Eerlijke Geldwijzer

Fossil fuel versus renewable financing by financial institutions active in the Netherlands

A case study for Fair Finance Guide Netherlands

Embargo until 26 October 2021

About the Eerlijke Geldwijzer - Fair Finance Guide Netherlands

This report has been commissioned by the Eerlijke Geldwijzer (Fair Finance Guide Netherlands). The Eerlijke Geldwijzer is a coalition of the following organisations: Amnesty International, Milieudefensie, Oxfam Novib, PAX and World Animal Protection. The aim of the Eerlijke Geldwijzer is to encourage corporate social responsibility by financial institutions. Not all coalition members of the Eerlijke Geldwijzer work on all themes and/or sectors on which the research of the Eerlijke Geldwijzer focuses. Reports on specific themes therefore do not necessarily reflect the opinion of all coalition members of the Eerlijke Geldwijzer.

Fair Finance Guide Netherlands is part of Fair Finance International (FFI), an international civil society network initiated by Oxfam working in ten countries with over 70 CSOs, that seeks to strengthen the commitment of banks and other financial institutions to social, environmental and human rights standards.

About this report

This report analyses the financings and investments in fossil fuels and renewable energy made by 27 financial institutions operating in the Netherlands in the period 2018-2020. It is a follow-up to earlier studies in 2015 (which focused on banks) and 2018 (banks and insurance companies).

Authorship

This report was researched and written by Ward Warmerdam, Léa Pham Van, Jan Willem van Gelder and Mara Werkman, with contributions from Jeroen Walstra. Correct citation of this document: Warmerdam, W., L. Pham Van, J. W. van Gelder and M. Werkman (2021, October), *Fossil fuel versus renewable financing by financial institutions active in the Netherlands: A case study for Fair Finance Guide Netherlands*, Amsterdam, The Netherlands: Profundo.

Front page cover photograph by Photo by Albert Hyseni - Unsplash.

About Profundo

With profound research and advice, Profundo aims to make a practical contribution to a sustainable world and social justice. Quality comes first, aiming at the needs of our clients. Thematically we focus on commodity chains, the financial sector and corporate social responsibility. More information on Profundo can be found at www.profundo.nl.



Disclaimer

Profundo observes the greatest possible care in collecting information and drafting publications but cannot guarantee that this report is complete. Profundo assumes no responsibility for errors in the sources used, nor for changes after the date of publication. The report is provided for informational purposes and is not to be read as providing endorsements, representations or warranties of any kind whatsoever. Profundo will not accept any liability for damage arising from the use of this publication.

Contents

Summary		1
Samenvatting	J	12
Abbreviations	5	24
Introduction .		25
Chapter 1	Methodology	26
1.1	Objective and research questions	
1.2	Selected financial institutions	
1.3	Classification of energy sources	
1.3.1	Selected energy sources	
1.3.2	Other energy sectors	30
1.3.3	Final selection of energy sources	
1.4	Selection of energy companies	
1.5	Analysing the activities of the energy companies	
1.6	Researching the financing of the energy companies	
1.7	Combining financings and investments with segment adjusters	
1.8	Historical comparison	
1.9	Feedback round	
Chapter 2	Banks	
2.1	General findings	
2.1.1	Loans and underwriting	
2.1.2	Investments	
2.2	Findings per bank	
2.2.1	ABN Amro	
2.2.2	Bung	45
2.2.3	ING Group	45
2.2.4	NIBC Holding	48
2.2.5	Rabobank	
2.2.6	De Volksbank	
2.2.7	Triodos Bank	49
2.2.8	Van Lanschot Kempen	51
Chapter 3	Insurance companies	54
3.1	General findings	54
3.1.1	Shareholdings	55
3.1.2	Bondholdings	58
3.2	Findings per insurance company	59
3.2.1	Achmea	59
3.2.2	Aegon	61
3.2.3	Allianz	63
3.2.4	ASR	65
3.2.5	Athora Netherlands	66
3.2.6	CZ	68
3.2.7	Menzis	69

3.2.8	NN Group (Nationale Nederlanden)	70
3.2.9	VGZ	72
Chapter 4	Pension funds	74
4.1	General findings	74
4.1.1	Shareholdings	76
4.1.2	Bondholdings	77
4.2	Findings per pension fund	77
4.2.1	Algemeen Burgerlijk Pensioenfonds (ABP)	77
4.2.2	Bedrijfstakpensioenfonds voor de Bouwnijverheid (BpfBouw)	78
4.2.3	BPL Pensioen	79
4.2.4	Pensioenfonds Detailhandel	79
4.2.5	Pensioenfonds Horeca en Catering (PH&C)	80
4.2.6	Pensioenfonds Vervoer	81
4.2.7	Pensioenfonds Metaal en Techniek (PMT)	81
4.2.8	Pensioenfonds van de Metalelektro (PME)	82
4.2.9	Pensioenfonds Zorg en Welzijn (PFZW)	83
4.2.10	StiPP	84
Chapter 5	Conclusions and recommendations	86
5.1	Conclusions	86
5.2	Recommendations	87
Appendix 1	Energy companies researched in this project	89
References		100

List of figures

Figure 1	Bank loans and underwriting in the energy sector (2018-2020, EUR mln)	4
Figure 2	Energy proportions of bank loans and underwriting in the energy sector (2018 & 2020)	.5
Figure 3	Energy proportions of bank investments in the energy sector (end-2020)	6
Figure 4	Insurance companies' investments in the energy sector (end-2020, EUR mln)	6
Figure 5	Energy proportions of insurance company investments in the energy sector (end-2020)	.7
Figure 6	Pension funds' investments in the energy sector (end-2020, EUR mln)	8
Figure 7	Energy proportions of pension fund investments in the energy sector (early- 2018 & end-2020)	.8
Figure 8	Bank loans & underwriting by energy source (2018-2020, EUR mln)	8
Figure 9	Ranking of loans and underwriting providers (2018-2020, EUR mln)	8
Figure 10	Bank energy loans & underwriting composition (2018 & 2020)	9
Figure 11	Bank shareholdings by energy source (2018-2020, EUR mln)4	0
Figure 12	Bank shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)4	10

Figure 13	Bondholdings of Dutch banks in the energy sector (May 2021)41
Figure 14	Ranking of bank investments in the energy sector (end-2020, EUR mln)41
Figure 15	Energy proportions of bank investments in the energy sector (end-2020)
Figure 16	ABN Amro loans & underwriting by energy source (2018-2020, EUR mln)
Figure 17	ABN Amro shareholdings by energy source (2018-2020, EUR mln)43
Figure 18	ABN Amro shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)44
Figure 19	ABN Amro bondholdings in the energy sector (May 2021)44
Figure 20	ING Group loans & underwriting by energy source (2018-2020, EUR mln)45
Figure 21	ING Group shareholdings by energy source (2018-2020, EUR mln)46
Figure 22	ING Group shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)47
Figure 23	ING Group bondholdings in the energy sector (May 2021)47
Figure 24	NIBC Holding loans & underwriting by energy source (2018-2020, EUR mln)48
Figure 25	Rabobank loans & underwriting by energy source (2018-2020, EUR mln)
Figure 26	Triodos shareholdings by energy source (2018-2020, EUR mln)50
Figure 27	Triodos shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)50
Figure 28	Triodos bondholdings (May 2021)51
Figure 29	Van Lanschot Kempen shareholdings by energy source (2018-2020, EUR mln)52 $$
Figure 30	Van Lanschot Kempen shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)52
Figure 31	Van Lanschot Kempen bondholdings in the energy sector (May 2021)53
Figure 32	Insurance companies' investments in the energy sector (end-2020, EUR mln) 54
Figure 33	Insurance company energy portfolio composition (end-2020)55
Figure 34	Insurance company shareholdings in the energy sector (Q4-2020, EUR mln) 56
Figure 35	Energy sector shareholdings of insurance companies (1-1-2018 & 31-12- 2020)
Figure 36	Insurance company shareholdings by energy source (2018-2020, EUR mln) 57
Figure 37	Insurance company shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)
Figure 38	Insurance company bondholdings in the energy sector (May 2021, EUR mln) 58
Figure 39	Insurance company bondholdings in the energy sector (May 2021)59
Figure 40	Achmea shareholdings by energy source (2018-2020, EUR mln)59
Figure 40 Figure 41	Achmea shareholdings by energy source (2018-2020, EUR mln)59 Achmea shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)60
Figure 40 Figure 41 Figure 42	Achmea shareholdings by energy source (2018-2020, EUR mln)59 Achmea shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

Figure 44	Aegon shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)	62
Figure 45	Aegon bondholdings (2021 May most recent filings)	62
Figure 46	Allianz shareholdings by energy source (2018-2020, EUR mln)	63
Figure 47	Allianz shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)	64
Figure 48	Allianz bondholdings (May 2021)	64
Figure 49	ASR shareholdings by energy source (2018-2020, EUR mln)	65
Figure 50	ASR shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)	66
Figure 51	Athora Netherlands shareholdings by energy source (2018-2020, EUR mln)	67
Figure 52	Athora Netherlands shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)	67
Figure 53	Athora Netherlands bondholdings (May 2021)	. 68
Figure 54	CZ shareholdings by energy source (December 2020 filings, EUR mln)	. 68
Figure 55	CZ bondholdings (December 2020 filings, EUR mln)	. 69
Figure 56	Menzis shareholdings by energy source (December 2020 filings, EUR mln)	. 69
Figure 57	Menzis bondholdings (December 2020 filings, EUR mln)	70
Figure 58	NN Group shareholdings by energy source (2018-2020, EUR mln)	71
Figure 59	NN Group shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)	71
Figure 60	NN Group Netherlands bondholdings (May 2021)	72
Figure 61	VGZ shareholdings by energy source (December 2020 filings, EUR mln)	72
Figure 62	VGZ bondholdings (December 2020 filings, EUR mln)	73
Figure 63	Pension fund investments by energy source (2018-2020, EUR mln)	74
Figure 64	Ranking of pension fund investments by energy source (31/12/2020, EUR mln) .	75
Figure 65	Pension fund energy portfolio composition comparison (1/1/2018 & 31/12/2020)	76
Figure 66	Pension fund shareholdings by energy source (2018-2020, EUR mln)	76
Figure 67	Pension fund bondholdings by energy source (2018-2020, EUR mln)	77
Figure 68	ABP investments by energy source (2018-2020, EUR mln)	77
Figure 69	BpfBouw investments by energy source (2018-2020, EUR mln)	78
Figure 70	Pensioenfonds Detailhandel investments by energy source (31/12/2020)	79
Figure 71	PH&C investments by energy source (2019-2020, EUR mln)	. 80
Figure 72	PMT investments by energy source (2018-2020, EUR mln)	81
Figure 73	PME investments by energy source (2018-2020, EUR mln)	82
Figure 74	PFZW investments by energy source (2018-2020, EUR mln)	83
Figure 75	StiPP investments by energy source (2018-2020, EUR mln)	84

List of tables

Table 1	Energy credits and investments by financial institutions active in the Netherlands, 2018-2020	2
Table 2	Banks, insurers and pension funds selected for this project	26
Table 3	Life-cycle emissions of electricity generation technologies (gCO2eq/kWh)	28
Table 4	Classification of electricity generation technologies	28
Table 5	Country definitions of small-scale hydropower	31
Table 6	Activities related to Renewable Energy and Fossil Fuels	33
Table 7	Contributions assigned to the bookrunners in loan and issuance syndicates	35

Summary

In the period 2018-2020 Dutch banks provided EUR 9.1 billion in loans and underwriting services to fossil fuels, versus EUR 4.1 billion to renewables. At the end of 2020, banks, insurers and pension funds active in the Netherlands had invested EUR 34.3 billion in fossil fuels, versus EUR 4.8 billion in renewables.

This report is the second part of a case study for the Eerlijke Geldwijzer (Dutch Fair Finance Guide) on how financial institutions active in the Netherlands deal with climate change. The study analyses the energy sector financing and investments by 8 banks, 9 insurance companies and 10 pension funds active in the Netherlands. Following the same approach as earlier Fair Finance Guide studies in 2015 (*Undermining Our Future* - which focused on banks) and 2018 (*Still Undermining Our Future* - banks and insurance companies), the current study assesses the percentages of their energy financing and investments attributable to fossil fuels and to renewable energy.

To make this assessment, financial flows (credits and investments) to approximately 380 companies operating in the global energy sector (coal, oil & gas, electricity, renewable energy equipment) were researched for the period January 1, 2018 to December 31, 2020. This selection of 380 companies includes global players as well as smaller companies active in the Netherlands, covering around 75% of the global and Dutch fossil fuel and renewable energy sectors. The financial institutions were given the opportunity to comment on these findings on their credits to, and investments in, the selected 380 energy companies.

For each identified financial flow (credit or investment) between a financial institution active in the Netherlands and an energy company, this research has calculated the proportions which are attributable to fossil fuels and to renewable energy. These proportions are forward-looking, as they are mainly derived from the investment plans of the energy companies concerned as published in their annual reports. In the case of credits or bonds we have taken into account if the financing was earmarked for specific investment projects.

Alignment with the Paris Climate Agreement goals

To put the findings on credits to, and investments in, fossil fuels and renewable energy by banks, insurers and pension funds operating in the Netherlands in perspective, two recent assessments of what is needed to meet the Paris goals are relevant. In December 2015, 196 countries and multilateral organisations adopted the Paris Climate Agreement. This agreement legally binds the signatories to commit to the goal of limiting global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

At the end of 2020 the United Nations Environmental Programme (UNEP) concluded that "to follow a 1.5°C-consistent pathway, the world will need to decrease fossil fuel production by roughly 6% per year between 2020 and 2030. (...) Global coal, oil, and gas production would have to decline annually by 11%, 4%, and 3%, respectively."

And in May 2021, the International Energy Agency published a global 1.5°C "pathway" towards achieving net zero global GHG emissions in 2050. The IEA concludes: "There is no need for investment in new fossil fuel supply. Beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway, and no new coal mines or mine extensions are required." Moreover, according to the IEA, electricity generation must be 100% zero-emission in the OECD-countries by 2035 and globally by 2040. This means a phase out of all oil and gas-fired power plants within the same timeframes, with coal-fired power to be phased out sooner.

Both assessments call for a very rapid reduction of fossil fuel credits and investments, shifting capital to renewable energy and to companies outside the energy sector. To meet the goals of the Paris Climate Agreement, committed efforts of all stakeholders - including financial institutions - are required. Companies in the energy sector and other economic sectors have to make huge investments in developing new products and transforming their production processes.

Financial institutions therefore play a crucial role in the necessary economic transition, as they make sure that sufficient financial flows (credits and investments) are available for companies realizing the energy transition. Different instruments can be used to achieve this goal: financial institutions can stimulate energy companies through engagement, voting or otherwise to stop investing in fossil fuels and to invest more in renewable energy. Financial institutions can also choose to move their money to other energy companies which focus on renewable energy and divest from companies which are unwilling to be part of the energy transition.

Complementary to this report, the Eerlijke Geldwijzer has published in September 2021 an assessment of the climate ambitions and plans of the financial institutions active in the Netherlands. This previous report discussed which different instruments financial institutions are using to achieve their climate goals. This present report is not focusing on plans and instruments, but on outcomes: are the portfolios of the financial institutions active in the Netherlands moving in the right direction with the required urgency?

Overall findings for all financial institutions

This research finds that the energy sector activities of most financial institutions active in the Netherlands are not yet aligned with the Paris Climate Agreement goals. In line with the recent IEA 1.5°C pathway, the Eerlijke Geldwijzer deems that no further financing of, nor investments in, fossil fuels are necessary. But energy sector credits by Dutch banks still were 69% attributable to fossil fuels in the period 2018-2020, while energy investments by banks, insurance companies and pension funds active in the Netherlands were for 88% attributable to fossil fuels at the end of 2020 and only for 12% to renewable energy.

Dutch banks lent EUR 9.2 billion to the energy sector in the period 2018-2020 and provided underwriting services for an amount of EUR 4.0 billion. Of these credits, EUR 9.1 billion was attributable to fossil fuels. Financial institutions active in the Netherlands - pension funds, insurance companies and the asset management divisions of banks - had invested EUR 39.1 billion in shares and bonds of energy sector companies at the end of 2020. Of this amount, EUR 34.3 billion was attributable to fossil fuels.

Table 1 gives an overview of the findings for all 27 financial institutions, showing how much each of them has lent to and/or invested in the selected 380 energy companies. The table also shows which share of the credits and investments of each financial institution was attributable to fossil fuels and which share to renewable energy. For banks which have both provided credits and made investments, the percentage is calculated on the basis of the financial flow which is most important for the financial institution.

Financial institution	Category	Credits (EUR mln, 2018-2020)	Investments (EUR mln, end of 2020)	Share for fossil fuels	Share for renewables
Triodos Bank	Bank	0	66	0%	100%
De Volksbank	Bank	0	0	0%	100%
Bunq	Bank		0	0%	0%
Rabobank	Bank	1,460	0	22%	78%
Athora Netherlands	Insurer		326	38%	62%

Table 1Energy credits and investments by financial institutions active in the
Netherlands, 2018-2020

Financial institution	Category	Credits (EUR mln, 2018-2020)	Investments (EUR mln, end of 2020)	Share for fossil fuels	Share for renewables
Nationale Nederlanden	Insurer		1,055	66%	34%
ABN Amro	Bank	2,219	234	71%	29%
PH&C	Pension fund		259	74%	26%
ASR	Insurer		45	75%	25%
ING	Bank	9,116	242	75%	25%
PFZW	Pension fund		2,914	83%	17%
ABP	Pension fund		8,558	86%	14%
Van Lanschot Kempen	Bank	0	332	87%	13%
StiPP	Pension fund		25	87%	13%
BpfBouw	Pension fund		1,382	88%	12%
CZ	Insurer		12	89%	11%
Allianz	Insurer		16,082	90%	10%
Achmea	Insurer		175	91%	9%
VGZ	Insurer		32	91%	9%
Aegon	Insurer		3,455	93%	7%
Pensioenfonds Detailhandel	Pension fund		559	93%	7%
PME	Pension fund		1,091	93%	7%
Menzis	Insurer		19	94%	6%
PMT	Pension fund		2,193	95%	5%
NIBC	Bank	338		100%	0%
BPL Pensioen	Pension fund		no data	?	?
Pensioenfonds Vervoer	Pension fund		no data	?	?

The most important provider of credits to the 380 selected energy companies listed in Table 1 is ING Bank, followed by ABN Amro and Rabobank. The most important investor in shares and bonds of these 380 companies is insurer Allianz, followed by pension fund ABP and insurer Aegon.

We were able to assess the shares of fossil fuel and renewables financings and investments for 25 out of the 27 financial institutions. 22 of those are not in line with the IEA 1.5°C pathway, which calls for a halt to all investments in new fossil fuel projects. For nine financial institutions we found that even more than 90% of their financings or investments in the energy sector in the research period was attributable to fossil fuels: the bank NIBC, pension funds PMT, Pensioenfonds Detailhandel and PME, and insurance companies Aegon, Achmea, Allianz, VGZ and Menzis. In contrast, all energy financings and investments of Triodos and De Volksbank are attributable to renewables and none to fossil fuels. Bunq does not invest in the energy sector at all. PME and Pensioenfonds Horeca & Catering have recently announced that they are withdrawing from fossil fuels.

No assessments could be made of the energy sector investments of pension funds BPL Pensioen and Pensioenfonds Vervoer, because these financial institutions are insufficiently transparent about their investments in the energy sector. The following paragraphs will discuss the findings of this study in more detail for the three categories of financial institutions: banks (EUR 13.0 billion in loans and underwriting to the 380 selected companies plus EUR 874 million in investments), insurance companies (EUR 21.2 billion in investments) and pension funds (EUR 17.0 billion in investments).

Dutch banks

In the period 2018 to 2020, four Dutch banks (ABN Amro, ING Group, NIBC and Rabobank) provided EUR 13.1 billion in loans and underwriting services to the selected companies. Still 69% of these credits (EUR 9.1 billion) were attributable to fossil fuels and 31% (EUR 4.1 billion) to renewable energy.

Figure 1 shows that ING Group was the largest creditor of the selected companies, providing EUR 9.1 billion in loans and underwriting services in the period 2018-2020, of which EUR 6.8 billion went to fossil fuels. ABN Amro provided EUR 2.2 billion in credits (EUR 1.6 billion to fossil fuels) and Rabobank provided EUR 1.5 billion, of which EUR 321 million went to fossil fuels. While NIBC played a smaller role, its total credit amount of EUR 338 million went to fossil fuels.





Figure 2 shows that Rabobank increased the proportion of renewable energy in its energy sector credits from 63% to 88% from 2018 to 2020. ABN Amro increased from 31% to 48%, and ING from 21% to 38%. NIBC stayed far behind, with all credits in the 2018-2020 period attributable to fossil fuels.



Energy proportions of bank loans and underwriting in the energy sector (2018 & 2020)



Of the four banks not shown in Figure 2, Bunq and Van Lanschot Kempen are not involved in energy sector financing. De Volksbank and Triodos Bank are involved in energy financing, all of which is attributable to renewable energy, but they are not financing any of the 380 companies this research is focusing on and are therefore not shown in Figure 1.

Apart from loans and underwriting services, we found that the asset management divisions of four Dutch banks (ABN Amro, ING Group, Triodos and Van Lanschot Kempen) had invested a total amount of EUR 875 million in the shares and bonds of the 380 selected energy companies at the end of 2020. Of this amount, EUR 680 million (78%) was attributable to fossil fuels and EUR 194 million (22%) was attributable to renewable energy.

As shown in Figure 3, Triodos is consistently investing only in shares and bonds attributable to renewable energy. This is also the case for De Volksbank, but because we did not find any investments by De Volksbank in the companies selected for this research project, it is not included in this graph.

Among the other banks, ABN Amro is increasing the proportion of its investments attributable to renewable energy. By the final quarter of 2020, this proportion had grown to 35%. Van Lanschot Kempen (13%) and ING Group (1%) lag far behind.

Figure 3 Energy proportions of bank investments in the energy sector (end-2020)



Insurance companies operating in the Netherlands

At the end of 2020, nine insurance companies operating in the Netherlands held EUR 21.2 billion of shares and bonds issued by the selected 380 energy companies. 89% of these investments (EUR 18.8 billion) were attributable to fossil fuels, and only 11% (EUR 2.4 billion) to renewable energy.



Figure 4 Insurance companies' investments in the energy sector (end-2020, EUR mln)

Figure 4 shows that Allianz accounts for the lion's share of insurance companies' investments in the energy sector identified in this study, with a total investment of EUR 16.1 billion (76%) at the end of 2020, followed by Aegon (16%) and NN Group (5%).

Insurance companies operating in the Netherlands held EUR 3.1 billion in shares of the selected 380 companies at the end of 2020. Of these investments, 66% (EUR 2.1 billion) was attributable to fossil fuels and 34% (EUR 1.1 billion) to renewable energy. During the research period (2018-2020), insurance companies reduced their equity exposure to the energy sector and shifted from fossil fuels to renewable energy within the sector.

In earlier studies we found that the value percentage of renewable energy in the shareholdings held by insurers had increased from 6% at the start of 2015 to 8% at the end of 2017. The proportion of 34% attributable to renewable energy at the end of 2020 shows therefore an acceleration of this trend, although still far away from the IEA 1.5°C pathway. The insurance companies active in the Netherlands also held EUR 18.1 billion in bonds issued by the 380 selected companies in May 2021. Different from the trend for their investments in energy shares, no less than 92% of their investments in energy bonds (with a value of EUR 16.7 billion) was still attributable to fossil fuels and only 8% (EUR 1.4 billion) to renewable energy.



Figure 5 Energy proportions of insurance company investments in the energy sector (end-2020)

Taking investments in shares and bonds together, most insurance companies still invest predominantly in fossil fuels. The only exception is Athora, whose energy sector portfolio is now for 62% (EUR 202 million) attributable to renewable energy and for 38% (EUR 123 million) to fossil fuels. The largest investor among the insurance companies operating in the Netherlands, Allianz, has invested EUR 14.5 billion (90%) in fossil fuels and only EUR 1.6 billion (10%) in renewable energy.

Pension funds

At the end of 2020, eight Dutch pension funds held EUR 17.0 billion of shares and bonds issued by the selected 380 energy companies. 87% of the investments in the selected companies (with a value of EUR 14.8 billion) were attributable to fossil fuels and 13% (EUR 2.1 billion) to renewable energy.

Figure 6 shows that ABP was the largest investor in the selected companies. It held EUR 8.6 billion in bonds and shares at the end of the fourth quarter 2020. It was followed by PFZW (EUR 2.9 billion) and PMT (EUR 2.2 billion). Because of a lack of data transparency, no analysis could be made of the investments of BPL Pensioen and Pensioenfonds Vervoer.

Figure 6 Pension funds' investments in the energy sector (end-2020, EUR mln)



All pension funds were still investing the large majority of their energy sector investments in fossil fuels, although Figure 7 shows that a number of pension funds slightly increased the proportion of investments attributable to renewable energy. Among its peers, Pensioenfonds Horeca & Catering ranks best with a 26% share for renewable energy - still far away from the IEA 1.5°C pathway.



Figure 7 Energy proportions of pension fund investments in the energy sector (early-2018 & end-2020)

In September 2021, Pensioenfonds Horeca & Catering announced it had divested from companies obtaining more than 50% of their turnover from fossil fuel production. One day later, PME announced it had sold all its interests in fossil oil and gas companies. As this research is based on investment portfolios at the end of 2020, the results for PME and PH&C in Figure 6 and Figure 7 do not yet reflect these divestments.

Conclusions

Based on the findings on fossil fuel and renewable energy investments and financing, the following conclusions are drawn:

- 1. The energy sector activities of most financial institutions active in the Netherlands are not yet aligned with the Paris Climate Agreement goals. In line with the recent IEA 1.5°C pathway, the Eerlijke Geldwijzer deems that no further financing of, nor investments in, fossil fuels are necessary. Based on an analysis of credits and investments provided to 380 selected energy companies covering 75% of the global energy market in the period 2018-2020, we conclude that most credits and investments are still predominantly attributable to fossil fuels. Only Triodos Bank, De Volksbank and Bunq provided no fossil fuel credits nor investments. Also, Rabobank (78%) and insurance company Athora Netherlands (64%) directed the majority of their energy sector credits and investments to renewable energy.
- 2. Dutch banks provided EUR 13.0 billion in loans and underwriting services to the selected energy companies in the 2018-2020 period. Still 69% of these credits (EUR 9.1 billion) were attributable to fossil fuels and 31% (EUR 4.1 billion) to renewable energy.
- 3. Three banks provided credits predominantly to fossil fuels. ING Group provided EUR 9.1 billion in loans and underwriting services, of which EUR 6.8 billion (75%) went to fossil fuels. ABN Amro provided EUR 2.2 billion of which 71% (EUR 1.6 billion) to fossil fuels, while the total credit amount of NIBC (EUR 338 million) could be attributed to fossil fuels. Triodos and De Volksbank provided credits exclusively to renewable energy, while Rabobank provided EUR 1.5 billion to the energy sector of which only 22% (EUR 321 million) to fossil fuels.
- 4. The asset management divisions of Dutch banks had invested a total amount of EUR 875 million in the energy sector at the end of 2020. Of this amount, EUR 680 million (78%) was attributable to fossil fuels and EUR 194 million (22%) was attributable to renewable energy. Triodos and De Volksbank are investing exclusively in renewable energy, while ABN Amro has increased its renewable energy share to 35% of all energy investments. The asset managers of Van Lanschot Kempen (13%) and ING Group (1%) lag far behind.
- At the end of 2020, nine insurance companies operating in the Netherlands held EUR 21.2 billion of shares and bonds issued by the selected energy companies. 89% of these investments (EUR 18.8 billion) were attributable to fossil fuels, and only 11% (EUR 2.4 billion) to renewable energy.
- 6. Most insurance companies still invest predominantly in fossil fuels. The only exception is Athora Netherlands, whose energy sector portfolio is now for 62% (EUR 202 million) attributable to renewable energy and for 38% (EUR 123 million) to fossil fuels. The largest investor among the insurance companies operating in the Netherlands, Allianz, has invested EUR 14.5 billion (90%) in fossil fuels and only 10% (EUR 1.6 billion) in renewable energy. Aegon has the highest fossil fuel proportion: EUR 3.2 billion (93%) on total energy investments of EUR 3.5 billion.
- 7. At the end of 2020, eight Dutch pension funds held EUR 17.0 billion of shares and bonds issued by the selected 380 energy companies. 87% of the investments in the selected companies (with a value of EUR 14.8 billion) were attributable to fossil fuels and 13% (EUR 2.1 billion) to renewable energy.
- 8. All pension funds are still investing the large majority of their energy investments in fossil fuels. While still very low, Pensioenfonds Horeca & Catering ranks best with a 26% share for renewable energy. PMT ranks last, with 95% (EUR 2.1 billion) of its energy investments attributable to fossil fuels. Largest investors in fossil fuels are ABP (EUR 7.4 billion, 86% of its total energy investments) and PfZW (EUR 2.4 billion, 83%). Pensioenfonds Horeca & Catering and PME announced in September 2021 after the period studied in this research that they have divested from fossil fuel companies.

9. Because of a lack of data transparency, no analysis could be made of the investments of pension funds BPL Pensioen and Pensioenfonds Vervoer.

Recommendations

During the past couple of years, financial institutions in the Netherlands have announced several voluntary commitments to address the climate crisis, like the Spitsbergen Ambition 2018-2020 and the financial sector commitment to the 2019 Dutch Climate Agreement. Despite those voluntary commitments, the energy sector activities of most financial institutions active in the Netherlands remain unaligned with the Paris Climate Agreement goals. The consequences of climate change severely affect human rights globally. Therefore, preventing dangerous climate change is a human rights obligation.

New legislation to promote international responsible business conduct (IRBC) through mandatory human rights due diligence, including the proposed Dutch IRBC-law and the expected EU proposal for a directive on sustainable corporate governance, offers the opportunity to financial institutions to make their activities and portfolios "climate-proof" by aligning them with a pathway limiting global temperature rise to 1.5°C with low or no temperature overshoot.

Therefore, the Dutch Fair Finance Guide (Eerlijke Geldwijzer) recommends the Dutch government:

- 1. Ensure a Dutch IRBC-law is introduced which requires companies, including financial institutions, to carry out climate due diligence;
- As part of this due diligence requirement, oblige financial institutions to adopt and implement a plan to reduce their financed greenhouse gas emissions in line with the target of limiting global temperature rise to 1.5°C. This plan should apply to all financing and investment activities and include intermediate targets. Progress towards targets should be reported on an annual basis; and
- 3. Advocate for the incorporation of mandatory climate due diligence for companies and financial institutions in EU legislation.

Additionally, the Dutch Fair Finance Guide (Eerlijke Geldwijzer) makes the following recommendations to financial institutions operating in the Netherlands:

- All pension funds as well as most insurance companies and banks should reduce their fossil fuel credits and investments and increase renewable energy credits and investments to align with a 1.5°C-consistent pathway. This portfolio shift can be achieved by stimulating energy companies through engagement, voting or otherwise to stop investing in fossil fuels and to invest more in renewable energy. Financial institutions can also choose to move their money to other energy companies which focus on renewable energy.
- 2. In line with the conclusions of UNEP and IEA, all financial institutions should not just look at shifting more credits and investments to renewable energy, but they should explicitly aim to rapidly reduce their fossil fuel credits and investments. Some banks and insurance companies are following this path already, but most financial institutions operating in the Netherlands continue to keep their fossil fuel investments at the same level.
- 3. All financial institutions should immediately halt all financing for:
 - new extraction of coal, oil and gas;
 - coal-fired electricity generation;
 - tar-sands;
 - oil and gas drilling in the Arctic (both onshore and offshore); and
 - the expansion of any infrastructure which can lead to a long-lasting lock-in of fossil fuelbased energy production.

- All financial institutions should fully disclose their financing and investment portfolios, allowing stakeholders - including governments, accountants, civil society organisations and researchers - to monitor their financings and investments and hold them accountable. At present, most banks and insurance companies, as well as several pension funds are still not disclosing fully.
- 5. Pension funds and insurance companies should also pay more attention to the transitions of their bondholding portfolios, of which the renewable energy proportion is often relatively smaller than that of their equity portfolios. With the growth of the green bond market this should be a relatively easy task.

Samenvatting

In de periode 2018-2020 verstrekten Nederlandse banken voor EUR 9,1 miljard aan leningen en underwriting diensten aan fossiele brandstoffen, tegenover EUR 4,1 miljard aan hernieuwbare energie. Eind 2020 hadden banken, verzekeringsmaatschappijen en pensioenfondsen actief in Nederland EUR 34,3 miljard belegd in fossiele brandstoffen, tegenover EUR 4,8 miljard in hernieuwbare energie.

Dit rapport is het tweede deel van een praktijkonderzoek voor de Eerlijke Geldwijzer over hoe financiële instellingen die actief zijn in Nederland omgaan met klimaatverandering. Het onderzoek analyseert de financieringen en beleggingen in de energiesector door 8 banken, 9 verzekeringsmaatschappijen en 10 pensioenfondsen die actief zijn in Nederland. Op dezelfde manier als werd gedaan in eerdere onderzoeken voor de Eerlijke Geldwijzer in 2015 (*Undermining Our Future* - gericht op banken) en 2018 (*Still Undermining Our Future* - banken en verzekeringsmaatschappijen), beoordeelt de huidige studie welk deel van de energiefinancieringen en -beleggingen van deze financiële instellingen kunnen worden toegeschreven aan fossiele brandstoffen en welk deel aan duurzame energie

Om deze beoordeling te maken werden de financiële stromen (kredieten en beleggingen) tussen deze financiële instellingen en ongeveer 380 bedrijven die actief zijn in de wereldwijde energiesector (kolen, olie & gas, elektriciteit, apparatuur voor duurzame energie) onderzocht voor de periode van 1 januari 2018 tot 31 december 2020. Deze selectie van 380 bedrijven omvat zowel wereldspelers als kleinere bedrijven die actief zijn in Nederland. Samen vertegenwoordigen deze bedrijven ongeveer 75% van zowel de mondiale als de Nederlandse energiesectoren. De financiële instellingen werden in de gelegenheid gesteld commentaar te leveren op deze bevindingen over hun kredieten aan, en beleggingen in, de geselecteerde 380 energiebedrijven.

Voor elke geïdentificeerde geldstroom (krediet of belegging) tussen een in Nederland actieve financiële instelling en een energiebedrijf zijn in dit onderzoek de verhoudingen berekend die toe te schrijven zijn aan fossiele brandstoffen en aan duurzame energie. Deze verhoudingen gaan over de richting waarin bedrijven zich ontwikkelen, want ze zijn voornamelijk ontleend aan de investeringsplannen van de betrokken energiebedrijven zoals gepubliceerd in hun jaarverslagen. Bij kredieten en obligaties hebben we er rekening mee gehouden of de financiering bestemd was voor specifieke investeringsprojecten.

Afstemming met het Klimaatakkoord van Parijs

Om de bevindingen over kredieten aan en beleggingen in fossiele brandstoffen en duurzame energie door in Nederland opererende banken, verzekeraars en pensioenfondsen in perspectief te plaatsen, zijn twee recente studies relevant die analyseren wat nodig is om de doelstellingen van het Klimaatakkoord van Parijs te halen. In december 2015 keurden 196 landen en multilaterale organisaties het Klimaatakkoord van Parijs goed. Deze overeenkomst verplicht de ondertekenaars wettelijk om zich te committeren aan het doel om de opwarming van de aarde te beperken tot ruim onder de 2 graden Celsius, en bij voorkeur tot maximaal 1,5 graad Celsius, vergeleken met het preindustriële niveau.

Eind 2020 concludeerde het Milieuprogramma van de Verenigde Naties (UNEP) dat "om een 1,5°Cconsistent traject te volgen, de wereld de productie van fossiele brandstoffen tussen 2020 en 2030 met ongeveer 6% per jaar zal moeten verminderen. (...) Wereldwijd zou de kolen-, olie- en gasproductie jaarlijks met respectievelijk 11%, 4% en 3% moeten dalen." In mei 2021 publiceerde het Internationaal Energie Agentschap (IEA) een wereldwijd "1,5°C traject", waarmee in 2050 de wereldwijde broeikasgasemissies naar "netto-nul" teruggebracht kunnen worden. Het IEA concludeert: "Er is geen noodzaak voor investeringen in nieuwe fossiele brandstoffen. Afgezien van projecten die al vanaf 2021 zijn vastgelegd, zijn er in ons traject geen nieuwe olie- en gasvelden opgenomen en zijn er geen nieuwe kolenmijnen of mijnuitbreidingen vereist." Bovendien moet stroomopwekking tegen 2035 100% emissievrij zijn in de OESO-landen en tegen 2040 ook wereldwijd. Dit vereist een uitfasering van alle olie- en gasgestookte elektriciteitscentrales in dezelfde tijdspannes, en een eerdere uitfasering van kolengestookte centrales.

Beide studies pleiten voor een zeer snelle vermindering van de investeringen in fossiele brandstoffen, waarbij kapitaal wordt verlegd naar duurzame energie en naar bedrijven buiten de energiesector. Om de doelstellingen van het Klimaatakkoord van Parijs te halen, zijn gerichte inspanningen van alle belanghebbenden - inclusief financiële instellingen - vereist. Bedrijven in de energiesector en andere economische sectoren moeten enorm investeren in het ontwikkelen van nieuwe producten en het transformeren van hun productieprocessen.

Financiële instellingen spelen een cruciale rol in de noodzakelijke economische transitie, aangezien zij ervoor zorgen dat er voldoende financiële stromen (kredieten en beleggingen) beschikbaar zijn voor bedrijven die werken aan de energietransitie. Om dit doel te bereiken kunnen verschillende instrumenten worden ingezet: financiële instellingen kunnen energiebedrijven stimuleren door middel van engagement, stemmen of anderszins om te stoppen met investeren in fossiele brandstoffen en om meer te investeren in duurzame energie. Financiële instellingen kunnen er ook voor kiezen om hun geld te verplaatsen naar andere energiebedrijven die zich richten op duurzame energie en te desinvesteren uit bedrijven die niet mee willen doen aan de energietransitie.

In aanvulling op dit rapport heeft de Eerlijke Geldwijzer in september 2021 een beoordeling gepubliceerd van de klimaatambities en -plannen van de financiële instellingen die in Nederland actief zijn. In dit vorige rapport werd besproken welke verschillende instrumenten financiële instellingen gebruiken om hun klimaatdoelen te bereiken. Dit rapport richt zich niet op plannen en instrumenten, maar op uitkomsten: bewegen de portefeuilles van de in Nederland actieve financiële instellingen met de nodige urgentie de goede kant op?

Bevindingen voor alle financiële instellingen

Uit dit onderzoek blijkt dat de energiesector-activiteiten van de meeste financiële instellingen die actief zijn in Nederland nog niet in lijn zijn met de doelstellingen van het Klimaatakkoord van Parijs. In lijn met het recente IEA 1,5°C-traject is de Eerlijke Geldwijzer van oordeel dat verdere financieringen van, en beleggingen in, nieuwe fossiele brandstof-projecten ongewenst zijn. Dat contrasteert met de energiesectorkredieten van Nederlandse banken, die in de periode 2018-2020 nog voor 69% toe te schrijven waren aan fossiele brandstoffen. De energie-beleggingen van in Nederland actieve banken, verzekeraars en pensioenfondsen waren eind 2020 zelfs nog voor 88% toe te schrijven aan fossiele brandstoffen en slechts voor 12% aan duurzame energie.

Nederlandse banken leenden in de periode 2018-2020 EUR 9,2 miljard aan de energiesector en verleenden underwriting-diensten voor een bedrag van EUR 4,0 miljard. Van deze kredieten was EUR 9,1 miljard toe te rekenen aan fossiele brandstoffen. In Nederland actieve financiële instellingen - pensioenfondsen, verzekeraars en de vermogensbeheerdivisies van banken - hadden eind 2020 EUR 39,1 miljard geïnvesteerd in aandelen en obligaties van energiebedrijven. Hiervan was EUR 34,3 miljard toe te schrijven aan fossiele brandstoffen.

Tabel 1 geeft een overzicht van de bevindingen voor alle 27 financiële instellingen, waarbij wordt weergegeven hoeveel elk van hen heeft uitgeleend aan en/of geïnvesteerd in de geselecteerde 380 energiebedrijven. De tabel laat ook zien welk aandeel van de kredieten en beleggingen van elke financiële instelling toe te schrijven was aan fossiele brandstoffen en welk aandeel aan duurzame energie. Voor banken die zowel kredieten hebben verstrekt als beleggingen hebben uitstaan, wordt het percentage berekend op basis van de financiële stroom die voor de financiële instelling het belangrijkst is.

Financiële instelling	Categorie	Kredieten (EUR mln. 2018-2020)	Beleggingen (EUR mln. eind 2020)	Aandeel fossiele brandstof	Aandeel duurzame energie
Triodos Bank	Bank	0	66	0%	100%
De Volksbank	Bank	0	0	0%	100%
Bunq	Bank		0	0%	0%
Rabobank	Bank	1.460	0	22%	78%
Athora Netherlands	Verzekeraar		326	38%	62%
Nationale Nederlanden	Verzekeraar		1.055	66%	34%
ABN Amro	Bank	2.219	234	71%	29%
PH&C	Pensioenfonds		259	74%	26%
ASR	Verzekeraar		45	75%	25%
ING Groep	Bank	9.116	242	75%	25%
PFZW	Pensioenfonds		2.914	83%	17%
ABP	Pensioenfonds		8.558	86%	14%
Van Lanschot Kempen	Bank	0	332	87%	13%
StiPP	Pensioenfonds		25	87%	13%
CZ	Verzekeraar		12	89%	11%
BpfBouw	Pensioenfonds		1.382	88%	12%
Allianz	Verzekeraar		16.082	90%	10%
Achmea	Verzekeraar		25	91%	9%
VGZ	Verzekeraar		32	91%	9%
Aegon	Verzekeraar		3.455	93%	7%
Pensioenfonds Detailhandel	Pensioenfonds		559	93%	7%
PME	Pensioenfonds		1.091	93%	7%
Menzis	Verzekeraar		19	94%	6%
PMT	Pensioenfonds		2.193	95%	5%
NIBC	Bank	338		100%	0%
BPL Pensioen	Pensioenfonds		geen data	?	?
Pensioenfonds Vervoer	Pensioenfonds		geen data	?	?

Tabel 1Energiekredieten en beleggingen door financiële instellingen actief in
Nederland, 2018-2020

De belangrijkste kredietverstrekker van de 380 geselecteerde energiebedrijven in Tabel 1 is ING Groep, gevolgd door ABN Amro en Rabobank. De belangrijkste belegger in aandelen en obligaties van deze 380 bedrijven is verzekeraar Allianz, gevolgd door pensioenfonds ABP en verzekeraar Aegon.

We konden de verdeling van financieringen en beleggingen tussen fossiele brandstoffen en duurzame energie beoordelen voor 25 van de 27 financiële instellingen. 22 van hen opereren niet in lijn met het IEA 1,5°C-traject, dat oproept tot stopzetting van alle investeringen in nieuwe fossiele brandstofprojecten. Voor negen financiële instellingen constateerden we dat in de onderzoeksperiode zelfs meer dan 90% van hun financieringen of beleggingen in de energiesector toe te schrijven zijn aan fossiele brandstoffen: de bank NIBC, pensioenfondsen PMT, Pensioenfonds Detailhandel en PME, en verzekeraars Aegon, Achmea, Allianz, VGZ en Menzis. Daarentegen zijn alle energiefinancieringen en -beleggingen van Triodos en de Volksbank toe te schrijven aan duurzame energiebronnen. Bung belegt helemaal niet in de energiesector. PME en Pensioenfonds Horeca & Catering hebben recent aangekondigd dat ze zich uit fossiel brandstoffen terugtrekken.

De beleggingen in de energiesector van pensioenfondsen BPL Pensioen en Pensioenfonds Vervoer konden niet worden beoordeeld omdat deze financiële instellingen onvoldoende transparant zijn over hun beleggingen in de energiesector.

In de volgende paragrafen wordt nader ingegaan op de bevindingen van dit onderzoek voor de drie categorieën financiële instellingen: banken (EUR 13,0 miljard aan leningen en underwritingdiensten aan de 380 geselecteerde bedrijven plus EUR 874 miljoen aan beleggingen), verzekeringsmaatschappijen (EUR 21,2 miljard aan beleggingen) en pensioenfondsen (EUR 17,0 miljard aan beleggingen).

Nederlandse banken

In de periode 2018-2020 hebben vier Nederlandse banken (ABN Amro, ING Groep, NIBC en Rabobank) voor EUR 13,1 miljard aan leningen en underwriting-diensten verstrekt aan de geselecteerde bedrijven. Van deze kredieten viel 69% (EUR 9,1 miljard) toe te schrijven aan fossiele brandstoffen en 31% (EUR 4,1 miljard) aan duurzame energie.

Figuur 1 laat zien dat ING Groep de grootste kredietverlener was van de geselecteerde bedrijven, met EUR 9,1 miljard aan leningen en underwriting-diensten in de periode 2018-2020, waarvan EUR 6,8 miljard naar fossiele brandstoffen ging. ABN Amro verstrekte EUR 2,2 miljard aan kredieten (EUR 1,6 miljard aan fossiele brandstoffen) en Rabobank verstrekte EUR 1,5 miljard, waarvan EUR 321 miljoen aan fossiele brandstoffen. Hoewel NIBC een kleinere rol speelde, ging het totale kredietbedrag van EUR 338 miljoen naar fossiele brandstoffen.

Figuur 1 Kredietverlening Nederlandse banken aan de energiesector (2018-2020, EUR mln)



Figuur 2 laat zien dat Rabobank tussen 2018 en 2020 het aandeel duurzame energie in haar kredieten voor de energiesector heeft verhoogd van 63% naar 88%. Bij ABN Amro steeg dit aandeel van 31% naar 48% en bij ING van 21% naar 38%. NIBC bleef ver achter, waarbij alle kredieten in de periode 2018-2020 toe te schrijven waren aan fossiele brandstoffen.



Figuur 2Energiekredieten van Nederlandse banken naar energievorm (2018 & 2020)

Van de vier banken die niet in Figuur 2 zijn weergegeven, zijn Bunq en Van Lanschot Kempen niet betrokken bij de financiering van de energiesector. De Volksbank en Triodos Bank zijn betrokken bij de financiering van de energiesector, uitsluitend gericht op duurzame energie, maar ze financieren geen van de 380 bedrijven waarop dit onderzoek zich richt en zijn daarom niet weergegeven in Figuur 2.

Naast leningen en underwriting-diensten, constateerden we dat de vermogensbeheerdivisies van vier Nederlandse banken (ABN Amro, ING Groep, Triodos en Van Lanschot Kempen) eind 2020 in totaal EUR 875 miljoen hadden belegd in de aandelen en obligaties van de 380 geselecteerde energiebedrijven. Hiervan valt EUR 680 miljoen (78%) toe te rekenen aan fossiele brandstoffen en EUR 194 miljoen (22%) aan duurzame energie.

Figuur 3 Beleggingen banken in de energiesector naar energievorm (eind 2020)



Zoals te zien is in Figuur 3, belegt Triodos consequent alleen in aandelen en obligaties die kunnen worden toegeschreven aan duurzame energie. Dit is ook het geval voor De Volksbank, maar omdat we geen beleggingen van De Volksbank hebben gevonden in de bedrijven die voor dit onderzoeksproject zijn geselecteerd, is deze bank niet opgenomen in deze grafiek.

Van de andere banken verhoogde ABN Amro het aandeel van haar beleggingen dat kan worden toegeschreven aan duurzame energie, tot 35% in het laatste kwartaal van 2020. Van Lanschot Kempen (13%) en ING Groep (1%) blijven ver achter.

Verzekeringsmaatschappijen actief in Nederland

Eind 2020 belegden negen in Nederland actieve verzekeringsmaatschappijen gezamenlijk voor EUR 21,2 miljard in aandelen en obligaties van de geselecteerde 380 energiebedrijven. 89% van deze beleggingen (EUR 18,8 miljard) viel toe te schrijven aan fossiele brandstoffen, en slechts 11% (EUR 2,4 miljard) aan duurzame energie.

Figuur 4 laat zien dat Allianz verantwoordelijk is voor het leeuwendeel van de in dit onderzoek geïdentificeerde beleggingen van verzekeringsmaatschappijen in de energiesector, met een totale omvang van diens beleggingen van EUR 16,1 miljard (76%) eind 2020. Allianz werd gevolgd door Aegon (16%) en NN Groep (5%).

Figuur 4 Beleggingen verzekeraars in de energiesector (eind 2020, EUR mln)



Negen in Nederland actieve verzekeringsmaatschappijen belegden eind 2020 voor EUR 3,1 miljard in aandelen van de geselecteerde 380 bedrijven. Van deze beleggingen viel 66% (EUR 2,1 miljard) toe te schrijven aan fossiele brandstoffen en 34% (EUR 1,1 miljard) aan duurzame energie. Tijdens de onderzoeksperiode (2018-2020) hebben verzekeringsmaatschappijen hun beleggingen in energie-aandelen verminderd en zijn ze binnen de sector overgestapt van fossiele brandstoffen naar duurzame energie.

In eerdere onderzoeken constateerden we dat het aandeel van duurzame energie binnen de aandelenbeleggingen van verzekeraars in de energiesector was gestegen van 6% begin 2015, naar 8% eind 2017. Dat eind 2020 al 34% van hun beleggingen in energie-aandelen viel toe te schrijven aan duurzame energie laat dus een versnelling van deze trend zien, zij het nog ver verwijderd van het IEA 1,5°C-traject.

De in Nederland actieve verzekeringsmaatschappijen belegden in mei 2021 ook voor EUR 18,1 miljard in obligaties die door de 380 geselecteerde bedrijven waren uitgegeven. Daarvan viel nog steeds EUR 16,7 miljard (92%) toe te schrijven aan fossiele brandstoffen en slechts 8% (EUR 1,4 miljard) aan duurzame energie.

Wanneer we de beleggingen in energie-aandelen en -obligaties van de negen verzekeraars samennemen, blijkt uit Figuur 5 dat de meeste nog steeds overwegend in fossiele brandstoffen beleggen. De enige uitzondering is Athora Nederland, waarvan de energieportefeuille nu voor 62% (EUR 202 miljoen) toe te schrijven valt aan duurzame energie en voor 38% (EUR 123 miljoen) aan fossiele brandstoffen. De grootste belegger onder de verzekeringsmaatschappijen actief in Nederland, Allianz, heeft EUR 14,5 miljard (90%) belegd in fossiele brandstoffen en slechts EUR 1,6 miljard (10%) in duurzame energie.

Figuur 5 Samenstelling energieportefeuille verzekeringsmaatschappijen (eind 2020)



Pensioenfondsen

Eind 2020 belegden acht Nederlandse pensioenfondsen voor EUR 17,0 miljard in aandelen en obligaties van de geselecteerde 380 energiebedrijven. 87% van de beleggingen in de geselecteerde bedrijven (met een waarde van EUR 14,8 miljard) viel toe te schrijven aan fossiele brandstoffen en 13% (2,1 miljard EUR) aan duurzame energie.

Figuur 6 Beleggingen pensioenfondsen in de energiesector (eind 2020, EUR mln)



Figuur 6 laat zien dat ABP de grootste investeerder was in de geselecteerde bedrijven. Aan het einde van het vierde kwartaal van 2020 bezat het 8,6 miljard EUR aan obligaties en aandelen. Daarna volgden PFZW (2,9 miljard EUR) en PMT (2,2 miljard EUR). Door een gebrek aan datatransparantie kon geen analyse worden gemaakt van de beleggingen van BPL Pensioen en Pensioenfonds Vervoer.

Alle pensioenfondsen belegden nog steeds het overgrote deel van hun beleggingen in de energiesector in fossiele brandstoffen, hoewel Figuur 7 laat zien dat een aantal pensioenfondsen het aandeel beleggingen dat toe te schrijven is aan duurzame energie licht heeft verhoogd. Pensioenfonds Horeca & Catering scoort onder zijn branchegenoten het beste met een aandeel van 26% voor duurzame energie - nog ver verwijderd van het IEA 1,5°C-traject. In september 2021 kondigde het Pensioenfonds Horeca & Catering aan dat het zich had teruggetrokken uit bedrijven die meer dan 50% van hun omzet uit de productie van fossiele brandstoffen halen. Een dag later kondigde ook PME aan dat het al zijn belangen in fossiele olieen gasbedrijven had verkocht. Aangezien dit onderzoek gebaseerd is op de beleggingsportefeuilles van pensioenfondsen aan het eind van 2020, zijn deze desinvesteringen nog niet zichtbaar in de resultaten voor PME en PH&C.



Samenstelling energieportefeuille pensioenfondsen (begin 2018 & eind 2020) Figuur 7

Conclusies

Op basis van de bevindingen over beleggingen en financieringen van fossiele brandstoffen en duurzame energie door Nederlandse financiële instellingen trekken we de volgende conclusies:

- 1. De energiesectoractiviteiten van de meeste financiële instellingen die in Nederland actief zijn, zijn nog niet afgestemd op de doelstellingen van het Klimaatakkoord van Parijs. In lijn met het recente IEA 1,5°C-traject is de Eerlijke Geldwijzer van oordeel dat verdere financiering van, en beleggingen in, fossiele brandstoffen ongewenst zijn. Op basis van een analyse van kredieten en beleggingen verstrekt aan 380 geselecteerde energiebedrijven - die 75% van de wereldwijde energiemarkt bestrijken - in de periode 2018-2020, concluderen we echter dat de meeste kredieten en beleggingen van Nederlandse financiële instellingen nog steeds voornamelijk toe te schrijven zijn aan fossiele brandstoffen. Alleen Triodos Bank, De Volksbank en Bung verstrekken geen kredieten of beleggingen aan fossiel brandstoffen. Ook Rabobank (78%) en verzekeringsmaatschappij Athora Nederland (64%) richten het grootste deel van hun kredieten en beleggingen in de energiesector op duurzame energie.
- Nederlandse banken verstrekten in de periode 2018-2020 EUR 13.0 miliard aan leningen en underwriting-diensten aan de geselecteerde energiebedrijven. Nog steeds viel 69% van deze kredieten (9,1 miljard EUR) toe te schrijven aan fossiele brandstoffen en slechts 31% (4,1 miljard EUR) aan duurzame energie.

- 3. Drie banken verstrekten voornamelijk kredieten aan fossiele brandstoffen. ING Groep verstrekte voor EUR 9,1 miljard aan leningen en underwriting-diensten, waarvan 6,8 miljard EUR (75%) bestemd voor fossiele brandstoffen. ABN Amro verstrekte EUR 2,2 miljard, waarvan 71% (EUR 1,6 miljard) voor fossiele brandstoffen, terwijl het totale kredietbedrag van NIBC (338 miljoen EUR) kon worden toegeschreven aan fossiele brandstoffen. Triodos en De Volksbank verstrekten uitsluitend kredieten aan duurzame energie, terwijl slechts 22% (EUR 321 miljoen) van de EUR 1,5 miljard aan kredieten die Rabobank in deze periode verstrekte aan de energiesector bestemd is voor fossiele brandstoffen.
- 4. De vermogensbeheerdivisies van Nederlandse banken hadden eind 2020 in totaal EUR 875 miljoen belegd in de energiesector. Hiervan viel EUR 680 miljoen (78%) toe te rekenen aan fossiele brandstoffen en EUR 194 miljoen (22%) aan duurzame energie. Triodos en De Volksbank investeren uitsluitend in duurzame energie, terwijl ABN Amro haar aandeel in duurzame energie heeft verhoogd tot 35% van alle energie-beleggingen. De vermogensbeheerders van Van Lanschot Kempen (13%) en ING Groep (1%) blijven ver achter.
- Eind 2020 belegden negen in Nederland actieve verzekeringsmaatschappijen voor EUR 21,2 miljard in aandelen en obligaties uitgegeven door de geselecteerde energiebedrijven. 89% van deze beleggingen (EUR 18,8 miljard) was toe te schrijven aan fossiele brandstoffen, en slechts 11% (EUR 2,4 miljard) aan duurzame energie.
- 6. De meeste verzekeringsmaatschappijen investeren nog steeds overwegend in fossiele brandstoffen. De enige uitzondering is Athora Nederland, waarvan de portefeuille van de energiesector nu voor 62% (EUR 202 miljoen) toe te schrijven valt aan duurzame energie en voor 38% (EUR 123 miljoen) aan fossiele brandstoffen. De grootste belegger onder de verzekeringsmaatschappijen in Nederland, Allianz, heeft EUR 14,5 miljard (90%) geïnvesteerd in fossiele brandstoffen en slechts 10% (EUR 1,6 miljard) in duurzame energie. Aegon heeft het hoogste aandeel fossiele brandstoffen: EUR 3,2 miljard (93%) op totale energie-beleggingen van EUR 3,5 miljard.
- 7. Eind 2020 belegden acht Nederlandse pensioenfondsen voor EUR 17,0 miljard in aandelen en obligaties van de geselecteerde 380 energiebedrijven. 87% van de beleggingen in de geselecteerde bedrijven (met een waarde van EUR 14,8 miljard) viel toe te schrijven aan fossiele brandstoffen en 13% (EUR 2,1 miljard) aan duurzame energie.
- 8. Alle pensioenfondsen investeren nog steeds het overgrote deel van hun energie-beleggingen in fossiele brandstoffen. Hoewel nog erg laag, scoort Pensioenfonds Horeca & Catering het beste met een aandeel van 26% voor duurzame energie. PMT staat op de laatste plaats, met 95% (EUR 2,1 miljard) van zijn energie-beleggingen in fossiele brandstoffen. De grootste beleggers in fossiele brandstoffen zijn ABP (EUR 7,4 miljard, 86% van zijn totale energie-beleggingen) en PfZW (EUR 2,4 miljard, 83%). Pensioenfonds Horeca & Catering en PME kondigden in september 2021 aan na afloop van de periode waarop dit onderzoek betrekking heeft dat zij zich hebben teruggetrokken uit fossiele brandstof bedrijven.
- 9. Door een gebrek aan datatransparantie kon geen analyse worden gemaakt van de beleggingen van pensioenfondsen BPL Pensioen en Pensioenfonds Vervoer.

Aanbevelingen

In de loop van de voorbije jaren hebben financiële instellingen actief in Nederland verschillende vrijwillige afspraken gemaakt om de klimaatcrisis aan te pakken. Voorbeelden zijn de Spitsbergen Ambitie 2018-2020 en het commitment van de financiële sector in het kader van het Nederlandse Klimaatakkoord in 2019. Ondanks deze afspraken, blijven de energiesectoractiviteiten van de meeste financiële instellingen die in Nederland actief zijn niet afgestemd op de doelstellingen van het Klimaatakkoord van Parijs. De gevolgen van klimaatverandering hebben een ernstige negatieve impact op de mensenrechten. Gevaarlijke klimaatverandering voorkomen is daarom een mensenrechtenverplichting. Nieuwe wetgeving om internationaal maatschappelijk verantwoord ondernemen (IMVO) te promoten door de invoering van verplichte due diligence op het gebied van

mensenrechten, zoals de voorgestelde Nederlandse IMVO-wet en het verwachte EU-voorstel voor een richtlijn over duurzaam bedrijfsbestuur, bieden de kans om bedrijven, inclusief financiële instellingen, te verplichten hun activiteiten en portfolio's klimaatbestendig te maken door ze in lijn te brengen met een traject dat de mondiale temperatuurstijging beperkt tot 1,5°C.

De Eerlijke Geldwijzer doet daarom de volgende aanbevelingen aan de Nederlandse overheid:

- Zorg ervoor dat er een Nederlandse wet op het gebied van Internationaal Maatschappelijk Verantwoord Ondernemen (IMVO) komt die bedrijven, waaronder financiële instellingen, verplicht om hun impact op het klimaat te onderzoeken;
- 2. Verplicht financiële instellingen, als onderdeel van dit onderzoek naar hun impact op het klimaat, om een plan aan te nemen en uit te voeren om hun gefinancierde broeikasgasemissies te verminderen in overeenstemming met de doelstelling om de mondiale temperatuurstijging te beperken tot 1,5°C. Dit plan moet van toepassing zijn op alle financierings- en beleggingsactiviteiten en moet tussentijdse doelstellingen bevatten. Over de voortgang in de richting van de doelstellingen moet op jaarbasis worden gerapporteerd; en
- 3. Pleit voor het opnemen in EU-wetgeving van een verplichting voor bedrijven en financiële instellingen om onderzoek te doen naar hun impact op het klimaat.

Op basis van dit onderzoek worden bovendien de volgende aanbevelingen gedaan aan financiële instellingen die in Nederland actief zijn:

- Alle pensioenfondsen, evenals de meeste verzekeringsmaatschappijen en banken, moeten hun kredieten en beleggingen voor fossiele brandstoffen verminderen en de kredieten en beleggingen voor duurzame energie verhogen om in overeenstemming te komen met een 1,5°C-consistent traject. Deze portefeuilleverschuiving kan worden bereikt door energiebedrijven door middel van engagement, stemmen of anderszins te stimuleren om te stoppen met investeren in fossiele brandstoffen en om meer te investeren in duurzame energie. Financiële instellingen kunnen er ook voor kiezen om hun geld te verplaatsen naar andere energiebedrijven die zich richten op duurzame energie.
- 2. In lijn met de conclusies van UNEP en IEA moeten alle financiële instellingen niet alleen kijken naar het verschuiven van kredieten en beleggingen naar duurzame energie, maar moeten ze expliciet streven naar snelle vermindering van hun kredieten aan en beleggingen in fossiele brandstoffen. Sommige banken en verzekeraars volgen deze weg al, maar de meeste financiële instellingen die in Nederland actief zijn, blijven hun beleggingen in fossiele brandstoffen op hetzelfde niveau houden.
- 3. Alle financiële instellingen moeten per direct een einde maken aan alle financiering voor:
 - nieuwe winning van steenkool, olie en aardgas;
 - energieopwekking door kolencentrales;
 - ontginning van teeroliezanden;
 - olie- en gaswinning in poolgebieden (onshore en offshore); en
 - de uitbreiding van alle infrastructuur welke kan leiden tot een verdere langjarige lock-in van op fossiele brandstoffen gebaseerde energieopwekking.
- 4. Alle financiële instellingen dienen hun krediet- en beleggingsportefeuilles volledig openbaar te maken, zodat belanghebbenden - waaronder overheden, accountants, maatschappelijke organisaties en onderzoekers - hun kredieten en beleggingen kunnen monitoren en hen ter verantwoording kunnen roepen. Op dit moment geven de meeste banken en verzekeringsmaatschappijen, evenals verschillende pensioenfondsen nog steeds geen volledige informatie.

5. Pensioenfondsen en verzekeraars zouden ook meer aandacht moeten besteden aan hun obligatieportefeuilles, waarin het aandeel duurzame energie vaak relatief kleiner is dan in hun aandelenportefeuilles. Met de groei van de markt voor groene obligaties zou dit een relatief gemakkelijke taak moeten zijn.

Abbreviations

ABP	Algemeen Burgerlijk Pensioenfonds
BpfBouw	Bedrijfstakpensioenfonds voor de Bouwnijverheid
C02	Carbon Dioxide
EGW	Eerlijke Geldwijzer
FFG	Fair Finance Guide
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
kWh	Kilowatt-hour
LULUCF	Land-use, land use change and forestry
MW	Megawatt
PFZW	Pensioenfonds Zorg en Welzijn
PH&C	Pensioenfonds Horeca & Catering
PME	Pensioenfonds van de Metalelektro
PMT	Pensioenfonds Metaal en Techniek
StiPP	Stichting Pensioenfonds voor Personeelsdiensten
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

Introduction

The study analyses the energy sector financing and investments by banks, insurance companies and pension funds operating in the Netherlands. It is similar to earlier studies in 2015 (which focused on banks) and 2018 (banks and insurance companies). The current study assesses the percentage of the energy financing and investments by banks, insurance companies and pension funds funding fossil fuels and renewable energy.

Climate change is not just an environmental problem. It is a disruptive global development concretely impacting the lives of people, especially of the poorest people in developing countries. Global temperature rise will cause untold human devastation and exacerbate poverty and hunger.

In December 2015, 196 Parties adopted the Paris Climate Agreement. This agreement legally binds the signatories to commit to the goal of limiting global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. To achieve the goal of the Paris Climate Agreement, countries aim to reach global peaking of greenhouse gas emissions as soon as possible to achieve a climate neutral world by 2050.

In the Netherlands, the Spitsbergen Ambition and the 2019 Dutch Climate Agreement are the main frameworks of reference to align the efforts of the country with the commitment of the Paris Climate Agreement. Despite some steps in the right direction to tackle climate change, much more is required to make the needed transition. Not only governments should act, but private sector actors such as financial institutions should take their own responsibility as well.

With their credits and financial investments, banks, insurers, and pension funds are major distributors of capital. By making responsible financing and investment choices, they could play a major role in accelerating the phase out of fossil fuels and the further development of renewable energy generation.

In this context, the Eerlijke Geldwijzer (Dutch Fair Finance Guide) has carried out a case study on how financial institutions operating in the Netherlands deal with climate change, resulting in two reports published separately. The two reports consist of:

- An assessment of the commitments, policies, strategies, and action plans that financial
 institutions operating in the Netherlands have developed to deal with their responsibility to limit
 climate change; and
- An analysis of the financial institutions' financial relations to the energy industry, largely based on the methodology used in earlier iterations of this study by Profundo for the Eerlijke Geldwijzer in 2015 (banks) and 2018 (banks and insurance companies),

This document is the second of the two reports, and analyses the financings and investments in fossil fuels and renewable energy made by 27 banks, insurance companies, and pension funds active in the Netherlands in the period 2018-2020.

This report is structured as follows. Chapter 1 describes the methodology, including the selection of energy companies. Chapter 2 describes the findings for Dutch banks, chapter 3 summarizes the results for insurance companies operating in the Netherlands, while chapter 4 deals with the results for the Dutch pension funds. Chapter 5 draws conclusions and makes some recommendations. A summary of all findings can be found on the first pages of this report.

1 Methodology

Methodology

The methodology used for this report is based largely on the methodology used in earlier iterations of this study by Profundo for the Eerlijke Geldwijzer in 2015 (banks) and 2018 (banks and insurance companies), as well as for assessments of financial institutions in France and Sweden. The (slightly adjusted) methodology is described in the following sections.

1.1 Objective and research questions

This report is the second part of a case study for the Eerlijke Geldwijzer (Dutch Fair Finance Guide) on how financial institutions operating in the Netherlands deal with climate change. The two reports cover:

- An assessment of the commitments, policies, strategies, and action plans that financial
 institutions operating in the Netherlands have developed to deal with their responsibility to limit
 climate change; and
- An analysis of the financial institutions' financial relations to the energy industry.

This report presents the results of the second assessment.

1.2 Selected financial institutions

The 27 banks, insurers and pension funds operating in the Netherlands which selected for this research project are listed in Table 2.

Banks	Insurers	Pension funds
ABN Amro	Achmea	ABP
Bunq	Aegon	BPF Bouw
De Volksbank (SNS, ASN Bank, Regiobank and BLG Wonen)	Allianz	BPL Pensioen
ING	ASR	Pensioenfonds Detailhandel
NIBC	CZ	Pensioenfonds Horeca en Catering (PH&C)
Rabobank	Menzis	Pensioenfonds Vervoer
Triodos Bank	Nationale Nederlanden	Pensioenfonds Zorg en Welzijn (PFZW)
Van Lanschot Kempen	VGZ	PME
	Vivat	PMT
		StiPP

Table 2 Banks, insurers and pension funds selected for this project

1.3 Classification of energy sources

As a first step, this section provides an overview of the approach behind the selection of the energy sources compared in this study. Section 1.3.1 explains which energy sources are selected for this study as they are considered either as *Renewable Energy* or as *Fossil Fuels*. Section 1.3.2 details which energy sources are seen as Other energy sources, which means that loans to, and investments in, companies active in producing or converting these energy sources are not taken into account in this research project.

1.3.1 Selected energy sources

According to the United Nations Framework Convention on Climate Change (UNFCCC), in 2016 81% of all GHG emissions (excluding land-use, land use change and forestry, LULUCF)¹ were attributable to the use of energy. Within this sector, 36% of GHG emissions originated from power generation, 26% from transport, 14% from manufacturing industries and construction, 12% from other sectors, 10% from fugitive emissions from the production of fuels and 2% from other sources not specified.²

As of 2016, electricity and heat generation accounted for 36% of total GHG emissions in the energy sector, and 29% of total GHG emissions (excluding LULUCF) for countries party to the UNFCCC. As such, power generation constitutes the core sector of this research. This study further focuses on sectors that can be considered as inputs for power generation and/or for energy used in transport, manufacturing industries and construction, and fugitive emissions from the production of fuels. Together these sectors are relevant for more than 60% of GHG emissions attributable to energy use and 49% of total global GHG emissions.³

The following paragraphs further explain which sectors and energy sources were selected as *Renewable energy* or as *Fossil fuels*.

• Electricity generation

Electricity can be generated through various sources. Not all sources of electricity generation emit GHGs. Electricity generation sources include, but are not limited to, the following:

- Biomass
- Coal
- Gas
- Geothermal energy
- Hydro electricity
- Nuclear energy
- Ocean energy
- Oil
- Solar
- Wind

A growing number of electricity generation companies are diversifying the composition of their generating capacities across different energy sources. This is stimulated by various factors, such as the increasing awareness of climate change issues, the rapidly declining costs of renewable energy and other market dynamics, consumer and shareholder pressure and government incentives and regulations.

From the sourcing of materials or fuels, to construction, to operation and waste management, different electricity generation technologies emit different levels of GHG. When emissions of all these processes are taken together, they are known as the life-cycle emissions of a certain electricity generation technology. In the context of its fifth assessment report on climate change mitigation, Working Group III of the IPCC assessed different electricity generation technologies and developed an overview of the life-cycle emissions, as shown in Table 3. The GHG emissions are expressed in grams of CO2-equivalent, comparing their climate change impact per gram to that of CO2. The grams of CO2-equivalent emitted per kilowatt-hour produced are then calculated (gCO2eq/kWh).

There has been some debate regarding steps in the life-cycles of some technologies not being included, and that technological advances that occurred while IPCC was conducting its study have also not been included. Alternative evaluations of life-cycle emissions also exist. However, the IPCC assessment is currently the most comprehensive. It is therefore the basis for our assessment of different sectors and energy sources in this research project.

Table 3 Life-cycle emissions of electricity generation technologies (gCO2eq/kWh)

Current commercially available technology	Minimum	Median	Maximum
Coal - pulverized coal	740	820	910
Gas - combined cycle	410	490	650
Biomass - co-firing	620	740	890
Biomass - dedicated	130	230	420
Geothermal	6	38	79
Hydropower	1	24	2,200
Nuclear	3.7	12	110
Concentrated Solar Power (CSP)	8.8	27	63
Solar PV – rooftop	26	41	60
Solar PV – large-scale projects	18	48	180
Wind onshore	7	11	56
Wind offshore	8	12	35

Source: Intergovernmental Panel on Climate Change (2015, February), Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, New York: Cambridge University Press, p. 1,335.

Table 4 provides an overview of the electricity generation technologies that this research considers as Renewable Energy, because of median life-cycle emissions of below 50 grams of CO2 equivalent per kilowatt hour, and which are considered as Fossil Fuels. It further provides an overview of other electricity generation technologies, which are not included in either of these two categories (explained further in section 1.3.2).

Table 4	Classification	of electricity	generation	technologies
---------	----------------	----------------	------------	--------------

Renewable Energy	Fossil Fuels	Other	
Geothermal	Coal - pulverized coal	Biomass - co-firing	
Concentrated solar power (CSP)	Gas - combined cycle	Biomass - dedicated	
Solar PV - rooftop	Oil	Hydropower	
Solar PV - power generation		Nuclear power	
Wind onshore			
Wind offshore			

Renewable Energy	Fossil Fuels	Other
Ocean and tidal energy		

Coal mining

Coal is used as an input for power generation, which accounts for 36% of all GHG emissions in the energy sector, and 29% of total GHG emissions in 2016 for countries party to the UNFCCC.⁴ Coal is also used as input for other industrial processes. The most significant other uses of coal are in steel production, cement manufacturing and liquid fuel. As such its impact on GHG emissions is far greater than simply as an input in power generation.

As Table 3 shows, coal used for electricity has a median life-cycle GHG emission of 820 grams of CO2 equivalent per kilowatt hour. Coal mining can also have negative impact on the environment through damage to ecosystems, deforestation, and pollution. Additionally, coal mining can also have negative impacts on communities, including land grabs, loss of livelihoods, and forced displacement.

• Oil and gas production and refining

Oil and gas are used in both the transport and the power generation sectors. Together, these sectors accounted for 62% of GHG emissions in the energy sector, and 51% of total GHG emissions.⁵ Oil and gas are also used as energy sources in many other sectors and as inputs for other chemical processes.

As shown in Table 3, gas as an input for electricity generation has a median life-cycle GHG emission of 490 grams of CO₂ equivalent per kilowatt hour. While this is lower than coal, it is still well above the threshold of this study of 50 grams of CO₂ equivalent per kilowatt hour. Furthermore, oil and gas extraction can have negative impacts on the environment through damage to ecosystems, deforestation, and pollution. Additionally, oil and gas extraction can also have negative impacts on communities including land grabs, loss of livelihoods, earthquakes, and forced displacement.

A report published at the end of 2020 by the United Nations Environmental Programme (UNEP), came to the conclusion that "to follow a 1.5°C-consistent pathway, the world will need to decrease fossil fuel production by roughly 6% per year between 2020 and 2030. (...) Global coal, oil, and gas production would have to decline annually by 11%, 4%, and 3%, respectively, to be consistent with a 1.5°C pathway.".⁶

In May 2021, the International Energy Agency published a global 1.5 degrees "pathway", clarifying what kind of energy investments are needed to achieve net zero global GHG emissions in 2050. The report comes to the conclusion "There is no need for investment in new fossil fuel supply in our net zero pathway. Beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway, and no new coal mines or mine extensions are required."⁷

• Solar energy

Solar energy is a renewable source of energy. Solar energy can be derived from solar photovoltaic panels and from concentrating solar thermal energy. Different sources of solar electricity have different levels of GHG emissions (see Table 3). Concentrated solar energy has a median life-cycle GHG emission of 27 grams of CO2 equivalent per kilowatt hour. Large-scale solar PV has a median life-cycle GHG emission of 48 grams of CO2 equivalent per kilowatt hour. Rooftop solar PV has a median life-cycle GHG emission of 48 grams of 41 grams of CO2 equivalent per kilowatt hour.
The mining of minerals needed to produce solar cells is regularly linked to human rights' infringements and the process of manufacturing photovoltaic cells can include the use of toxic chemicals. In addition, the production process is linked to potential issues identified generally in the production of most electronic goods. Given that the assumption that the potential impact is less than the overall benefit produced, and that solar energy equipment manufacturing has low life-cycle emissions, this sector is included in this study.

• Wind energy

Wind energy is a renewable source of energy, but different sources of wind generated electricity have different levels of GHG emissions (see Table 3). Onshore wind energy has a median life-cycle GHG emission of 11 grams of CO2 equivalent per kilowatt hour. While offshore wind energy has a median life-cycle GHG emission of 12 grams of CO2 equivalent per kilowatt hour.

A point of attention is that the mining of minerals needed to produced wind energy is regularly linked to human rights' infringements.

Geothermal energy

Geothermal energy is a renewable source of energy. As demonstrated in Table 3, geothermal energy has a median life-cycle GHG emission of 38 grams of CO2 equivalent per kilowatt hour.

• Ocean energy

Ocean energy is an emerging energy sector. Both tidal stream generators and barrage tidal energy are methods to capture ocean energy. Tidal stream generators function similarly to wind turbines as they capture the incoming and outgoing stream of energy from tides. Barrage tidal energy is similar to hydroelectric dams, as structures are built across bays and estuaries to force tidal energy through turbines situated in the barrage.

As with hydro power, the impact on the environment, particularly on natural ecosystems, is potentially significant. Nevertheless, a review on studies on the life-cycle GHG emissions of ocean energy estimates that the median is around 17 grams of CO2 equivalent per kilowatt hour (gCO2/kWh) and could be as low as 8 gCO2/kWh.⁸ Given these results and the technical potential of this energy source as an alternative source of energy, ocean energy has been included in this study as Renewable Energy.

1.3.2 Other energy sectors

Apart from the Renewable Energy and Fossil Fuels energy sources defined in section 1.3.1, three sources of energy are not taken in consideration in this research project: nuclear energy, hydropower and bioenergy. These sources of energy are not considered viable alternatives to fossil fuels for energy used in power generation and transport as they are considered to have a high impact on the environment or because there is limited consensus on the impact level of these energy sources. This section further discusses these three other energy sources and the rationale not to include them in this research project.

• Nuclear energy

Nuclear energy is seen by some as a sustainable source of energy because its energy generation is seen as low-carbon. It produces relatively insignificant amounts of GHGs, is comparatively cheap to run, and is a stable source of energy. However, many controversies surround nuclear power.

Recent studies suggest that as uranium ore grades decrease, fossil fuel inputs in the nuclear fuel cycle will increase. As such, within a few decades, the GHG emissions in the nuclear fuel cycle will be similar to that of traditional coal-fired or gas-fired power plants.

Further risks include the risks and environmental damage from uranium mining, processing and transport, the risk of nuclear weapons proliferation, the unsolved problem of nuclear waste and, although many countries have a good track record, the potential hazard of a serious accident.

As shown in Table 3, current estimations suggest that nuclear energy has a median life-cycle GHG emission of 12 grams of CO2 equivalent per kilowatt hour. However, due to the potential negative impacts, and the opinion of the Dutch Fair Finance Guide that nuclear power is not a viable alternative to traditional fossil fuels, nuclear energy is not included in this study.

• Hydropower

Hydropower is often considered a sustainable source of energy because it is thought to emit less GHG than traditional fossil fuels. However, hydropower is often controversial. Hydropower projects, both large and small, have a significant impact on the environment, altering habitats, as well as having a potentially great impact on communities and their socioeconomic conditions. Communities are often displaced without (or with inadequate) compensation, and livelihoods are lost. It is therefore not sustainable in the social and economic sense of the word, and does not respect human rights, in all contexts.

As Table 4 demonstrates, hydropower has a median life-cycle GHG emission of 24 grams of CO2 equivalent per kilowatt hour, which is quite low. However, hydropower also has a maximum life-cycle GHG emission of 2,200 grams of CO2 equivalent per kilowatt hour. This is more than double the maximum life-cycle GHG emission of pulverized coal. Such high levels of life-cycle GHG emission per kilowatt hour are generally reached by large-scale hydropower, caused by the methane emissions of the decaying vegetation.

Small-scale run-of-the-river hydro power is seen as having fewer negative social and environmental impacts than large-scale hydropower. However, different countries and organizations use different minimum thresholds to differentiate between small-scale and largescale hydropower. Table 5 provides an overview of the different definitions of small-scale hydropower.

Country	Threshold (MW)
Brazil	≤ 30
Canada	< 50
China	≤ 50
European Union	≤ 20
India	≤ 25
Norway	≤ 10
Sweden	≤ 1.5
United States	5-100
WWF	< 15

Table 5 Country definitions of small-scale hydropower

Source: Kumar, A., T. Schei, A. Ahenkorah, et al. (2011), "Hydropower", in O. Edenhofer, R. Pichs-Madruga, et al. (eds), IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation, Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press, p. 450; WWF (2003), Hydropower in a Changing World, p.3. Many other factors influence the amounts emitted, depending on the geographical location, the age of the reservoir, external inputs of carbon and nutrients, and characteristics of the reservoir such as water flow, turnover time, area, depth, water level fluctuations and the positioning of the turbines and spillways. Dams in tropical areas for example emit more methane than do those in temperate or boreal areas. ⁹ Experts also suggest that the environmental impact per megawatt (MW) is dependent on the measures taken to mitigate the negative impact. It is beyond the scope of this research to investigate the impact per MW of each hydropower plant in the power generation portfolios of all selected power generation companies for the period under study. Moreover, as there is no consensus on the definition of small-scale hydropower, it was decided that hydropower would not be included in this study.

• Bioenergy

Biomass energy and biofuels are derived from various sources. The term refers to biological matter that can be used as energy source for electricity generation and transport. The biological can range from wood to edible crops to algae and other sources. Biomass can be burned directly, or can be turned into fuels by gasification, pyrolysis, or anaerobic digestion.

Biomass is regarded by some as a renewable energy source because the carbon in biomass is considered as part of the natural carbon cycle. This is because trees take in carbon dioxide from the atmosphere and convert it into biomass and when they die it is released back into the atmosphere. Whether trees are burned or whether they decompose naturally, the same amount of carbon dioxide is released. The idea is that if trees harvested as biomass are replanted as fast as the wood is burned, new trees take up the carbon produced by the combustion, the carbon cycle theoretically remains in balance, and no extra carbon is added to the atmospheric balance sheet. Therefore, biomass is considered by some as "carbon neutral." Replacing fossil fuels with biomass is thought to result in reduced carbon emissions.

However, whether biomass is truly carbon neutral or not depends on a number of factors:

- what type of biomass is used,
- the combustion technology,
- which fossil fuel is being replaced, and
- what forest management techniques are employed where the biomass is harvested.

Combustion of biomass and fossil fuels both produce carbon dioxide. When annual crops and other short-term biomass are burned, the carbon generated can generally be absorbed by the growing of new plants. However, when the biomass comes from wood and trees, the regrowing and thus the recapture of carbon take years or decades, and the carbon equation would need to take into consideration the carbon that the trees would have naturally stored if left untouched. This is particularly problematic as the majority of existing biomass power plants currently use wood residue.

Furthermore, as with biofuels, described below, biomass is affected by a number of social and environmental issues. As described above, biomass can include agricultural waste, production forest wood chips, and wood pellets, among other things. Issues generally tend to arise when wood is being cultivated in order to produce wood pellets. There are numerous reports of forest destruction (also leading to CO2 emissions) for monoculture development, as well as of land grab and loss of livelihoods related to such developments.

Another form of bioenergy is biofuels. Biofuels can come in different forms, including ethanol and biodiesel. They are derived from different feed stocks including sugar beets, sugar cane, soy, palm oil, wheat, corn, and jatropha. However, the biofuels sector is afflicted by numerous controversies. Again, there are significant concerns including issues regarding food security, deforestation, legality of operations, human rights and labour issues, community displacement and land grabs, loss of livelihoods, the impact of monoculture on ecosystems, and soil degradation. Due to these controversial issues regarding biomass and biofuels, bioenergy is not a clear-cut viable alternative to traditional fossil fuels. It is therefore not included in this study.

1.3.3 Final selection of energy sources

Table 6 presents the final categorisation of activities related to Renewable Energy and Fossil Fuels selected for the purpose of this study. Based on the discussion in section 1.3.2, other sources of energy are not taken into account in this study.

Renewable Energy	Fossil Fuels
Geothermal energy equipment manufacturing	Coal-fired power generation
Geothermal energy generation	Coal mining
Ocean energy engineering	Gas-fired power generation
Ocean energy generation	Gas production and refining
Solar energy generation	Oil-fired power generation
Solar panel manufacturing (PV and CSP)	Oil production and refining
Wind power generation	Oilfield services
Wind turbine manufacturing	Pipelines

Table 6 Activities related to Renewable Energy and Fossil Fuels

1.4 Selection of energy companies

As a second step, a selection of global and national energy companies and projects was made, focusing on companies and projects involved in Renewable Energy and/or Fossil Fuels. For each of the activities listed in Table 6, the largest companies on the global market as well as the largest companies on the Dutch market were selected (see Appendix 1). This selection was based on market studies, data from industry federations and other reliable sources. With the number of (international) companies selected for this study we cover around 75% of the global production volumes in the past three years for all activities related to Renewable Energy and to Fossil Fuels listed in Table 6, as well as 90% of the production volumes in the Netherlands for each activity.

For budgetary reasons it was not possible to cover 100% of the global and Dutch energy markets, but with a 75% market coverage a fairly accurate comparison between the different financial institutions is possible. Inevitably, some energy sector credits and investments are missed, but there is no reason to assume that this has markedly influenced the results. For the smaller banks who focus their energy sector credits and investments on relatively small, dedicated renewable energy companies (Triodos and De Volksbank), we certainly have missed some credits and investments. But this has had no influence on the fossil fuel and renewable energy percentages calculated for these banks.

1.5 Analysing the activities of the energy companies

For each of the 380 companies selected, we analysed which proportion of their activities can be attributed to fossil fuels, to renewable energy, and to other activities inside and outside the energy sector. Using these segment adjusters makes it possible to attribute a percentage of each loan to, and each investment in, the selected companies to fossil fuels, to renewable energy and to other activities. A general corporate loan to a power company, or an investment in the shares of that same company, can be used by the power company to finance all types of activities it is involved in. For general corporate loans and investments provided to companies active in more than one segment, the segment adjusters therefore are used to attribute the financing and investment amounts to the different activities in which the energy company is involved.

Due to a lack of data availability, segment adjusters will not be calculated in the same way for each company. Preferably, data on the annual capital expenditure (capex) per sector or segment in which the company is active has been used. These data are also referred to as the annual addition to non-current assets per sector/segment.

For some companies, capex-data per segment are not available, or the segment classification used by the company is too broad to distinguish between the activities listed in Table 6. In these cases, the following proxies were used in order of preference:

- for electricity companies: the installed electricity generation capacity broken down by energy source;
- segment distribution of assets;
- segment distribution of costs;
- segment distribution of profits;
- an estimate based on the description of the company's activities.

The segment distribution of capex, assets, costs and/or revenues was primarily identified through annual reports, company filings and investor presentations. Segment adjusters were calculated separately for each of the last four years (2017-2020).

Note that the credit or investment figures for individual financial institutions might differ from the figures published by the financial institutions themselves on their credits and investments in the fossil fuels sector, as these figures might cover more companies and count the full investment in each company. We only count the proportions of the investments which are directly attributable to fossil fuels and to renewable energy. The proportions of investments in these companies which are used for other energy sources, for electricity transportation and for non-energy activities are not taken into account.

1.6 Researching the financing of the energy companies

In this research step, data was gathered on the financing of, and investments in, the selected companies (see section 1.4) by the selected banks, insurers and pension funds (see section 1.2). This research focused on the last three years, from January 1, 2018 until December 31, 2020. For shareholdings data was also collected for December 31, 2017, as these can be seen as equal to the start of the research period (1 January 2018). For bondholdings for insurance companies, only the most recent data available at the time of the research could be used as there is no historical bondholding data.

Sources used for banks and insurers include the Bloomberg, Refinitiv, Orbis, IJGlobal and TradeFinanceAnalytics databases; annual reports and stock exchange filings of companies; company registers; media sources, and; portfolio filings. All amounts found were converted, where necessary, to Euros against the prevailing exchange rates at the moment the financing was provided or the investment was reported.

From these data sources, the following data was retrieved for different forms of financing and investments:

- All loans (trade finance, project finance, general corporate loans, revolving credits) provided in the last three years (since 1 January 2018) are taken into account;
- All underwritings of share and bond issuances in the last three years (since 1 January 2018) will be taken into account;
- For investments in shares, the outstanding values at the quarterly reporting dates in the period 31 December 2017 to 31 December 2020 were researched for banks and insurance companies. For pension funds the end year portfolio disclosures were used for the period 2017-2020. No distinction was made between investments for own account and asset management for third parties. In the view of the Eerlijke Geldwijzer, asset managers need to take responsibility for the funds and investment solutions they offer to clients, to make sure that these are aligned with a 1.5 degrees scenario.

 For investments in bonds, the outstanding values at the most recent portfolio data was considered for banks and insurance companies as no historical data is available. For pension funds the end year portfolio disclosures were used for the period 2017-2020. No distinction was made between investments for own account and asset management for third parties. In the view of the Eerlijke Geldwijzer, asset managers need to take responsibility for the funds and investment solutions they offer to clients, to make sure that these are aligned with a 1.5 degrees scenario.

For syndicated loans and underwriting syndicates some extra estimates might be needed to divide the so-called principal amount among all banks participating in the syndicate. The names and roles of all banks that participate in the syndicate are usually found in the data sources. When the actual amounts for which banks participated in the syndicate are also available, this break-down was used and no further estimates were needed.

When no data was available on how the principal amount was divided among the various banks participating in the syndicate, an estimate was made based on the following guidelines:

• When the fees received per bank were known, the ratio of a bank's management fee was used to estimate its financial contribution to the loan or issuance. This was calculated as follows:

Bank's contribution: $\left(\frac{individual bank sfee}{\sum of all bank sfee} * principal amount\right)$

• When the fees were unknown for one or more participants in a deal, we first calculated the bookratio to determine how the principal amount was divided between the bookrunners (the banks arranging the deal) and the other banks participating more passively in the syndicate. The bookratio was calculated as follows:

 $\begin{array}{c} \textit{Bookratio:} \\ \hline \\ \hline \\ number of bookrunners \end{array}$

Table 7 shows which share of the principal amount is then divided to the bookrunners, depending on the bookratio calculated. This table is based on experience gained by Profundo over the years with analysing thousands of loan and issuance syndicates for which the contributions of individual banks were known. Experience learns that for loan syndicates, the share of the principal amount that is divided between the bookrunners decreases when the total number of banks in the syndicate increases. For issuance syndicates this is not the case.

Table 7 Contributions assigned to the bookrunners in loan and issuance syndicates

Bookratio	Loans	Issuances
> 1/3	75%	75%
> 2/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40%*	< 75%*

For loan and issuance syndicates with a bookratio of more than 3.0, we used a formula which gradually lowers the commitment assigned to the bookrunners as the bookratio increases. The formula used for this is:

$$\frac{1}{\sqrt{bookratio}}$$
1.443375673

The number in the denominator is used to let the formula start at 40% in case of a bookratio of 3.0. As the bookratio increases the formula will go down from 40%. For issuance syndicates the figure in the denominator is 0.769800358.

This research step results in an overview of the selected financial institutions operating in the Netherlands, showing per bank, insurer and pension fund with which companies from the selected list of companies they have financial links and for which amounts they financed, or invested in, these companies in the past three years (2018 - 2020).

1.7 Combining financings and investments with segment adjusters

The financing and investment data identified for each financial institution (see section 1.6) were then combined with the relevant segment adjusters (see section 1.5). For example, if we found that Oil Company A received a general corporate loan from Bank B for EUR 100 million in 2019. During this financial year, 95% of Oil Company A's capex went to oil, 3% to wind power, and 2% to activities which are not relevant four our analysis. EUR 95 million was therefore attributed to fossil fuels, EUR 3 million to renewable energy, and EUR 2 million was not included in the analysis. The same calculation applies to an investment in shares or bonds of Oil Company A by Insurance company C or Pension fund D.

After making these calculations for all financings and investments found, the total amounts financed and invested by each bank, insurer or pension fund were added up, both for *Renewable energy* activities and for *Fossil fuel* activities. As all financing attributable to other energy activities as well as to non-energy sectors is ignored, the total financing analysed for each financial institution will usually be lower than the actual financing provided to the selected companies as found in section 1.6.

Using the total financing and investment amounts, we also calculated which percentage of the combined energy financings and investments of the banks, insurers and pension funds went to *Renewable energy* in the past three years and which percentage to *Fossil fuels*. These percentages were calculated per individual financial institution and for the three groups: banks, insurers and pension funds.

1.8 Historical comparison

Where possible, the percentages found in section 1.7 were be compared with the findings in similar studies done by Profundo for the Eerlijke Geldwijzer in 2015 (only banks) and 2018 (banks and insurance companies). These historical comparisons will focus on the percentages of financings and investments funding fossil fuels and renewable energy, but will not compare absolute values as the selection of companies in the three studies is different: companies went bankrupt or merged, new companies emerged in the rankings of the largest companies in a market, etc. Comparing how the absolute credit and investment data and the relevant percentages developed over the years, nevertheless makes it possible to draw conclusions on the trends in financing of, and investments in, renewable energy and fossil fuels by banks and insurance companies operating in the Netherlands.

1.9 Feedback round

The findings about their own financial institution were shared with the banks, insurers and pension funds for their comments. Errors and omissions were reported by a few financial institutions, and were corrected by Profundo.

2 Banks

This chapter analyses bank loans and underwriting services provided by Dutch banks to the selected energy companies in the period 2018-2020, as well as the investments in shares and bonds of these same companies by the banks' asset management divisions. An assessment is made which proportion of these credits and investments is attributable to fossil fuels and which proportion to renewable energy. These proportions are compared with the results of earlier studies.

2.1 General findings

In the period 2018 to 2020, four Dutch banks (ABN Amro, ING Group, NIBC and Rabobank) provided EUR 13.1 billion in loans and underwriting services to the selected companies. Still 69% of these credits (EUR 9.1 billion) was attributable to fossil fuels and 31% (EUR 4.1 billion) to renewable energy. Additionally, we found that the asset management divisions of four Dutch banks (ABN Amro, ING Group, Triodos and Van Lanschot Kempen) had invested a total amount of EUR 875 million in the shares and bonds of the 380 selected energy companies at the end of 2020. Of this amount, EUR 680 million (78%) was attributable to fossil fuels and EUR 194 million (22%) was attributable to renewable energy.

More details are provided in the following sub-sections.

2.1.1 Loans and underwriting

Between 2018 and 2020, four Dutch banks (ABN Amro, ING Group, NIBC and Rabobank) provided EUR 9.2 billion in loans to the selected companies. 73% of these loans (EUR 6.7 billion) was attributable to fossil fuels, and 27% (EUR 2.5 billion) to renewable energy. In this same period, these four Dutch banks also provided EUR 4.0 billion in underwriting services to the selected companies. 60% of these underwriting services (EUR 2.4 billion) was attributable to fossil fuels, and 40% (EUR 1.6 billion) to renewable energy.

Combined, of the EUR 13.1 billion in loans and underwriting services identified, 69% (EUR 9.1 billion) was attributable to fossil fuels and 31% (EUR 4.1 billion) to renewable energy. Focusing in on the annual trends shows that in 2020 52% of credits provided by the banks to the selected companies was attributable to fossil fuels, and 48% to renewable energy. This was an improvement from 2018 when 75% of the loans and underwriting services provided by the Dutch banks to the selected companies was attributable to fossil fuels.

Figure 8 shows that this change in composition is driven by a 46% decrease in credit attributable to fossil fuels from EUR 3.8 billion in 2018 to EUR 2.1 billion in 2020. Additionally, there was a 55% increase in loans and underwriting attributable to renewable energy from EUR 1.2 billion in 2018 to EUR 1.9 billion in 2020.

Figure 8

fuels.

Bank loans & underwriting by energy source (2018-2020, EUR mln)



Figure 9 shows that the largest creditor of the selected companies was ING Group. It provided EUR 9.1 billion in loans and underwriting services in the period 2018-2020. It was followed by ABN Amro (EUR 2.2 billion) and Rabobank (EUR 1.5 billion), while NIBC played a smaller role (EUR 338 million).

De Volksbank and Triodos are also providing credits to energy companies, focussing exclusively on renewable energy, but they have not given loans to any of the 380 companies on which this study is focusing. Bunq does not provide credits to companies.



Figure 10 shows that Rabobank increased the proportion of renewable energy in its energy sector credits from 63% to 88% from 2018 to 2020. ABN Amro increased from 31% to 48%, and ING from 21% to 38%. NIBC stayed far behind, with all credits in the 2018-2020 period attributable to fossil

Figure 9 Ranking of loans and underwriting providers (2018-2020, EUR mln)



In *Undermining Our Future* study covering the period 2013-2014, 81% of all bank loans and underwriting was attributable to fossil fuels. In the *Still Undermining Our Future* study covering the period 2016-2017, 74% of loans and underwriting is attributable to fossil fuels. In this current study (2018-2020), 69% of this credit was attributable to fossil fuels and 31% to renewable energy. This indicates a continuation of the trend observed in the earlier studies.

2.1.2 Investments

At the end of 2020, we found that the asset management divisions of four Dutch banks (ABN Amro, ING Group, Triodos and Van Lanschot Kempen) had invested a total amount of EUR 875 million in the shares and bonds of the 380 selected energy companies. EUR 680 million (78%) was attributable to fossil fuels, EUR 194 million (22%) was attributable to renewable energy.

In the final quarter of 2020, the four Dutch banks held shares issued by the 380 selected energy companies, with a total value of EUR 734 million. Of these shareholdings, 78% (EUR 574 million) was still attributable to fossil fuels, and 22% (EUR 159 million) to renewable energy. This was an improvement in comparison with the start of 2018 when 91% of the Dutch bank shareholdings of the selected companies were attributable to fossil fuels and 9% to renewable energy.

Figure 11 shows that this is partly driven by a 37% decrease in the value of fossil fuel shareholdings from EUR 922 million at the start of 2018 to EUR 574 million in the last quarter of 2020. At the same time, the value of investments in renewable energy increased 88% from EUR 86 million to EUR 159 million.



A closer look at the actual portfolio developments compared with the baseline development shows that Dutch bank divested slightly from fossil fuels (see Figure 12). This can be seen by the fact that the actual value of their investments in fossil fuels decreased at a more rapid pace than the baseline value. However, it also appears that Dutch banks have decreased the level of their investments in renewable energy slightly. As can be seen by baseline value of their investments in renewable energy slightly. As can be seen by baseline value of their investments in renewable energy slightly.



Figure 12 Bank shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

In the *Undermining Our Future* and *Still Undermining Our Future* studies, the proportions of shareholdings attributable to renewable energy at the end of 2014 and 2017 respectively were 6% and 8%. The 22% proportion of shareholdings attributable to renewable energy in the fourth quarter of 2020, therefore, shows a significant improvement.

Additional to their investments in shares, the same four banks also held EUR 141 million in bonds issued by the selected companies as of the most recent filing data in May 2021. As Figure 13 shows, three quarters of these bondholdings, with a value of EUR 106 million, were attributable to fossil fuels and one quarter, with a value of EUR 35 million, to renewable energy.



Figure 13 Bondholdings of Dutch banks in the energy sector (May 2021)

The *Still Undermining Our Future* study reported 6% bondholdings attributable to renewable energy at the start of 2018. The current 25% proportion shows a significant improvement, most likely in part due to the increase in investments in green bonds.

Figure 14 shows that among the four banks, Van Lanschot Kempen was the largest investor in the shares and bonds of the selected companies, with a total investment of EUR 332 million in the last quarter of 2020. It was followed by ING Group (EUR 242 million) and ABN Amro (EUR 234 million). Triodos has invested EUR 66 million in these companies.

Figure 14 Ranking of bank investments in the energy sector (end-2020, EUR mln)



Note: These figures are calculated based on shareholding data as of 31-12-2020 and the most recent bondholding data retrieved in May 2021.

As shown in Figure 15, Triodos is consistently investing only in shares and bonds attributable to renewable energy. This is also the case for De Volksbank, but because we did not find any investments for De Volksbank in the companies selected for this research project, it is not included in this graph.

Among the other banks, ABN Amro's is clearly increasing the proportion of its investments attributable to renewable energy. By the final quarter of 2020, this proportion had grown to 35%. Van Lanschot Kempen (13%) and ING Group (1%) lag far behind.

Figure 15 Energy proportions of bank investments in the energy sector (end-2020)



Note: These percentages are calculated based on shareholding data as of 31-12-2020 and the most recent bondholding data retrieved in May 2021

2.2 Findings per bank

2.2.1 ABN Amro

Loans and underwriting

ABN Amro provided EUR 2.2 billion in loans and underwriting services to the selected companies in the period 2018 to 2020, consisting of EUR 1,636 million in loans and EUR 582 million in underwriting services.

71% of these credits (EUR 1,572 million) were attributable to fossil fuels and 29% (EUR 646 million) to renewable energy. Focussing on annual trends shows that in 2020 52% of the loans and underwriting services provided by ABN Amro to the selected companies were attributable to fossil fuels, and 48% to renewable energy. This was an improvement from 2018 when 69% of the credit was attributable to fossil fuels and 31% to renewable energy.

Figure 16 shows that this change in composition was driven mainly by a 56% decrease in credit attributable to fossil fuels from EUR 606 million in 2018 to EUR 269 million in 2020. There was also a 9% decrease in loans and underwriting services provided by ABN Amro attributable to renewable energy from EUR 268 million to EUR 244 million in the same period.



Figure 16 ABN Amro loans & underwriting by energy source (2018-2020, EUR mln)

The Undermining Our Future study found that in the period 2013-2014 32% of ABN Amro's loans

and underwriting was attributable to renewable energy. The *Still Undermining Our Future* study found that in the period 2016-2017, 18% of loans and underwriting provided to the selected companies was attributable to renewable energy, indicating a regression. In the period 2018-2020, this had improved again to 29%.

Investments

At the end of 2020, the asset management division of ABN Amro had invested a total amount of EUR 234 million in the shares and bonds of the 380 selected energy companies. EUR 152 million (65%) was attributable to fossil fuels, EUR 83 million (35%) was attributable to renewable energy.

In December 2020, ABN Amro held EUR 140 million in shares issued by the selected companies. Of these shareholdings, 54% was attributable to fossil fuels and 46% to renewable energy. This was a significant improvement from the start of 2018 when 92% of ABN Amro's shareholdings of the selected companies was attributable to fossil fuels, and 8% to renewable energy.

Figure 17 shows that this change in composition was driven by two factors. Firstly, the value of shareholdings attributable to fossil fuels decreased by 69% from EUR 248 million at the start of 2018 to EUR 76 million at the end of 2020. Moreover, the value of shareholdings attributable to renewable energy increased by 206%, from EUR 21 million to EUR 64 million.



Figure 17 ABN Amro shareholdings by energy source (2018-2020, EUR mln)

Analysis of the actual portfolio developments and the baseline development shows that ABN Amro divested from fossil fuels and increased its investments in renewable energy (see Figure 18). This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a more rapid pace than the baseline value, and the actual value of investments in renewable energy increased at a more rapid pace than the baseline value.



Figure 18 ABN Amro shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

The Undermining Our Future study found that in the last quarter of 2014, 6% of identified shareholdings by ABN Amro was attributable to renewable energy. This study found that in December 2020, 46% of ABN Amro's shareholdings in the selected companies was attributable to renewable energy. This indicates a significant improvement.

The shift towards renewable among ABN Amro's shareholdings is less apparent among its bondholding. The most recent filing data in May 2021 show that ABN Amro held EUR 94 million in bonds issued by the selected companies. Figure 19 shows that 80% of these bondholdings (EUR 75 million) were attributable to fossil fuels, and 20% (EUR 19 million) to renewable energy.





The *Still Undermining Our Future* study found that at the start of 2018, 9% of ABN Amro's bondholdings of the selected companies was attributable to renewable energy. The current 20% is an improvement.

2.2.2 Bunq

Bunq does not provide loans and underwriting services. Bung does invest, but not in the energy sector. No financial relationships between Bunq and the selected companies were therefore identified.

2.2.3 ING Group

• Loans and underwriting services

ING Group provided EUR 9.1 billion in loans and underwriting services to the selected companies in the period 2018-2020, consisting of EUR 6.0 billion in loans and EUR 3.1 billion in underwriting services.

Three quarters (EUR 6.8 billion) of these credits were attributable to fossil fuels and only one quarter (EUR 2.3 billion) to renewable energy. Focussing in on annual trends shows that in 2020 62% of the loans and underwriting services by ING Group to the selected companies were attributable to fossil fuels, and 38% to renewable energy. This was an improvement from 2018 when 79% of the identified credit was attributable to fossil fuels and 21% to renewable energy.

As seen in Figure 20, this change in composition is driven by a 42% decrease in loans and underwriting services attributable to fossil fuels from EUR 2.8 billion in 2018 to EUR 1.6 billion in 2020. Additionally, ING Group provided 30% more loans and underwriting services to the selected companies attributable to renewable energy, from EUR 772 million in 2018 to EUR 1.0 billion in 2020.





The Undermining Our Future study found that in the period 2013-2014, 87% of loans and underwriting provided to the selected companies by ING Group was attributable to fossil fuels. In the *Still Undermining Our Future* study covering the period 2016-2017, 83% of loans and underwriting was attributable to fossil fuels. This current study found that three quarters of credit provided by ING Group was attributable to fossil fuels. These figures show a slow pace of progress.

• Investments

At the end of 2020, the asset management division of ING Group had invested a total amount of EUR 242 million in the shares and bonds of the 380 selected energy companies. EUR 239 million (99%) was attributable to fossil fuels and only EUR 3 million (1%) was attributable to renewable energy.

In the final quarter of 2020, ING Group held EUR 241 million in shares issued by the selected companies. 99% of these shareholdings were attributable to fossil fuels, and 1% to renewable energy. Figure 21 shows that there was a small increase in the value of shareholdings attributable to renewable energy from EUR 2 million at the start of 2018 to EUR 3 million at the end of 2020.



Figure 21 ING Group shareholdings by energy source (2018-2020, EUR mln)

Looking at the baseline portfolio developments compared with the actual portfolio developments in Figure 22 shows that in the period between the first quarter of 2018 the first quarter of 2020, ING Group did divest from fossil fuels, as can be seen by the fact that the actual fossil fuel attributable values were below the baseline. As of the first quarter of 2020, ING Group re-invested in fossil fuels.



Figure 22 ING Group shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

The Undermining Our Future study found that in the last quarter of 2014, 2% of identified shareholdings by ING Bank was attributable to renewable energy, and 98% to fossil fuels. At the end of 2017, according to the Still Undermining Our Future study, fossil fuels accounted for 94% of shareholdings and renewable energy for 6%. This current study found that in the final quarter of 2020, 99% of ING Group's shareholdings were attributable to fossil fuels, and 1% to renewable energy. This indicates a regression from the previous studies.

Next to its shareholdings in the selected companies, only a very small investment in the bonds of these companies were found. As of the most recent filing data in May 2021, ING Group held EUR 1 million in bonds issued by the selected companies. Figure 23 shows that 58% of these bondholdings were attributable to fossil fuels and 42% to renewable energy.



Figure 23 ING Group bondholdings in the energy sector (May 2021)

2.2.4 NIBC Holding

• Loans and underwriting services

Between 2018 and 2020, NIBC Holding provided EUR 338 million in loans and underwriting services to the selected companies, consisting of EUR 123 million in loans and EUR 215 million in underwriting services. All of these credits were attributable to fossil fuels (see Figure 24).



Figure 24 NIBC Holding loans & underwriting by energy source (2018-2020, EUR mln)

Investments

NIBC does not provide asset management services and does not invest.

2.2.5 Rabobank

• Loans and underwriting services

Rabobank provided EUR 1.5 billion in loans and underwriting services to the selected companies between 2018 and 2020, consisting of EUR 1,357 million in loans and EUR 102 million in underwriting services.

Only 22% of these credits (EUR 321 million) were attributable to fossil fuels and 78% (EUR 1,138 million) to renewable energy. A closer look at annual trends shows that in 2020, 12% of the credit provided by Rabobank to the selected companies was attributable to fossil fuels and 88% to renewable energy. This was an improvement from 2018 when 37% of the credit to the selected companies was attributable to fossil fuels and 63% to renewable energy.

As can be seen in Figure 25, this shift in Rabobank's credit portfolio composition was driven by two factors. Firstly a 24% decrease in credit attributable to fossil fuels from EUR 120 million in 2018 to EUR 91 million in 2020. Secondly, a 231% increase in loans and underwriting services attributable to renewable energy from EUR 207 million in 2018 to EUR 686 million in 2020.

Figure 25 Rabobank loans & underwriting by energy source (2018-2020, EUR mln)



The Undermining Our Future study (covering 2013-2014), found that 51% of loans and underwriting provided by Rabobank was attributable to fossil fuels. In the period 2016-2017 (*Still Undermining Our Future*) 55% of loans and underwriting was attributable to fossil fuels. This current study found that only 22% of credits provided by Rabobank was attributable to fossil fuels. This shows a marked improvement.

Investments

Rabobank does provide private banking services, but no investments in the shares and bonds of the selected companies were identified in the period of study.

2.2.6 De Volksbank

Loans and underwriting services

De Volksbank provide loans to energy companies, focusing exclusively on renewable energy projects. However, no loans by De Volksbank to any of the selected companies were identified.

Investments

De Volksbank provides asset management services. Its investments in the energy sector focus exclusively on renewable energy projects. However, no investments by De Volksbank in the shares or bonds of any of the selected companies were identified.

2.2.7 Triodos Bank

• Loans and underwriting

No loans or underwriting services provided by Triodos Bank to the selected companies were identified in the period of study.

Investments

At the end of 2020, the asset management division of Triodos Bank had invested a total amount of EUR 66 million in the shares and bonds of the 380 selected energy companies. The full amount was attributable to renewable energy.

In the fourth quarter of 2020, Triodos held EUR 61 million in shares issued by the selected companies. All of these shareholdings were attributable to renewable energy. This composition was unchanged from the start of 2018 when also 100% of Triodos' shareholdings of the selected companies was attributable to renewable energy.

Figure 26 shows that the value of investments attributable to renewable energy increased from EUR 44 million in the start of 2018 to EUR 61 million in the last quarter of 2020.



Figure 26 Triodos shareholdings by energy source (2018-2020, EUR mln)

It appears that Triodos decreased the level of its investments in renewable energy. As can be seen by baseline value of its investments in renewable energy is higher than the actual value in the fourth quarter of 2020 (Figure 27). In other words: the total value of its investments would have grown faster when no shares would have been sold.



Dec

2017

Mai

2018

Jun

2018

Sep

2018

Dec

2018

Renewable energy actual
 Renewable energy baseline

Figure 27 Triodos shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

In all previous studies, for Triodos Bank no shareholdings attributable to fossil fuels were identified.

Mar

2019

Jun

2019

Sep

2019

Dec

2019

••••• Fossil fuel baseline

Fossil fuel actual

Mar

2020

Jun

2020

Sep

2020

Dec

2020

Additionally to its shareholdings, as of the most recent filing data in May 2021, Triodos held EUR 5 million in bonds issued by the selected companies. As Figure 28 shows, all of these bondholdings were attributable to renewable energy.



In all previous studies, for Triodos Bank no bondholdings attributable to fossil fuels were identified.

2.2.8 Van Lanschot Kempen

• Loans and underwriting

No loans or underwriting services provided by Van Lanschot Kempen to the selected companies were identified in the period of study.

Investments

At the end of 2020, the asset management division of Van Lanschot Kempen had invested a total amount of EUR 332 million in the shares and bonds of the 380 selected energy companies. EUR 290 million (87%) was attributable to fossil fuels and only EUR 42 million (13%) was attributable to renewable energy.

At the end of December 2020, Van Lanschot Kempen held EUR 291 million in shares issued by the selected companies. 89% of these shareholdings were attributable to fossil fuels and 11% to renewable energy. This was an improvement from the start of 2018 when 95% of Van Lanschot Kempen's shareholdings of the selected companies was attributable to fossil fuels, and 5% to renewable energy.

As can be seen from Figure 29, this change in equity energy portfolio composition was partly due to a 25% decrease in the value of shareholdings attributable to fossil fuels from EUR 352 million at the start of 2018 to EUR 260 million in the last quarter of 2020. The value of Van Lanschot Kempen's shareholdings attributable to renewable energy increased 68% from EUR 19 million at the start of 2018 to EUR 31 million in 2020.





A comparison of Van Lanschot Kempen's actual portfolio versus the baseline as shown in Figure 30 provides more context. The bank increased the levels of its investments in renewable energy slightly. This can be seen by the fact that the actual value of its investments in renewable energy was higher than the baseline value at the end of the fourth quarter of 2020.



Fossil fuel actual

••• Fossil fuel baseline

Renewable energy actual

Renewable energy baseline

Figure 30 Van Lanschot Kempen shareholdings baseline vs actuals by energy source (2018-

However, Van Lanschot Kempen also appears to have increased the level of its investments in fossil fuels recently. From the first quarter of 2018 to the third quarter of 2020, Van Lanschot Kempen divested from fossil fuels quite significantly. However, as of the third quarter of 2020, it reinvested in fossil fuels, albeit at a lower level than in the start of 2018.

The Undermining Our Future study found that at the end of 2014, 100% of identified shareholdings by Van Lanschot Kempen were attributable to fossil fuels. *Still Undermining Our Future* found that at the end of 2017, 95% of Van Lanschot Kempen's shareholdings were attributable to fossil fuels and 5% to renewable energy. The finding from this current study that in December 2020, 11% of Van Lanschot Kempen's shareholdings were attributable to renewable energy shows a small improvement.

Apart from its shareholdings, at the most recent filing date in May 2021, Van Lanschot Kempen held EUR 41 million in bonds issued by the selected companies. As Figure 31 shows, 77% of these investments (EUR 30 million) were attributable to fossil fuels, and 23% (EUR 11 million) to renewable energy.

Figure 31 Van Lanschot Kempen bondholdings in the energy sector (May 2021)



The *Still Undermining Our Future* study found that at the start of 2018, 16% of Van Lanschot Kempen's investments in bonds of the selected companies was attributable to renewable energy and 84% to fossil fuels. The current proportion of 23% attributable to renewable energy shows only a marginal improvement.

3

Insurance companies

At the end of 2020, nine insurance companies active in the Netherlands held EUR 21.2 billion in bonds and shares of the selected 380 energy companies. This chapter analyses the energy sector investments of nine insurance companies. An assessment is made which proportion of their investments in energy shares and bonds is attributable to fossil fuels and which proportion to renewable energy. These proportions are compared with the results of an earlier study.

3.1 General findings

At the end of 2020, nine insurance companies active in the Netherlands held EUR 21.2 billion in bonds and shares of the selected 380 energy companies. 89% of these bond- and shareholdings were attributable to fossil fuels and only 11% to renewable energy.

Figure 32 shows that Allianz accounts for the lion's share of insurance companies' investments in the energy sector identified in this study, with a total investment of EUR 16.1 billion (76%), followed by Aegon (16%) and NN Group (5%).



Figure 32 Insurance companies' investments in the energy sector (end-2020, EUR mln)

Note: These figures are calculated based on shareholding data as of 31-12-2020 and the most recent bondholding data retrieved in May 2021.

Figure 33 shows that most of the nine insurance companies, still invest predominantly in fossil fuels. The only exception is Athora, whose energy sector portfolio is for 62% attributable to renewable energy and for 38% to fossil fuels.



Figure 33 Insurance company energy portfolio composition (end-2020)

Note: These percentages are calculated based on shareholding data as of 31-12-2020 and the most recent bondholding data retrieved in May 2021.

3.1.1 Shareholdings

In the last quarter of 2020, the nine insurance companies held EUR 3.1 billion in shares of these selected energy companies. 66% of these shareholdings were attributable to fossil fuels and 34% to renewable energy. Figure 34 shows that at the end of 2020 Allianz was the largest investor in the shares of the selected 380 companies, with an investment of EUR 1.78 billion. It was followed by NN Group (EUR 581 million) and Aegon (EUR 433 million).



Figure 34 Insurance company shareholdings in the energy sector (Q4-2020, EUR mln)

Figure 35 shows that of these nine insurance companies, only Athora now invests predominantly in renewable energy: 70% of its energy sector shareholdings were attributable to renewable energy at the end of 2020, compared to 16% at the start of 2018. Other insurance companies did change the composition of their energy sector equity portfolios as well, but are still investing predominantly in fossil fuels: NN Group moved from 18% renewable energy at the start of 2018 to 44% at the end of 2020, Aegon from 2% to 28% and Alliance from 4% to 29%.



Figure 35 Energy sector shareholdings of insurance companies (1-1-2018 & 31-12-2020)

For six insurance companies (Achmea, Aegon, Allianz, ASR, Athora and NN) an analysis could be made of how their shareholdings evolved in the 2018-2020 period.¹ The proportion of shareholdings of these six insurance companies attributable to fossil fuel dropped from 92% at the start of 2018 to 66% at the end of 2020. As can be seen from Figure 36, this change in composition was driven by two factors. Firstly, there was a 59% decrease in the value of shareholdings of the selected companies attributable to fossil fuels from EUR 5.0 billion at the start of 2018 to EUR 2.0 billion at the end of 2020. At the same time, there was a 161% increase in the value of investments attributable to renewable energy from EUR 413 million at the start of 2018 to EUR 1.1 billion in the final quarter of 2020.





Figure 37 shows that the decline in value of fossil fuels is partly in line with the value decline of the baseline portfolio. However, it also shows that the decline in value of the fossil fuel shareholdings of the six insurance companies is more rapid. This indicates that the insurance companies divested from fossil fuel attributable stocks. This can also be observed in the final quarter of 2020, when the upward trendline of the baseline is more pronounced than that of the actual portfolio.

The difference between the baseline development and actual portfolio of shares attributable to renewable energy is less visible, but it does indicate an increase in investments in renewable energy attributable equities.

ⁱ The other three insurance companies (CZ, Menzis and VGZ) do not publish their full portfolios online and these cannot be found in other sources. We asked these three companies to share their portfolios as of 31 December 2020 for this research, which they did.

Figure 37 Insurance company shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)



3.1.2 Bondholdings

At the most recent filing data available in May 2021, eight of the insurance companies held in total EUR 17.8 billion in bonds issued by the selected companies. No historical bondholding data are published by the insurance companies or can be found in the financial databases used for this research. Therefore a trend analysis cannot be carried out.

Figure 38 shows that Allianz was by far the largest investor in the bonds of the selected companies with an invested amount of EUR 14.3 billion. It was followed by Aegon (EUR 3.0 billion) and NN Group (EUR 474 million).



Figure 38 Insurance company bondholdings in the energy sector (May 2021, EUR mln)

Figure 39 shows that 92% of the bondholdings (with a value of EUR 16.7 billion) of the selected insurance companies was attributable to fossil fuels, and 8% (with a value of EUR 1.4 billion) to renewable energy. The bondholdings of 7 insurance companies are predominantly attributable to fossil fuels, while for Athora less than half is attributable to fossil fuels and more than half to renewable energy.



Figure 39 Insurance company bondholdings in the energy sector (May 2021)

3.2 Findings per insurance company

3.2.1 Achmea

• Shareholdings

In the final quarter of 2020, Achmea held EUR 24 million in shares issued by the selected companies. 91% of these shareholdings were attributable to fossil fuels, and 9% to renewable energy. At the start of 2018 99% of its shareholdings of the selected companies were attributable to fossil fuels and 1% to renewable energy.





Figure 40 shows that this slight change was mainly due to a 54% decrease in the value of shares attributable to fossil fuels from EUR 51 million in the start of 2018 to EUR 23 million in 2020. The value of shares attributable to renewable energy increased 264% from EUR 0.3 million to EUR 0.4 million.

While Achmea invests predominantly in fossil fuels, Figure 41 indicates that Achmea did divest from fossil fuels. This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a more rapid pace than the baseline value.



Figure 41 Achmea shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

Bondholdings

In December 2020, Achmea held EUR 149 million in bonds issued by the selected companies. shows that 91% of these investments (EUR 136 million) were attributable to fossil fuels, and 9% to renewable energy (EUR 13 million).





3.2.2 Aegon

At the end of 2020, Aegon had invested EUR 433 million in shares issued by the selected companies. In May 2021, Aegon held EUR 3,021 million in bonds issued by the selected companies. Of these total investments with a value of EUR 3.5 billion, only EUR 248 million was attributable to renewable energy (7%), while 93% (EUR 3.2 billion) went to fossil fuels. More details are provided below.

Shareholdings

On December 31, 2020 Aegon held EUR 433 million in shares issued by the selected companies. 72% of these shareholdings were attributable to fossil fuels, and 28% to renewable energy. This was an improvement compared with the start of 2018 when 98% of the shareholdings in the selected companies were attributable to fossil fuels and 2% to renewable energy.

As can be seen from Figure 42, this change in energy portfolio composition was driven by two factors. The value of investments attributable to fossil fuels decreased 63% from EUR 863 million in the start of 2018 to EUR 314 million in December 2020. At the same time, the value of shareholdings attributable to renewable energy increased from EUR 18 million at the start of 2018 to EUR 119 million in 2020.



A closer look at the actual portfolio developments and the baseline development shows that Aegon divested from fossil fuels and increased its investments in renewable energy (see Figure 43). This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a more rapid pace than the baseline value, and the actual value of investments in renewable energy increased at a more rapid pace than the baseline value.





The Undermining Our Future study found that in the last quarter of 2014, 2% of identified shareholdings by Aegon was attributable to renewable energy, and 98% to fossil fuels. The *Still Undermining Our Future* study found that at the start of 2018 5% of identified shareholdings by Aegon was attributable to renewable energy, and 95% to fossil fuels. The current study found that 78% of Aegon's shareholdings in the selected companies were attributable to fossil fuels, and 28% to renewable energy. This shows an improvement in the composition of its energy equity portfolio.

Bondholdings

At the most recent filing date in May 2021, Aegon held EUR 3,021 million in bonds issued by the selected companies. Figure 44 shows that 96% of these investments (EUR 2.9 billion) were attributable to fossil fuels, and 4% to renewable energy (EUR 129 million).



Figure 45 Aegon bondholdings (2021 May most recent filings)

The *Still Undermining Our Future* study found that at the start of 2018, 95% of Aegon's bondholdings were attributable to fossil fuels. The current proportion of 96% therefore shows a slight regression.

3.2.3 Allianz

At the end of 2020, Allianz had invested EUR 1.78 billion in shares issued by the selected companies. In May 2021, Allianz held EUR 14.3 billion in bonds issued by the selected companies. Of these total investments with a value of EUR 16.1 billion, only EUR 1,589 million was attributable to renewable energy (10%), while 90% (EUR 14.5 billion) went to fossil fuels. More details are provided below.

• Shareholdings

In the fourth quarter of 2020, Allianz held EUR 1.8 billion in shares issued by the selected companies. Of this 71% was attributable to fossil fuels and 29% to renewable energy. This was an improvement from the start of 2018 when 96% of Allianz's shareholdings of the selected companies were attributable to fossil fuels and 4% to renewable energy.

As can be seen from Figure 45, the change in Allianz' energy equity portfolio composition is driven by two factors. The value of fossil fuel attributable shareholdings decreased by more than half from EUR 2.7 billion at the start of 2018 to EUR 1.3 billion in the last quarter of 2020. Moreover, the value of investments attributable to renewable energy increased by 385% from EUR 109 million to EUR 521 million.



Figure 46 Allianz shareholdings by energy source (2018-2020, EUR mln)

A comparison of the baseline of Allianz' energy shareholdings with the actual developments of its portfolio indicate that it has divested from fossil fuels, and increased its investments in renewable energy (see Figure 46). This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a more rapid pace than the baseline value, and the actual value of investments in renewable energy increased at a more rapid pace than the baseline value.



Figure 47 Allianz shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)

The *Still Undermining Our Future* study found that at the start of 2018 only 5% of Allianz's shareholdings was attributable to renewable energy, and 95% to fossil fuels. This compares with the finding in this current study that in December 2020, 71% of Allianz's shareholdings in the selected companies was attributable to fossil fuels and 29% to renewable energy.

• Bondholdings

Allianz held EUR 14.3 billion in bonds issued by the selected companies at the most recent filing date in May 2021. Figure 47 shows that 93% of these bondholdings with a value of EUR 13.2 billion were attributable to fossil fuels and 7% of the bondholdings with a value of EUR 1.1 billion were attributable to renewable energy.



The *Still Undermining Our Future* study found that at the start of 2018, 95% of Allianz's bondholdings of the selected companies were attributable to fossil fuels, and 5% to renewable energy. The current proportions are 93% and 7%, showing hardly any improvement.

3.2.4 ASR

• Shareholdings

In December 2020, ASR held EUR 45 million in shares issued by the selected companies. Three quarters of these investments were attributable to fossil fuels and one quarter to renewable energy. This was an improvement over the third quarter 2018 (the earliest available data) when 90% of ASR shareholdings of the selected companies were attributable to fossil fuels and 10% to renewable energy.



As Figure 48 shows, this is due to a 25% decrease in the value of shareholdings attributable to fossil fuels from EUR 46 million in the third quarter of 2018 to EUR 33 million in the fourth quarter of 2020. Moreover, it is also due to the 127% increase the value of shares attributable to renewable energy from EUR 5 million to EUR 11 million.

A closer comparison of ASR's actual portfolio with the baseline as shown in Figure 49 provides more context. ASR increased the levels of its investments in renewable energy. This can be seen by the fact that the actual value of its investments in renewable energy increased at a more rapid pace than the baseline value. However, it also appears to have increased the level of its investments in fossil fuels. As can be seen by actual value of its investments in fossil fuels which is higher than the baseline value in the fourth guarter of 2020.




The *Still Undermining Our Future* study found that in the third quarter of 2017, 89% of ASR's shareholdings of the selected companies were attributable to fossil fuels and 11% to renewable energy. The finding from this current study that in December 2020, three quarters of ASR shareholdings were attributable to fossil fuels and one quarter to renewable energy, show some improvement.

• Bondholdings

No bondholdings were identified for ASR.

3.2.5 Athora Netherlands

At the end of 2020, Athora Netherlands had invested EUR 210 million in shares issued by the selected companies. In May 2021, Athora Netherlands held EUR 116 million in bonds issued by the selected companies. Of these total investments with a value of EUR 326 million, EUR 202 million was attributable to renewable energy (62%), while 38% (EUR 123 million) went to fossil fuels. More details are provided below.

• Shareholdings

In the fourth quarter of 2020, Athora Netherlands held EUR 210 million in shares issued by the selected companies. 30% of these shareholdings were attributable to fossil fuels, and 70% to renewable energy. This was a major improvement compare with the start of 2018 when 84% of Athora Netherlands' investments were attributable to fossil fuels and 16% to renewable energy.

Figure 50 shows that this change in its equity energy portfolio composition was driven by two factors. Firstly, the value of investments attributable to fossil fuels decreased by 85% from EUR 423 million from EUR 63 million. Additionally, the value of investments attributable to renewable energy increased by 77% from EUR 85 million to EUR 147 million.





Comparing the actual portfolio developments with the baseline development indicates that Athora Netherlands divested significantly from fossil fuels (see Figure 51). This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a much more rapid pace than the baseline value. However, it also appears to have decreased the level of its investments in renewable energy. As can be seen by baseline value of its investments in renewable energy is higher than the actual value in the fourth quarter of 2020.





In the *Still Undermining Our Future* study, it was found that in the last quarter of 2017, 87% of Athora's shareholdings were attributable to fossil fuels and 13% to fossil fuels. The finding from this study that in the fourth quarter of 2020, 30% of Athora's shareholdings were attributable to fossil fuels, and 70% to renewable energy shows a very significant improvement.

Bondholdings

At the most recent filing date in May 2021, Athora Netherlands held EUR 116 million in bonds issued by the selected companies. Figure 52 shows that 52% of these bondholdings, with a value of EUR 56 million, was attributable to fossil fuels while 48%, with a value of EUR 60 million, was attributable to renewable energy.



Still Undermining Our Future found that at the start of 2018, 24% of Athora's bondholdings of the selected companies were attributable to renewable energy and 76% to fossil fuels. This current study therefore indicates a significant improvement with proportions of 48% renewable energy and 52% fossil fuels.

3.2.6 CZ

• Shareholdings

In the final quarter of 2020, CZ held EUR 9 million in shares issued by the selected companies. 89% of these shareholdings were attributable to fossil fuels, and 11% to renewable energy.





• Bondholdings

In December 2020, CZ held EUR 2.8 million in bonds issued by the selected companies. Figure 55 shows that 91% of these investments (EUR 2.5 million) were attributable to fossil fuels, and 9% to renewable energy (EUR 0.3 million).



3.2.7 Menzis

• Shareholdings

In the final quarter of 2020, Menzis held EUR 7 million in shares issued by the selected companies. 89% of these shareholdings were attributable to fossil fuels, and 11% to renewable energy.





Bondholdings

In December 2020, Menzis held EUR 11.6 million in bonds issued by the selected companies. Figure 57 shows that 96% of these investments (EUR 11 million) were attributable to fossil fuels, and 9% to renewable energy (EUR 0.4 million).





3.2.8 NN Group (Nationale Nederlanden)

At the end of 2020, NN Group had invested EUR 581 million in shares issued by the selected companies. In May 2021, NN Group held EUR 474 million in bonds issued by the selected companies. Of these investments with a total value of EUR 1,055 million, EUR 357 million was attributable to renewable energy (34%), while 66% (EUR 698 million) went to fossil fuels. More details are provided below.

• Shareholdings

In December 2020, NN Group held EUR 581 million in shares issued by the selected companies. 56% of these investments were attributable to fossil fuels, and 44% to renewable energy. This was a significant improvement compared with the start with 2018 when 82% of its shareholdings of the selected companies was attributable to fossil fuels, and 18% to renewable energy.

As can be seen in Figure 53, this was driven by a 64% decrease in shareholdings attributable to fossil fuels from EUR 905 million at the start of 2018 to EUR 323 million in the final quarter of 2020. Additionally, the value of investments attributable to renewable energy increased by 31% from EUR 200 million to EUR 258 million.

Figure 58

NN Group shareholdings by energy source (2018-2020, EUR mln)



A comparison of the actual portfolio developments and the baseline development indicates that NN Group divested from fossil fuels (see Figure 54). This can be seen by the fact that the actual value of its investments in fossil fuels decreased at a much more rapid pace than the baseline value. However, it also appears that NN Group decreased the level of its investments in renewable energy. As can be seen by baseline value of its investments in renewable energy which is higher than the actual value in the fourth quarter of 2020.

Figure 59 NN Group shareholdings baseline vs actuals by energy source (2018-2020, EUR mln)



At the start of 2018, the *Still Undermining Our Future* study found that 90% of NN Group's shareholdings were attributable to fossil fuels, and 10% to renewable energy. The proportions identified in December 2020 of 56% of shareholdings attributable to fossil fuels, and 44% to renewable energy, show an improvement.

Bondholdings

As of the most recent filings in May 2021, NN Group held EUR 474 million in bonds issued by the selected companies. As Figure 55 shows, 79% of these bondholdings with a value of EUR 375 million, was attributable to fossil fuels and 21%, with a value of EUR 99 million, was attributable to renewable energy.



The *Still Undermining Our Future* study found that at the start of 2018, 94% of NN Group's bondholdings of the selected companies was attributable to fossil fuels and 6% to renewable energy. These current proportions of 79% and 21% show an improvement.

3.2.9 VGZ

• Shareholdings

In the final quarter of 2020, VGZ held EUR 23.4 million in shares issued by the selected companies. 94% of these shareholdings were attributable to fossil fuels, and 6% to renewable energy.





• Bondholdings

In December 2020, VGZ held EUR 8.9 million in bonds issued by the selected companies. Figure 62 shows that 82% of these investments (EUR 7.3 million) were attributable to fossil fuels, and 18% to renewable energy (EUR 1.6 million).



4 Pension funds

At the end of 2020, Dutch pension funds held investments with a value of EUR 17.0 billion in the selected energy companies: EUR 9.1 billion in shares and EUR 7.8 billion in bonds. This chapter analyses the energy sector investments of the eight pension funds for which data were available. An assessment is made which proportion of their investments in energy shares and bonds is attributable to fossil fuels and which proportion to renewable energy.

4.1 General findings

At the end of 2020, eight Dutch pension funds held a combined EUR 17.0 billion in bonds and shares of the selected companies. This was up EUR 1.1 billion from EUR 15.9 billion at the start of 2018. At that time, 93% of the investments were attributable to fossil fuels, and 7% to renewable energy. By the end of 2020, 87% of the investments in the selected companies (with a value of EUR 14.8 billion) were attributable to fossil fuels and 13% (EUR 2.1 billion) to renewable energy. Because of a lack data transparency, no analysis could be made of the investments of BPL Pensioen and Pensioenfonds Vervoer.

Figure 56 shows that the change in the composition of the pension fund investments was driven by an increase in value of investments in renewable energy, while the value of investments attributable to fossil fuels remained relatively stable.



Figure 57 shows that ABP was the largest investor in the selected companies. It held EUR 8.6 billion in bonds and shares at the end of the fourth quarter 2020. It was followed by PFZW (EUR 2.9 billion) and PMT (EUR 2.2 billion).

Note that the figures for individual funds might differ from the figures published by the pension funds themselves on their investments in the fossil fuels sector, as these figures might cover more companies and count the full investment in each company. We only count the proportions of the investments which are directly attributable to fossil fuels and to renewable energy. The proportions of investments in these companies which are used for other energy sources, for electricity transportation and for non-energy activities are not taken into account.



Figure 64 Ranking of pension fund investments by energy source (31/12/2020, EUR mln)

All pension funds are still investing the large majority of their energy sector investments in fossil fuels, Figure 58 shows that a number of pension funds slightly increased the proportion of investments attributable to renewable energy. Among its peers, Pensioenfonds Horeca & Catering ranks best with a 26% share for renewable energy.

In September 2021, Pensioenfonds Horeca & Catering announced it had divested from companies obtaining more than 50% of their turnover from fossil fuel production. One day later, PME announced it had sold all its interests in fossil oil and gas companies. As this research is based on investment portfolios at the end of 2020, the results for PME and PH&C in Figure 64 and Figure 65 do not yet reflect these divestments.



Pension fund energy portfolio composition comparison (1/1/2018 & 31/12/2020)

4.1.1 Shareholdings

Figure 65

At the end of the fourth quarter of 2020 Dutch pension fund held a combined EUR 9.1 billion in shares issued by the selected companies. 82% of these shareholdings were attributable to fossil fuels, and 18% to renewable energy. This composition was an improvement from the start of 2018, when 93% of the shareholdings were attributable to fossil fuels and 7% to renewable energy.

As can be seen from Figure 59, this change in composition was partly driven by a 93% increase in investments attributable to renewable energy, from EUR 847 million at the start of 2018 to EUR 1.6 billion at the end of 2020. This was accompanied by a 31% decrease in the value of shareholdings attributable to fossil fuels from EUR 10.9 billion at the start of 2018 to EUR 7.5 billion at the end of 2020.



Figure 66 Pension fund shareholdings by energy source (2018-2020, EUR mln)

4.1.2 Bondholdings

In the fourth quarter of 2020, Dutch pension funds held EUR 7.8 billion in bonds issued by the selected companies. 94% of these bonds were attributable to fossil fuels, and 6% were attributable to renewable energy. This composition was unchanged from the start of 2018. As Figure 60 shows, the total value of bondholdings attributable to fossil fuels increased by 88% from EUR 3.9 billion at the start of 2018 to EUR 7.3 billion at the end of 2020. Bondholdings attributable to renewable energy increased 105%, from EUR 247 million to EUR 506 million.



4.2 Findings per pension fund

4.2.1 Algemeen Burgerlijk Pensioenfonds (ABP)

By the end of the fourth quarter 2020, ABP held bonds and shares of the selected companies worth EUR 8.6 billion. 86% of these investments were attributable to fossil fuels, and 14% to renewable energy. This an improvement from early 2018, when 93% of its energy sector investments were attributable to fossil fuels and 7% to renewable energy.



Figure 68 ABP investments by energy source (2018-2020, EUR mln)

As can be seen from Figure 68, this change in composition is driven in large part by the 99% increase in investments attributable to renewable energy from EUR 602 million at the start of 2018 to EUR 1.2 billion at the end of 2020. There was also a decrease of 6% of investments attributable to fossil fuels from EUR 7.8 billion to EUR 7.4 billion.

Bondholdings

ABP held EUR 3.5 billion in bonds issued by the selected companies in the final quarter of 2020. 92% of these bondholdings were attributable to fossil fuels, and 8% to renewable energy. This was a marginal improvement from the start of 2018, when 94% of its bondholdings of the selected companies were attributable to fossil fuels, and 6% to renewable energy.

The slightly higher renewable energy percentage was partly driven by a doubling of value of investments attributable to renewable energy from EUR 131 million to EUR 262 million. This was undermined by the 66% increase in bondholdings attributable to fossil fuels from EUR 1.9 billion to EUR 3.2 billion.

• Shareholdings

At the end of the fourth quarter of 2020, ABP held EUR 5.1 billion in shares of the selected companies. 82% of these shareholdings were attributable to fossil fuels, and 18% to renewable energy. This was an improvement from the start of 2018 when 93% of ABP's shareholdings of the selected companies were attributable to fossil fuels, and 7% renewable.

This change is due to a doubling in the value of investments attributable to renewable energy, from EUR 471 million at the start of 2018 to EUR 933 million in 2020. In addition to a reduction of approximately a third of fossil fuel attributable shareholdings from EUR 5.9 billion to EUR 4.2 billion.

4.2.2 Bedrijfstakpensioenfonds voor de Bouwnijverheid (BpfBouw)

BpfBouw held EUR 1.4 billion in bonds and shares issued by the selected companies at the end of the fourth quarter of 2020. 88% of these investments were attributable to fossil fuels, and 12% to renewable energy. This was an improvement from the start of 2018 when 93% of its investments in the selected companies were attributable to fossil fuels and 17% to renewable energy.

As seen in Figure 69, this was due to a 136% increase in value of investments attributable to renewable energy from EUR 68 million at the start of 2018 to EUR 160 million at the end of 2020. This was slightly undermined by a 38% increase in value of investments attributable to fossil fuels, from EUR 888 million at the start of 2018 to EUR 1.2 billion at the end of 2020.





• Shareholdings

BpfBouw held EUR 552 million in shares issued by the selected companies in the fourth quarter of 2020. 82% of these shareholdings were attributable to fossil fuels, and 18% to renewable energy. This was an improvement from the start of 2018 when 93% of these shareholdings were attributable to fossil fuels, and 7% to renewable energy.

The value of BpfBouw's fossil fuel attributable shareholdings almost halved from EUR 888 million at the start of 2018, to EUR 453 million at the end of 2020. At the same time, the value of shareholdings attributable to renewable energy increased by 45% from EUR 68 million to EUR 98 million.

Bondholdings

At the end of the fourth quarter of 2020, BpfBouw held EUR 831 million in bonds issued by the selected companies. 93% of these investments were attributable to fossil fuels, and 7% to renewable energy. At the end of 2018, 94% of bondholdings in the selected companies was attributable to fossil fuels, and 6% to renewable energy.

Between 2018 and 2020 the relative share of renewable energy in the bond portfolio of BpfBouw hardly increased, despite a 171% increase in value of bondholdings attributable to renewable energy from EUR 23 million to EUR 62 million. This trend was undermined by a simultaneous 108% increase in the value of bondholdings attributable to fossil fuels from EUR 369 million at the end of 2018 to EUR 769 million at the end of 2020.

4.2.3 BPL Pensioen

BPL does not disclose the value of its investments, only the names of investees. BPL Pensioen did not respond to requests by the researchers to share its portfolios. Therefore, no analysis could be carried out.

4.2.4 Pensioenfonds Detailhandel

Pensioenfonds Detailhandel only recently started to publish detailed portfolio disclosures. Therefore, a full analysis could not be carried out.

At the end of the fourth quarter of 2020, Pensioenfonds Detailhandel held EUR 559 million in bonds and shares of the selected companies. As Figure 70 shows, 93% of these investments were attributable to fossil fuels, and 7% to renewable energy.

Figure 70 Pensioenfonds Detailhandel investments by energy source (31/12/2020)



• Shareholdings

By the end of the fourth quarter of 2020, Pensioenfonds Detailhandel held EUR 292 million in shares issued by the selected companies. 89% of these investments were attributable to fossil fuels and 11% to renewable energy.

Bondholdings

Pensioenfonds Detailhandel held EUR 263 million in bonds issued by the selected companies. 97% of these bondholdings were attributable to fossil fuels, and 3% to renewable energy.

4.2.5 Pensioenfonds Horeca en Catering (PH&C)

Data for the investments of PH&C at the start of 2018 and at the end of 2018 were not available.

In the final quarter of 2020, PH&C held bonds and shared issued by the selected companies worth EUR 259 million, as shown in Figure 71. Three quarters of these investments were attributable to fossil fuels, and one quarter to renewable energy. This was an improvement from the previous year when 92% of PH&C's energy sector investments were attributable to fossil fuels and 8% to renewable energy.

The change in portfolio composition was driven by a 12% decrease in value of investments attributable to fossil fuels from EUR 217 million at the end of 2019, to EUR 191 million at the end of 2020. At the same time there was a 247% increase in value of investments attributable to renewable energy from EUR 20 million to EUR 68 million in 2020.

On September 2, 2021, Pensioenfonds Horeca & Catering announced it had divested from companies obtaining more than 50% of their turnover from fossil fuel production.¹⁰ As this research is based on investment portfolios at the end of 2020, the findings do not yet reflect these divestments.





• Shareholdings

On December 31, 2020, PH&C held EUR 153 million in shares issued by the selected companies. 78% of these shareholdings were attributable to fossil fuels, and 22% to renewable energy. This an improvement from the previous year when 90% of these shareholdings were attributable to fossil fuels and 10% renewable energy.

This change in composition was driven by an 89% increase in value of shareholdings attributable to renewable energy from EUR 18 million at the end of 2019 to EUR 34 million at the end of 2020. At the same time, the value of PH&C's shareholdings attributable to fossil fuels decreased by 26% from EUR 160 million to EUR 119 million.

Bondholdings

PH&C held EUR 106 million in bonds issued by the selected companies in the last quarter of 2020. 68% of these were attributable to fossil fuels, and 32% to renewable energy. This was an improvement over the previous year when 97% of these bondholdings were attributable to fossil fuels, and 3% to renewable energy.

This change is driven in large part by a 2,216% increase in the value of bondholdings attributable to renewable energy, from EUR 2 million at the end of 2019 to EUR 34 million at the end of 2020. This was slightly undermined by a 28% increase in value of bondholdings attributable to fossil fuels from EUR 56 million at the end of 2019 to EUR 72 million at the end of 2020.

4.2.6 Pensioenfonds Vervoer

Pensioenfonds Vervoer does not disclose the value of its investments, only the names of investees. Pensioenfonds Vervoer did not respond to requests by the researchers to share its portfolios. Therefore, no analysis could be carried out.

4.2.7 Pensioenfonds Metaal en Techniek (PMT)

In the final quarter of 2020, PMT held EUR 2.2 billion in bonds and shares issued by the selected companies. 95% of these investments were attributable to fossil fuels, and 5% to renewable energy. This was worse than at the start of 2018 when 94% of PMT's investments in the selected companies was attributable to fossil fuels and 6% to renewable energy.

Figure 72 shows that this decline is mainly driven by a 30% increase in value of investments attributable to fossil fuels from EUR 1.6 billion at the start of 2018 to EUR 2.1 billion at the end of 2020. In the same period the value of investments attributable to renewable energy only increased 1% from EUR 102 million to EUR 103 million.





• Shareholdings

In the final quarter of 2020, PMT held EUR 787 million in shares issued by the selected companies. 92% of these shareholdings were attributable to fossil fuels and 8% to renewable

energy. This was an improvement in comparison with the start of 2018 when 95% of PMT's shareholdings of the selected companies were attributable to fossil fuels, and 5% to renewable energy.

This change in composition was driven by a 29% decrease in value of shareholdings attributable to fossil fuels from EUR 1 billion at the start of 2018 to EUR 724 million at the end of 2020. At the same time, there was a 22% increase in value of shareholdings attributable to renewable energy from EUR 51 million at the start of 2018 to EUR 62 million at the end of 2020.

Bondholdings

On December 31, 2020 PMT held EUR 1.4 billion in bonds issued by the selected companies. 97% of these bondholdings were attributable to fossil fuels, and 3% to renewable energy. This was a decline from the start of 2018 when 92% of PMT's bondholdings of the selected companies was attributable to fossil fuels and 8% to renewable energy.

This is driven by a 131% increase in value of bondholdings attributable to fossil fuels from EUR 590 million at the start of 2018 to EUR 1.4 billion at the end of 2020. At the same time, where was a 19% decrease in value of bondholdings attributable to renewable energy from EUR 51 million at the start of 2018 to EUR 41 million at the end of 2020.

4.2.8 Pensioenfonds van de Metalelektro (PME)

In the fourth quarter of 2020, PME held EUR 1.1 billion in bonds and shares issued by the selected companies. 93% of these investments were attributable to fossil fuels, and 7% to renewable energy. This was a slight improvement from the start of 2018 when 94% of PME's investments in the selected companies were attributable to fossil fuels and 6% to renewable energy.

Figure 73 shows that this was mainly due to a 22% decrease in investments attributable to fossil fuels from EUR 1.3 billion at the start of 2018 to EUR 1.0 billion at the end of 2020. The value of investments in renewable energy, however, also decreased by 14% from EUR 84 million to EUR 72 million.

On September 3, 2021, PME announced it had sold all its interests in fossil oil and gas companies.¹¹ As this research is based on investment portfolios at the end of 2020, the findings do not yet reflect these divestments.



Figure 73 PME investments by energy source (2018-2020, EUR mln)

• Shareholdings

In the final quarter of 2020, PME held EUR 309 million in shares issued by the selected companies. 87% of these investments were attributable to fossil fuels and 13% to renewable energy. This was an improvement from the start of 2018 when 95% of PME's shareholdings of the selected companies were attributable to fossil fuels and 5% to renewable energy.

The value of investments attributable both to fossil fuels and renewable energy declined between the start of 2018 and the end of 2020. Fossil fuel investments decreased faster than renewable energy investments. Fossil fuels investments decreased by 72% from EUR 954 million at the start of 2018 to EUR 269 million at the end of 2020. Renewable energy investments decreased from EUR 54 million to EUR 41 million.

Bondholdings

On 31 December 2020, PME held EUR 782 million in bonds issued by the selected companies. 96% of these bondholdings were attributable to fossil fuels and 4% to renewable energy. This was a decline from the start of 2018 when 92% of PME's bondholdings of the selected companies was attributable to fossil fuels and 8% to renewable energy.

This change was due to a 117% increase in the value of investments attributable to fossil fuels from EUR 346 million at the start of 2018 to EUR 751 million at the end of 2020. Renewable energy investments inly increased 5% from EUR 30 million at the start of 2018 to EUR 31 million at the end of 2020.

4.2.9 Pensioenfonds Zorg en Welzijn (PFZW)

On December 31, 2020 PFZW held EUR 2.9 billion in bonds and shares issued by the selected companies. 83% of these investments were attributable to fossil fuels and 17% to renewable energy. This was an improvement from the start of 2018 when 93% of its investments in the selected companies was attributable to fossil fuels and 7% to renewable energy.

Figure 74 shows that this change in composition was driven by two factors. There was a 23% decrease in the value of investments attributable to fossil fuels from EUR 3.2 billion at the start of 2018 to EUR 2.4 billion at the end of 2020. There was also a 113% increase in the value of investments attributable to renewable energy from EUR 234 million at the start of 2018 to EUR 499 million at the end of 2020.





• Shareholdings

PFZW ended the fourth quarter of 2020 with EUR 1.9 billion in shares of the selected companies. 78% of these shareholdings were attributable to fossil fuels and 22% to renewable energy. This was an improvement from the start of 2018 when 91% of PFZW's shareholdings of the selected companies was attributable to fossil fuels and 9% to renewable energy.

This change in composition was driven by a 29% decrease in shareholdings attributable to fossil fuels from EUR 2.1 billion from the start of 2018 to EUR 1.5 billion at the end of 2020. The value of PFZW's shareholdings attributable to renewable energy more than doubled from EUR 201 million at the start of 2018 to EUR 434 million at the end of 2020.

Bondholdings

In the last quarter of 2020, PFZW held EUR 974 million in bonds issued by the selected companies. 93% of these bondholdings were attributable to fossil fuels and 7% to renewable energy. This was an improvement from the start of 2018 when 97% of PFZW's bondholdings of the selected companies was attributable to fossil fuels and 3% to renewable energy.

This was due to a 11% decrease in value of bondholdings attributable to fossil fuels from EUR 1 billion at the start of 2018 to EUR 909 million at the end of 2020. At the same time, the value of bondholdings attributable to renewable energy doubled from EUR 32 million to EUR 65 million.

4.2.10 StiPP

At the end of 2020, StiPP held EUR 25 million in bonds and shares issued by the selected companies. 87% of these investments were attributable to fossil fuels, and 13% to renewable energy. This was a slight improvement from the start of 2018 when 88% of StiPP's investments in the selected companies were attributable to fossil fuels and 12% to renewable energy.

Figure 75 shows that the value of StiPP's investments attributable to energy decreased from the start of 2018 to the end of 2020. It shows that investments attributable to fossil fuels decreased by 30% from EUR 31 million at the start of 2018 to EUR 22 million at the end of 2020. At the same time, investments attributable to renewable energy decreased by 24% from EUR 4 million at the start of 2018 to EUR 3018 to EUR 3 million in 2020.



Figure 75 StiPP investments by energy source (2018-2020, EUR mln)

• Shareholdings

At the end of 2020 StiPP held EUR 14 million in shares issued by the selected companies. Of this amount, 88% of was attributable to fossil fuels and 12% to renewable energy. This was an improvement from the start of 2018 when 93% of StiPP's shareholdings of the selected companies was attributable to fossil fuels, and 7% to renewable energy,

This change in composition was driven by two factors. The value of shareholdings attributable to fossil fuels decreased by 37% from EUR 19 million to EUR 12 million. The value of shareholdings attributable to renewable energy increased 16% from EUR 1 million to EUR 2 million.

• Bondholdings

On 31 December 2020, StiPP held EUR 12 million in bonds issued by the selected companies. Of this 86% was attributable to fossil fuels, and 14% to renewable energy. This was a decline from the start of 2018 when 81% of StiPP's bondholdings of the selected companies was attributable to fossil fuels and 19% to renewable energy.

This decline was driven by a more rapid decrease in value of investments attributable to renewable energy than fossil fuels. The value of investments attributable to renewable energy decreased by 43% from EUR 3 million at the start of 2018 to EUR 2 million at the end of 2020. The value of investments attributable to fossil fuels decreased by 20% from EUR 12 million at the start of 2018 to EUR 10 million at the end of 2020.

5

Conclusions and recommendations

This chapters draws conclusions from the findings in this study and makes some recommendations

5.1 Conclusions

Based on the findings on fossil fuel and renewable energy investments and financing, the following conclusions are drawn:

- The energy sector activities of most financial institutions active in the Netherlands are not yet aligned with the Paris Climate Agreement goals. In line with the recent IEA 1.5°C pathway, the Eerlijke Geldwijzer deems that no further financing of, nor investments in, fossil fuels are necessary. Based on an analysis of credits and investments provided to 380 selected energy companies - covering 75% of the global energy market - in the period 2018-2020, we conclude that most credits and investments are still predominantly attributable to fossil fuels. Only Triodos Bank, De Volksbank and Bunq provided no fossil fuel credits nor investments. Also, Rabobank (78%) and insurance company Athora Netherlands (64%) directed the majority of their energy sector credits and investments to renewable energy.
- 2. Dutch banks provided EUR 13.0 billion in loans and underwriting services to the selected energy companies in the 2018-2020 period. Still 69% of these credits (EUR 9.1 billion) were attributable to fossil fuels and 31% (EUR 4.1 billion) to renewable energy.
- 3. Three banks provided credits predominantly to fossil fuels. ING Group provided EUR 9.1 billion in loans and underwriting services, of which EUR 6.8 billion (75%) went to fossil fuels. ABN Amro provided EUR 2.2 billion of which 71% (EUR 1.6 billion) to fossil fuels, while the total credit amount of NIBC (EUR 338 million) could be attributed to fossil fuels. Triodos and De Volksbank provided credits exclusively to renewable energy, while Rabobank provided EUR 1.5 billion to the energy sector of which only 22% (EUR 321 million) to fossil fuels.
- 4. The asset management divisions of Dutch banks had invested a total amount of EUR 875 million in the energy sector at the end of 2020. Of this amount, EUR 680 million (78%) was attributable to fossil fuels and EUR 194 million (22%) was attributable to renewable energy. Triodos and De Volksbank are investing exclusively in renewable energy, while ABN Amro has increased its renewable energy share to 35% of all energy investments. The asset managers of Van Lanschot Kempen (13%) and ING Group (1%) lag far behind.
- At the end of 2020, insurance companies operating in the Netherlands held EUR 21.2 billion of shares and bonds issued by the selected energy companies. 89% of these investments (EUR 18.8 billion) were attributable to fossil fuels, and only 11% (EUR 2.4 billion) to renewable energy.
- 6. Most insurance companies still invest predominantly in fossil fuels. The only exception is Athora Netherlands, whose energy sector portfolio is now for 62% (EUR 202 million) attributable to renewable energy and for 38% (EUR 123 million) to fossil fuels. The largest investor among the insurance companies operating in the Netherlands, Allianz, has invested EUR 14.5 billion (90%) in fossil fuels and only 10% (EUR 1.6 billion) in renewable energy. Aegon has the highest fossil fuel proportion: EUR 3.2 billion (93%) on total energy investments of EUR 3.5 billion.

- 7. At the end of 2020, eight Dutch pension funds held EUR 17.0 billion of shares and bonds issued by the selected 380 energy companies. 87% of the investments in the selected companies (with a value of EUR 14.8 billion) were attributable to fossil fuels and 13% (EUR 2.1 billion) to renewable energy.
- 8. All pension funds are still investing the large majority of their energy investments in fossil fuels. While still very low, Pensioenfonds Horeca & Catering ranks best with a 26% share for renewable energy. PMT ranks last, with 95% (EUR 2.1 billion) of its energy investments attributable to fossil fuels. Largest investors in fossil fuels are ABP (EUR 7.4 billion, 86% of its total energy investments) and PfZW (EUR 2.4 billion, 83%). Pensioenfonds Horeca & Catering and PME announced in September 2021 after the period studied in this research that they have divested from fossil fuel companies.
- 9. Because of a lack of data transparency, no analysis could be made of the investments pension funds BPL Pensioen and Pensioenfonds Vervoer.

5.2 Recommendations

During the past couple of years, financial institutions in the Netherlands have announced several voluntary commitments to address the climate crisis, like the Spitsbergen Ambition 2018-2020 and the financial sector commitment to the 2019 Dutch Climate Agreement. Despite those voluntary commitments, the energy sector activities of most financial institutions active in the Netherlands remain unaligned with the Paris Climate Agreement goals. The consequences of climate change severely affect human rights globally. Therefore, preventing dangerous climate change is a human rights obligation.

New legislation to promote international responsible business conduct (IRBC) through mandatory human rights due diligence, including the proposed Dutch IRBC-law and the expected EU proposal for a directive on sustainable corporate governance, offers the opportunity to financial institutions to make their activities and portfolios "climate-proof" by aligning them with a pathway limiting global temperature rise to 1.5°C with low or no temperature overshoot.

Therefore, the Dutch Fair Finance Guide (Eerlijke Geldwijzer) recommends the Dutch government:

- 1. Ensure a Dutch IRBC-law is introduced which requires companies, including financial institutions, to carry out climate due diligence;
- As part of this due diligence requirement, oblige financial institutions to adopt and implement a plan to reduce their financed greenhouse gas emissions in line with the target of limiting global temperature rise to 1.5°C. This plan should apply to all financing and investment activities and include intermediate targets. Progress towards targets should be reported on an annual basis; and
- 3. Advocate for the incorporation of mandatory climate due diligence for companies and financial institutions in EU legislation.

Additionally, the Dutch Fair Finance Guide (Eerlijke Geldwijzer) makes the following recommendations to financial institutions operating in the Netherlands:

- All pension funds as well as most insurance companies and banks should reduce their fossil fuel credits and investments and increase renewable energy credits and investments to align with a 1.5°C-consistent pathway. This portfolio shift can be achieved by stimulating energy companies through engagement, voting or otherwise to stop investing in fossil fuels and to invest more in renewable energy. Financial institutions can also choose to move their money to other energy companies which focus on renewable energy.
- 2. In line with the conclusions of UNEP and IEA, all financial institutions should not just look at shifting more credits and investments to renewable energy, but they should explicitly aim to rapidly reduce their fossil fuel credits and investments. Some banks and insurance companies are following this path already, but most financial institutions operating in the Netherlands

continue to keep their fossil fuel investments at the same level.

- 3. All financial institutions should immediately halt all financing for:
 - new extraction of coal, oil and gas;
 - coal-fired electricity generation;
 - tarsands;
 - oil and gas drilling in the Arctic (both onshore and offshore); and
 - the expansion of any infrastructure which can lead to a long-lasting lock-in of fossil fuelbased energy production.
- All financial institutions should fully disclose their financing and investment portfolios, allowing stakeholders - including governments, accountants, civil society organisations and researchers - to monitor their financings and investments and hold them accountable. At present, most banks and insurance companies, as well as several pension funds are still not disclosing fully.
- 5. Pension funds and insurance companies should also pay more attention to the transitions of their bondholding portfolios, of which the renewable energy proportion is often relatively smaller than that of their equity portfolios. With the growth of the green bond market this should be a relatively easy task.

Appendix 1 Energy companies researched in this project

Company	Sector	Country
Abengoa	Solar Panel CSP	Spain
ABM Investama	Mining	Indonesia
Abu Dhabi National Oil Company (ADNOC)	Oil & Gas	UAE
Acciona	Solar Panel CSP	Spain
Adani Group	Power Generation	India
Adani Group	Mining	India
Adaro Energy	Mining	Indonesia
AES	Power Generation	United States
Africa Coal Partners Ltd	Mining	South Africa
AGL Energy Ltd	Mining	Australia
Aiko Solar	Solar Panel PV	China
Alliance Resource Partners LP	Mining	USA
ALLTECH Group	Mining	Russia
Altraso Ventures Ltd	Mining	Russia
Aluminum Corporation of China Ltd	Mining	China
Ameren	Power Generation	United States
American Electric Power	Power Generation	United States
Anglo American PLC	Mining	United Kingdom
Anglo Pacific Group PLC	Mining	United Kingdom
Anhui Wanbei Coal - Electricity Group Co Ltd	Mining	China
Antero Resources Corporation	Oil & Gas	USA
APA Corporation	Oil & Gas	USA
Arch Resources Inc	Mining	USA
ARM Coal Pty Ltd	Mining	South Africa
Ascent Resources LLC	Oil & Gas	USA
Atlas Copco	Geothermal energy	Sweden
Baker Hughes	Oil Field Service	United States
Ballard Power Systems	Hydrogen	Canada
Bangladesh Petroleum	Pipelines	Bangladesh
Banpu Public Company Ltd	Mining	Thailand
Baramulti Suksessarana	Mining	Indonesia
Basra Oil Company	Oil & Gas	Iraq
Batchfire Resources Pty Ltd	Mining	Australia
Bayan Resources	Mining	Indonesia
Beijing Energy Group	Power Generation	China
Beijing Energy Holding Co Ltd	Mining	China
Berkshire Hathaway	Power Generation	United States

Company	Sector	Country
BHP Group Ltd	Mining	Australia
Bin County Coal Co Ltd	Mining	China
BioTherm Energy	Ocean energy	South Africa
Blackhawk Mining LLC	Mining	USA
Bloom Energy	Hydrogen	United States
Blue Energy Canada	Ocean energy	Canada
BP plc	Oil & Gas	UK
Brightsource	Solar Panel CSP	Israel
Bukit Asam	Mining	Indonesia
Bulgarian Energy Holding (BEH)	Mining	Bulgaria
Bumi Resources	Mining	Indonesia
Cabot Oil & Gas Corporation	Oil & Gas	USA
Canada Development Investment Corporation	Pipelines	Canada
Canadian Natural Resources Ltd (CNRL)	Oil & Gas	Canada
Canadian Solar	Solar Panel PV	Canada/China
CC Kolmar LLC	Mining	Russia
Celikler Holding	Mining	Turkey
Cenovus Energy Inc	Oil & Gas	Canada
Ceres Power	Hydrogen	United Kingdom
CEZ AS	Mining	Czech Republic
CEZ Group	Power Generation	Czech Republic
Chesapeake Energy Corporation	Oil & Gas	USA
Chevron Corporation	Oil & Gas	USA
China Datang	Power Generation	China
China Energy Investment Corporation (China Energy/ CHN Energy)	Mining	China
China Huadian	Power Generation	China
China Huadian Co Ltd	Mining	China
China Huaneng	Power Generation	China
China Huaneng Group Co Ltd	Mining	China
China National Coal Group Corp (ChinaCoal)	Mining	China
China National Offshore Oil Corporation (CNOOC)	Oil & Gas	China
China National Petroleum Corporation	Pipelines	China
China National Petroleum Corporation (CNPC)	Oil & Gas	China
China Petrochemical Corporation (Sinopec Group)	Oil & Gas	China
China Petrochemical Group (Sinopec Group)	Mining	China
China Petroleum & Chemical Corporation (Sinopec Corp)	Oil & Gas	China
China Pingmei Shenma Group	Mining	China

Company	Sector	Country
China Qinfa Group Ltd	Mining	China
China Resources	Power Generation	China
China Shipbuilding New Power Company	Solar Panel CSP	China
Chubu Electric Power	Power Generation	Japan
Chugoku Electric Power	Power Generation	Japan
CLP Group	Power Generation	Hong Kong
Coal India Ltd	Mining	India
Comisión Federal de Electricidad	Power Generation	Mexico
Complexul Energetic Oltenia SA	Mining	Romania
Concho Resources Inc	Oil & Gas	USA
ConocoPhillips	Oil & Gas	USA
CONSOL Energy Inc	Mining	USA
Continental Resources Inc	Oil & Gas	USA
Contura Energy Inc	Mining	USA
Datong Coal Mine Group Co Ltd	Mining	China
Devon Energy Corporation	Oil & Gas	USA
Diamondback Energy Inc	Oil & Gas	USA
DMCI Holdings Inc	Mining	Philippines
Dominion	Power Generation	United States
Dongfang	Wind Turbines	China
Drummond Company Inc	Mining	USA
DTE Energy	Power Generation	United States
DTEK	Power Generation	Ukraine
DTEK BV Group	Mining	Ukraine
Duke Energy	Power Generation	United States
E.ON	Power Generation	Germany
E.on	Power companies in NL	Netherlands
Eagle Spirit Energy Holdings	Pipelines	Canada
Ecopetrol SA	Oil & Gas	Colombia
EDF Group	Power Generation	France
Electricity Generating Authority of Thailand (EGAT)	Mining	Thailand
Elektrik Uretim A.S. Genel Mudurlugu (EUAS)	Mining	Turkey
Elektroprivreda Srbije (EPS)	Mining	Serbia
EN+ Group IPJSC	Mining	Russia
Enbridge	Pipelines	Canada
EnBW	Power Generation	Germany
Enea SA	Mining	Poland
Eneco	Power companies in NL	Netherlands

Company	Sector	Country
Enel	Power Generation	Italy
Enercon	Wind Turbines	Germany
Energeticky a prumyslovy holding a.s. (EPH)	Mining	Czech Republic
Energy Transfer	Pipelines	United States
Enerjisa Uretim Santralleri A.S.	Mining	Turkey
Engie	Power Generation	France
Engie	Power companies in NL	Netherlands
Eni SpA	Oil & Gas	Italy
Enterprise Products Partners	Pipelines	United States
Envision	Wind Turbines	China
EOG Resources Inc	Oil & Gas	USA
EP Investment II S.à.r.l.	Mining	Luxembourg
EP Investment S.à.r.l.	Mining	Luxembourg
EQT Corporation	Oil & Gas	USA
Equinor ASA	Oil & Gas	Norway
Erdenes Mongol LLC	Mining	Mongolia
Eskom	Power Generation	South Africa
Essel Mining & Industries Ltd (EMIL)	Mining	India
Eurasian Resources Group S.à.r.I (ERG)	Mining	Luxembourg
Evergy	Power Generation	United States
EVN	Power Generation	Vietnam
Exergy	Geothermal energy	Italy
Exxaro Resources Ltd	Mining	South Africa
Exxon Mobil Corporation	Oil & Gas	USA
Famur SA	Mining	Poland
First Solar	Solar Panel PV	United States
FirstEnergy	Power Generation	United States
FM Coal LLC	Mining	USA
Foresight Energy LP	Mining	USA
Formosa Plastics Group	Power Generation	Taiwan
Fortum	Power Generation	Russia
Fuji Electric	Geothermal energy	Japan
Gazprom	Pipelines	Russia
Gazprom	Oil & Gas	Russia
Gaz-System	Pipelines	Poland
GE Renewable Energy	Wind Turbines	United States
GE/Alstom	Geothermal energy	France
General Electric	Solar Panel CSP	United States
Geo Energy Resources Ltd	Mining	Singapore

Company	Sector	Country
Glencore PLC	Mining	Switzerland
Global Mining Holding Company LLC	Mining	USA
GMR Infrastructure Ltd	Mining	India
Goldwind	Wind Turbines	China
Guangdong Energy Group Co Ltd	Mining	China
Guangdong Yudean Group	Power Generation	China
Guanghui Energy Co Ltd	Mining	China
Guizhou Panjiang Coal And Electricity Group Co Ltd	Mining	China
Guizhou Panjiang Investment Holding (Group) Co Ltd	Mining	China
Guizhou Panjiang Refined Coal Co Ltd	Mining	China
Gujarat Mineral Development Corp Ltd	Mining	India
Gujarat State Petronet	Pipelines	India
Hallador Energy Co	Mining	USA
Halliburton	Oil Field Service	United States
Hanwha Q-Cells	Solar Panel PV	Republic of Korea
Hebei Construction & Investment Group	Power Generation	China
Heilongjiang Longmay Mining Holding Group Co Ltd	Mining	China
Helmerich & Payne	Oil Field Service	United States
Henan Energy and Chemical Industry Group Co Ltd	Mining	China
Henan Investment Group	Power Generation	China
Henan Shenhuo Group Co Ltd	Mining	China
Hess Corporation	Oil & Gas	USA
Hindalco Industries Ltd	Mining	India
Hokkaido Electric Power	Power Generation	Japan
Hokuriku Electric Power Company	Power Generation	Japan
Huaibei Mining Group Company	Mining	China
Huaihe Energy Holding Group Co Ltd	Mining	China
Huainan Mining Group	Power Generation	China
Hubei Yihua Group Co Ltd	Mining	China
Idemitsu Kosan Co Ltd	Mining	Japan
Indian Oil Corporation	Pipelines	India
Indika Energy	Mining	Indonesia
Indonesia Asahan Aluminium LLP	Mining	Indonesia
Inner Mongolia Energy Generation & Investment Group	Mining	China
Inner Mongolia Huineng Coal and Electricity Group Co Ltd	Mining	China

Company	Sector	Country
Inner Mongolia Manshi Investment Group Co Ltd	Mining	China
Inner Mongolia Yitai Group Co Ltd	Mining	China
Inpex Corporation	Oil & Gas	Japan
ITM Power	Hydrogen	United Kingdom
JA Solar	Solar Panel PV	China
Jemena	Pipelines	China
Jiangsu Guoxin Investment Group	Power Generation	China
Jiangsu Yueda Group Co Ltd	Mining	China
Jindal Steel & Power Ltd (JSPL)	Mining	India
Jingyuan Coal Industry Group	Mining	China
Jinko Solar	Solar Panel PV	China
Jinneng Group Co Ltd	Mining	China
Jizhong Energy Group Co Ltd	Mining	China
J-POWER	Power Generation	Japan
JSC HC SDS	Mining	Russia
JSC SUEK Group (Siberian Coal Energy Company)	Mining	Russia
JSC Uzbekneftegaz	Oil & Gas	Uzbekistan
Kailuan (Group) Ltd Liability Corporation	Mining	China
Karazhyra JSC	Mining	Kazakhstan
KEPCO	Power Generation	South Korea
Kiewit Peter Sons' Inc	Mining	USA
Kinder Morgan	Pipelines	United States
Kosovo Energy Corporation J. S. C. (KEK)	Mining	Kosovo
Kuwait Petroleum Corporation (KPC)	Oil & Gas	Kuwait
LG International Corp	Mining	South Korea
Liaoning Energy Industry Holding Group Co Ltd	Mining	China
LONGi	Solar Panel PV	China
Lukoil	Oil & Gas	Russia
Magellan Midstream Partners	Pipelines	United States
Mamoura Diversified Global Holding PJSC	Oil & Gas	UAE
Marathon Oil Corporation	Oil & Gas	USA
Menar Holding	Mining	Luxembourg
Minera del Norte S.A. de C.V. (MINOSA)	Mining	Mexico
Minesto	Ocean energy	Sweden
Ming Yang	Wind Turbines	China
Mitsubishi	Geothermal energy	Japan
Mongolian Mining Corporation	Mining	Mongolia
Moroccan National Board of Hydrocarbons and Mines	Pipelines	Morocco

Company	Sector	Country
MPLX	Pipelines	United States
Murray Energy Corp	Mining	USA
NACCO Industries Inc	Mining	USA
National Energy Investment Group	Power Generation	China
National Iranian Oil Company (NIOC)	Oil & Gas	Iran
Navajo Transitional Energy Company LLC (NTEC)	Mining	USA
Nel	Hydrogen	Norway
New Hope Corporation Ltd	Mining	Australia
Nigerian National Petroleum Corporation	Pipelines	Nigeria
Nigerian National Petroleum Corporation (NNPC)	Oil & Gas	Nigeria
NLC India Ltd	Mining	India
Nordex-Acciona	Wind Turbines	Germany
North Oil Company (Iraq)	Oil & Gas	Iraq
Nova Innovation	Ocean energy	United Kingdom
NRG Energy	Power Generation	United States
NTPC	Power Generation	India
NTPC Ltd	Mining	India
OAO Kuzbasskaya Toplivnaya Kompaniya (KTK)	Mining	Russia
Occidental Petroleum Corporation	Oil & Gas	USA
Ocean Renewable Power	Ocean energy	United States
Oil and Natural Gas Corporation	Pipelines	India
Oil and Natural Gas Corporation Ltd (ONGC)	Oil & Gas	India
OMV AG	Oil & Gas	Austria
ONEOK	Pipelines	United States
OQ SAOC	Oil & Gas	Oman
Ordos Wulan Coal (Group) Co Ltd	Mining	China
Ormat	Geothermal energy	United States
Ovintiv Inc	Oil & Gas	USA
PAO NOVATEK	Oil & Gas	Russia
Patterson-UTI Energy	Oil Field Service	United States
Peabody Energy Corp	Mining	USA
Pembina Pipeline	Pipelines	Canada
Pertamina (Persero)	Oil & Gas	Indonesia
Petoro AS	Oil & Gas	Norway
PetroAmazonas EP	Oil & Gas	Ecuador
Petrobras	Pipelines	Brazil
PetroChina Company Ltd	Oil & Gas	China
Petroleo Brasileiro SA – Petrobras	Oil & Gas	Brazil
Petroleos de Venezuela SA (PDVSA)	Oil & Gas	Venezuela

Company	Sector	Country
Petroleos Mexicanos (PEMEX)	Oil & Gas	Mexico
Petroliam Nasional Berhad (Petronas)	Oil & Gas	Malaysia
PGE	Power Generation	Poland
PGE SA (Polska Grupa Energetyczna SA)	Mining	Poland
Phillips 66	Pipelines	United States
Pioneer Natural Resources Company	Oil & Gas	USA
PipeChina	Pipelines	China
Plains All American Pipeline	Pipelines	United States
PLN Persero	Power Generation	Indonesia
Plug Power	Hydrogen	United States
Polska Grupa Górnicza (PGG)	Mining	Poland
Posco	Mining	South Korea
PTT Exploration and Production Public Company Ltd (PTTEP)	Oil & Gas	Thailand
PTT Global Management Co. Ltd (PTTGM)	Mining	Thailand
Public Power Corporation SA (PPC)	Mining	Greece
Qatar Petroleum	Oil & Gas	Qatar
Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RVUNL)	Mining	India
Range Resources Corporation	Oil & Gas	USA
Reliance Power Ltd	Mining	India
Repsol SA	Oil & Gas	Spain
Rosneft Oil Company	Oil & Gas	Russia
Royal Dutch Shell plc	Oil & Gas	Netherlands
RusHydro	Power Generation	Russia
Russian Coal Co	Mining	Russia
RWE	Power Generation	Germany
RWE	Power companies in NL	Netherlands
RWE AG	Mining	Germany
Sabella	Ocean energy	France
Samruk Energy JSC	Mining	Kazakhstan
Sasol Ltd	Mining	South Africa
Saudi Arabian Oil Company (Saudi Aramco)	Oil & Gas	Saudi Arabia
Schlumberger	Oil Field Service	United States
Sener	Solar Panel CSP	Spain
Seriti Resources Holdings Pty Ltd	Mining	South Africa
Sev.en Energy Group	Mining	Czech Republic
Shaanxi Coal and Chemical Industry Group Co Ltd	Mining	China
Shaanxi Investment Group Co Ltd	Mining	China

Company	Sector	Country
Shaanxi Yulin Energy Group Co Ltd	Mining	China
Shandong Energy Group Co Ltd	Mining	China
Shandong Weiqiao Group	Power Generation	China
Shanghai Electric	Solar Panel CSP	China
Shanxi Coal Import & Export Group Co Ltd	Mining	China
Shanxi Coking Coal Group Co Ltd	Mining	China
Shanxi Jincheng Anthracite Mining Group Co Ltd	Mining	China
Shanxi Lanhua Coal Industry Group Co Ltd	Mining	China
Shanxi Lu'an Mining Industry (Group) Co Ltd	Mining	China
Shanxi Luxin Energysources Group	Mining	China
Shanxi Xinzhou Shenda Energy Group Co Ltd	Mining	China
Shenyang Coal Industry (Group) Co Ltd	Mining	China
Shenyang Coal Trade Group Corp Ltd	Mining	China
Sichuan Coal Industry Group LLC	Mining	China
Siemens Gamesa	Wind Turbines	Spain
SIMEC Atlantis (formerly Atlantis Resources Corporation)	Ocean energy	Scotland
Sinar Mas	Mining	Indonesia
Singareni Collieries Company Ltd (SCCL)	Mining	India
Sinopec	Pipelines	China
Sokolovská Uhelná AS	Mining	Czech Republic
Sonatrach	Pipelines	Algeria
Sonatrach SpA	Oil & Gas	Algeria
South32 Ltd	Mining	Australia
Southern Company	Power Generation	United States
Southwestern Energy Company	Oil & Gas	USA
Sowitec	Ocean energy	Germany
State Oil Company of the Azerbaijan Republic (SOCAR)	Oil & Gas	Azerbaijan
State Power Investment Corporation	Power Generation	China
State Power Investment Corporation (SPIC)	Mining	China
SUEK	Power Generation	Russia
Suncor Energy Inc	Oil & Gas	Canada
Surgutneftegas PJSC	Oil & Gas	Russia
Taipower	Power Generation	Taiwan
Tallgrass Energy	Pipelines	United States
Tata Power Co Ltd	Mining	India
Tatneft	Oil & Gas	Russia
TC Energy	Pipelines	Canada

Company	Sector	Country
Tennessee Valley Authority	Power Generation	United States
TEPCO	Power Generation	Japan
TerraCom Ltd	Mining	Australia
TNB	Power Generation	Malaysia
Tocardo	Ocean energy	Netherlands
Tohoku Electric Power	Power Generation	Japan
Tongwei	Solar Panel PV	China
Toshiba	Geothermal energy	Japan
Total	Pipelines	France
Total SE	Oil & Gas	France
TransAlta Corp	Mining	Canada
Transgaz	Pipelines	Romania
Transnet	Pipelines	South Africa
Transocean	Oil Field Service	United States
Trina Solar	Solar Panel PV	China
Turboden (subsidiary of Mitsubishi)	Geothermal energy	Italy
Turkish Coal Enterprises (TKİ)	Mining	Turkey
Turkmengaz	Pipelines	Turkmenistan
Turkmengaz State Concern	Oil & Gas	Turkmenistan
Uniper	Power Generation	Germany
Uniper	Power companies in NL	Netherlands
United Tractors	Mining	Indonesia
Ural Mining Metallurgical Company (UMMC)	Mining	Russia
UREC	Solar Panel PV	Taiwan
Vattenfall	Power Generation	Germany
Vattenfall	Power companies in NL	Netherlands
Vestas	Wind Turbines	Denmark
Vietnam National Coal Mineral Industries Holding Corporation Ltd (Vinacomin)	Mining	Vietnam
Vistra Corp	Mining	USA
Westmoreland Mining Holdings LLC	Mining	USA
Whitehaven Coal Ltd	Mining	Australia
Williams Companies	Pipelines	United States
Windey	Wind Turbines	China
Wintershall Dea GmbH	Oil & Gas	Germany
Wintime Holding Group Ltd	Mining	China
Wolverine Fuels LLC	Mining	USA
Xuzhou Mining Group Co Ltd	Mining	China
Yangquan Coal Industry (Group) Co Ltd	Mining	China

Company	Sector	Country
Yankuang Group Co Ltd	Mining	China
YPF SA	Oil & Gas	Argentina
Yunnan Coal Chemical Industry Group Co Ltd	Mining	China
Yunnan Xiaolongtan Mining Bureau	Mining	China
ZAO Stroyservis	Mining	Russia
ZE PAK SA Group (Zespół Elektrowni Pątnów Adamów Konin SA)	Mining	Poland
Zhejiang Provincial Energy Group	Power Generation	China
Zhengzhou Coal Industry Group Co Ltd	Mining	China

References

- 1 LULUCF refers to GHG emissions from land-use, land use change and forestry. More information on the definition and inclusion of LULUCF in GHG emission calculations can be found here: https://unfccc.int/land_use_and_climate_change/lulucf/items/1084.php, viewed in February 2021.
- 2 United Nations Framework Convention on Climate Change (n.d.), "GHG Profiles Annex I", online: http://di.unfccc.int/ghg_profile_annex1, viewed in February 2021.
- 3 United Nations Framework Convention on Climate Change (n.d.), "GHG Profiles Annex I", online: http://di.unfccc.int/ghg_profile_annex1, viewed in February 2021.
- 4 United Nations Framework Convention on Climate Change (n.d.), "GHG Profiles Annex I", online: http://di.unfccc.int/ghg_profile_annex1, viewed in February 2021.
- 5 United Nations Framework Convention on Climate Change (n.d.), "GHG Profiles Annex I", online: http://di.unfccc.int/ghg_profile_annex1, viewed in February 2021.
- 6 SEI, IISD, ODI, E3G, and UNEP (2020), "The Production Gap Report: 2020 Special Report", online: http://productiongap.org/2020report, viewed in February 2021.
- 7 International Energy Agency (2021, May), "Net Zero by 2050 A Roadmap for the Global Energy Sector", p. 21, online: https://iea.blob.core.windows.net/assets/405543d2-054d-4cbd-9b89-d174831643a4/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf
- 8 Intergovernmental Panel on Climate Change (2015, February), "Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change", New York: Cambridge University Press, p. 539-540;

Lewis, S. Estefen, et al. (2011). "Ocean Energy," in: IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation. Prepared by Working Group III of the Intergovernmental Panel on Climate Change [O. Edenhofer, R. Pichs-Madruga, et al. (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 518.

- 9 Fearnside, P.M. (2016, April), "Greenhouse gas emissions from hydroelectric dams in tropical forests". in: Alternative Energy and Shale Gas Encyclopedia, [J. Lehr & J. Keeley (eds.)], John Wiley & Sons Publishers, New York, USA, pp. 428-438.
- 10 PH&C (2021, 2 September), "Pensioenfonds Horeca & Catering Stapt Uit Fossiel", online: https://www.phenc.nl/nieuws/pensioenfonds-horeca-catering-stapt-uit-fossiel/
- 11 PME (2021, 3 September), "PME stronger commits to the energy transition", online: https://www.pmepensioen.nl:443/en/about-pme/news-pme-stronger-commits-to-the-energy-transition/.



The Eerlijke Geldwijzer (Fair Finance Guide Netherlands) is a coalition of the following organisations:

Amnesty International Milieudefensie Oxfam Novib PAX

World Animal Protection









