on banks to:

- 1. put an end to supporting the activities that have a harmful impact on climate change;**
- 2. reduce the climate impact of all the investments;**
- 3. finance the transition to an economy with little or no CO₂ emissions;**
- 4. nor invest in nor promote false solutions to the climate problem;**
- 5. put transparency into practice.**

INTRODUCTION

Climate change is painfully urgent. To keep global warming as far as possible below the critical threshold of 2°C, we must now all take action. There is a worldwide growing consensus, even amongst many banks, that CO₂ emissions must decrease rapidly. Still, this knowledge and the intentions do not lead to a drastic change: climate-damaging sectors and practices are still being called upon. Here is an example: despite the fact that greenhouse gas emissions must fall by 80% by 2050 to stay as far as possible below a 2°C warm-up, coal and fossil fuels, polluting most, are still massively deployed. In Europe alone, 70 new coal plants are planned. Each new plant will guarantee at least 30 years of energy generation and thus at least 30 years of soaring emissions of CO₂ and other polluting gases.

Banks play an important role in this story. Through loans, investments and other financial services, they determine which projects are funded and thus realized. Financial institutions, therefore, find themselves in a unique position: through the investment choices they make, they are able to speed up the use of climate friendly technologies and stop the further deployment of fossil fuels. This is a sensible choice, and not only from a climatic point of view, it is also a smart business strategy: staking on a stable climate is staking on the future. Companies which make profits on fossil fuels will sooner or later have to turn into more climate-friendly companies. Banks which today co-finance this switch and profile themselves as forerunners in their market may score points in the future. These banks trade a short-term gain for a more sustainable business strategy.

Choosing for climate-friendly investments, however, does not amount to anything if not accompanied by a resolute rejection of harmful industries and companies. This report examines whether a number of environmental-damaging practices are funded by banks operating in Belgium. More specifically, eight Belgian banks were examined: seven large ones (ING, BNP Paribas, Dexia, Citibank, Deutsche Bank, KBC and AXA) and one ethical bank² (Triodos Bank).

² Ethical banks are mostly small banks, created to serve as a capital provider for sustainable projects and businesses.

¹ Profundo, *Financing of coal mining by Belgian banks*, 2010, p.34.

Chapter 2 examines whether these banks provide financial support to companies that exploit and burn coal, who extract oil from tar sands or companies whose activities cause large-scale deforestation. The investigated practices are clearly climate-damaging, they significantly contribute to global warming.

The study shows that each bank, except for Triodos, has invested in several of the surveyed companies during the last two years. In total, nearly 25,000 million euro worth of credit loans, asset management or investments were found for these probed companies. Unlike their promotional talk suggests, each of the banks surveyed, except Triodos, invests in climate-damaging practices.

Two banks stand out: Dexia and KBC invest significantly less than other banks in the surveyed climate-damaging activities. It may be coincidence or a deliberate choice, but because KBC and Dexia have not established an exclusion policy for every controversial practice³, there is no guarantee that they now consciously exclude such practices or will do so in the future. By completely excluding these investments and turning it into a policy, Dexia and KBC could become pioneers like Triodos.

When we compare the involvement of the banks in the companies surveyed, BNP Paribas appears to be the relatively largest investor. The bank invested in almost all the examined companies, and also invested the largest amount in the climate-damaging companies during the past two years. In absolute terms, Deutsche Bank invested the most in the investigated companies. Especially the involvement of Deutsche Bank in the German energy companies E.ON and RWE plays a major role.

Triodos is the only surveyed bank with a proper and effective policy to combat climate-damaging investments. Several other – also international – banks are taking steps towards climate-friendly banking. They developed a policy which excludes funding for the most destructive activities or that is meant to drastically reduce the CO₂ emissions of their portfolio. In **Chapter 3** we go through examples of an environmental friendly bank policy.

Although in terms of overall investment policies banks still have a long way to go, we see a number of initiatives rising, which show the bank sector's concern

³ Dexia has a limited exclusion policy, that, amongst others, excludes funding for tar sands projects in vulnerable areas.

about global warming. Banks for example put products on the market which encourage green investments and climate-saving behaviour by governments, businesses and individuals. In this way, more affordable car insurances are available for those who rarely use their car, as well as cheap loans for green business properties. **Chapter 4** provides examples of green banking products on the Belgian market.

Banks have an important role to play, but governments can and should help them. First, by adopting a binding and ambitious climate agreement. A government should monitor the finality of its climate policy and must use sufficiently powerful tools to lead banks and other social actors in the right direction, for example by creating investment security for green projects and businesses. **Chapter 5** provides a brief view with recommendations for the role of the government.

METHODOLOGY

This research aims to answer the following questions:

- on which activities is there a scientific consensus about them having a disproportionately negative impact on the climate?
- which companies can serve as an example for those who choose to stake on climate-damaging activities?
- which of the examined banks invest in these companies?
- how can a bank be climate-friendly?
- which products stimulating climate-friendly behaviour are available on the Belgian market?

We investigated eight banks operating in Belgium: seven large ones (ING, BNP Paribas, Dexia, Citibank, Deutsche Bank, KBC and AXA) and one ethical bank (Triodos).

The survey of these banks' investments in climate-damaging businesses in the period 2008 - 2009 was done by research bureau Profundo.

CHAPTER 1 | CLIMATE CHANGE

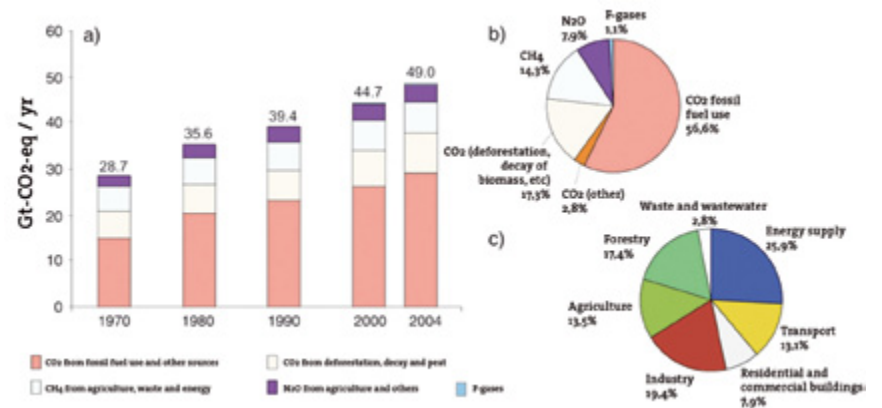


CHAPTER 1 | CLIMATE CHANGE

1. Climate warming and the effects on man and the environment

Climate change is a fact. Compared to the pre-industrial period, our planet has already warmed up by 0.7°C. This increase in temperature is attributed to human activities. By burning fossil fuels, deforestation, and certain industrial and agricultural activities, the concentration of greenhouse gases in the atmosphere has risen sharply since 1750. Figure 1 of the *International Panel on Climate Change (IPCC)* clarifies a) the share of fossil fuels (57%), agriculture (22%) and deforestation (17%) in the global climate issue. The pie chart (b) shows the relative importance of CO₂ and other greenhouse gases, while diagram (c) illustrates the relative importance of different sectors in the emissions of all greenhouse gases.

Figure 1: sectors and greenhouse gases which are part of the climate issue 4



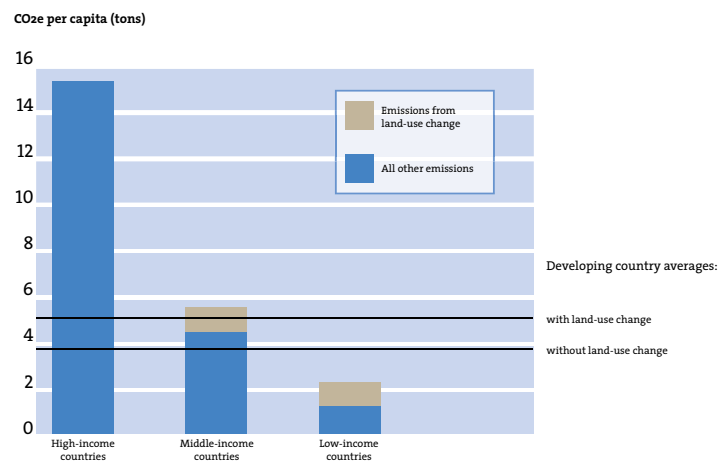
Based on climate models, climate scientists predict further warming between 1990 and 2100 from 1.1°C to 6.4°C. A temperature rise of more than 2°C would have dramatic consequences for man and the environment. The sea level will thus rise and the likelihood of flooding will increase, certain areas will suffer from drought and other from heavy weather due to the change in precipitation patterns, the likelihood of famines and commodities disputes will increase and we eventually risk to lose 30% of our species.⁵

4 Intergovernmental Panel on Climate Change (IPCC), *Climate change 2007: synthesis report, chapter 2.1*
 5 WWF, *Climate change: faster, sooner, stronger*, 2008, p.4-5.

Since the 4th Assessment Report (2007) of the IPCC, new studies were published which showed that the effects of climate change were taking place faster than was suspected in 2007.⁶ It is more and more assumed that global warming must be limited to 1.5°C in order to prevent irreversible climate change.

In order to keep the temperature rise the farthest below 2°C, the emission of greenhouse gases has to be reduced drastically. The global greenhouse gas emissions should decrease as from 2015 and be reduced by at least 80% by 2050. Industrial countries must reduce their emissions by at least 40% by 2020. Although China is now the biggest polluter, it is mainly the richer countries in North America and Europe who are historically responsible for greenhouse gas emissions. Moreover, emissions of the CO₂ equivalent⁷ per capita in the Western countries is well above the world average and well above the average for countries like China and India, as shown in figure 2 from the World Development Report 2010.

Figure 2: unequal footprints: emissions per capita in countries with low, middle and high incomes.⁸



More than 80% of greenhouse gas emissions in Flanders is a direct result of energy use. The burning of fossil fuels (coal, oil, natural gas and their derivatives) makes a significant contribution to greenhouse gas emissions. With a share of

6 WWF, *Climate change : faster, sooner, stronger*, 2008, p. 2.
 7 Unit of measurement used to represent the ability of greenhouse gases. CO₂ is the reference gas against which other greenhouse gases are measured.
 8 World Bank, *World Development Report 2010*, overview p.2.

87% in emissions, CO₂ – whose emissions are almost entirely due to the burning of fossil fuels – is by far the most important greenhouse gas in Flanders.⁹ Worldwide, we can realize half the required greenhouse gas reductions by focusing on energy saving.¹⁰ We can achieve at least 30% of climate efforts to stay under a two degrees warming by a more efficient use of energy and by reducing our energy consumption.¹¹ In addition, the use of fossil fuels should be phased out and we should gradually switch to renewable energy. We can thus drastically reduce the climate impact of transport and of our diet by eating less meat, travelling less by car and, in addition, make use of more efficient and electric vehicles based on renewable energy. Furthermore, we need to stop deforestation.¹²

In this connection, the UNEP incited the economy in the rich countries to operate with 10 times less raw materials and energy.¹³ In other words: the individuals, companies and governments who already make the necessary investments to achieve this, walk a sustainable path. Sustainability is about the consistent and effective pursuit of this '10-fold reduction' within one generation's time, not about doing 'something' green.

The British chief economist Nicholas Stern calculated in 2006 that a severe climate policy is cheaper than fighting the effects of climate change. According to Stern, our annual mitigation measures would cost us 1 to 2% of the global gross domestic product (GDP). If we do nothing, the cost to fight the effects of climate change could reach 5 to 20% of the global GDP. Preventing climate change is, according to Stern's report, also economically the best solution.¹⁴

9 MIRA-T, *Achtergronddocument klimaatverandering*, 2008.
 10 IEA, *World Energy Outlook*, 2009.
 11 McKinsey&Company, *Naar een energie-efficiëntie van wereldklasse in België*, 2009.
 12 Worldbank, *World Development Report 2010*, overview p.15.
 13 UNEP, *Global Environmental Outlook 2000*, 1999.
 14 Stern, Nicholas, *Stern Review Report on the Economics of Climate Change*, Summary of conclusions, p.2.

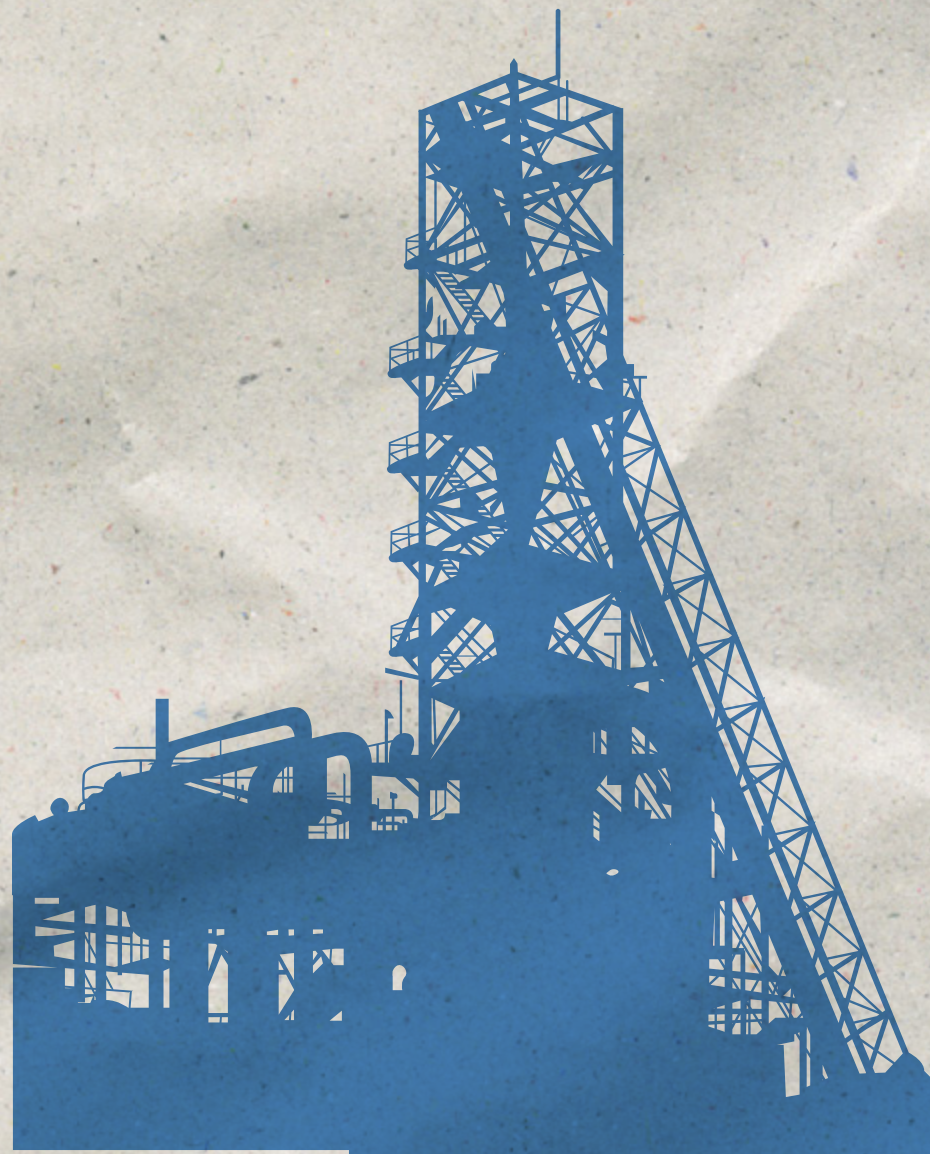
2. The role of banks in the climate problem

Investments are necessary to ensure that the global economy does not exceed the environmental capacity. It is from that angle we look at the investment choices of banks active in Belgium in this report. Netwerk Vlaanderen and the environmental organizations assume that a bank who takes the climate problem seriously does no longer lend out money from its customers to business practices that are clearly climate-damaging, such as extracting oil from tar sands or the production of electricity from coal.

The reason is simple. A new coal plant with an annual emission of for example 6 million tonnes of CO₂ forces investors and society on a climate-damaging path for years. The financial institution has every interest in ensuring that the loans are repaid and that the coal plant does not prematurely cease operations. At least for the duration of the loan and probably for the plant's lifetime (40 years), millions of tons of CO₂ are released into the air, with none of the existing 'green investments' being able to undo this. Wind turbines and solar panels do not absorb greenhouse gases. There is not much to be done once the emissions are out.

Green investments are important. Draining the financial flows to climate-damaging businesses likewise. Both steps are essential and inevitable for countries and financial institutions that want to fight climate change.

CHAPTER 2 | CLIMATE-DAMAGING SECTORS AND COMPANIES FINANCED BY BELGIAN BANKS



CHAPTER 2 | CLIMATE-DAMAGING SECTORS AND COMPANIES FINANCED BY BELGIAN BANKS

In this chapter we elaborate the financing of some examples of climate-damaging activities by Belgian banks. We especially look at the involvement of eight banks operating in Belgium in:

- coal mining
- coal plants
- oil from tar sands
- deforestation

1. Climate solution 1: leave coal in the ground!

Coal is far from a declining business. On the contrary, coal even began its renaissance. The production and combustion of coal worldwide has been growing since 2000 between 5 and 10% per year, with a spectacular growth in China. Worldwide, 5845 Mt of coal was extracted in 2008. That figure was less than 4000 Mt in 2000. The vast majority of that coal is used for energy and electricity generation. 13% of it goes to the steel industry.¹⁵

According to the *National Mining Association*, 2008 was a record year for coal producers in America, with a record high of 1.171 million short tons¹⁶ of mined coal.¹⁷ That year, the US took 17% of the world production of coal for its account. This makes the US the second largest producer after China, that mines 47% of the coal.¹⁸

Statistics from the *International Energy Agency* (IEA) also show that the growth in the use of fossil fuels is almost completely due to the growth in the use of coal, primarily in China and India. However, from a climate point of view, coal is the fuel that needs to be cut back first. Compared to other fossil fuels, it is much more polluting. While coal is only responsible for 25% of the total energy generated in the world, it causes 42% of the global CO₂ emissions

for energy production.¹⁹ Compared with natural gas, coal combustion emits nearly twice as much greenhouse gases per unit of electricity produced!

In addition, coal mining is in many ways a dirty business. Every year, thousands of miners die in the Chinese coal mines. Some mining companies like Arch Coal top entire mountains for the extraction of coal, which has serious consequences for the environment. A recent review study in *Science* concludes that this technique, *mountain top removal*, has serious negative consequences for the environment.²⁰

1.1. Companies that are part of the problem: mining companies

There are many companies engaged in the mining of coal. Not all companies do this for 100%, some are also involved in other activities. [Table 2](#) shows which companies were considered and the share of coal mining in their activities.

¹⁵ Statistics on World Coal Institute: www.worldcoal.org and IEA, *Key World Energy Statistics*, 2009, p.16.

¹⁶ 1 short ton = 907 kg

¹⁷ National Mining Association (U.S.A.), *2008 Coal Producers Survey*, 2009, p.3.

¹⁸ Statistics on World Coal Institute: www.worldcoal.org and IEA, *Key World Energy Statistics*, 2009, p.16.

¹⁹ IEA, *CO₂ emissions from fuel combustion*, 2009, p.12. Figures for 2007.

²⁰ Palmer M.A. et al., "Mountaintop Mining Consequences", *Science*, 8th of January 2010, Vol. 327, p. 148.

Table 2: surveyed companies involved in coal mining and their shares in coal mining.²¹

Mining companies	% of shares in coal mining
Adaro Energy	85.8
Alpha Natural Resources	100
Anglo American Coal	12.0
Arch Coal	100
BHP Billiton	12.0
Centennial Coal	100
Drummond	60.0
Evraz	6.5
Fushan International Energy	100
Glencore	15.0
Grande Cache Coal	100
International Coal Group	100
Massey Energy	100
Peabody Energy	100
Rio Tinto	5.0
Sherritt International	8.1
Siberian Coal Energy (SUEK)	82.1
Teck Resources	57.0
Vale	4.9
Xstrata	22.4

Table 2 shows that a number of mining companies deals exclusively with coal. Some are guilty of destructive mining techniques and thereby cause other problems such as clear felling of forests or river pollution. Arch Coal is an example of this.

²¹ Only companies where investments by the surveyed banks were found are listed.

Arch Coal

Arch Coal, Inc. is one of the largest coal miners in the US, with revenues of around 2.3 billion euro per year.²²

With its twenty active mines, it provides about 16% of total coal production in the United States. It owns 2.8 million tonnes proven reserves of coal. Arch Coal came into disrepute with a specific mining technique: *mountain top removal*. Peaks that contain much coal are blown up, the coal accumulating in the valleys. These valleys are then excavated. Besides the environmental and social consequences that regular mining causes (e.g. water pollution, erosion, dust and noise pollution), this technique causes a massive destruction of landscape and biodiversity.²³

Arch Coal is thus liable for the loss of 300,000 acres of forest.²⁴

²² Businessweek, "Arch Coal INC", Snapshot, *Investing Businessweek*, consulted in January 2010.

²³ Greenpeace, *De wereld achter kolenstroom*, pp.15-17.

²⁴ Platform, *Cashing in on coal*, 2008, p.17.

1.2. Banks financing coal mining

1.2.1. The sector of coal mining

Table 3 gives an overview of the eight surveyed banks and their investments in the sector of coal mining companies.

Table 3: the largest Belgian investors in coal production in 2008-2009 (in million €)^{25 26}

Institutional investor	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Amount invested in coal
Deutsche Bank	267.0	21.1	14.1	332.6	410.2	757.5
BNP Paribas	298.2	7.0	98.3	18.9	308.7	731.1
AXA	617.1	61.8	-	-	-	679.0
ING	161.0	57.9	70.0	309.7	44.9	543.8
Citigroup	48.0	9.3	8.3	90.3	243.3	399.1
Dexia	25.0	-	-	-	-	25.0
KBC	-	5.7	18.3	-	-	24.0
Triodos	-	-	-	-	-	-
Total	1,416.3	162.9	208.9	751.4	1,007.1	3,159.5

1.2.2. Arch Coal

Shareholders

In December 2009, the following banks owned or controlled shares of Arch Coal:²⁷

AXA	2.0%	€ 51.6 mln
ING	0.6%	€ 14.9 mln
Deutsche Bank	0.5%	€ 13.6 mln
Citigroup	0.5%	€ 12.1 mln

Bondholders

In January 2010, the following banks owned or controlled Arch Coal bonds:²⁸

ING	0.5%	€ 5.9 mln
AXA	0.3%	€ 3.7 mln
BNP Paribas	0.3%	€ 3.0 mln

Credit loan

In August 2009, the expiration of an ongoing credit worth US \$ 860 million (€ 609.4 million) was extended by Arch Coal. The loan is meant for the payment of bank debts and to provide operating capital for the company. **Citigroup** was one of the five banks that arranged the loans.²⁹

Issuance of shares

In July 2009, Arch Coal issued 19.6 million shares with a total value of US \$ 342.1 million (€ 240.1 million). Four book runners and a syndicate of 13 banks were involved. **Citigroup** was among the book runners and was also responsible for selling 2.9 million shares:³⁰

Citigroup	14.7%	€ 35.3 mln
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Issuance of bonds

In July 2009, Arch Coal issued a total € 423.4 million in bonds that will mature in August 2016. **Citigroup** was one of four book runners and contributed the following amount:³¹

Citigroup	21.3%	€ 90.2 mln
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²⁵ Profundo, *Financing of coal mining by Belgian banks*, 2010, chapter 1, pp. 2-10.

²⁶ Not all companies in the coal industry are merely concerned with coal. The investments of Belgian banks in these companies were therefore calculated according to the share that the company has in coal production (see Table 2). Investments which are not related to their coal mine activities were not taken into account.

²⁷ Thomson One Database, consulted in January 2010.

²⁸ Bloomberg Database, consulted in January 2010.

²⁹ Arch Coal Inc., "EX-10.1" on 10Kwizad.com, consulted in August 2009.

³⁰ Thomson One Database, consulted in January 2010.

³¹ Arch Coal, "Purchase Agreement", *Arch Coal*, 28th of July 2009; Thomson One Database, consulted in January 2010.

2. Climate solution 2: do no build any new coal plants!

“Coal-fired power stations are death factories. Close them.”³² NASA climate scientist James Hansen does not mince matters. He cites coal plants as the greatest threat to humanity and life on our planet. More than one hundred years of coal can still be excavated. They emit a lot harmful greenhouse gases during combustion, approximately 900 grams of CO₂ per kWh. Natural gas is half less polluting.³³ Hansen estimates that, over its lifetime, each additional coal plant is responsible for the extinction of 400 species. He arrives at this estimate by connecting the emission of greenhouse gasses to the environmental impact of the climate change effect.³⁴

This view may seem extreme, but is increasingly shared. Energy generation from coal is the most dangerous climate-damaging activity. In this way, the World Bank also strikes out at new coal plants in its latest *World Development Report*. If all the planned coal plants are built, together and during their entire lifetime, they will emit as much CO₂ into the atmosphere as what has already been emitted by coal combustion since the Industrial Revolution.³⁵ The World Bank also points out that the technology the industry acclaims, the carbon capture and storage of CO₂ (CCS), does not bring any solace. That technology is still in its infancy. The most optimistic estimates say that the CCS technology will only be used on a large scale and be commercially viable by 2020. Moreover, it is never cost-effective for plants situated at more than 50-100 miles from a good depot for CO₂ storage. In countries like India and South Africa that is usually the case.³⁶

Electricity generated from coal supplied 41% of the worldwide electricity in 2006. If the trend continues, 43% will be generated by coal plants by 2030. Due to the increasing electricity consumption, the capacity and the pollution of coal plants will double during this period, from 7.4 TWh in 2006 to 9.5 TWh in 2015 to 13.6 TWh in 2030. In other words, by itself, the present growth in the new electricity generation from coal threatens to undo all other climate efforts. Let alone that it would substantially lower emissions as deemed necessary to avoid a dangerous climate change.

32 Hansen, James, “Coal-fired power plants are death factories. Close them”, *The observer*, 15th of February 2009.

33 IEA, *CO₂ emissions from fuel combustion*, 2009 p.16. Figures for 2007.

34 Hansen, James, *ibid*.

35 Wereldbank, *World Development Report 2010*, p.51.

36 *ibid*.

In Flanders, politicians understood the problem. Prime Minister Peeters said in 2009 that no permit will be given for the new coal power plant planned by E.ON in the port of Antwerp. But there are not as many projects planned in Flanders as in Germany or Poland for example.³⁷ As Flemings, we want to take our climate commitment seriously. Our savings and investment money should therefore no longer be going to new coal plants.

2.1. Companies building new coal plants: RWE, E.ON and Vattenfall

Having one look at the fuel consumption by the three European energy giants RWE, E.ON and Vattenfall makes painfully clear that coal is far from ebbing away. Figure 3³⁸ shows that as much as 60% of RWE's generated energy in 2008 was produced from lignite and coal combustion! Vattenfall acquires 46% of its European generated energy from coal combustion and E.ON does so for a substantial 35%.

Despite their sky-high CO₂ emissions, these electricity and energy companies have plans for new coal and lignite power plants. Their strategic choices are thus contrary to the interests of man and the environment and ignore the warnings of scientists and environmental organizations.

RWE Power has its headquarters in Essen (Germany) and is Germany's largest energy producer. RWE makes a turnover of 32 billion euro. RWE extracts lignite and produces electricity from coal, lignite, nuclear fuel, gas and renewable sources in Germany, Hungary, Luxemburg, the United Kingdom, Spain and other European countries. The RWE Group is also active in oil and gas production.³⁹

E.ON is the second largest energy company in Germany and achieves a turnover of 87 billion euro. The company is active throughout Europe, Russia and the US. In Europe, E.ON owns power plants in Bulgaria, the Czech Republic, Finland, France, Germany, Hungary, Italy, the Netherlands, Romania, Slovakia, Sweden and the United Kingdom. E.ON regularly applies for the construction of new coal plants. In late 2007, E.ON submitted a request to build a new coal plant in the port of Antwerp.

37 Appendix 11 provides a list of 66 new coal plants in Europe with mention of the investor.

38 Data from SOMO, *Sustainability in the Dutch power sector*, 2009, pp. 29, 47, 68.

39 SOMO, *Sustainability in the Dutch power sector*, 2008, p.41, 47; SOMO, *Climate Greenwash website* 2009: <http://www.climategreenwash.org>, last visit on 24th of May 2010.

Vattenfall is a Swedish state company and is Europe's fifth largest producer of electricity and the largest heat producer, with a turnover of 5 billion euro. The company operates in Sweden, Denmark, Finland, Germany, Poland and the United Kingdom. In addition, Vattenfall is also active in the mining of lignite. The company won the Climate Greenwash Award in 2009.⁴⁰

Table 4: planned and performed investments in coal plants of RWE, E.ON and Vattenfall ⁴¹

Investor	Location	Fuel type	Amount (min euros)	Project status	Date in operation
RWE	Hamm (DE)	Coal	2100	under construction	2011
	Mannheim (DE)	Coal	480		
	Neurath (DE)	Lignite	2200	under construction	2010
	Arneburg (DE)	Coal	2000	decided / planned	2015
	Niederaussem (DE)	Lignite	2200	decided / planned	2014
	Hürth (DE)	Lignite	1000	ccs-pilot	2014
	Ensdorf (DE)	Coal	2100	obstructed	2012
	Eemshaven (NL)	Coal	2600	under construction	2013
	Ibbenbüren (DE)	Coal	61	under construction	2009
	Blyth (UK)	Coal	> 2500	planning phase	2014
	Tilbury (UK)	Coal	1800	planning phase	2013
	Maritsa Iztok (BG)	Coal	510	planning phase	2013
total RWE			> 19551		
E.ON	Datteln (DE)	Coal	1200	under construction	2011
	Rotterdam (NL)	Coal	1200	under construction	2012
	Willemshaven (DE)	Coal	1000	planning phase	2014
	Staudinger (DE)	Coal	1200	planning phase	2013
	Kingsnorth (UK)	Coal	1160	planning phase	n/a
	Kiel (DE)	Coal	600	obstructed	2015
total E.ON			> 6360		
Vattenfall	Hamburg (DE)	Coal	2620	approval granted	2012
	Boxberg (DE)	Lignite	900	under construction	2011
	Nordjyllandsværket (DK)	Coal CCS	n/a	delayed	2013
	Pulawy (PL)	Coal	n/a	announced	2018
	Opalenie (PL)	Coal	n/a	announced	2018
	Poland	Coal	n/a	announced	n/a
	Poland	Coal/gas/biomass	465	announced	2020
	Berlin-Klingenberg	Lignite	1000	obstructed	2012
Jämschalde (DE)	Lignite	1000	feasibility study	2015	
total Vattenfall			n/a		

Bund 2009 and Somo 2009

⁴¹ The table consists of data from research bureau SOMO (2009) and the German environmental organization Bund (2009). It shows the investing company, the plant in question, whether it concerns a coal or lignite plant and the investments in millions of euro. It also shows the status of the project. For more information about the project status, see Bund, *Geplante und im bau befindliche Kohlekraftwerke. Stand: November 2009*, 2009, and SOMO, *Sustainability in the Dutch power sector*, 2009.

Figure 3: fuel mix of generated energy in Europe by RWE, E.ON and Vattenfall ³⁸

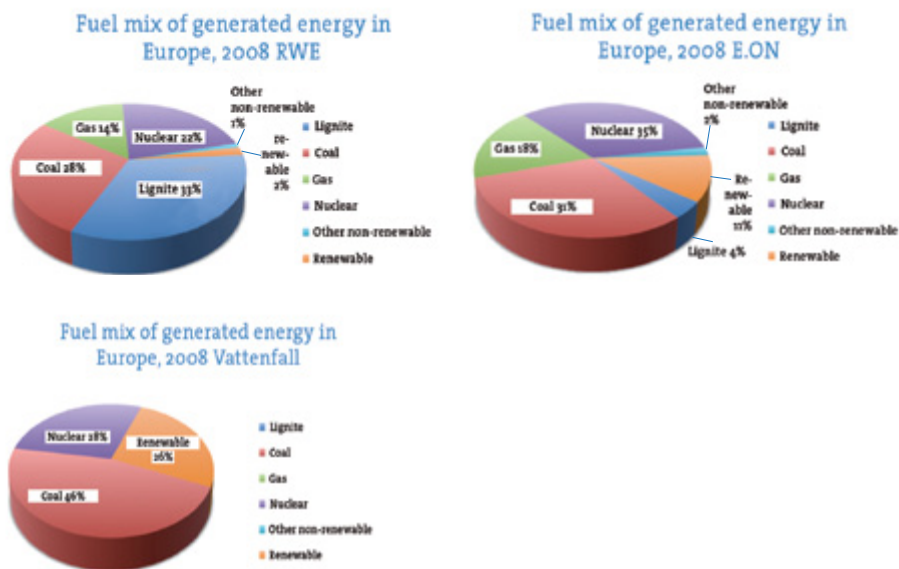


Table 4 on page 25 shows the planned and executed investments in coal power plants of RWE, E.ON and Vattenfall. The recent investments and plans for investment in coal power plants on the European soil of the three companies together amount to more than 30 billion euro. This money could go to investments in energy efficiency and green alternatives, like wind and sun energy generation.

⁴⁰ SOMO, *Sustainability in the Dutch power sector, 2008*, p.41, 47; SOMO, *Climate Greenwash website 2009*: <http://www.climategreenwash.org>, last visit on 24th of May 2010.

2.2. Banks financing new coal plants

2.2.1. E.ON

Shares

Between September and December 2009, six banks owned or operated the following equity interests in E.ON:⁴²

Deutsche Bank	1.9 %	€ 1145.8 mln
AXA	1.1 %	€ 689.1 mln
BNP Paribas	0.4 %	€ 267.2 mln
ING Bank	0.1 %	€ 85.7 mln
KBC Bank	0.1 %	€ 61.9 mln
Dexia	0.1 %	€ 57.8 mln

Bonds

In January 2010, the following banks were found owning or operating bonds of E.ON:⁴³

Deutsche Bank	0.5%	€ 150.1 mln
BNP Paribas	0.2%	€ 58.7 mln
ING	0.1%	€ 35.9 mln

Credit loans

In October 2008, a syndicate of eleven banks provided a loan of € 12.5 billion to E.ON AG. The loan was divided into two parts: a loan of € 7.5 billion over one year and a loan of € 5 billion over three years. The proceeds of both loans would be used for debt repayment. **BNP Paribas**, **Citibank** and **Deutsche Bank** participated in this funding, each for an amount of € 1.136 billion.⁴⁴

In November 2008, a banking syndicate provided a revolving credit facility of € 7.5 billion to E.ON AG. That credit would be used as a backup and for general corporate purposes. **BNP Paribas**, **Citibank** and **Deutsche Bank** participated in this transaction.⁴⁵

In October 2009 E.ON AG acquired a roll-over credit loan of € 4 billion that

⁴² Thomson One Database, consulted in March 2010.

⁴³ Bloomberg Database, consulted in January 2010.

⁴⁴ "Germany: Ja, we can", *International Financing Review*, 22th of November 2008, available (after subscription) on www.ifre.com; "The Milkybar Kid is tough and strong", *International Financing Review*, 15 th of November 2008, available (after subscription) on www.ifre.com;

Thomson One Database, consulted in January 2010.

⁴⁵ Thomson One Database, consulted in December 2009.

replaced the previous loan of € 7.5 billion. The facility was used to resolve debt and had a maturity of one year. **BNP Paribas**, **Citibank** and **Deutsche Bank** were involved in the transaction as book runners.⁴⁶

Issuance of bonds

Table 5 summarizes all the bonds for which the examined banks played a role as a book runner or as a participant. The issuances were made in the period 2008-2009 by E.ON AG and E.ON International Finance.

Bonds emitted by E.ON in 2008 and 2009 ⁴⁷

Date	Total amount of bond issuance (€ m)	Maturity date	Bookrunners	Estimated amount bank (€ m)
February 2008	63	March 2013	BNP Paribas	63
March 2008	300	October 2017	BNP Paribas	300
April 2008	98	April 2013	BNP Paribas	98
April 2008	1.891	April 2018 + 2038	Deutsche Bank (one of the 7 involved banks)	461
May 2008	1.000	June 2014	Fortis, part of BNP Paribas (one of the 4 book runners)	250
July 2008	36	July 2013	Citibank	36
August 2008	50	September 2013	BNP Paribas	50
August 2008	2.000	September 2011 + 2015	ING (one of the 4 book runners)	500
November 2008	1.000	November 2010	BNP Paribas (one of the 3 book runners)	333
January 2009	1.750	January 2014	Citibank (one of the 4 book runners)	438
January 2009	1.500	January 2016	ING (one of the 3 book runners)	500
January 2009	83	February 2014	BNP Paribas	83
February 2009	51	February 2011	BNP Paribas	51
March 2009	750	March 2013	Fortis, part of BNP Paribas (one of the 4 book runners)	188
May 2009	750	November 2011	Deutsche Bank (one of the 3 book runners)	250
May 2009	90	February 2011	BNP Paribas	90
June 2009	35	December 2013	Deutsche Bank	35
July 2009	50	July 2039	Deutsche Bank	50

⁴⁶ Thomson One Database, consulted in December 2009.

⁴⁷ Thomson One Database, consulted in January 2010.

2.2.2. RWE

Shares

Between October and December 2009, five banks owned or operated the following equity interests in RWE:⁴⁸

Deutsche Bank	1.7 %	€ 675.4 mln
AXA	0.8 %	€ 320.8 mln
BNP Paribas	0.2 %	€ 70.4 mln
Dexia	0.1 %	€ 38.0 mln
KBC Bank	0.1 %	€ 23.6 mln

Bonds

In January 2010, the following two banks were found owning or operating RWE bonds:⁴⁹

BNP Paribas	0.4 %	€ 48.6 mln
Deutsche Bank	0.3 %	€ 36.5 mln

Credit loans

In January 2009, an international banking syndicate of ten banks provided a loan of € 9.0 billion to RWE AG. That loan was intended to finance the acquisition of Essent, a Dutch energy company that, amongst others, uses coal to generate electricity. **BNP Paribas** took part in this funding amounting to € 900 million.⁵⁰

In September 2009, an international banking syndicate provided a one year loan of € 2 billion to RWE AG. The loan was to pay off debts and had its maturity date in December 2010. **BNP Paribas**, **Citibank**, **Deutsche Bank** and **ING** took part in this loan for an amount of € 46 million each.⁵¹

Issuance of bonds

RWE Finance issued € 2,000 million of bonds in November 2008, half of which will expire in November 2013 and the other half in January 2019.

Deutsche Bank arranged the bond issuance for RWE and contributed an amount of € 500 million.⁵²

In March 2009, RWE Aktiengesellschaft and RWE Finance BV expanded their existing Debt Issuance Programme of € 20.0 billion to € 30 billion. This programme allows them to constantly issue bonds to the members of the syndicate, up to a total of € 2.0 billion at a time. **Deutsche Bank** arranged the program and contributed an amount of € 2,000 million. **Deutsche Bank** helped to put up this program, **BNP Paribas** and **Citibank** are among the issuers.⁵³

In June 2009, RWE Finance issued bonds with a total value of € 1.737 million. One part expires in July 2022 and the other in July 2039. **BNP Paribas** was one of the banks that settled the issuance and contributed an amount of € 579 million.⁵⁴

2.2.3. Vattenfall

Shares

Vattenfall AB is 100% owned by the Swedish state, so none of the banks are involved.⁵⁵

Bonds

In January 2010, the following bank was found owning or operating Vattenfall bonds:⁵⁶

KBC	0.1 %	€ 6.8 mln
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Credit loans

In March 2009, an international banking syndicate provided a loan of € 2.3 billion to Vattenfall. The loan was granted to finance the acquisition of 49% of the Dutch energy producer NUON and for general corporate purposes. **BNP Paribas**, **Citibank** and **Deutsche Bank** participated in this loan, each for an amount of € 256 million.⁵⁷

⁵² Thomson One Database, consulted in January 2010.

⁵³ "€ 20,000,000,000 Debt Issuance Programme Prospectus", RWE, 1st of april 2008.

⁵⁴ Thomson One Database, consulted in January 2010.

⁵⁵ Thomson One Database, consulted in December 2009.

⁵⁶ Bloomberg Database, consulted in January 2010.

⁵⁷ Thomson One Database, consulted in January 2010.

⁴⁸ Thomson One Database, consulted in March 2010.

⁴⁹ Bloomberg Database, consulted in January 2010.

⁵⁰ "Energy in the market", *International Financing Review*, 17th of January 2009, available (after subscription) on www.pfie.com.

⁵¹ Thomson One Database, consulted in January 2010.

Issuance of bonds

Table 6 contains all bonds issued by Vattenfall in the period 2008-2009, which were settled by at least one of the banks in this report:

Date	Total amount of bond issuance (€ m)	Maturity date	Bookrunners	Estimated amount (€ m)
November 2008	850	December 2013	BNP Paribas (one of the 4 book runners)	213
November 2008	650	January 2019	BNP Paribas (one of the 4 book runners)	163
January 2009	252	February 2013	BNP Paribas	252
March 2009	2,700	March 2013 + 2016 + 2021	BNP Paribas (one of the 8 book runners)	338
			Citibank (one of the 8 book runners)	338
			Deutsche Bank (one of the 8 book runners)	338
April 2009	1,454	December 2019 + April 2039	BNP Paribas (one of the 9 book runners) Citibank (one of the 9 book runners) Deutsche Bank (one of the 9 book runners)	162
April 2009	39	March 2029	BNP Paribas	39
May 2009	1,350	May 2014	BNP Paribas (one of the 9 book runners)	150
			Citibank (one of the 9 book runners)	150
			Deutsche Bank (one of the 9 book runners)	150

In June 2009, Vattenfall launched a € 15.0 billion Medium Term Note programme, which enables them to constantly issue bonds to members of the bank syndicate, up to a total of € 15.0 billion at a time. **Deutsche Bank** arranged the programme, **BNP Paribas** and **Citibank** are part of the nine issuers of the syndicate.

Project funding for coal plants

Banks sometimes directly finance new coal plants through project funding. The following projects were financed via banks operating in Belgium.

- In December 2005, PKE, a part of the Tauron Group, announced that the project would receive funding for the coal plant Lagisza Power Plant in Poland. 30% of the cost of the power station would be covered by issuing bonds for an amount of PLN 650 million (€ 165 million). The plant has a capacity of 460 MW. Three banks were part of the issuing syndicate, including Bank Handlowy (a subsidiary of **Citibank**).⁵⁸
- In November 2006 the German 'Duisburg-Walsum 10' coal plant received a project funding worth € 615 million from EVN (Austria) and Evonik (Germany). This was the largest project ever in Germany. Sixteen Banks figured in the syndicate. Fortis (part of **BNP Paribas**) participated for € 50 million and **Dexia** for € 30 million. The plant has a capacity of 750 MW and will started up in 2010.⁵⁹
- In July 2008, KMW, a German energy company, announced it was looking for project funding: the company needed € 1.2 billion for its coal plant of 823 MW in the Ingelheimer Aue site in Mainz, Germany. According to the environmental organization BUND, the project will annually emit 4.2 million tonnes of CO₂ emissions. In August 2008 it was announced that **Deutsche Bank** would be the sole book runner and thus settle the full amount. In September 2009, however, KMW announced that the construction of the new coal plant was temporarily delayed due to the crisis in the financial markets.⁶⁰
- In December 2008, GDF Suez borrowed US \$ 393 million. This 16.5-year loan was concluded for its CTA (Central Termoelectrica Andino) project: a coal power plant of 150 MW in Chile. Two of the five banks in the syndicate were Fortis Bank (part of **BNP Paribas**) and **ING Bank**.⁶¹
- In May 2009, the German company Gros Kraftwerk Mannheim (GKM) announced that it was looking for project funding for the development of a 911 MW coal plant for its Mannheim site. The plant will become operational in 2013, and will replace two existing blocks with a combined output of 440 MW. In March 2010, a five year loan was completed, consisting of a term loan of € 750 million and a recurring loan of € 50 million. Twelve banks provide this credit, including **Deutsche Bank**.⁶²

⁵⁸ Poland Business News, "Polish power firm PKE's shareholders approve PLN 650 mln bond issue for Lagisza investment", *Poland Business News*, 18th of July 2006.

⁵⁹ Thomson One Database, visited in May 2010.

⁶⁰ Thomson One Database, consulted in December 2009; "Coal power news", *Project Finance International*, 23th of July 2008, available (after subscription) on www.pfe.com; "Banks Pull Funding for German Coal-Fired Power Plant", *Industrial Info Resources*, 25th of August 2009, available on www.industrialinfo.eu/?newsitemID=149523, last visit on 18th of May 2010.

⁶¹ Tearsheet 2459240158, Thomson One Database, consulted in May 2010.

⁶² "GKM closes thermal power debt", *Project Finance Magazine*, 3th of March 2010; Tearsheet 2460285158, Thomson One Database, consulted in May 2010.

3. Climate solution 3: do not quarry tar sands!

Tar Sands are deposits of sand, clay, water and 'bitumen': a viscous liquid that can be processed into oil products. The total known world reserves amount to the equivalent of 6 trillion barrels of oil. That is more than the conventional oil reserves.

Increasingly more tar sands are excavated in Alberta, Canada. With the proven reserves of tar sands in Canada, 170 billion barrels of economically viable oil can be produced: only Saudi Arabia has larger oil reserves. Currently, 1.3 million barrels of oil are produced from tar sands each day in Alberta. Through massive investments of 136 billion, this production could reach 4.5 million barrels per day.⁶³

The oil production from tar sands emits two to three times as much greenhouse gases as conventional oil. If the burning of oil is included, oil from tar sands is 15 to 40% more polluting than conventional oil over its entire 'lifetime'. A recent study by WWF and the Co-operative Bank states that the capture and storage of CO₂ from tar sands projects offers no consolation to the enormous disadvantages.⁶⁴ The problem of the use of tar sands for energy generation is similar to that of coal: it worsens the climate problem rather than contributing to a solution.

With its 40 million tons of CO₂ per year, the mining and converting of tar sands into oil supplies the largest contribution to climate change in Canada. Thousands of acres of forests, standing on the tar sands are cleared in the process. These forests represent more than 25% of the remaining primeval forests on our planet. The destruction of these forests is fatal for the climate. They retain more than 47 billion tonnes of CO₂.⁶⁵ Amongst others, Greenpeace Canada is campaigning to put a halt to all tar sands projects. The First Nations, indigenous groups in Canada, are also protesting against the extraction of oil from tar sands. At the annual meeting of the

63 Government of Alberta, *Alberta's oil sands: the resource*, available on http://www.oilsands.alberta.ca/documents/The_resource.pdf, last visit on 18th of May 2010.

64 The Co-operative financial services en WWF UK, *Carbon capture and storage in the Alberta tar sands – a dangerous myth*, 2009.

65 Greenpeace Canada: <http://www.greenpeace.org/canada/en/campaigns/tarsands>, last visit on 18th of May 2010.

Royal Bank of Canada, a Canadian bank that finances the tar sands industry, a representative of the First Nations called the environmental impact of a tar sands an '*environmental holocaust*'. Besides the impact on the environment, the tar sands production also causes water and air pollution.⁶⁶

George Poitras, a former leader of the Mikisew Cree First Nation, states: 'We are seeing a terrifyingly high rate of cancer in Fort Chipewyan where I live. We are convinced that these cancers are linked to the Tar Sands development on our doorstep. It is shortening our lives. That's why we no longer call it "dirty oil" but "bloody oil". The blood of Fort Chipewyan's residents sticks to the hands of these companies.'⁶⁷

3.1. Companies that are part of the problem: Shell and Suncor

A number of companies are involved in the extraction of oil from tar sands in Canada. Suncor and Syncrude and some oil companies like the well-known Shell are the most important ones.

Canada's Suncor was the first company extracting tar sands in Canada. Now it is the largest oil company in Canada in the tar sands sector. Suncor produces over 200,000 barrels of oil per day, with the hourly equivalent of 637 tonnes of CO₂ into the atmosphere. Suncor wants to systematically increase the production of oil from tar sands to 550,000 barrels in 2012.⁶⁸

The Dutch oil company Shell has also plunged into the extraction of tar sands, amongst others as principal shareholder of Albain Sands, which produces more than 155,000 barrels of oil from tar sands every day. Shell plans to expand the production to 500,000 barrels a day.⁶⁹

66 Van Hasselt, Caroline, *The Wall Street Journal*, 3th of March 2010.

67 Platform, *Cashing in on Tar Sands*, 2010, p.44, available on <http://platformlondon.org/files/cashinginontarsandsweb.pdf>, last visit on 18th of May 2010.

68 Suncor: www.suncor.com, last visit on 18th of May 2010.

69 Shell: http://www.shell.ca/home/content/can-en/aboutshell/our_business/oil_sands/, last visit on 18th May 2010.

Suncor Energy is an integrated energy company strategically dedicated to the development of the largest oil reserves worldwide - the Athabasca tar sands in Canada. With its activities in Canada and the United States, Suncor has become a major North American energy producer with a daily production of an equivalent of 264,700 barrels of oil and an annual income of € 30.1 billion in 2008.⁷⁰

Royal Dutch Shell is the parent company of a large group of energy and petrochemical companies. It is active in the exploration, production and trading of various energy resources worldwide. The company carries out operations through five segments: exploration and production, gas and energy, tar sands, oil products and chemicals. Royal Dutch Shell is based in The Hague, the Netherlands. In 2008, its annual income amounted to € 32.1 billion.⁷¹

3.2. Banks financing the problem

3.2.1. Shell

Shares

Between September and February 2010, the following banks owned or operated the equity interests in Shell:⁷²

AXA	1.1%	€ 1331.5 mln
Deutsche Bank	0.5%	€ 598.1 mln
BNP Paribas	0.3%	€ 356.3 mln
ING Bank	0.1%	€ 149.9 mln
Dexia Bank	0.1%	€ 79.5 mln

Bonds

In February 2010, the following banks were found owning or operating at least 0,1% of Shell bonds:⁷³

ING	0.3%	€ 58 mln
Deutsche Bank	0.2%	€ 39 mln
BNP Paribas	0.1%	€ 19 mln
AXA	0.1%	€ 19 mln
KBC	0.1%	€ 19 mln

Issuance of bonds

Several surveyed banks were involved in the two bond issuances by Shell since the beginning of 2008:

- In September 2009, Shell International Finance issued bonds totaling US \$ 5.0 billion (€ 3.4 billion). The issue occurred in four installments and was designed for general corporate purposes. Morgan Stanley (US), Bank of America (US) and **Deutsche Bank** were jointly book runners. **Deutsche Bank** endorsed 33.3% of the issuance for an amount of US \$ 1.67 billion (€ 1.1 billion).⁷⁴
- In February 2009, Shell International Finance issued bonds totaling € 3.0 billion. The issue was intended for general corporate purposes. **BNP Paribas**, **Deutsche Bank** and JPMorgan (US) were the three book runners for the deal. **BNP Paribas** and **Deutsche Bank** each sold bonds for an estimated amount of € 399 million.⁷⁵

3.2.2. Suncor Energy

Shares

In December 2009, the following banks owned or operated the following equity interests in Suncor Energy:⁷⁶

AXA	0.9%	€ 352.4 mln
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⁷⁰ Profundo, *Financing of coal mining by Belgian banks*, 2010, p.40.

⁷¹ Profundo, *Financing of coal mining by Belgian banks*, 2010, p.38.

⁷² Thomson One Banker Database, consulted in March 2010.

⁷³ Bloomberg Database, consulted in January 2010.

⁷⁴ Tearsheet deal nummers 2108445001, 2108443001, 2108442001, 2108440001, Thomson ONE Banker, 15th of september 2009.

⁷⁵ Thomson One Banker Database, consulted in February 2010.

⁷⁶ Thomson One Banker Database, consulted in March 2010.

Bonds

In February 2010, the following banks were found owning or operating Suncor Energy bonds:⁷⁷

AXA	0.8%	€ 56.8 mln
ING	0.4%	€ 28.4 mln
Deutsche Bank	0.1%	€ 7.1 mln

Credit loans

Suncor Energy replaced an existing revolving credit facility of C\$ 2 billion (€ 1.29 billion) with a new five-year credit facility from an international bank syndicate at a cost of C\$ 3.5 billion (€ 2.26 billion)⁷⁸ in March 2008. The syndicate was launched by the Royal Bank of Canada (Canada), CIBC (Canada), TD Bank (Canada) and **BNP Paribas**. Fifteen banks participated in the syndicate, including BNP Paribas, Citigroup and Deutsche Bank. The shares for an additional amount of C\$ 1.5 billion (€ 970 million) were divided between the different banks according to the following estimate:⁷⁹

BNP Paribas	11.3%	€ 111 mln
Citigroup	3.5%	€ 35 mln
Deutsche Bank	7.2%	€ 71 mln

In March 2008, Petro-Canada, now part of Suncor Energy, acquired a revolving credit facility of an international banking syndicate for a sum of C\$ 3570 billion (€ 2.337 billion) to expand an existing facility of C\$ 2.2 billion (€ 1.4 billion).⁸⁰ The funds were meant to refinance an existing debt. Four Canadian banks functioned as joint book runners for the deal. Among the ten other banks participating in the syndicate were BNP Paribas, Citigroup and Deutsche Bank. For the additional C\$ 1.370 million (€ 885 million), the share of the different banks is estimated as follows:⁸¹

BNP Paribas	6.0%	€ 54 mln
Citigroup	6.0%	€ 54 mln
Deutsche Bank	6.0%	€ 54 mln

⁷⁷ Bloomberg Database, consulted in February 2010.

⁷⁸ Suncor Energy, *Annual Report 2008*, March 2009.

⁷⁹ Tearsheet facility number 2358296115, Thomson ONE Banker, 23rd of March 2008.

⁸⁰ Petro-Canada, *Annual Report 2008*, March 2009.

⁸¹ Tearsheet facility number 2355870115, Thomson ONE Banker, 28th of March 2008.

Issuance of bonds

In May 2008, Petro-Canada, now part of Suncor Energy, issued bonds for a total of US \$ 1.5 billion (€ 963 million). The issuance occurred in two instalments and was designed for general corporate purposes and to repay an existing debt. **Citigroup**, **Deutsche Bank** and HSBC (United Kingdom) were the joint book runners for the deal. **Citigroup** and **Deutsche Bank** both sold a part of the bonds estimated at 13.3%, amounting to US \$ 320 million (€ 205.9 million). **BNP Paribas** was one of the other ten banks in the syndicate and endorsed the issuance of an amount of US \$ 150 million (€ 96 million).⁸²

In June 2008, Suncor Energy issued bonds for a total of US \$ 2 billion (€ 1.3 billion). The issue was done in two parts and was designed for general corporate purposes. The syndicate for the bonds was led by Bank of America (US), **BNP Paribas**, Morgan Stanley (US) and Royal Bank of Canada (Canada). Fifteen banks endorsed this issue, including:⁸³

BNP Paribas	16.0%	€ 205.9 mln
Citigroup	1.5%	€ 19.3 mln
Deutsche Bank	3.5%	€ 45.0 mln

⁸² Tearsheet deal number 1976890001, and 1976891001, Thomson ONE Banker, 12th of May 2008.

⁸³ Suncor Energy, *Prospectus Supplement*, Calgary, 3rd of June 2008; Suncor Energy, "Suncor Energy Prices US\$ 2 Billion Debt Issue", press release, Calgary, 3rd of June 2008.

4. Climate solution 4: stop deforestation for palm plantations!

The World Food and Agriculture Organization (FAO) estimates that an area the size of Greece of the world's forests is cut down every year. The biggest cause of deforestation is the production for export and consumption in the North. Much CO₂ is released by cutting down forests. Deforestation is therefore responsible for 17% of the global⁸⁴ greenhouse gas emissions, more than the transport sector,⁸⁵ for example. Deforestation does not only release greenhouse gases, but cuts in the absorption capacity for these climate-changing substances.

The causes of deforestation vary by region. In Brazil, soybean and livestock production are the prominent causes. In Indonesia the production of pulp and palm is one of the driving forces for deforestation.⁸⁶ In Brazil and Indonesia alone, deforestation practically fully undermines the global targets for emission reduction, as specified in the Kyoto protocol⁸⁷, and respectively places in Brazil and Indonesia on the third and fourth place of the world's biggest polluters.⁸⁸

One of the activities contributing to deforestation is the cultivation of palm oil. The high price of palm oil provides a rapid growth in areas where it is grown. According to a report by FAO, UNEP and the *UN Forum on Forests*, replacing forests by palm oil plantations significantly contributes to deforestation in some countries.⁸⁹ Nevertheless, extensive plans exist for the expansion of palm production in Indonesia, and Brazil finds itself on the list of countries ready to promote a large-scale production of palm oil.⁹⁰

4.1. A company that is part of the problem: Wilmar

The Singapore-based company Wilmar is one of the biggest players in the Southeast Asian palm oil industry, with a turnover exceeding 5.3 billion US dollars in 2007.⁹¹ In its own words, Wilmar International (part of the larger Wilmar group) is:

- one of the largest plantation owners in Indonesia and Malaysia;
- the largest processor and trader of palm oil in the world;
- the largest producer of biodiesel⁹² from palm in the world.⁹³

In Indonesia, deforestation and peaty soil degradation account for 80% of greenhouse gas emissions.⁹⁴ The country annually loses 4.9 million acres of tropical rain forest, amongst others, for the production of palm oil.⁹⁵ Indonesia (43%) and Malaysia (42%) together produce 85% of global palm oil, which means that companies like Wilmar LDT contribute significantly to the climate problem. In addition, a report by Friends of the Earth of 2007 linked Wilmar, amongst other things, to the systematic illegal burning of forests to make way for plantations, a practice banned by the Indonesian government.⁹⁶

The controversial nature of Wilmar made the World Bank decide to suspend the financing of the palm oil industry in September 2009. An internal audit had revealed that financing Wilmar violated the internal procedures and made the trespassing of social and environmental regulations possible.⁹⁷

In addition to applications for cosmetics and food industries, palm oil is also used in the transport sector, due to increased production of biofuels. The growing demand for biofuels leads to more and more land being used for agricultural purposes.

91 Profundo, *Buyers and financiers of the Wilmar Group*, 2007.

92 Banktrack, *A Challenging Climate 2.0*, 2009, p.13.

93 Wilmar International, http://www.wilmar-international.com/about_index.htm, last visit on 18th of May 2010.

94 Banktrack, *A Challenging Climate 2.0*, 2009, p.13.

95 Danielsen et al, "Biofuel Plantations on Forested Lands: Double Jeopardy for Biodiversity and Climate", *Conservation Biology*, April 2009, p.2, available on <http://www.worldwildlife.org/who/media/press/2008/WWFBinaryitem10887.pdf>; last visit on 18th of May 2010.

96 Milieudéfense, Lembaga Gemawan & KONTAK, *Policy, practice, pride and prejudice*, 2007.

97 Mongabay.com: http://news.mongabay.com/2009/0909-palm_oil_ifc.html, last visit on 18th of May 2010.

84 UNEP, FAO, UNFF. *Vital forest graphics*, 2009, p.10,43.

85 BankTrack, *A Challenging Climate 2.0*, 2009, p.13.

86 Other products besides palm and meat that have a major share in deforestation are: logging, soy culture and biofuels. See for example. Global Canopy Foundation, *Global Forest Footprints*, 2009.

87 UNEP, FAO, UNFF. *Vital forest graphics*, 2009, p.57.

88 Banktrack, *A Challenging Climate 2.0*, 2009, p.13.

89 UNEP, FAO, UNFF. *Vital forest graphics*, 2009, p.22.

90 Global Canopy Foundation, *Global Forest Footprints*, 2009, p.24.

CHAPTER 3 | FINANCING AND INVESTMENTS IN A NUTSHELL

According to the *International Energy Agency*, replacing 10% of transport fuel with biofuels by 2020 requires an area of land equal to the equivalent of 43% of the current agricultural acreage in the US and 38% of the EU's. To meet this demand without affecting the global food supply, natural ecosystems such as forests will have to be used. Concerns about climate change have led to an increased focus on renewable energy sources such as biofuels. Yet, the CO₂ emissions associated with deforestation is greater than the emissions spared by the use of biofuels from agricultural crops.⁹⁸

Wilmar International

The Wilmar Group was founded in Singapore in 1991 and is now one of the largest palm oil producers in Asia. The Wilmar Group also owns many oil palm plantations. In 2008, Wilmar owned 551,000 acres of oil palm plantations, of which 397,357 acres in Indonesia. The company behind the group is Wilmar International in Singapore. Since July 2006, Wilmar has grown thanks to various mergers and acquisitions. The impact is a fivefold increase in turnover from 5 billion US dollars in 2005 to 29 billion US dollars in 2008 and a tenfold increase in net profits from 105 million US dollars in 2005 to 1.5 billion US dollars in 2008.⁹⁹

4.2. Banks financing the problem

Shares

In November 2009, the following two banks owned or operated the following equity interests in Wilmar:¹⁰⁰

Deutsche Bank	0.1 %	€ 26.1 mln
AXA	0.1 %	€ 15.4 mln

Credit loans

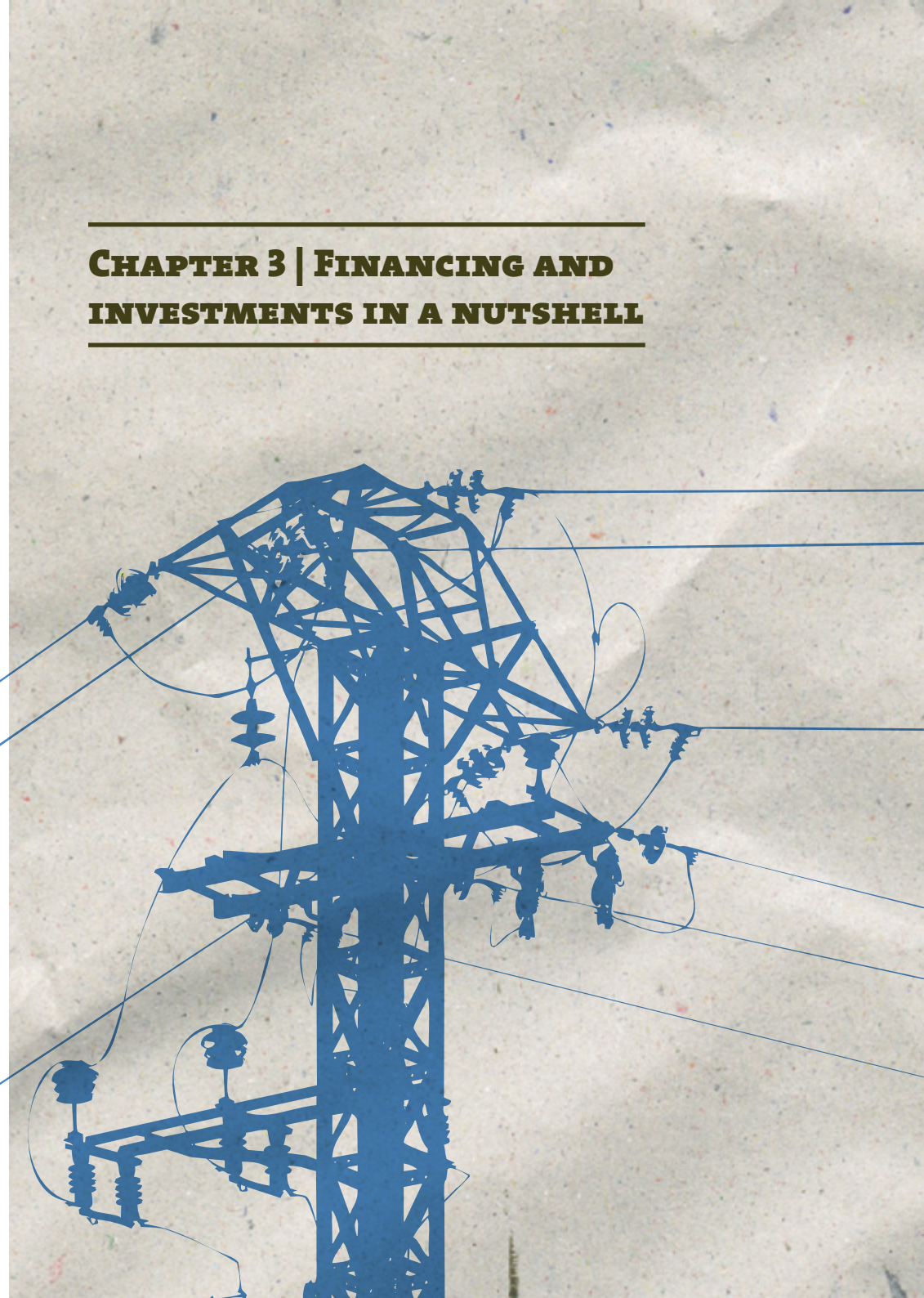
In April 2008, a bank syndicate of four banks issued a credit loan of € 400 million to Wilmar International. **ING** participated to this loan for an amount of € 100 million.¹⁰¹

98 UNEP, FAO, UNPF, *Vital forest graphics*, 2009, p.30.

99 Profundo, *Financing of coal mining by Belgian banks*, 2010, p.44.

100 Thomson ONE Database, consulted in March 2010.

101 Wilmar International, "US\$400,000,000 Unsecured 3-Year Revolving Loan Facility", Singapore, 15 th of April 2008; Thomson ONE database, consulted in February 2009.



CHAPTER 3 | FINANCING AND INVESTMENTS IN A NUTSHELL

1. The involvement of Belgian banks in climate-damaging companies¹⁰²

1.1. AXA

AXA is neither involved in loan credits nor as an *investment banker* for issuances of shares or bonds by the surveyed companies. The reason for this is that AXA is not involved in these activities but focuses on insurances and asset management.

AXA has equity interests or owns or operates bonds of five companies surveyed, for a total of € 2.785 billion.

Table 7 Investments by AXA in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	689.1					689.1
RWE	320.8					320.8
Shell	1,331.5	19.0				1,350.5
Suncor Energy	352.4	56.8				409.2
Vattenfall						0.0
Wilmar International	15.4					15.4
Total	2,709.2	75.8	0.0	0.0	0.0	2,785.0

1.2. BNP Paribas

BNP Paribas has equity interests or owns or operates bonds of three examined companies, for a total of € 820.2 million. Via investment banking, the bank also provided services to six of the surveyed companies for € 4.1029 billion and provided credit loans to four companies for € 2.503 billion. The bank thus plays a major role in funding the climate-damaging companies included in this study.

Table 8 Investments by BNP Paribas in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	267.2	58.7	1,136.0		1,506.0	2,967.9
RWE	70.4	48.6	946.0		579.0	1,644.0
Shell	356.3	19.0			399.0	774.3
Suncor Energy			165.0		301.9	466.9
Vattenfall			256.0		1,317.0	1,573.0
Wilmar International						-
Total	693.9	126.3	2,503.0	0.0	4,102.9	7,426.1

1.3. Citigroup

Citigroup plays a role through credit loans and investment banking: the bank issued loans amounting to € 1.527 billion to four companies and was involved in the issuance of bonds by three companies for an amount of € 1.3492 billion.

Table 9 Investments by Citigroup in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON			1,136.0		474.0	1,610.0
RWE			46.0			46.0
Shell						-
Suncor Energy			89.0		225.2	314.2
Vattenfall			256.0		650.0	906.0
Wilmar International						-
Total	-	-	1,527.0	-	1,349.2	2,876.2

1.4. Deutsche Bank

Deutsche Bank is involved through the asset management for four examined companies for a total sum of € 2678.1 million. In addition, it provided a credit of € 1.563 billion to four companies and was involved in the issuance of bonds of five companies for an amount of € 5.6959 billion.

¹⁰² Profundo, *Financing of coal mining by Belgian banks*, 2010, pp.32-34.

Table 10 Investments by Deutsche Bank in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	1,145.8	150.1	1,136.0		796.0	3,227.9
RWE	675.4	36.5	46.0		2,500.0	3,257.9
Shell	598.1	39.0			1,499.0	2,136.1
Suncor Energy		7.1	125.0		250.9	383.0
Vattenfall			256.0		650.0	906.0
Wilmar International	26.1					26.1
Total	2,445.4	232.7	1,563.0	-	5,695.9	9,937.0

1.5. Dexia

Dexia plays a rather minor role: it is only involved through the possession or control of shares in E.ON, RWE and Shell, for a total of € 175.3 million.

Table 11 Investments by Dexia in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	57.8					57.8
RWE	38.0					38.0
Shell	79.5					79.5
Suncor Energy						-
Vattenfall						-
Wilmar International						-
Total	175.3	-	-	-	-	175.3

1.6. ING

In recent years, ING gave loans to Wilmar for € 100 million, had stocks and bonds in possession or control of E.ON, Shell and Suncor Energy for a total of € 357.9 million and was involved in the issuance of bonds of E.ON for an amount of € 1 billion.

Table 12 Investments by ING in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	85.7	35.9			1,000.0	1,121.6
RWE						-
Shell	149.9	58.0				207.9
Suncor Energy		28.4				28.4
Vattenfall						-
Wilmar International			100.0			100.0
Total	235.6	122.3	100.0	-	1,000.0	1,457.9

1.7. KBC

KBC also plays a rather minor role and was only involved in the asset management of E.ON, RWE, Shell and Vattenfall, for a total of € 111.3 million.

Table 13 Investments by KBC in 2008-09 (in million €)

Company	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
E.ON	61.9					61.9
RWE	23.6					23.6
Shell		19.0				19.0
Suncor Energy						-
Vattenfall		6.8				6.8
Wilmar International						-
Total	85.5	25.8	-	-	-	111.3

2. Belgium's largest investors in climate-damaging companies and coal mining¹⁰³

Table 13 ranks the surveyed Belgian banks according to their global financial involvement in the six climate-damaging companies. The total investment of the surveyed banks in the six companies in 2008 and 2009 amounts to a total of € 24.8 billion.

Table 14 Belgian investors of climate-damaging businesses in 2008-09 (in million €)

Investors	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
Deutsche Bank	2,445.4	232.7	1,563.0	-	5,695.9	9,937.0
BNP Paribas	693.9	126.3	2,503.0	-	4,102.9	7,426.1
Citigroup	-	-	1,527.0	-	1,349.2	2,876.2
AXA	2,709.2	75.8	-	-	-	2,785.0
ING	235.6	122.3	100.0	-	1,000.0	1,457.9
Dexia	175.3	-	-	-	-	175.3
KBC	85.5	25.8	-	-	-	111.3
Triodos	-	-	-	-	-	-
Total	6,334.9	582.9	5,693.0	-	12,148.0	24,768.8

Table 14 summarizes the total investment by Belgian banks in 2008 and 2009 in the sector of coal mining. The total amounts to nearly € 3.2 billion. Most investments were made through the possession or control of shares and by helping companies to issue bonds.

Table 15 Largest investors in coal mining in 2008-2009 (in million €)

Investors	Shares in possession or control	Bonds in possession or control	Credit loan	Issuance of shares	Issuance of bonds	Total investment
Deutsche Bank	267.0	21.1	14.1	332.6	410.2	757.5
BNP Paribas	298.2	7.0	98.3	18.9	308.7	731.1
AXA	617.1	61.8	-	-	-	679.0
ING	161.0	57.9	70.0	309.7	44.9	543.8
Citigroup	48.0	9.3	8.3	90.3	243.3	399.1
Dexia	25.0	-	-	-	-	25.0
KBC	-	5.7	18.3	-	-	24.0
Triodos	-	-	-	-	-	-
Total	1,416.3	162.9	208.9	751.4	1,007.1	3,159.5

3. Conclusion

Based on this study, Deutsche Bank appears to be the absolute largest investor in the surveyed companies in 2008 and 2009. This is mainly due to the large financial commitment from Deutsche Bank in the German energy companies E.ON and RWE. Since coal-fired plants constitute a major part of the portfolio of these energy giants, we can say that Deutsche Bank significantly contributes to global warming through these investments.

If we weigh the relative financial interest of coal mining in the sector and in the six investigated climate-damaging companies, BNP Paribas comes out as the most important bank in the study: it was financially involved in almost all surveyed firms and invested globally the largest amount in companies with a high carbon footprint over the past two years.

We can conclude that all the examined banks, except Triodos, were involved financially in several companies during the last two years and thus contributed financially to global warming.



CHAPTER 4 | FROM CLIMATE-DAMAGING TO GREEN BANKING

CHAPTER 4 | FROM CLIMATE-DAMAGING TO GREEN BANKING

Banks believe in the fight against global warming: a number of statements and initiatives of the banks are discussed in section 5. But despite the green intentions and ditto investments of a large number of banks, practices and projects that are proven to have a disproportionately negative impact on the climate are still funded with our savings and investments. Netwerk Vlaanderen, Bond Beter Leefmilieu, Greenpeace, Friends of the Earth and WWF regret this. The funding is a crucial stage for the liveability of a project or activity. Banks have a major impact on the direction the economy evolves to through their investment choices. This power also implies great responsibility. Financial institutions should therefore refuse certain investments and withdraw from industries and businesses that have a substantially negative impact on the climate. Banks can also drastically reduce the climate impact of all their loans and investments. Finally, a positive contribution by the banks to the climate problem implies that they proactively support a rapid transition to an economy with little or no CO₂ emissions.

In short, a bank that is serious about its fight against climate change should:¹⁰⁴

1. **make an end to the support of activities that have a harmful impact on climate change;**
2. **reduce the climate impact of all investments;**
3. **finance the transition to an economy with little or no CO₂ emissions;**
4. **neither invest in nor promote false solutions to the climate problem;**
5. **put transparency into practice.**

The campaign requirements of Netwerk Vlaanderen, Bond Beter Leefmilieu, Greenpeace, Friends of the Earth and WWF are explained and illustrated hereafter with positive examples from home and abroad.

¹⁰⁴ The recommendations are based on the collective position of the BankTrack-network members, as formulated in December 2009.

1. Put an end to supporting activities that have a harmful impact on climate change

First, banks should take measures to stop financing all activities and projects that substantially contribute to climate change. Investments in new coal plants, which will set the economy on an environmentally destructive path over the next four decades, polluting oil extraction from tar sands and the funding of large-scale deforestation are not compatible with CO₂ emission reductions seen as necessary by science and politics.

We therefore call on banks to firstly:

- **stop the investments and other financial services to new coal-fired power plants;**
- **stop the investments and other financial services to new coal extraction, the extraction of tar sands and practices causing massive deforestation;**
- **stop the investments and other financial services to the most hazardous and least efficient practices in other greenhouse gas-intensive sectors (such as the large-scale agricultural production of feed and the production of vehicles with high emissions).**

What: A policy that keeps off climate-damaging investments

Who: Coop Bank, ASN and Dexia

The British **Co-operative Bank (Coop Bank)** declares that it “will neither finance companies whose primary activity contributes to climate change through the extraction or production of fossil fuels (oil, coal and gas), nor companies distributing very damaging fuels such as oil from tar sands and certain biofuels.”¹⁰⁵

¹⁰⁵ The Co-operative Bank, Our new bank Ethical Policy for 2009, available on <http://www.goodwithmoney.co.uk/ethical-banking/>, visited on the 8th of February 2010.

Algemene Spaarbank Nederland (ASN bank) avoids funding activities that directly or indirectly emit many greenhouse gases, namely:

- electricity generation by lignite, coal, oil or gas;
- activities consuming much fossil energy such as mining, exploration and production of lignite, coal, oil and gas, basic chemicals, basic metals and cement production;
- deforestation;
- agricultural activities that significantly contribute to the emission of greenhouse gases such as deforestation or the depletion of grasslands;
- products that use much fossil energy in their consumption phase: transport by road and air when based on combustion.¹⁰⁶

In Belgium, **Dexia** published *energy sector guidelines*, which set limits on funding in the oil and gas sector or in biofuels, nuclear and thermal power generation. Although it is less extensive than the Coop Bank and ASN, these guidelines still exclude financing and advice to tar sands projects in vulnerable areas, *offshore* projects without a plan for oil spills and oil extraction with a continuous flaring off of gas.

¹⁰⁶ ASN Bank, issue paper on the climate, available on www.asnbank.nl/blob.asp?id=13329, consulted on the 8th of February 2010.

2. Reduce the climate impact of all investments

Besides ending its support for the most environmentally damaging activities, a bank must ensure that its contribution to climate change through its remaining activities and portfolios is drastically reduced. The emission of greenhouse gases must be reduced in all the economic sectors. Banks can reduce the CO₂ emissions of their investments even more by excluding the least climate friendly and least energy-efficient companies and by offering customers *incentives* to make efforts for reducing greenhouse gases. To this purpose, banks can formulate verifiable and explicit goals for reducing the CO₂ content for the entire bank portfolio.

We therefore call on banks to do the following:

- **Evaluate and report greenhouse gas emissions associated with all loans, investments and other financial services.**
- **Set sufficiently ambitious targets for reducing greenhouse gas emissions in line with scientific knowledge.**

What: Reduction targets

Who: Dexia

Some financial institutions have already adopted emission reduction targets for their investment portfolio or financing to particular sectors. In this way, Dexia is determined to maintain the carbon intensity of its portfolio of projects for electricity or heat production 30% lower than what the International Energy Agency (IEA) targets, and to make it drop by 3.5% each year. The purpose is to evolve from 0.35 tons to 0.31 tons of CO₂ per MWh of electricity produced during the coming years.¹⁰⁷

¹⁰⁷ Dexia, Duurzaamheidsverslag, 2009.

3. Finance the transition to an economy with little or no CO₂ emissions

We need worldwide investments in the transformation of the economy to avoid a dangerous climate change. The total annual investment required to stay under a 2 degrees warm-up are estimated between 500 billion and 1 trillion US dollars till 2030.¹⁰⁸ This corresponds to approximately 0.1% of the total value of all financial assets and approximately 0.23% of the total value of bonds and equities. This is a feasible level, although well above the current level of investment.¹⁰⁹ The expansion of infrastructure for renewable energy alone needs an annual 100 billion US dollars.¹¹⁰ Doing nothing will, however, cost much more: in 2006, Stern calculated that the costs to combat climate change may reach 5 to 20% of the worldwide GDP.¹¹¹

Financial institutions should not only stop investing in climate-damaging activities, they also play an important role in financing the transition to a climate-friendly society. This is possible by offering low interest rates to the truly green sectors and increase support for the development and use of climate friendly technologies and production processes.

A good bank policy on climate will continue stimulating financial products that encourage green choices. An advantageous credit loan for an economical car, an insurance policy that favours reduced use or a fund that finances real climate solutions, all these products can help the customer make environment-friendly choices. By reducing the customer's energy bill, the bank's risk of non repayment of the loan is also smaller.

¹⁰⁸ IEA, *World Energy Outlook*, press release, 2009.

¹⁰⁹ UNEPFI, "World's largest investors urge prompt action on climate change policies", press release, 14th of January, 2010.

¹¹⁰ Ballesteros A.R., J. Coequyt, et al, *Futu[r]e Investment: A Sustainable Investment Plan for the Power Sector to Save the Climate*, at 10 (European Renewable Energy Council and Greenpeace International), 2007.

¹¹¹ Stern, Nicholas, *Stern Review Report on the Economics of Climate Change*, executive summary (full), p.10, beschikbaar op http://www.hm-treasury.gov.uk/stern_review_report.htm, last visited on the 17th of May 2010.

We therefore ask the banks to:

- **increase their support for greenhouse reducing technology, renewable energy and energy efficiency.** Amongst others, investments in the following technologies advance the sustainability and should increase sharply:¹¹² energy efficiency, wind energy, solar energy, geothermy, cogeneration, wave power and CCGTs.
- **develop products and services to help customers to contribute their part in tackling climate change.**

What: A more ambitious banking strategy

Who: Triodos in Belgium and ASN in the Netherlands

Triodos Bank and Algemene Spaarbank Nederland make it clear in their investment policy that funding alternatives to global warming is a priority. Not only do they choose to initially invest in companies that opt for alternatives in the long term, they also exclude the biggest polluters from funding. In that way, they work on a significant cut in the CO₂ content of their investment portfolio.

What: Financing large-scale Green Energy Projects

Who: Dexia

In our own country, banks such as Dexia prove that where there is a will there is a way. Dexia finances the wind energy off the Belgian coast by funding wind farms of C-Power, Belwind and Eldepasco. There are now six wind turbines in the C-Power farm. This is an investment of 150 million euro. In total 800 million euro would be invested to reach a park with 60 wind turbines. C-Power would thus provide 1% of the Belgian electricity production. Belwind wants to build 55 wind turbines in two phases, representing an investment of 615 million euro.

4. Do not invest in and do not promote false solutions to the climate problem

Banks must make choices in their investments. If they want to cooperate in keeping climate change under control, banks should not only eliminate the most damaging activities from their investment portfolio. They must also take a critical position towards investing in so-called 'solutions' to climate change. What is proposed as a solution is not always a real solution. A number of technologies are debatable: investing in them is only possible when a series of ecological and social criteria have been met. Other technologies clearly have no lasting effect. These non-sustainable technologies should be excluded from investments. We therefore call on banks not to invest in false solutions for the climate.

Banks must also be very clear to the customer. In response to the increased awareness of the climate problem, several financial institutions launched investments products and other funds that respond to this. Customers who wish to invest in environmental considerations are entitled to fair products. Banks that market funds under the term 'sustainable', 'green' or 'climate friendly' can only do this when this product actually invests in companies that are environmental pioneers and do not develop climate-damaging activities. The report *Beleggers op hete kolen* from 2008 by Netwerk Vlaanderen, together with Friends of the Earth, Greenpeace, WWF and BBL showed that a number of funds on the market do not meet conditions to be called 'climate fund' or 'green'. We therefore ask banks not to mislead consumers by setting up 'polluting' green funds.

We call on banks:

- **not to invest in false solutions like nuclear power, large-scale production of biofuels with a negative carbon balance and other negative environmental effects and large-scale hydropower.**
- **not to greenwash or mislead their consumers by including companies with a negative environmental impact, who are supposedly better than their peers, in 'green' funds.**

¹¹² Netwerk Vlaanderen, *Beleggers op hete kolen*, May 2008, pp. 7-8.

Questionable technologies: these technologies cannot be invested in, unless strict conditions are met.¹¹³

Natural gas

As an energy source, natural gas has a CO₂ balance that is only half that of coal. Natural gas may be part of a medium term solution. A number of modern conventional coal power plants can easily be adapted to switch to other fuels, including natural gas. This switch from coal to natural gas provides an immediate reduction of CO₂, thus freeing time to invest in sustainable solutions to eliminate CO₂ emissions completely. Natural gas should not be seen as a long term solution, nor should it delay the search for long-lasting solutions.

Biofuels

Since biofuels and individual commodities have divergent impacts on the climate and varying social and environmental consequences, banks should make any funding of biofuel production depend on an independently assessed full life cycle carbon balance that also takes the indirect impact on land into account. Projects should also demonstrate that they do not compete with a more convenient or necessary use of the land by local communities, and that there is no negative impact on food security.

Non-sustainable technologies: technologies that cannot be invested in

*Nuclear energy*¹¹⁴

The disadvantages and negative effects of nuclear energy are incalculable. There is no solution for nuclear waste. Nuclear power causes pollution by the discharge of large quantities of radioactive materials. It is dangerous: the plants themselves as well as the possibility to develop nuclear weapons remain risky. Since securing the entire nuclear risk would increase the cost of nuclear energy by up to 1€ / kWh, the Belgian nuclear power plants are even underinsured. Nuclear power is also expensive: in Belgium, the consumer has paid more than 28 billion euro for the power plants. Stretching the life span of the old nuclear power plants by a few years also hampers the development of renewable energy. Finally, there are problems with uranium mines: indigenous peoples are threatened by the mining of uranium.

*Large-scale hydro-electric power stations*¹¹⁵

Hydropower is often seen as an energy source that emits almost no greenhouse gases. There is, however, a growing evidence that the decay of organic matter in large tropical reservoirs is an important emitter of CO₂ and methane. Moreover, large hydro-electric power plants often cause serious environmental, social and economic problems. Between 40 and 80 million people worldwide were forced to move for the construction of such plants.

¹¹³ Netwerk Vlaanderen, *Beleggers op hete kolen*, May 2008, pp. 9-11.
¹¹⁴ Netwerk Vlaanderen, *Beleggers op hete kolen*, May 2008, p.14.

¹¹⁵ Banktrack, *A Challenging Climate 2.0*, position paper, 2009, p. 25.

5. Be transparent and report

A final important element in an appropriate climate policy for financial institutions is the transparency and reporting. Banks communicate in an open and detailed manner about:

- sectors, projects and companies that they exclude from financial services and investments. Those sectors and companies should be provided with a clear description, together with a blacklist of names of governments, enterprises and projects which can be consulted publicly;
- sectors, projects and companies in which they invest beneficially and proactively. An exemplary approach with some mediagenic project financing is not sufficient. The financial institution should make the entire climate-friendly investment portfolio public. In this way, the customers and society can trace where the money for the transition to a green economy comes from and whether their financial institution is contributing. The financial institutions can then, at the same time, be compared in order to assess their commitment in terms of climate-friendly investments;
- the annual reduction targets for financed greenhouse gas emissions. These should be evaluated and published openly. The reductions actually achieved by a financial institution in its financed emissions should be measured annually in order to make up a report. The results should be verified and approved by an independent auditor.

Based on these reports, a public discussion can be held on which financial institutions have the best approach. This is the only way the bank customer is able to make an informed choice and he knows how his savings he entrusts his bank with are used.

CHAPTER 5 | WHAT IS HAPPENING TODAY?



1. Public statements

Financial institutions increasingly come forward to stress the importance of the fight against climate change. During the past year, various coalitions of investors made themselves heard with progressive positions. In this way, there is the 2009 *Investor Statement on the Urgent Need for a Global Agreement on Climate Change*, which, as the name states, calls governments to work towards an ambitious and binding climate agreement in Copenhagen.

In the statement that followed, the 2010 *Investor Statement on Catalyzing Investment in a Low-Carbon Economy*, drawn up after the Copenhagen summit, the same platform again expressed its concerns. Investors believe that a legally binding climate agreement determining the long-term reduction targets for greenhouse gases is necessary. This agreement should also provide targets for forest protection, the absorption of the effects of climate change and technology transfer. The investors agree with the scientific reduction targets proposed by the IPCC. For the wealthy countries, this means a reduction in greenhouse gas emissions of 25-40% by 2020 and of 80-95% by 2050.

The statement was endorsed by four networks in the financial sector, representing 13 trillion US dollars, particularly the *Institutional Investors Group on Climate Change* (IIGCC) of which BNP Paribas Asset Management is a part, the *Investor Network on Climate Risk*, the *Investor Group on Climate Change* (IGCC) and finally the *UNEP Initiative*, which includes members like AXA, Citigroup, Deutsche Bank, Dexia and ING.

2. Bank products that reward climate-friendly behaviour¹¹⁶

Now that banks are convinced of the climate problem, they can encourage green investments and climate-saving behaviour by giving advice and selling the appropriate products to customers such as governments, businesses and individuals. We here give an overview of some green banking products already available on the Belgian market.

What: Climate-friendly savings

Who: Triodos and 'Krekelsparen' at BNP Paribas

Our savings are not dormant at the bank. They offer our banks extra credit opportunities. Some banking groups use the savings received to deal with global warming.

Triodos Bank, for example, suggests that 66% of its Belgian loan portfolio is placed in the 'nature and environment' sector.¹¹⁷ Triodos also uses criteria which exclude the savings (and other money invested by Triodos) being invested in companies and activities that are harmful to the environment and/or the climate. Companies and activities that thus cause serious environmental damage are excluded from funding. Likewise, companies involved in nuclear energy, large-scale agriculture, etc. are not eligible for funding.¹¹⁸

The savings product 'Krekelsparen' of BNP Paribas preferably invests in a range of social and/or ecological projects and businesses. The product also makes use of exclusion criteria to avoid environmentally damaging investments. The savings money of the 'Krekelsparen' accounts are not allowed to be used to finance companies involved in nuclear energy, fossil fuels and the production of controversial biofuels. Large scale projects with a significant negative impact on the environment, such as mining and hydropower plants are also excluded from funding.¹¹⁹

¹¹⁶ This chapter is largely based on the answers of financial institutions surveyed in this report to a survey by Netwerk Vlaanderen in December 2009 and January/ February 2010. These are: BNP Paribas (answer to Netwerk Vlaanderen on December 21, 2009 and February 3, 2010), KBC Bank (answer to Netwerk Vlaanderen on December 30, 2009 and February 2, 2010), AXA (answer to Netwerk Vlaanderen on December 28, 2009 and February 5 2010), Dexia Bank (answer to Netwerk Vlaanderen on January 12 and February 5, 2010), ING (answer to Netwerk Vlaanderen on January 14 and February 8, 2010). Deutsche Bank and Citibank did not participate in this survey. No examples have therefore been included for these institutions.

¹¹⁷ Triodos Bank: as an answer to Netwerk Vlaanderen, 27th of January 2010.

¹¹⁸ Triodos Bank: http://www.triodos.be/be/static/pdf/benl_investmentcriteria.pdf, last visit on 18th of May 2010.

¹¹⁹ BNP Paribas: in accordance with the *Krekelspaarovereenkomst*, with, amongst others, Netwerk Vlaanderen.

What: Climate-friendly investment products

Who: Triodos Bank and most large banks

A better example of 'green' investment products are the investment funds offered by Triodos Bank. These funds give priority to companies with more than 50% of their activities in environmental technology, renewable energy, organic farming and responsible health care. Moreover, firms in the investment funds of Triodos Bank are also selected based on negative social and environmental criteria. The same exclusion criteria as described in savings products above thus apply.¹²⁰

In addition to this, most large banks such as AXA, BNP Paribas, Dexia, ING and KBC offer green, sustainable or climate-friendly investment products. These are usually investment funds or structured products. They invest in securities of companies and/or governments that are selected based on ecological criteria. Whether an activity is environmentally friendly or not is determined by the product developers themselves. Some automatically exclude companies involved in tar sands, coal, oil and gas or nuclear energy, others do not or only under certain circumstances. Some products only include companies that have more than 50% of their activities in renewable energy, for others a much smaller share is already enough. Specific to structured products is that most of the money is invested in fixed income securities. This way, only a very small proportion of the funds are invested in environmentally screened companies. Some products do not even invest in them, but simply link the product's proceeds to the screened company's proceeds. Here, green comes very close to *greenwash*.¹²¹

¹²⁰ Triodos Bank: http://www.triodos.be/be/static/pdf/ben_investmentcriteria.pdf, last visit on 18th of May 2010.

¹²¹ For those who want more examples of such investment products can visit the website of Netwerk Vlaanderen where a guide to savings and investment products is available: http://www.netwerkvlaanderen.be/nl/index.php?option=com_content&task=blogcategory&id=34&Itemid=321.

What: Credit loans and audits for energy-saving housing and driving

Who: Nearly all the surveyed banking groups

Cheap green loans for dwellings

The Belgian government accords an interest rebate of 1.5% and a tax reduction for green loans¹²² in private homes. AXA, BNP Paribas, Dexia, ING and KBC offer credit loans eligible for this government benefit. These are home loans and instalment loans. AXA, BNP Paribas and Dexia indicate that they give an interest rebate on top of the government's. BNP Paribas and AXA also offer loans at a reduced rate for green investments that do not meet the governmental criteria. These may include investments for larger amounts, for DIYers and/ or investments which are not 100% 'green'. Triodos Bank specializes in offering a mortgage for passive houses. These are homes that barely require heating installations.

Cheap loans for green business premises and energy audits

Dexia offers a special energy-line for public authorities and the non-profit sector. This energy-line funds the installation of solar panels or cogeneration units with a minimum capacity of 10 kWp through leasing. Dexia links this lease to a service that provides tailored guidance in terms of preliminary studies, performance, installation, inspection, maintenance, etc. The reimbursement is based on the real financial gains derived from the savings and may be eligible for a reduced rate if the investment meets the conditions set by the European Investment Bank. BNP Paribas also proposes an 'A to Z counselling' available for companies with projects of 500kWp or about 15,000 m² roof area.

¹²² The loan is solely to be used to finance the following energy saving expenses: replacement of old boilers, maintenance of the boiler, installation of a system of water heating by solar energy, installation of solar panels for converting solar energy into electrical energy, placement all other equipment for the production of geothermal energy, installation of double glazing, installation of roof, floor and wall insulation, installation of thermostatic valves or a room thermostat with a time switch, implementation of an energy audit. Source: Federal Public Service Finance: <http://minfin.fgov.be/portail2/nl/themes/dwelling/energysaving/green.htm>, last visit on 18th of May 2010.

Green car loans at a reduced rate

In Belgium, 19% of greenhouse gas emissions emanate from road transport.¹²³ BNP Paribas, Dexia, ING and KBC offer green car loans. These are loans for cars belonging to the 'green class' in terms of CO₂ emissions: A, B or C.¹²⁴

BNP Paribas, Dexia, KBC and ING explicitly state that their green car loans enjoy more favourable interest rates than conventional car loans. Dexia states that even vehicles with a thermo-electric motor and vehicles with an LPG installation are eligible. BNP Paribas and Dexia, finally, offer their customers a lease for a greener fleet. For Dexia, greening means: reducing the number of very polluting cars (emissions over 150g/km) and extending (replacing) them by cars with low CO₂ emissions (less than 125g/km). Anyone who wishes to do so can ask Dexia for a preliminary analysis of the CO₂ emissions of the fleet. Employees can also receive a practical training in energy efficient driving.

What: Climate-friendly insurance products

Who: AXA and Dexia

Polluting less = paying less

Some car insurances foresee that those who drive less, pay a lower premium. Logical, because the one who drives less has a reduced risk of being involved in an accident. But there is also an important ecological side: he who drives less pollutes less. AXA (the 'miniKM formula') and Dexia (via Corona Direct) provide a kilometre-variable insurance.

DVV insurances gives a discount of 10% on the car insurance of their policyholders who followed a training in energy efficient driving, and a 20% discount for the accident insurance of cars with low CO₂ emissions.

Human and environmentally-friendly invested insurance reserves

Insurance reserves of insurance products affiliated to Portfolio21, like the kilometre insurance of Corona Direct, are neither invested in companies that cause serious environmental damage and violate standards, nor in companies that do not respect human rights in the workplace as formulated in the basic conventions of the International Labour Organisation.¹²⁵

Free included solar panel insurance

Dexia indicates that for their professional clients, yield loss and sudden material damage to solar panels is included for free in their property and accident insurance. BNP Paribas state that solar panels are insured for free in some of their fire insurances.

¹²³ Federal Public Service Health, Food chain safety and Environment, https://portal.health.fgov.be/portal/page?_pageid=56,3118390&_dad=portal&_schema=PORTAL, last visit on the 18th of May 2010.

¹²⁴ For a petrol car, the CO₂-emission should be less than 160 gr CO₂/km, for diesel cars less than 145 gr CO₂/km. Source: Ecoscore.be: <http://www.ecoscore.be/ecoscore/EcoScoreCO2.asp?Language=NL&vcat=M1&ExtendedSearch=M>, last visit on the 18th of May 2010.

¹²⁵ Portfolio2: <http://www.portfolio21.be/index.asp?LID=1>, visited on the 8th of February 2010.

The climate negotiations in Copenhagen were omnipresent in the media. But they did not lead to a positive result. The conference ended without an internationally binding agreement. First, a global agreement should be reached about the overall emission reduction targets we have to set for greenhouse gases, to stay as far as we can below a climate warm-up of 2 degrees. The industrialized countries should get binding reduction targets in the short and long term imposed on them. In addition, developing countries should be stimulated to grow in a CO₂-poor way. It is important to set a sufficiently high price for pollution, which reflects the human and environmental cost of all greenhouse gases. A sound and predictable price for environmental pollution will help investors a long way in taking decisions that take the long-term and the environmental into account.

Besides legally binding reduction targets and a price for pollution, governments dispose of a wide range of instruments to facilitate green investments. According to Netwerk Vlaanderen, BBL, Greenpeace, Friends of the Earth and WWF, a government has to watch over the finality of its climate policy and then use enough powerful tools to put other social actors in the right direction. More specifically: it is not enough doing 'something' green, such as throwing around grants for green projects here and there. No, with the help of different policy instruments, the government needs to outline an efficient, cost effective and social equitable climate policy, based on a clear long term vision. Thus, various financial instruments need to be deployed such as greening the tax system, with higher charges for pollution and financial and tax incentives for renewable energy, energy efficiency and green technologies. In addition, a regulatory framework should direct the transition to a climate-friendly society. All these measures and a balanced combination of them fall outside the scope of this report.



**CHAPTER 6 | THE GOVERNMENT
CAN DIRECT THE TRANSITION**

Here, it suffices to point out that the government has to:

- develop an ambitious and binding climate agreement on a national and regional level, providing a framework for a fair and substantial annual emission reduction in all sectors;¹²⁶
- create investment protection for green projects and businesses through an appropriate legal framework, a green tax system and financial and tax incentives for green projects and businesses;
- raise the bar in its legislation and standards to get a sharp definition of green products and activities in the various fields and sectors. By for example only allowing passive houses when constructing new houses, or by subjecting household appliances to norms based on the energy consumption. The government can also set the pace by integrating social and sustainable criteria into its tenders;
- set a good example through its own resources, such as pension funds, investing in projects and products that contribute to the transition to an economy with little or no CO₂ emissions. In addition, the government can collect funds on the market and lend them under advantageous green conditions to individuals and companies or provide guarantees for the same loans from financial institutions;
- ensure the transparency of bank investments.

What: A scheme to stimulate projects that have a positive environmental impact

Who: Green project in the Netherlands

This scheme was created to stimulate projects that have a positive impact on the environment. The government encourages such projects, for instance by making the funding of 'green projects' attractive. Since the government gives a tax advantage to 'green' savers and investors, the bank can offer loans with a lower interest rate for sustainably built homes, wind farms or organic farms. At the end of 2008, over 234.000 Dutch had already invested 6.8 billion green euro's, which have funded more than five thousand green projects over the years.¹²⁷

To avoid that everything that goes into in the right direction would be seen as green, the Dutch work with well-defined and strict criteria for the eligible projects.¹²⁸

¹²⁷ Senternovem, sustainability agency of the Dutch ministry of Economy: www.senternovem.nl

¹²⁸ A brief comparison with the situation in Belgium: the scheme approved by Minister Reynders to accord an interest rebate of 1.5% to energy renovations in dwellings, the 'green mortgage', is interesting because of the interest rate advantage, but its scope and effect is much less extensive than the green system in the Netherlands. The situation in which the bank may not grant loans because some administrative work is involved, is not acceptable. The *Fonds ter Reductie van de Globale Energiekosten* ('Global Fund to Reduce Energy Cost'), which accords similar loans with an interest rebate through local entities, is also positive but to a partial step towards advantageous green financing. In many municipalities you cannot yet obtain loans from the fund, and the maximum amount and duration are not very flexible.

¹²⁶ The Big Ask: <http://www.thebigask.eu/news/clientearth-report-the-uk-climate-change-act-2008-2013-lessons-for-national-climate-laws>, last visited on the 18th of May 2010.

What: Product description

Who: the Federal government

The government can encourage green investments by clearly defining what 'green' means. A number of examples in this report clearly show that a distinct governmental definition of 'green' capital goods lead to specific investment formulas. The categorization of CO₂ pollution levels of vehicles has thus made it easier to determine what a 'green car' and a 'green fleet' was, which in turn has given rise to green car loans and/ or green car insurances. It is important that the definition used is strong enough¹²⁹ and that the producers provide correct information about e.g. CO₂ emissions. Likewise, the definition of energy-efficient investments for individuals made green housing loans possible. Of course, the tax advantages coupled to the 'green investment products' also helped. Similarly, it would equally help if there was a minimum norm for what is meant by 'green' or 'climate friendly' savings and investment products. This standard could also be used to define the ethical or sustainable pension savings and in time to replace the existing pension savings (including the tax benefit) by a more sustainable version.

¹²⁹ Other forms of pollution than CO₂, like fine dust and acidic substances, should also be considered. For this, the government can use the Ecoscore for cars: www.ecoscore.be. This score does not merely chart CO₂ emissions.

Terminology

A **revolving credit facility** is a credit loan where the customer pays an amount to use the funds whenever he needs them. The bank guarantees the customer a maximum amount that can be borrowed. During the term the customer can repeatedly take up the amount of the loan wholly or partially. Interest is charged for the outstanding balance of the loan.¹³⁰

The **book runner** leads the security syndicate and regulates the registration, allocation and after-market for all syndicate members.¹³¹

A **syndicate** is a group of bankers, insurers, and so on, working together on a large project. A syndicate only works together temporarily. They are often used for large loans or emission endorsements to reduce the risk that individual companies should take.¹³²

Roll-over credit loan is a very flexible form of credit. It is issued by one or more credit institutions for a limited period, at a rate adjusted periodically according to the contractually agreed schedule and procedures. The roll-over credit loan is accorded for a half-long term (1 to 10 years) and can be taken up in successive short term advances (3 to 6 months) which are renewable until the agreed end date.¹³³

¹³⁰ Investopedia: <http://www.investopedia.com/terms/r/revolvingcredit.asp>, last visited on the 18th of May 2010.
¹³¹ Daily Finance: <http://www.dailyfinance.nl/bookrunner-3416.html>, last visited on the 18th of May 2010.
¹³² Investopedia: <http://www.investopedia.com/terms/s/syndicate.asp>, last visited on the 18th of May 2010.
¹³³ Financial lexicon 2000.

Bibliography

Arch Coal Inc., "EX-10.1" op 10Kwizard.com, consulted in August 2009.

Arch Coal Inc., "Purchase Agreement", Arch Coal, 28th of July 2009.

ASN Bank, climate issue paper, available on www.asnbank.nl/blob.asp?id=13329, consulted on the 8th of February 2010.

Ballesteros A.R., J. Coequyt, et al, *Futu[r]e Investment: A Sustainable Investment Plan for the Power Sector to Save the Climate, at 10* (European Renewable Energy Council and Greenpeace International), 2007.

Banktrack. 2009. *A Challenging Climate 2.0 What banks must do to combat climate change. Updated position paper Copenhagen edition December 2009*, 2009, beschikbaar op: http://www.banktrack.org/download/a_challenging_climate_2_o_what_banks_must_do_to_combat_climate_change/091210_banktrack_climate_paper.pdf, last visited on 18th of May 2010.

Bloomberg Database: www.bloomberg.com

Bund, *Geplante und im bau befindliche Kohlekraftwerke. Stand: November 2009*, 2009, available on http://www.bund.net/fileadmin/bundnet/pdfs/klima_und_energie/2009118_klima_liste_kokw_verfahrensstand.pdf, last visited on 18th of May 2010.

Businessweek, "Arch Coal INC", Snapshot, *Investing Businessweek*, consulted in January 2010.

Daily Finance: www.dailyfinance.nl, last visited on 18th of May 2010.

Danielsen, Finn et al. *Biofuel Plantations on Forested Lands: Double Jeopardy for Biodiversity and Climate, Conservation Biology, Volume 23, Number 2, April 2009*, pp. 348-358(11). available on <http://www.worldwildlife.org/who/media/press/2008/WWFBinaryitem10887.pdf>; last visited on 18th of May 2010.

Dexia, *Duurzaamheidsverslag*, 2009.

Ecoscore: <http://www.ecoscore.be/ecoscore/EcoScoreCO2.asp?Language=NL&vcat=M1&ExtendedSearch=M>, last visited on 18th of May 2010.

European Commission: http://ec.europa.eu/environment/climat/climate_action.htm, last visited on 22nd of May 2010. 20-20-20 goals.

Federal Public Service Finance: <http://minfin.fgov.be/portail2/nl/themes/dwelling/energysaving/green.htm>, last visited on 18th of May 2010.

Federal Public Service Health, Food chain safety and Environment: https://portal.health.fgov.be/portal/page?_pageid=56,3118390&_dad=portal&_schema=PORTAL, last visited on 18th of May 2010.

Food and Agriculture Organization for the United Nations: <http://www.fao.org/climatechange/53244/en/>, last visited on 22nd of May 2010, UN-REDD programme Indonesia.

Friends of the Earth, *A dangerous obsession – the evidence against carbon trading and for solutions to avoid a climate crunch*, 2009, author: Sarah-Jayne Clifton, available on http://www.foe.co.uk/resource/reports/dangerous_obsession.pdf, last visited on 22nd of May 2010.

Global Canopy Foundation, *Global Forest Footprints. How businesses around the world contribute to deforestation – the risks of inaction and the opportunity for change*, 2009, available on <http://www.forestdisclosure.com/docs/FFD-Global-Forest-Footprints-Report.pdf>, last visited on 18th of May 2010.

Government of Alberta, *Alberta's oil sands: the resource*, available on http://www.oilsands.alberta.ca/documents/The_resource.pdf, last visited on 18th of May 2010.

Greenpeace, *De wereld achter kolenstroom*, pp.15-17, available on <http://www.greenpeace.org/raw/content/nederland-old/reports/de-wereld-achter-kolenstroom.pdf>, last visited on 17th of May 2010.

Greenpeace Canada: <http://www.greenpeace.org/canada/en/campaigns/tarsands>, last visited on 18th of May 2010.

Hansen, James, "Coal-fired power plants are death factories. Close them", *The Observer*, 15th of February 2009.

IEA, *CO2 emissions from fuel combustion*, 2009.

IEA, *Key World Energy Statistics*, 2009.

IEA, *World Energy Outlook*, 2009.

IEA, *World Energy Outlook*, press release, 2009.

Industrial Info Resources, "Banks Pull Funding for German Coal-Fired Power Plant", *Industrial Info Resources*, 25th of August 2009, available on www.industrialinfo.eu/?newsitemID=149523, last visited on 18th of May 2010.

Institutional Investors Group on Climate Change (IIGCC), the Investor Network on Climate Risk (INCR), the Investor Group on Climate Change/Australia and New Zealand (IGCC) Australia/New Zealand) and the UNEP Finance Initiative (UNEP FI). 2009, *Investor Statement on the Urgent Need for a Global Agreement on Climate Change*, 2009, available on www.ceres.org/Document.Doc?id=495, last visited on 18th of May 2010.

Intergovernmental Panel on Climate Change (IPCC), *Climate change 2007: synthesis report.*, available on http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html, last visited on 18th of May 2010.

International Financing Review, "Energy in the market", 17th of January 2009.

International Financing Review, "Germany: Ja, we can", *International Financing Review*, 22nd of November 2008, available (after subscription) on www.ifre.com

International Financing Review, "The Milkybar Kid is tough and strong", *International Financing Review*, 15th of November 2008, available (after subscription) on www.ifre.com

Investopedia: www.investopedia.com, last visited on 18th of May 2010.

Le Page, Michael, *Climate change: A guide for the perplexed*, 2007, available on www.newscientist.com/article/dn11462, last visited on 25th of May 2010.

McKinsey&Company, *Naar een energie-efficiëntie van wereldklasse in België*, 2009.

Milieudefensie, Lembaga Gemawan & KONTAK, *Policy, practice, pride and prejudice*, available on

http://www.foeeurope.org/publications/2007/Wilmar_Palm_Oil_Environmental_Social_Impact.pdf, press release, 2007, last visited on 18th of May 2010.

MIRA-T, Achtergronddocument klimaatverandering, 2008.

Mongabay.com: http://news.mongabay.com/2009/0909-palm_oil_ifc.html, last visited on 18th of May 2010.

National Mining Association (U.S.A.), *2008 Coal Producers Survey*, 2009.

Netwerk Vlaanderen, *Beleggers op hete kolen*, May 2008, authors: Bram Claeys, Anton Gerits et al, available on <http://www.netwerkvlaanderen.be/nl/files/documenten/publicaties/dossiers/klimaatdossier.pdf>

Netwerk Vlaanderen, *Duurzame Wegwijzer*, available on http://www.netwerkvlaanderen.be/nl/index.php?option=com_content&task=blogcategory&id=34&Itemid=321.

Palmer, M.A. et al., "Mountaintop Mining Consequences", *Science*, 8th of January 2010, Vol. 327.

Petro-Canada, *Annual Report 2008*, March 2009.

Platform, *Cashing in on Coal - RBS, UK Banks and the Global Coal Industry*, 2008, available on <http://www.oyalbankofscotland.com/cioc/pdf/cashinginoncoal.pdf>, last visited on the 17th of May 2010.

Platform, *Cashing in on Tar Sands*, 2010, available on <http://platformlondon.org/files/cashinginontarsandsweb.pdf>, last visited on 18th of May 2010.

Portfolio21: <http://www.portfolio21.be/index.asp?LID=1>, visited on the 8th of February 2010.

Profundo, *Buyers and financiers of the Wilmar Group*. A research paper prepared for Milieudefensie (Friends of the Earth Netherlands), 2007, author: Jan Willem van Gelder.

Profundo, *Financing of coal mining by Belgian banks*, 2010.

Project Finance International, "Coal power news", *Project Finance International*, 23rd of July 2008, available (after subscription) on www.pfi.com

Project Finance Magazine, "GKM closes thermal power debt", *Project Finance Magazine*, 3rd of March 2010.

Rainforest Action Network (RAN), *Financing global warming: Canadian banks and fossil fuels*, 2008.

RWE, "€ 20,000,000,000 Debt Issuance Programme Prospectus", RWE, 2008.

Senternovem, sustainability agency of the Dutch ministry of Economy: www.senternovem.nl

Shell: http://www.shell.ca/home/content/can-en/aboutshell/our_business/oil_sands/, last visited on 18th of May 2010.

SOMO, Climate Greenwash website 2009: <http://www.climategreenwash.org>.

SOMO. 2009. *Sustainability in the Dutch Power Sector – 2009 Update*, Authors: Joseph Wilde-Ramsing, Tim Steinweg, Maaïke Kokke, available on http://somo.nl/publications-nl/Publication_3247-nl/, last visited on the 18th of May 2010.

SOMO. 2008. *Sustainability in the Dutch Power Sector*, Authors: Joseph Wilde-Ramsing, Tim Steinweg, Maaïke Kokke, available on http://somo.nl/publications-nl/Publication_2673-nl/?searchterm=, last visited on 18th of May 2010.

Stern, Nicholas, *Stern Review Report on the Economics of Climate Change*, available on http://www.hm-treasury.gov.uk/stern_review_report.htm, last visited on 17th of May 2010.

Suncor: www.suncor.com, last visited on 17th of May 2010.

Suncor Energy, "Suncor Energy Prices US\$ 2 Billion Debt Issue", press release, Calgary, 3rd of June 2008.

Suncor Energy, *Prospectus Supplement*, Calgary, 3rd of June 2008.

The Big Ask: <http://www.thebigask.eu/news/clientearth-report-the-uk-climate-change-act-2008-2013-lessons-for-national-climate-laws>, last visited on 18th of May 2010.

The Co-operative Bank, *Our new bank Ethical Policy for 2009*, available on <http://www.goodwithmoney.co.uk/ethical-banking/>, visited on the 8th of February 2010.

The Co-operative financial services en WWF UK, *Carbon capture and storage in the Alberta tar sands – a dangerous myth*, 2009.

Thomson ONE Database: www.thomsonone.com

Thomson One Banker Database: <http://banker.thomsonib.com>

Triodos Bank: http://www.triodos.be/be/static/pdf/benl_investmentcriteria.pdf, last visited on 18th of May 2010.

UNEP, *Global Environmental Outlook 2000*, 1999, available on <http://www.unep.org/geo/geo2000/>, last visited on 25th of May 2010.

UNEP, FAO, UNFF. *Vital forest graphics*, 2009, available on http://www.grida.no/_res/site/file/publications/vital_forest_graphics.pdf, last visited on 18th of May 2010.

UNEPFI, "World's largest investors urge prompt action on climate change policies", persbericht 14 januari, 2010.

U.S. Energy Information Administration (EIA). 2009, May. *International Energy Outlook 2009*, chapter 5 – "Electricity", available on <http://www.eia.doe.gov/oiaf/ieo/electricity.html>, last visited on 22th of May 2010.

Van Hasselt, Caroline, *The Wall Street Journal*, 3rd of March 2010.

Wereldbank, *World Development Report 2010*.

Wilmar International: http://www.wilmar-international.com/about_index.htm, last visited on 18th of May 2010.

Wilmar International, "US\$400,000,000 Unsecured 3-Year Revolving Loan Facility", Singapore, 15th of April 2008.

World Coal Institute: www.worldcoal.org

WWF, *Climate change: faster, sooner, stronger*, 2008, available on http://assets.panda.org/downloads/wwf_science_paper_october_2008.pdf, last visited on 17th of May 2010.

APPENDIX 1.34 | LIMITATIVE LIST OF NEW COAL PLANTS IN EUROPE

	MS	Proposal, location	Investor	Fuel	Capacity	Status
1	BE	Antwerp Docks	E.ON	coal	1100	applied
2	BG	Maritza Iztok-1	AES (US)	lignite	670	construction
3	BG	Maritza Iztok-3 new unit	ENEL-NEK JV	lignite	640	proposed
4	BG	Maritza Iztok-4	RWE-MBM JV	lignite	700	proposed
5	BG	Lom	Enemona	lignite	500	proposed
6	CZ	Komorany EK III	United Energy	coal	160	construction
7	CZ	Ledvice	CEZ	coal	660	construction
8	CZ	Frnerov	CEZ	coal	750	proposed
9	CZ	Kladno	KEB	coal	135	proposed
10	CZ	Most	E.ON / CZ Coal	coal	1200	proposed
11	CZ	Porcerady	CEZ	coal	660	proposed
12	DE	Boxberg	Vattenfall	lignite	675	construction
13	DE	Datteln	E.ON	coal	1065	construction
14	DE	Duisberg-Walsum	JV Evonik STEAG	coal	750	construction
15	DE	Grevenbroig-Neurath (BoA 2 and 3)	RWE	lignite	2200	construction
16	DE	Hamburg (Moorburg)	Vattenfall	coal	1640	construction
17	DE	Hamm-Uentrop (block D and E)	JV - RWE + 23	coal	1600	construction
18	DE	Karlsruhe (block RDK B)	EnBW	coal	912	construction
19	DE	Lünen, Stummhafen	Trianel	coal	810	construction
20	DE	Mannheim (Neckarau)	JV - GKM	coal	911	construction
21	DE	Wilhelmshaven	JV - GDF SUEZ &	coal	830	construction
22	DE	Aneburg (near Stendal)	RWE	coal	1600	proposed
23	DE	Nederaussem (Berghem)	RWE	lignite	2200	proposed
24	DE	Brunsbüttel	SüdWestStrom	coal	1820	proposed
25	DE	Brunsbüttel	GDF SUEZ	coal	830	proposed
26	DE	Brunsbüttel	GD Energie AG.	coal	800	proposed
27	DE	Düsseldorf (Lautward) block C	Stadtwerke Düsseldorf	coal	400	proposed
28	DE	Krefeld-Uerdingen	Trianel	coal	810	proposed
29	DE	Lünen, Molkestrasse	Evonik STEAG	coal	900	proposed
30	DE	Mari, Chempark	Infracor	coal	900	proposed
31	DE	Profen	Mibrag	lignite	660	proposed
32	DE	Stade	E.ON	coal	1098	proposed
33	DE	Stade	Dow Chemical (US)	coal	900	proposed
34	DE	Staudinger (Grosskrotzenburg)	JV - E.ON (75%) &	coal	1098	proposed
35	DE	Wilhelmshaven	E.ON	coal	550	proposed
36	EE	Eesti	Eesti Energia	oil shale	800	proposed
37	GR	Melitis-2, Florina	PPC	lignite	450	proposed
38	GR	Ptolemaida V	PPC	lignite	450	proposed
39	HU	Mitrai Erdő, Visonta	RWE	lignite	440	proposed
40	IT	Torrevaldaliga Nord, Civitavecchia	Enel	coal	1980	construction
41	IT	Fiume Santo, Sassari, Sardinia	E.ON Italia	coal	410	proposed
42	IT	Porto Tolle	Enel	coal	1980	proposed
43	IT	Vado Ligure	Tirreno Power	coal	460	proposed
44	IT	Saline Joniche	Enel	coal	1320	proposed
45	IT	Rossano Calabro, Cosenza	Enel	coal	1200	proposed
46	LV	Leipaja	Public sector	coal	400	proposed
47	NL	Maasvlakte, Rotterdam	E.ON	coal	1100	construction
48	NL	Maasvlakte, Rotterdam	Electrabel	coal	800	construction
49	NL	Eemshaven	RWE - Essent	coal	1600	construction
50	NL	Eemshaven	Vattenfall - NUON	gas & coal IGCC	980	coal part postponed
51	PL	Belchatów-13	PGE	lignite	800	construction
52	PL	Kozienice-2	Enea	coal	1000	planned
53	PL	Gubin	Enea & PAK	lignite	2400	planned
54	PL	Lublin	GDF SUEZ	coal	716	planned
55	PL	Polce	GDF SUEZ	coal	1432	planned
56	PL	Opalenie	Vattenfall	coal	1660	planned
57	PL	Pulawy	Vattenfall & ZAP	coal	1660	planned
58	PL	Gryfino	PGE	coal	1600	planned
59	PL	Lublin	PGE	coal	1600	planned
60	PL	Opole	PGE	coal	2200	planned
61	RO	Galati-4 / Braila-4	Enel	coal	800	proposed
62	RO	Igălnița-3	CEN Orakova	coal	500	proposed
63	RO	Doicești	Termoelectrica	lignite	400	proposed
64	SI	Soitanj-6	www.HSE.si	coal	600	proposed
65	UK	Kingsnorth, Kent	E.ON	coal	1600	proposed
66	UK	Hunterston, Ayrshire	Peel Holdings	coal	1600	proposed

APPENDIX 1