DNB ASSET MANAGEMENT

DNB Renewable Energy

Assessment of potential avoided emissions and exposure to the UN Sustainable Development Goals

2020

DNB Renewable Energy is dedicated to investing in the solution providers to climate change. The potential avoided emissions for the fund are 2,838tCO2/EURm invested and show net avoided emissions when compared to the fund's carbon footprint. Our analysis also reveals potential revenue exposure primarily to SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure) and SDG 11 (sustainable cities and communities). These results are reflective of our climate and environmental objectives.

Rom & Sigurdsen

Jon Sigurdsen and Christian Rom,
Portfolio Managers

Renewables generation of **828,471 kWh** providing clean energy to **525**[1] people per year

Carbon footprint (scope 1 and 2) of **227 tCO2e/EURm invested** equal to emissions from **145**[2] cars on the road

Wind and solar shipments of **186 kV replacing 444**[3] tons of coal annually

Potential avoided emissions of **2,838 tCO2/EURm invested** equal to taking **1,819** cars off the road

1 525 people per year: https://ec.europa.eu/eurostat/statistics-explained/index.php/Electricity_and_heat_statistics#Consumption_of_electricity_per_capita_in_the_households_sector

2 145 cars on the road og 1,819 cars off the road: https://www.eea.europa.eu/data-and-maps/indicators/average-co2-emissions-from-motor-vehicles/assessment-1 og https://www.acea.be/automobile-industry/passenger-cars

3 444 tons of coal annually: https://www.eia.gov/tools/faqs/faq.php?id=74&t=11

FACTS

DNB Asset Management

DNB Asset Management (DNB AM) is part of Wealth Management (WM), a business area in the DNB Group

DNB AM had 151 full-time employees across three locations in Europe at the end of 2019

DNB AM managed NOK 668 billion in fixed income, equities, hedge funds, and private equity – on behalf of institutional and retail clients

The DNB Group, Norway's largest bank, aims to promote sustainable value creation by integrating ESG (Environmental, Social, Governance) aspects into all business operations

Table of contents

1. Reflections from portfolio managers

Over the past few years, financial markets have become increasingly concerned with environmental matters, recognising that these offer both investment risks and opportunities. There is no reason to believe the momentum on climate change will slow, given that this is one of the greatest challenges we face in our time. DNB Asset Management (DNB AM) has offered dedicated environmental funds that address these risks and opportunities for more than 30 years. In this report, we share some insights from our experience in this space.

Carbon footprinting typically focuses on scope 1 and 2 emissions – these cover direct emissions from company facilities and company-owned vehicles, as well as indirect emissions from consumption of purchased electricity, heat or steam. However, companies' scope 3 emissions should not be neglected. These are the emissions related to up- and downstream activities in the value chain of companies' products and/or services. Due to the complex nature of estimating such emissions, these are typically not reported, or are reported, but not in their entirety. Though some Environmental, Social and Governance (ESG) data providers estimate these emissions, it is still not common for these to be included in investors' carbon footprinting. It is also important to note that these underreported scope 3 emissions represent the greatest source of emissions for some sectors, such as oil and gas.

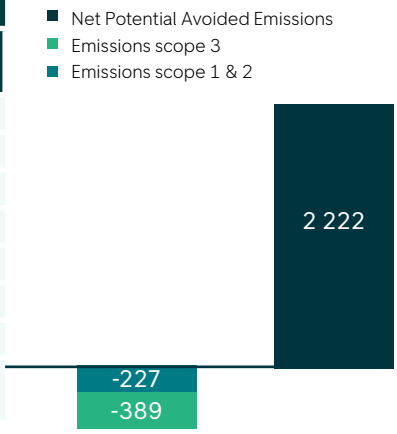
As a result of these challenges, investments have been directed into sectors that are carbon efficient in terms of their scope 1 and 2 emissions. What is not considered in such investments is that investment opportunities lay within emissions reducing "solution provider companies". These are companies with products and services that offer reduced emissions compared to traditional sources (ie. renewable energy) or which enable emissions reductions for their customers. These benefits are often not captured by traditional scope 1 and 2 carbon footprinting, and additional analysis is required to understand the emissions that such technologies may help to avoid. DNB Renewable Energy/Miljøinvest[1], hereinafter "the fund", is dedicated to investing in such solution providers. We engaged ISS-ESG to help us measure the Potential Avoided Emissions (PAE) of the portfolio. The findings from this work are discussed and presented in this report.

The Potential Avoided Emissions (PAE) calculated for the fund are 2,838 tCO2 per EURm invested and compares to a carbon footprint of 616 tCO2 per EURm. This only considers 82% of the fund holdings, but in our opinion gives a fair estimate on how figures also would look for the total portfolio (assuming equal figures for the rest of the portfolio would imply PAE of 3,476 and carbon footprint of 754).

1 DNB Miljøinvest is domiciled in Norway and DNB Renewable Energy is its equivalent, domiciled in Luxembourg. Both funds are managed by Sigurdsen and Rom and have the same mandate and portfolio constituents.

FIGURE 1. NET POTENTIAL AVOIDED EMISSIONS FOR THE FUND

Significant Net Potential Avoided Emissions for the fund ton Co2 / EURm invested				
Sector	Scope 1 & 2	Scope 3	PAE	Net PAE
Wind	-1	-1	913	911
Materials	-25	-35	658	597
Biofuels	-26	-3	454	426
Solar	-4	-10	211	197
Power generation	-164	-302	519	52
Energy saving	-7	-37	84	40
Fund total*	**-227**	**-389**	**2 838**	**2 222**
Ton Net Potential Avoided Emission per ton emitted				4x



* The estimates covers 82% of portfolio holdings as of 31.12.19 and have been prepared together with ISS ESG

Wind delivers the strongest contribution by sector. The superior load factor of wind compared to solar is the main explanation for the wind sector scoring higher than solar.

Biodiesel producer Renewable Energy Group has the largest PAE in the portfolio. The company is one of the top holdings in the fund by weight. Its products displace diesel, which emits around ~0.4 tons of carbon per barrel, and the company utilises a waste-oriented feedstock model. The wind turbine manufacturer Nordex has the highest PAE per EURm invested in the portfolio due to its relatively low market capitalisation compared to its quantity of MWs produced.

In addition to the PAE work, we have conducted a high-level assessment of the portfolio's potential revenue exposure to the United Nations (UN) Sustainable Development Goals (SDGs). The goals were adopted in 2015 and provide a shared blueprint for peace and prosperity for people and the planet, now and in the future. The Bloomberg SDG tool was used to conduct this work and reveals that revenues are primarily exposed to SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure) and SDG 11 (sustainable cities and communities). Nonetheless, we recognise the need for more granular research to better understand direct and indirect exposure to the SDGs. We therefore provide two company-level examples showing more detailed analysis. The results of this exercise

TABLE 1. TOP TEN CONTRIBUTORS OF POTENTIAL AVOIDED EMISSIONS OF CARBON DIOXIDE (TCO2) IN THE FUND (HOLDINGS AS AT 31.12.2019)

Company	% Weight	PAE in portfolio tCO_2	% of total	PAE tCO_2/1 EURm Invested
Renewable Energy Group, Inc.	8.2%	154,468	15 %	5,328
AMG Advanced Metallurgical Group NV	3.2%	153,720	15 %	13,539
Nordex Se	1.6%	121,452	12 %	22,042
Siemens Gamesa Renewable Energy Sa	3.1%	103,804	10 %	9,573
Vestas Wind Systems A/S	4.0%	98,163	10 %	6,946
China Longyuan Power Group Corp. Ltd.	7.5%	92,553	9 %	3,498
First Solar, Inc.	6.2%	74,813	7 %	3,398
The Chemours Co.	2.5%	45,429	5 %	5,096
Concord New Energy Group Limited	2.4%	37,887	4 %	4,454
Sunrun Inc.	2.9%	33,897	3 %	3,301
Total	**41.5%**	**916,187**	**91 %**	

are largely consistent with our view. However, the approach to understanding and mapping SDG exposure will develop and increase in sophistication over time. Understanding how companies work towards the SDGs is also an important aspect of our active ownership activity.

We work closely with DNB AM's Environmental, Social and Governance (ESG) team. The ESG team has competency within broad ESG, climate change, international relations, human rights, the environment, and has over 40 years of portfolio management experience. This skillset is important for successful collaboration with portfolio managers and to ensure proper ESG integration. An important aspect of our collaboration with the ESG team is practicing active ownership, exerting positive influence on our portfolio holdings by engaging with companies and voting. We measure progress by defining milestones and tracking development against these. In 2019, we had 23 company dialogues where 50% of dialogues covered governance topics, 27% covered environmental topics and 23% covered social topics. Most dialogues have reached milestone 3, where the company commits to address the concerns we have raised. As the dialogues are primarily proactive in nature, it is not uncommon that these will require some time before reaching milestone 5, where the concern(s) are resolved through the implementation of an effective strategy.

Importantly, we also follow developments within the regulatory space. In 2019 and through Q1 2020, we continue to observe a range of notable changes in the responsible investment space. These changes increasingly embed sustainability in mainstream investments, both for institutional and retail investors, and across different asset classes.

The action points of the European Union's (EU) Action Plan on Sustainable Finance are quickly making their way through legislative processes in the EU. The EU taxonomy is of particular relevance to the fund, as it defines environmentally sustainable economic activities, creating a common standard. The final report from the Technical Expert Group was published in March 2020. The report presented the overarching design of the taxonomy, the technical screening criteria for 67 economic activities for the first two environmental objectives - climate change mitigation and climate change adaptation, and the "do no significant harm" criteria for other environmental objectives. The taxonomy differentiates between environmentally sustainable economic activities, "green" activities, and other "enabling" and "transition" activities which contribute to an environmentally sustainable economic activity, but do not qualify themselves. The benefits of this classification include reduced greenwashing and increased information from companies. However, there are also a number of challenges that will be associated with the taxonomy, including data challenges (and associated implementation), ability to keep pace with technological change, and communication of taxonomy-alignment, amongst others. The taxonomy will form the basis for many of the other action points.

The EU's proposal for the first European Climate Law was also announced in March 2020, providing the legal translation of the EU's political commitment (the European Green Deal) to make its economy sustainable and achieve net zero greenhouse gas (GHG) emissions by 2050. The overarching objectives, strategies and actions are to supply clean, affordable and secure energy, biodiversity, zero pollution, a circular economy and sustainable food production. These align well with the investment themes and objectives of the fund.

In addition, the Task Force on Climate-related Financial Disclosures (TCFD) remains highly relevant. DNB AM's work in this area is continuously developing [2]. An important recommendation from the TCFD is to conduct scenario analysis to understand how climate-related risks and opportunities may impact companies and portfolios. We have assessed the fund using the MSCI ESG Climate Value-at-Risk tool (CVaR). The initial results show a positive CVaR for the portfolio, with high positive contribution from technology opportunities contributing to the overall CVaR. We will continue to assess climate-related risks and opportunities moving forward.

2 See the Annual Report on Responsible Investments 2019 for more information and TCFD disclosure

2. Collaboration with our ESG team

We work closely with DNB AM's ESG team. The ESG team has competency within broad ESG, climate change, international relations, human rights, the environment, and has over 40 years of portfolio management experience. This skillset is important for successful collaboration with portfolio managers and to ensure proper ESG integration.

Janicke Scheele,
Head of Responsible Investments
Janicke has an MBA in Finance from The Norwegian School of Economics and has worked in Norwegian and global capital markets since 1989. She has experience with analysis, portfolio management, and strategic and tactical asset allocation. After ten years of advising Institutional investors she has led and built up the team since 2015. Her primary areas of responsibility are ESG integration and active ownership.

Henry Repard,
Analyst
Henry has an MSc in Environmental and Sustainable Development from the University College London and has previous experience as an Analyst at CDP (former Carbon Disclosure Project) and KLP Asset Management. He joined the RI team in 2018. His primary areas of responsibility are deforestation and land-use, climate change, water and data security and privacy.

Karl G. Høgtun,
Senior Analyst
Karl has an MBA and a Master of International Management, and has worked in Norwegian and global capital markets since 1990. He has experience as an Analyst, Portfolio Manager, Head of Equities and Head of Nordic Equities. He joined the RI team in 2016. His specialist areas are active ownership, through voting and dialogues, and governance including tax and anti-corruption.

Laura McTavish,
Analyst
Laura has an MSc in Carbon Finance from the University of Edinburgh and previous experience as an Analyst at Trucost where her work included portfolio carbon footprinting and water risk management assessments. She joined the RI team in 2018. Her primary areas of responsibility are environment and climate change, including the TCFD and scenario analysis.

Hanne Rasch Rognmo,
Analyst
Hanne has an MA in International Environmental Policy from the Middlebury Institute of International Studies at Monterey, California. She has previous experience as an Environmental Consultant in Avinor and as a Group Trainee in DNB. She joined the RI team in 2016. Her primary areas of responsibility are human rights, labour rights, children rights and emerging markets supply chain.

For more information about how the team works, what was accomplished in 2019 and plans for 2020, see the Annual Report on Responsible Investments 2019.

A signatory to the United Nations (UN) Principles for Responsible Investments (PRI) since 2006

The PRI initiative is an international network of investors working together to put the six principles into practice by incorporating responsible investments into investment decision making and ownership practices. DNB AM has maintained a top score, A+, for its strategy and governance over several years and works for continuous improvement in the development of best practice within the area of responsible investments.

ESG integration is a key part of our responsible investment strategy

We work closely with the ESG team and a dedicated ESG Analyst, who is responsible for following up ESG work in the fund.

An important starting point for ESG integration is the screening of the investment universe and portfolio by the ESG team, which utilises various tools including MSCI ESG Research and Sustainalytics. Companies are screened prior to inclusion into the investment universe, quarterly to assess potential engagement opportunities, and on weekly and daily basis for changes to ESG ratings/factors or alerts on potential and/or realised breaches in international norms and standards. The purpose is to uncover potential product violations, breaches of international norms and standards in line with the DNB Standard for Responsible Investments and/or material ESG risks and opportunities. Based on the screening, and in-house research based on additional sources of information, the ESG team flags potential ESG risks and opportunities in addition to alerts on controversial issues. The ESG team then provides input/recommendations about divesting or investing in securities.

ESG data is incorporated into DNB AM's portfolio management and information systems and is available to all of our investment professionals. We use this data in company risk assessments, financial modelling, and investment decision making. The availability of this data in the front office system also often acts a flag, triggering further investigation and discussion with the ESG team regarding potential risks and opportunities and the financial effect from this. These discussions may trigger actions such as further investigation, engagement with the company, or impact on the investment decision.

We also have a database where ratings and company meeting information is shared, and we undertake frequent informal discussion on ESG issues. This process is assisted by the ESG team's portfolio management experience.

3. Our environmental investment universe

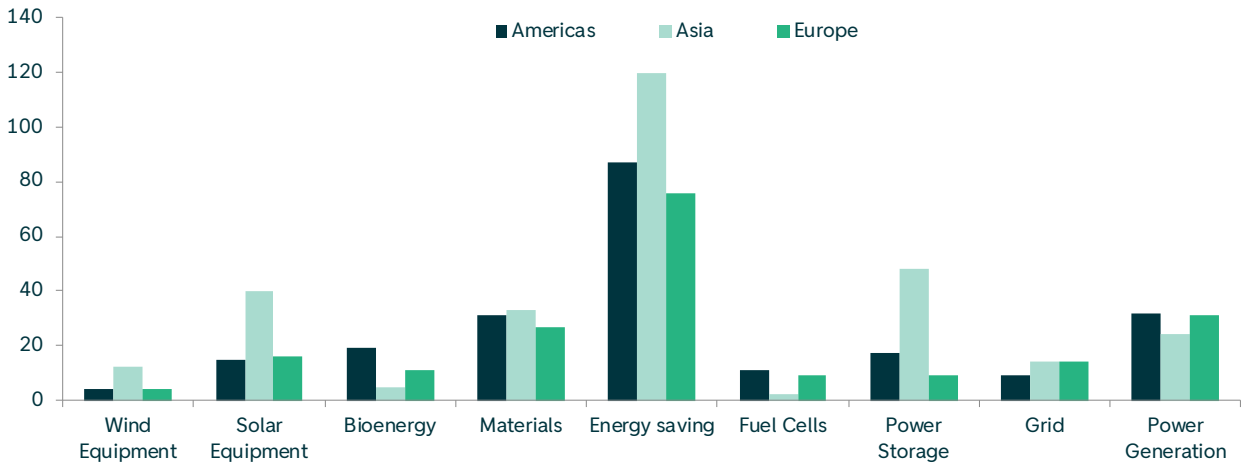
Based on the fund's mandate, we have defined a universe of investable companies whose products and services specifically target enabling a better climate and environment – the solutions providers. There is no standard public definition of which companies or sectors that should be included under such a definition. This is different compared to most other industries which can, for instance, be categorised using MSCI GICS classifications. For this reason, we seek to identify the investment universe ourselves comprising several industries which we have defined as being relevant to the investment theme – see table 2.

The top environmental concern is generally considered to be climate change, and the solution providers will hence be found amongst companies whose products and services mitigate this. As approximately 68%[1] of anthropogenic GHG emissions are related to energy, energy-related investments in the form of renewable energy and energy saving will have a crucial role in the construction of the universe. However, we also actively look for other companies outside of the direct energy industry that are solutions providers to other environmental challenges, for instance within sustainable agriculture, clean water, industrial pollution, industrial waste and deforestation. Investment opportunities along the entire value chain of companies are considered.

Over the years we have initiated coverage on over 700 companies. Before conducting any financial fundamental evaluation of the equities, we investigate the environmental angle of the company and seek to understand if the business is significantly driven by enabling a better environment or not. There can be numerous ways to measure this. We can, for instance, look at percentages of revenue, profits, assets, Research and Development (R&D), capital expenditure (CAPEX), and the sum-of-the-parts value which provide climate and environmental benefits. This information is interesting for any investment candidate but, in practice, the data will not always be available, and it will also be somewhat dependent on which stage of the business lifecycle the company is in. For instance, in earlier phases, such as start-up and growth, R&D and CAPEX will be most relevant. For mature businesses, profits become more important. We also seek to avoid investing in businesses with controversial environmental angles, as clients investing in environmental funds typically do not want this exposure.

1 Based on data from Acciona

FIGURE 2. SECTORAL AND GEOGRAPHICAL SPREAD OF PORTFOLIO HOLDINGS



We categorise the investment universe into the sub-industries shown in figure 2. The graph also illustrates how the >700 companies are spread out by region. Most companies fall into the energy saving category, which makes sense given that this is where most investment is required to achieve a low-carbon transition in line with the Paris agreement. We have historically had most of the capital invested within the sub-sectors power generation and energy saving.

The universe has a wide geographical distribution with a significant portion based in Asia where sectors like solar equipment, energy saving (particularly LED) and power storage have been viewed as more strategic. The median market cap for the universe we cover is $684m (ranging from almost nothing to >$150,000m). The universe constitutes a wide range of sectors and companies throughout the value chain. We believe it is key to conduct full value chain analysis, as some of the best investment opportunities may be found amongst the less obvious parts of the value chain. For instance, the materials sector will be critical in terms of the low-carbon transition. Such companies should offer high growth over the cycle, but this growth may be less obvious to the market. Two examples would be refrigerants and rare earths – critical for Heating, Ventilation and Air Conditioning (HVAC) and electric vehicles respectively. This illustrates why an avoided emissions analysis is important, as it helps to identify names which contribute to driving lower emissions. This analysis may therefore help us to address opportunities before the market has fully recognised them and priced in their strategic importance.

Environmental-themed investing has a long history at DNB AM and a range of environmental themed funds are offered by DNB AM. DNB Miljøinvest was launched in 1989, while the Luxembourg-equivalent fund, DNB Renewable Energy, was launched in 2007. However, our, and the broader investment management sector's, understanding of which products and services can be considered environmental has changed over the years. We observe that a range of different views still exist.

In this sense, the introduction of the EU taxonomy could be helpful, by introducing a standard classification system of green, enabling and transition activities. It is important that the taxonomy utilises a dynamic approach, as the world's environmental challenges are constantly changing, as are the investment possibilities. An example would be the circular economy, where we have seen a substantial growth in investable businesses over the last few years. Many of these circular economy solutions have an environmental angle by nature, as they typically seek to increase the utilisation of assets without the need to produce as many assets as before, which is beneficial for the environment. We also see that due to technological development, many new companies are popping up and established companies can address emission reductions in industries that have typically been carbon intensive. An example is cement production, where we have an investment in Hoffmann Green Cement which enables 80% lower emissions compared to the conventional solution.

Not only is the investment universe dynamic, but environmental investing is also growing in importance amongst asset allocators. This naturally leads to a greater requirement from fund providers, like us, to evidence how investments contribute to environmental objectives. The EU taxonomy will increase the need for documentation further. This is one of the reasons we have initiated the work to calculate potential avoided emissions in a more sophisticated way. In the past, investors have mostly focused on constraining scope 1 and 2 emissions by lowering the carbon intensity of portfolios by avoiding companies with high scope 1 and 2 emissions. However, we believe that, to date, too little emphasis has been placed on investing in companies whose products and services mitigate emissions and enable emissions reductions – both of which are required in order to achieve the low-carbon transition. The future global energy landscape should feature a higher share of green energy. Producing green energy involves emitting GHG emissions in the manufacturing process but avoids emissions from a lifecycle perspective.

The table below shows how the investment universe translates into a real portfolio addressing environmental objectives. The table shows the 43 holdings as of year-end 2019, how we can define the environmental angle for each, and how the Bloomberg Sustainable Development Goal (SDG) tool maps the companies' revenues to potential exposure to the SDGs. See section 6 for more information about SDG mapping exercise and its limitations.

TABLE 2. ENVIRONMENTAL ANGLE OF PORTFOLIO HOLDINGS (PORTFOLIO AS AT 31.12.2019)[2]

Company	Company Environmental angle	Potential revenue exposure to the SDGs
Adecoagro	Biofuels (replacing conventional fossil fuels)	Zero Hunger, Affordable and Clean Energy
American Axle & Manufacturing	Transport efficiency	Sustainable Cities and Communities
AMG Advanced Metallurgical Group	Metals/capital equipment (contributing to the circular economy and enabling energy savings)	Industry, Innovation and Infrastructure
Benchmark	Sustainable aquaculture	Good Health and well being
Boostheat	Heat pumps (inputs for HVAC)	Affordable and Clean Energy & Industry, Innovation and Infrastructure
CECO Environmental	Improving air quality	Industry, Innovation and Infrastructure
Chemours	Refrigerants (inputs for HVAC)	Industry, Innovation and Infrastructure
China Longyuan Power	Renewable power generation	Affordable and Clean Energy
Concord New Energy	Renewable power generation	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Constellium	Lightweighting materials (enabling energy savings)	Industry, Innovation and Infrastructure
Cornerstone Building Brands	Building materials (enabling energy savings)	Sustainable Cities and Communities
Covestro	Enabling materials	Industry, Innovation and Infrastructure
Dana	Transport efficiency	Industry, Innovation and Infrastructure & Sustainable Cities and Communities
Daqo New Energy	Solar equipment	Affordable and Clean Energy & Industry, Innovation and Infrastructure
E.ON	Enabling infrastructure	Affordable and Clean Energy
Enel	Renewable power generation and enabling infrastructure	Affordable and Clean Energy & Industry, Innovation and Infrastructure
First Solar	Solar equipment	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Hoffmann Green Cement	Green cement (enabling energy savings)	Sustainable Cities and Communities
Holaluz-Clidom	Distributed clean power	Affordable and Clean Energy
Huntsman	Enabling materials	Industry, Innovation and Infrastructure
Linamar	Transport efficiency	Industry, Innovation and Infrastructure & Sustainable Cities and Communities
Lynas	Rare earths (inputs for electric vehicles and wind turbines)	Affordable and Clean Energy & Sustainable Cities and Communities
Magna International	Transport efficiency	Sustainable Cities and Communities
Martinrea International	Transport efficiency	Sustainable Cities and Communities
Modine Manufacturing	HVAC equipment	Industry, Innovation and Infrastructure & Sustainable Cities and Communities
Neoen	Renewable power generation	Affordable and Clean Energy

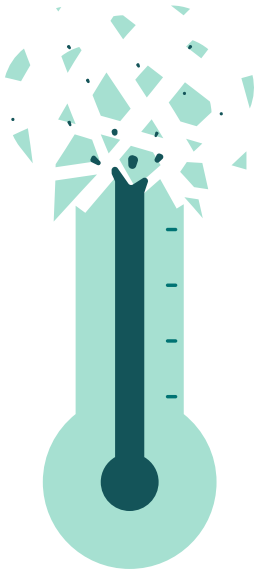
2 Potential revenue exposure to the SDGs is based on data from the Bloomberg SDG tool

CONTINUATION TABLE 2. ENVIRONMENTAL ANGLE OF PORTFOLIO HOLDINGS (PORTFOLIO AS AT 31.12.2019)[2]

Company	Company Environmental angle	Potential revenue exposure to the SDGs
Nordex	Wind equipment	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Orsted	Renewable power generation	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Quantafuel	Biofuels (replacing conventional fossil fuels)	Affordable and Clean Energy
Renewable Energy Group	Biofuels (replacing conventional fossil fuels)	Affordable and Clean Energy & Industry, Innovation and Infrastructure
REX American Resources	Biofuels (replacing conventional fossil fuels)	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Scatec Solar	Renewable power generation	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Siemens Gamesa Renewable Energy	Wind equipment	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Solarpack	Renewable power generation	Affordable and Clean Energy
Sunnova Energy	Distributed solar	Affordable and Clean Energy & Industry, Innovation and Infrastructure
SunPower	Distributed solar	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Sunrun	Distributed solar	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Tyman	Building materials (enabling energy savings)	Sustainable Cities and Communities
Vestas Wind Systems	Wind equipment	Affordable and Clean Energy & Industry, Innovation and Infrastructure
Voltalia	Renewable power generation	Affordable and Clean Energy
Willdan Group	Software/efficiency (enabling energy savings)	Affordable and Clean Energy
W-Scope	Battery materials (inputs to electric vehicles and grid energy storage)	Affordable and Clean Energy

2 Potential revenue exposure to the SDGs is based on data from the Bloomberg SDG tool

4. Key findings and limitations of ISS-ESG Potential Avoided Emissions analysis



Carbon footprint or carbon intensity analysis has its shortcomings as it fails to consider how environmentally focused companies' products and services may contribute to avoiding emissions from a lifecycle perspective. We have engaged ISS-ESG to help us measure the PAE of the fund.

Carbon footprint versus avoided emissions

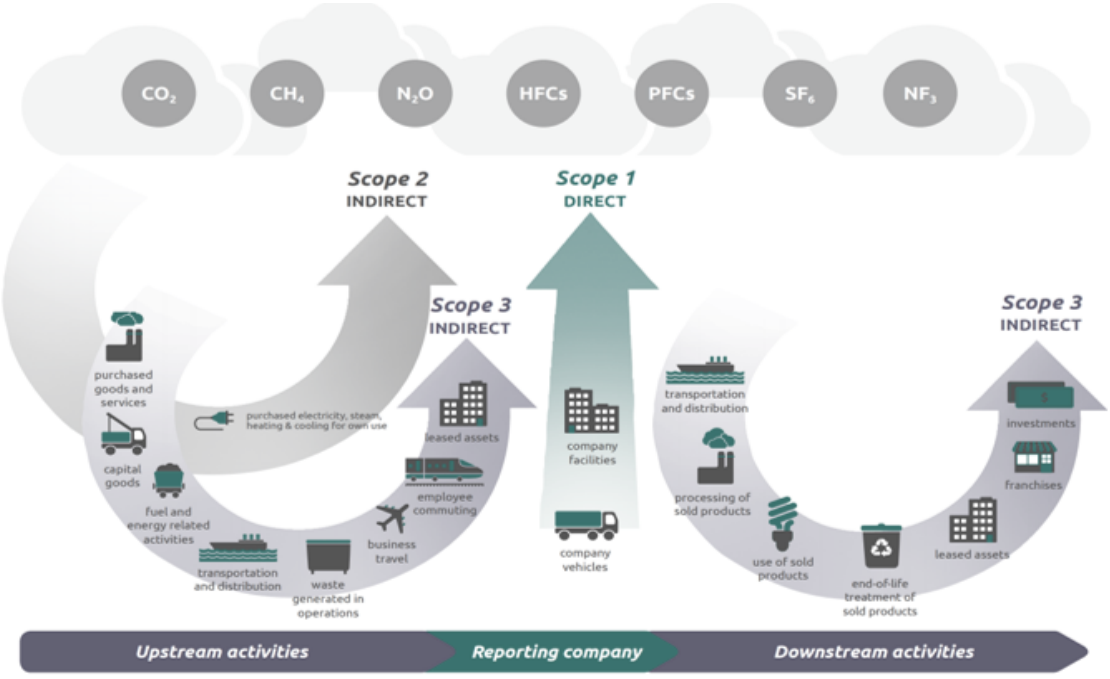
Carbon footprint analysis considers a company's direct and indirect emission to produce its product(s) or service(s). The GHG Protocol defines these emissions as scope 1 and scope 2.

Scope 1: All direct GHG emissions.

Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3: GHG emissions relating to up- and downstream activities in the value chain of the company's product/service.

FIGURE 3. EMISSIONS ACROSS THE VALUE CHAIN[1]



1 From GHG Protocol: https://www.ghgprotocol.org/sites/default/files/ghgp/standards_supporting/Diagram%20of%20scopes%20and%20emissions%20across%20the%20value%20chain.pdf

Scope 3 emissions are also important and the GHG Protocol also has a standard for reporting on these. However, due to the complex nature of estimating such emissions, these are typically not reported, or are reported, but not in their entirety. Though some ESG data providers estimate these emissions, it is still not common for these to be included in investors' carbon footprinting. It is also important to note that these underreported scope 3 emissions represent the greatest source of emissions for some sectors, such as oil and gas.

If we compare the fund to the MSCI World index, we see that its carbon footprint is higher. As demonstrated in the table below, this is primarily driven by the differences in sector composition, where our fund is more heavily concentrated in utilities, materials, energy and industrials sectors. These sectors are carbon intensive in terms of their scope 1 and 2 emissions. Also note that the fund's data coverage is lower than that of the MSCI World.

However, as previously discussed, carbon intensity does not reflect how companies' products and services offer reduced emissions or enable emissions reductions for their customers. Although the MSCI World has a lower carbon footprint compared to the fund, it surely contributes much less to reducing the global emissions and solving the climate change challenge. In other words, companies with low carbon intensities (scope 1 and 2) do not necessarily contribute the most to reducing global emissions.

We look for companies that offer solutions that enable significant emission savings. The utilities, materials, energy and industrials sectors amount to a significant share of the global energy usage, which account for approximately 2/3 of global GHG emissions. We believe that opportunities for emissions reductions are often found within these polluting sectors through companies replacing conventional energy with renewables or reducing emissions by enabling energy and resource efficiency. This explains the sectoral composition of the fund. Our PAE work therefore seeks to demonstrate the positive impact of our portfolio holdings.

TABLE 3. SECTOR WEIGHTING AND ASSOCIATED CARBON FOOTPRINT (MSCI WORLD COMPARED TO THE FUND)[2]

	MSCI sector											
	Total	Utilities	Materials	Energy	Real Estate	Industrials	Consumer Staples	Consumer Discretionary	Information Technology	Health Care	Commu-nication Services	Finan-cials
Sub-sector weight												
Fund	**100 %**	28 %	18 %	8 %	0 %	23 %	2 %	13 %	6 %	1 %	0 %	0 %
MSCI World **Carbon intensity**	**100 %**	4 %	4 %	4 %	3 %	10 %	9 %	11 %	20 %	15 %	9 %	13 %
Fund	**357**	793	553	117	0	47	893	57	159	0	0	0
MSCI World **Carbon coverage**	**159**	2 244	658	453	143	121	54	38	22	22	20	18
Fund	**84 %**	73 %	92 %	96 %	0 %	87 %	96 %	96 %	96 %	0 %	0 %	0 %
MSCI World	**100 %**	100 %	96 %	100 %	99 %	100 %	100 %	99 %	100 %	100 %	99 %	0 %

2 Based on data from MSCI ESG

Results of Potential Avoided Emissions analysis

The PAE for the fund was 2,838 tCO2 per EURm invested compared to a carbon footprint of 616 tCO2 per EURm invested based on 2018 figures. This implies that the portfolio avoids approximately 5tCO2 for every 1tCO2 emitted (~4 tonnes net).

To calculate the carbon footprint, we have scaled down the scope 1, 2 and 3 emissions provided by ISS-ESG in line with the percentage of revenues that the PAE analysis covers per company. As we will discuss in more detail, the PAE analysis focuses on one primary product category per company, and can therefore cover as little as 4% of company revenues in some cases. In practice, this approach of scaling down the carbon footprint assumes a similar carbon intensity for the company revenue streams which are not covered by the analysis. We believe that the carbon intensities of the uncovered revenues are comparable to those which are covered. Utilities have 100% PAE coverage and, as such, 100% of scope 1, 2 and 3 emissions are included in our total carbon intensity figure. Note that this additional analysis we have conducted to understand net PAE is not based on an established methodology.

The PAE estimate covers 82% of the fund holdings with the PAE estimates covering 67% of the revenues of these holdings. In our opinion this gives a fair estimate on how figures also would look for the total portfolio (assuming equal figures for the rest of the portfolio would imply PAE of 3,476 and carbon footprint of 754).

Below, we demonstrate the net PAE impact of the fund, when comparing the PAE to the fund's carbon footprint.

FIGURE 4. ESTABLISHED SHARE OF GLOBAL ANTHROPOGENIC GREENHOUSE GAS EMISSIONS BY SECTOR

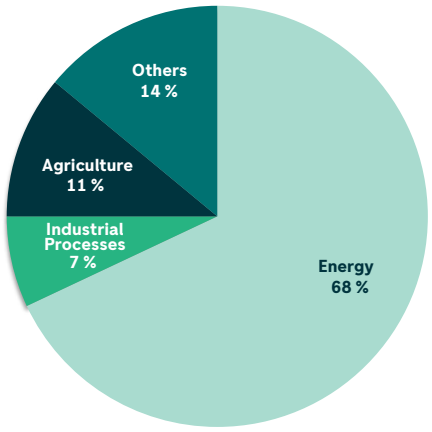
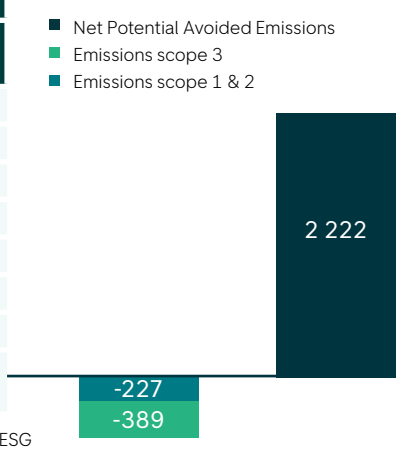


FIGURE 5. NET POTENTIAL AVOIDED EMISSIONS FOR THE FUND

Significant Net Potential Avoided Emissions for the fund ton Co2 / EURm invested

Sector	Scope 1 & 2	Scope 3	PAE	Net PAE
Wind	-1	-1	913	911
Materials	-25	-35	658	597
Biofuels	-26	-3	454	426
Solar	-4	-10	211	197
Power generation	-164	-302	519	52
Energy saving	-7	-37	84	40
Fund total*	**-227**	**-389**	**2 838**	**2 222**
Ton Net Potential Avoided Emission per ton emitted				4x



* The estimates covers 82% of portfolio holdings as of 31.12.19 and have been prepared together with ISS ESG

The calculations are based on backward-looking 2018 figures. Significantly better avoided emission results would have been achieved if based on forward-looking estimates. This is because the portfolio companies have business models centred on products and services that enable a better environment and, as such, should experience growth over the cycle. We have been surprised by investors' lack of recognition of the environmental opportunities associated with these companies, given their significant contributions to reducing global emissions. We expect this to change over time, as the market is becoming increasingly sophisticated in its understanding of how we can transition to an environmentally sustainable world economy.

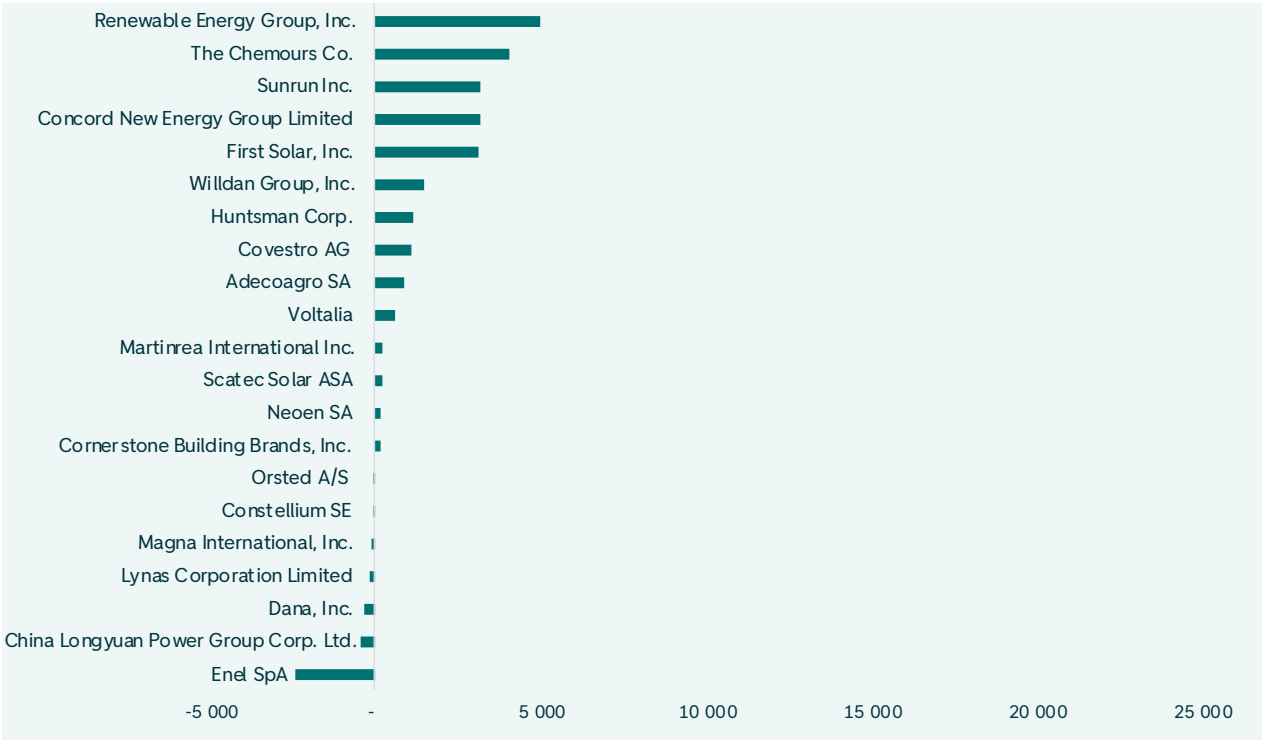
The net PAE per sector varies considerably. This is partly explained by the PAE methodology and partly related to the fact that some of these companies are in the process of transitioning towards the low-carbon economy. As such, not necessarily all of their products and services can be considered "green" today. However, they will be important contributors moving forward. The results show that wind delivers the strongest contribution by sector, while energy saving shows the weakest contribution.

Wind's strong contribution to net PAE is partly explained by the fact that the PAE methodology favours technology providers, who are allocated PAEs over the "full" lifetime of their products installed in the measuring year. The lifetime assumption for wind turbines is 20 years. The superior load factor of wind compared to solar is the main explanation for the wind sector being allocated higher PAEs than solar. The wind turbine manufacturer Nordex has the highest net PAE per EURm invested in the portfolio due to its relatively low market capitalisation compared to the quantity of renewable energy it produces yearly.

The materials sector is the second strongest contributor by sector and is mainly driven by AMG Advanced Metallurgical Group. The company has a portfolio of CO2 reducing business areas, but for this exercise we focused on the product category "thermal barrier coatings and turbocharger wheel castings". This proprietary AMG technology enables aircraft engine manufacturers to increase operating temperatures way beyond the physical limitations of the base materials by coating nickel-based superalloy blades in the high-pressure combustion section of the engine. This dramatically increases aerospace fuel efficiency.

Biofuels also shows a strong contribution as energy consumption for transportation still has a ways to go in terms of decarbonising, as shown in figure 9. Hence, every barrel of renewable diesel that Renewable Energy Group (REGI) (our largest position in the biofuels sector) produces displaces almost a full barrel of fossil-based diesel which emits around 0.4 tons of carbon. In 2018, REGI produced approximately 12m barrels of renewable diesel. The company also benefits from having flexible processing technology, enabling it to use many different feedstocks including waste feedstocks. Only 23% of its feedstock is based on vegetable oil, while 77% comes from feedstocks which are by-products or waste products with limited economic value. These are associated with a favourable carbon footprint. Note that we do not invest in biofuels containing virgin palm oil, as we recognise the environmental and social challenges associated with palm oil.

FIGURE 6. NET POTENTIAL AVOIDED EMISSIONS BY COMPANY IN TCO2/EURM INVESTED



The three energy silos[3]

FIGURE 7.
Energy mix of power sector

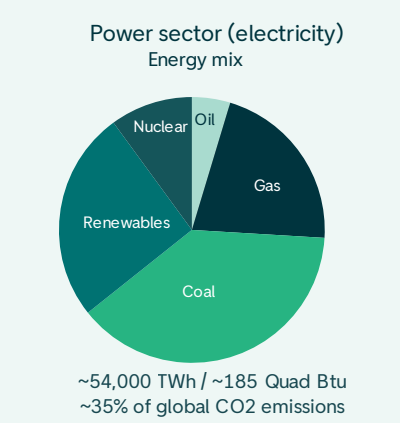


FIGURE 8.
Energy mix of industry, commercial and residential energy consumption (excluding electricity)

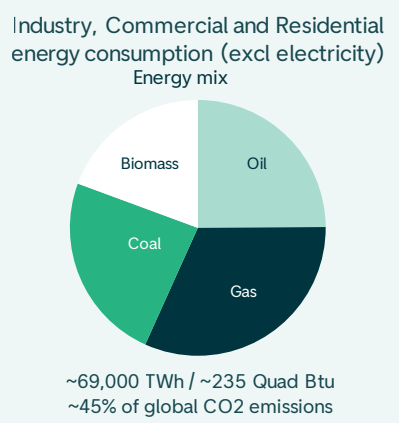
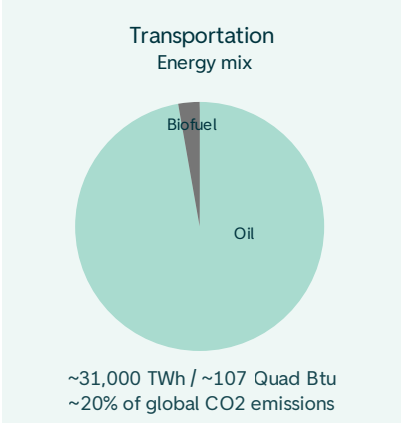


FIGURE 9.
Energy mix of transportation



Power generation shows the second weakest contribution to net PAE. This is mainly explained by Enel. Enel is amongst the biggest contributors to the energy transition. The company is one of the largest renewables developers in the world, adding 3-5GW of new renewable capacity annually and, as such, will be a key contributor towards the EU reaching its 2030 emission targets and its net zero emissions target by 2050. However, this is looking into the future. In 2018, Enel still had a lot of energy generation from fossil fuel plants, which are associated with significant emissions. The company has a clear plan for retiring this capacity over the coming years and Enel's stated target is to have a scope 1 emissions intensity of 125gCO2/kWh by 2030. This target is consistent with the "Well Below 2C" pathway of the Science Based Target Initiative (SBTI) and the International Energy Agency (IEA) B2DS scenario[4]. The PAE methodology uses the average world emissions factor for the considered year for utilities. Since the power sector has come the furthest in decarbonising, we only see a benefit of ~500 gCO2/kWh generated compared to a much higher figure for biofuels.

China Longyuan also shows weak figures. Similar to Enel, China Longyuan is among the largest renewable energy developers in the world. The company adds around 2GW of renewable capacity annually in China. China's energy mix is amongst the world's most polluting. In China, about 2/3 of power generation comes from coal compared to the global average of approximately 1/3. However, since the PAE analysis uses the world average, this does not reflect the fact that new renewable power generation in China displaces significantly more carbon than a new renewables plant in Europe or the United States.

Finally, energy saving shows the weakest contribution to net PAE. This was the area where we faced the greatest challenges in terms of data collection. We therefore believe that the findings are likely on the conservative side. Also, as the methodology only focuses on one product category per company, this sector's results are impacted as the companies typically have a portfolio of energy saving products rather than just one.

The top ten contributors towards PAE are responsible for 91% of the total PAE of the portfolio.

3 US DOE, IEA, BP, World Energy Council, DNB estimates (the figures are 2015-2016 figures)

4 https://www.enel.com/content/dam/enel-com/documenti/investitori/strategia/piano-strategico_2020-2022/enel-capital-markets-day_2019.pdf

TABLE 4. TOP TEN CONTRIBUTORS OF POTENTIAL AVOIDED EMISSIONS OF CARBON DIOXIDE (TCO2) IN THE FUND

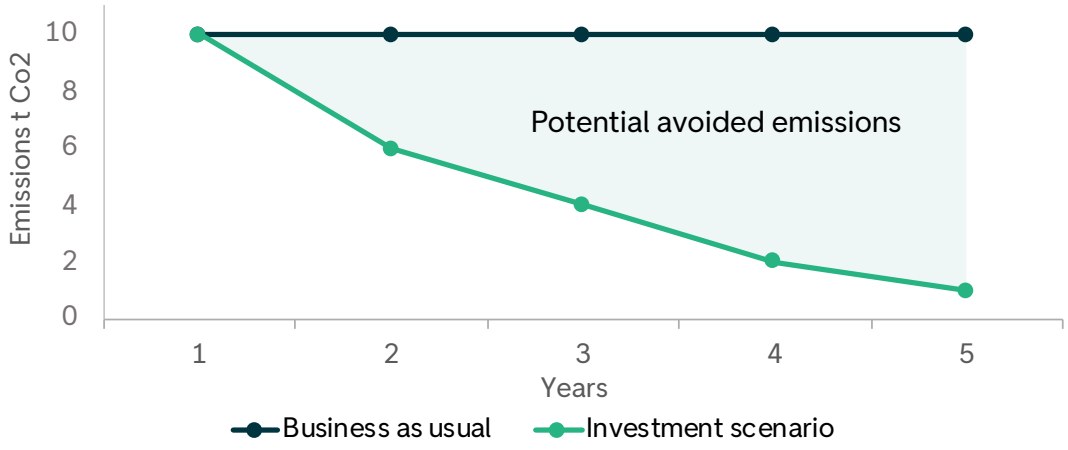
Company	% Weight	PAE in portfolio tCO_2	% of total	PAE tCO_2/ 1 EURm Invested
Renewable Energy Group, Inc.	8.2%	154,468	15 %	5,328
AMG Advanced Metallurgical Group NV	3.2%	153,720	15 %	13,539
Nordex Se	1.6%	121,452	12 %	22,042
Siemens Gamesa Renewable Energy Sa	3.1%	103,804	10 %	9,573
Vestas Wind Systems A/S	4.0%	98,163	10 %	6,946
China Longyuan Power Group Corp. Ltd.	7.5%	92,553	9 %	3,498
First Solar, Inc.	6.2%	74,813	7 %	3,398
The Chemours Co.	2.5%	45,429	5 %	5,096
Concord New Energy Group Limited	2.4%	37,887	4 %	4,454
Sunrun Inc.	2.9%	33,897	3 %	3,301
Total	**41.5%**	**916,187**	**91 %**	

Methodology

Below we summarise the ISS-ESG PAE methodology assisted with some of our own observations. The PAE assessment considers a single product category per company, sometimes covering as little as 4% of the revenues. This approach reduces the total PAE attributed to each company compared to if the analysis had covered the entire product portfolio. The analysis covers 67% of company revenues for the 25 names – this represents 82% of the portfolio by weight.

Avoided emissions are "emissions that would have been released if a particular action or intervention had not taken place". Avoided emissions can appear throughout third parties' value chains depending on the type of product or service offered and how this product or service affects operations.

FIGURE 10. GRAPHICAL REPRESENTATION OF POTENTIAL AVOIDED EMISSIONS



To quantify an amount of PAE, a baseline must be established. The baseline describes what would have occurred if the product or service had not been made available. The PAE are obtained from the difference in GHG emissions between the baseline level and the scenario where the product or service is made available[5].

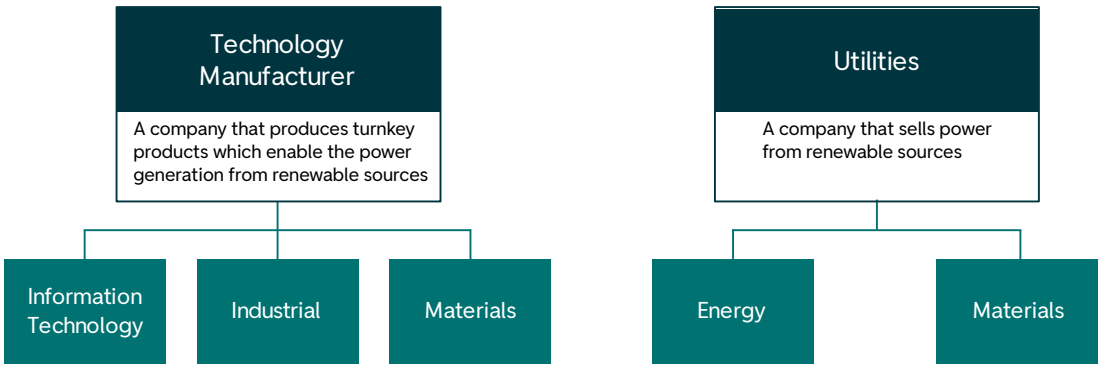
The emissions avoided by using a more efficient product or service are often conditional to either consumer or market behaviour, although this analysis does not make absolute predictions about behaviour or market developments. Consequently, ISS-ESG has chosen to use the expression potential avoided emissions to underline that the avoided emissions presented in this report are not assured or verified by a third party and are dependent on certain behaviours. Furthermore, the companies included in this analysis provide popular services with a proven market demand, sometimes using infrastructure that has been in place for over a century. It is therefore difficult to establish additionality. For instance, if one company were to cease operation, it is likely that a company with a similar offering would take its place in the market. Further, the source of finance is arguably primarily driven by market demand and financial opportunity rather than a motivation to support activities with proven climate change mitigating effects. Most stakeholders therefore agree that climate mitigating contributions from products and services that are financed through traditional financial markets may not be additional in that they are already taking place in a business-as-usual scenario.

Nonetheless, this should not discourage investors from assessing positive impact. The products and services that are financed via investments, such as renewable energy or LED lights, are vital to transitioning away from carbon intensive activities. The private sector and investors are therefore expected to play a crucial role in the implementation of the Paris Agreement. The policy environments created by Nationally Determined Contributions (NDCs) are making low-carbon technologies attractive for investors, for example through renewable energy auctions. This encourages the private sector to contribute to reaching climate targets.

Evaluating the climate change mitigating effects of an investment is a complex exercise. This methodology provides a simplified approach that can be applied at portfolio level. The methodology focuses on investments involved in the production and/or distribution of renewable energy.

With a wide array of actors ranging from component manufacturers and material suppliers to wholly integrated manufacturers, project developers and operators to utility providers, the renewable energy sector is highly diverse. ISS-ESG defines two primary groups within this: renewable energy technology manufacturers and utilities.

FIGURE 11. ISS-ESG DEFINES TWO PRIMARY PRODUCTS WITHIN THE RENEWABLE ENERGY SECTOR



5 CDP, Technical note: Glossary terms.

ISS-ESG utilises a conservative approach in its choice of assumptions and emission factors for its estimations. This means that values and assumptions are more likely to underestimate than overestimate GHG reductions, as recommended by the GHG Protocol for project accounting. As a result, when choosing data points, values and assumptions generating the lower amount of PAE are chosen.

General examples on how products enable avoided emissions are shown in the table below for renewable energy technologies and electrical vehicles.

TABLE 5. EXAMPLES OF HOW PRODUCTS ENABLE AVOIDED EMISSIONS

Product	Scope 1	Scope 2	Scope 3 (Upstream)	Scope 3 (Downstream)
Renewable energy technologies	Utilities reduce use of fossil fuels	Utility clients are supplied with renewable energy	Third party clients' emissions are reduced from electricity intensive products and services e.g. server halls and train travel	
Electric vehicles	Reduced use of fossil fuels in vehicle fleet	N/A	Third party clients' emissions are reduced in e.g. goods transports and public transportation	

A useful company-specific example within energy saving is Huntsman Corp. Huntsman Corp. is a global company based in the US that manufactures and sells a variety of chemicals. They serve clients in several industries including transportation, construction, energy and fuels, and clothing. One of the company's end products are insulating products made of MDI Polyurethane, which are used in the construction industry. This is a relatively energy intensive process, giving it a significant carbon footprint in terms of scope 1 and 2 emissions. However, the amount of emissions avoided as a result of lower energy consumption by the insulated building over its lifetime would be many times higher, thereby delivering a highly net positive impact on global emissions.

Shortcomings of avoided emissions analysis

From an opportunity perspective, a company that is providing PAE is contributing to building a solution to the challenges posed by climate change. In an interlinked society with complex value chains, it is nearly impossible to completely exclude double counting. A couple of companies can provide interlinking services, each reporting how their service helps third parties avoid emissions. To illustrate this, ISS-ESG uses the example of a wind farm. A wind turbine producer will report the avoided emissions from installed capacity. Engineering consultants may do the same after having assisted the wind farm developer to install the turbines. The energy generated can then be used by a rail service lowering the travel emissions of their passengers. All entities, being part of the same value chain, might report avoided emissions from the same source. This does not pose a problem on a company level, but the possibility of double counting on a portfolio level can be quite high. A portfolio analysis, however, gives the stakeholder an overview of the holdings' priorities and overall climate strategies, and creates a mapping of positive impact.

The PAE assessment only considers a single product category per company, sometimes covering as little as 4% of the revenues. Note that this approach is considered best practice in the calculation of avoided emissions today. However, the effect of this approach is that it reduces the total PAE attributed to the company compared to if the analysis had covered the entire product portfolio. For instance, for Huntsman we have identified 15 products that contribute to avoiding emissions. As the PAE calculations were only based on one of them, a lot of PAE from the company have not been included in the total calculation.

The results are dependent on the quality of the available data. Companies outside the clean power category were asked to provide specific information to increase the accuracy of the assessment. However, there was a substantial difference in the quality and volume in the company responses. We sense that calculating avoided emissions is a task several companies are not familiar with; this is particularly true for non-European companies. We believe that our engagement with companies during this process has been important standard setting work by putting the concept of avoided emissions and its importance to investors on their agendas. Moving forward, we anticipate that it will become more common for companies to conduct avoided emissions calculations.

Listed companies are by nature very hesitant in terms of providing data not previously disclosed, even if it is not market sensitive information. The information can potentially also be sensitive for competitive reasons. This slowed down the overall data gathering process. On the other hand, some companies provided more information than requested.

The interpretation and understanding of the data can also be complicated. The results presented in this report are based on approximations and assumptions. For companies that were not able to provide data but whose offering enables PAEs, generic data has been used. In some cases, the calculations are based on generic estimates. This leads to a higher degree of uncertainty in the results. We have done our best to provide accurate and representative data and utilised a conservative approach when in doubt.

As discussed above, the calculations are also entirely based on backward-looking data. Investors invest based on the prospect of what companies will deliver in the future. This is also the case for environmental-themed investing – we seek to generate future returns and alpha by having exposure to environmentally driven companies and capitalising on the unique understanding of how the world will solve environmental challenges. If we were to calculate future estimated avoided emissions, the results would be meaningfully higher.

There are also some conservative assumptions in the methodology. For instance, the lifetime assumption of an asset is a key consideration. If we change the assumption around the number of years a solar park will be in operation in our discounted cash flow analysis, it will yield different results. For many of the products we have used conservative lifetime assumptions while, in reality, they will be in operation longer, thereby saving more emissions. In particular, as some products are associated with high upfront emissions during the construction phase of the product relative to the baseline product, some of the results are quite conservative.

As explained above, we have also established a baseline that describes what would have occurred if the product or service had not been made available. The baseline itself introduces uncertainty. For instance, for the power generation sector, the local grid emission factor can vary substantially between regions. In practice, it is also difficult to obtain accurate data. The calculation for the baseline comparison is therefore based more on high-level and readily available data. One could also question what the baseline should be. For example, for building insulation, we have compared it with conventional insulation material. However, often the baseline case will be not to insulate a building at all.

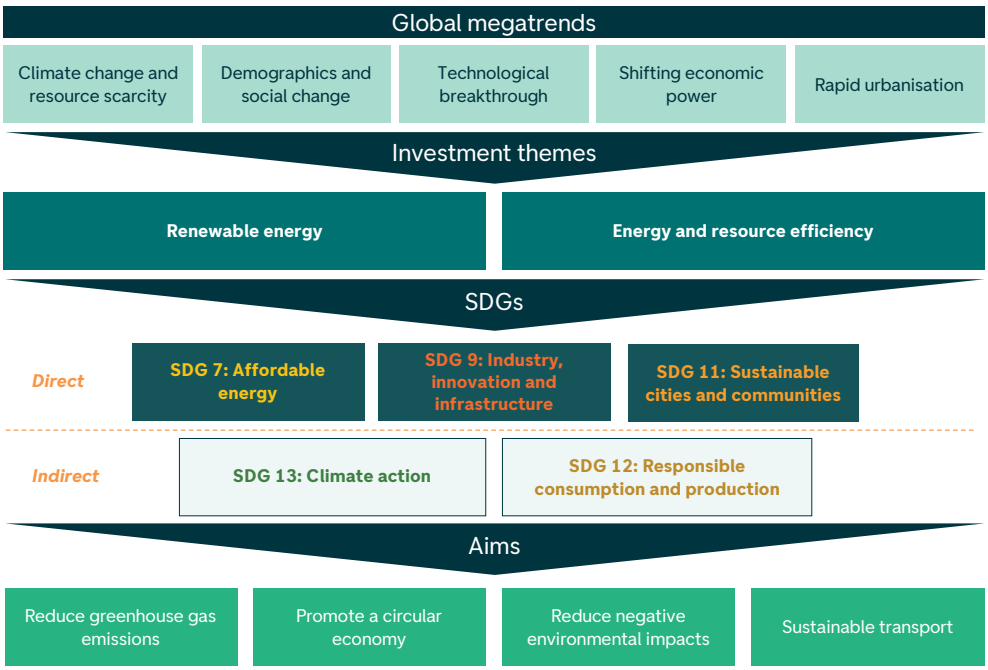
5. Potential Revenue Exposure to the UN SDGs

The UN SDGs were adopted by all UN Member States in 2015. The goals provide a shared blueprint for peace and prosperity for people and the planet, now and in the future. The SDGs consist of 17 goals and 169 targets which aim to address the greatest challenges faced by the global community by 2030. Along with governments, the SDGs call on private sector participation to solve some of the world's most urgent problems this decade.

The SDGs are part of our strategy

As the fund has an environmental focus, we must consider how we can contribute to the SDGs through our investments, both from a risk and an opportunity perspective. We strive to identify companies with business models aligned with the SDGs. Considering these in a collective manner will also help to increase the resilience of our portfolio.

GLOBAL INVESTMENT MEGATRENDS ARE LINKED TO OUR INVESTMENT THEMES AND AIMS[1]



1 https://www.blackrock.com/sg/en/investment-ideas/themes/megatrends

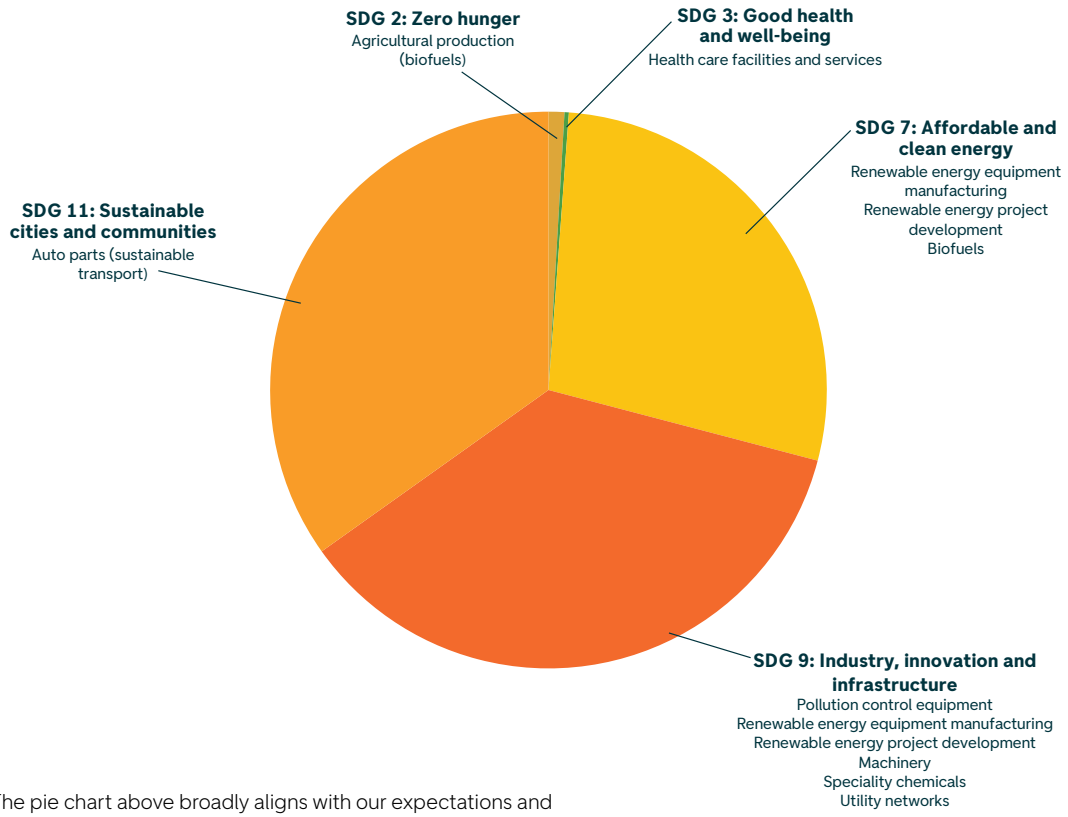
Mapping potential portfolio revenue exposure to the SDGs

Our portfolio specifically targets investments in companies that provide positive environmental and climate benefits through their products and services. We have mapped company revenues to the SDGs using Bloomberg's SDG model to demonstrate potential portfolio revenue exposure to the SDGs.

The Bloomberg SDG model utilises a two-pronged approach. First it identifies revenue segments that may be exposed to the SDGs, and then it considers corporate performance against the goals by looking at goal-specific ESG metrics that may bring positive or negative effects. It is important to note that the model identifies potential exposure to the SDGs; it does not measure alignment, contribution or impact.

Our assessment focuses on understanding the potential revenue exposure of portfolio holdings. The result provides a high-level signal of the portfolio's potential revenue exposure to the SDGs. Corporate performance against the goals is not considered in this overview.

FIGURE 12. POTENTIAL PORTFOLIO-LEVEL REVENUE EXPOSURE TO THE SDGS[2]

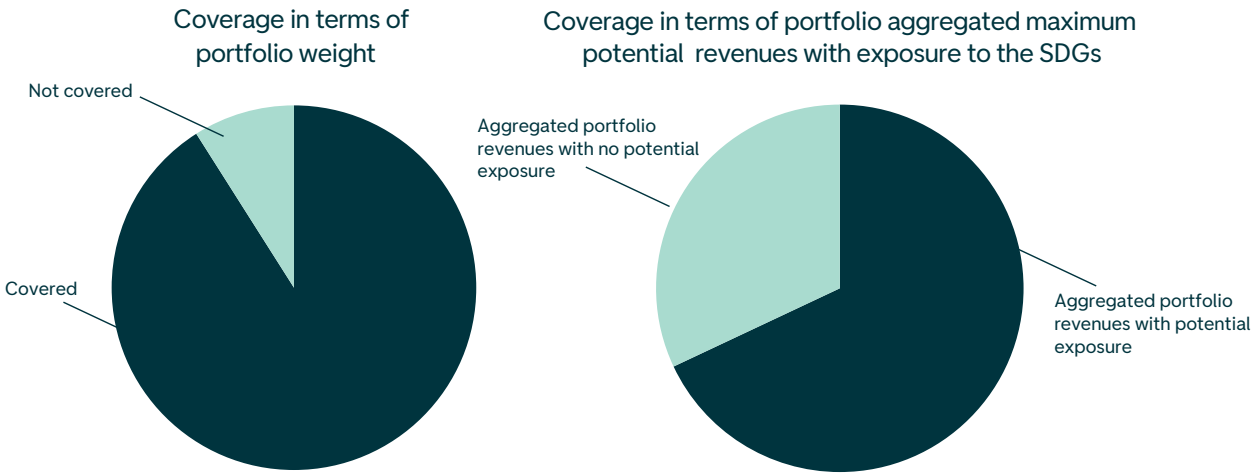


The pie chart above broadly aligns with our expectations and the intended climate and environmental aims of portfolio at an aggregated level.

2 Data from Bloomberg SDG tool

The data used from the Bloomberg SDG tool has the following levels of coverage: The data used from the Bloomberg SDG tool has the following levels of coverage:

FIGURE 13. DATA COVERAGE



Potential revenue exposure to the SDGs is found for companies responsible for approximately 91% of the weight of the portfolio. When looking at the highest percentage of potential revenue exposure per company and aggregating this to portfolio level, the coverage is 68% in terms of potential revenues. This figure does not capture revenues that may be applicable to several SDGs.

We note that there are several weaknesses associated with this initial assessment. These are as follows:

- This high-level assessment focuses on potential revenue exposures and has not considered corporate performance against the goals by use of ESG metrics. More granular company assessments are required to understand this (see company examples below). Also, our in-house view of the ESG metrics demonstrating corporate performance may differ from the Bloomberg tool in some cases.
- By focusing on the potential revenues, the impacts of companies' supply chains on the SDGs are not considered. The result above demonstrates potential positive exposure. Moving forward, when conducting company-level assessments, potential negative impacts should also be considered.
- Our approach is that a company's exposure to the SDGs can be measured by considering: 1) its products and services, 2) its own operations (including strategy and governance), and 3) its Corporate Social Responsibility (CSR) activities. By choosing to focus on revenues in this assessment, the results reflect only potential exposure of companies' products and services to the SDGs. A deep dive into companies' reporting is required to understand additional exposures to 2) and 3).
- Some holdings were not mapped as having potential revenue exposure. However, we do not believe that there would be a material difference to the high-level results if these were to be included – the overall signal remains the same. Nonetheless, this emphasises the need for deep-diving into companies' reporting to better understand potential SDG revenue exposure.
- Revenue exposure towards certain SDGs (for example SDG 4 (quality education) and SDG 8 (decent work and economic growth), amongst others) is difficult to determine, indicating that there are some SDGs that may not be directly investable.
- The result does not show indirect exposure to additional SDGs. For example, our view is that SDG 7 (affordable and clean energy) indirectly contributes to SDG 13 (climate action). We provide qualitative assessments of this in our company examples.
- Some sectors are more clearly aligned than others, such as renewable energy and SDG 7 (affordable and clean energy), whilst other sectors require additional research.
- Active ownership activity that encourages increased transparency around sustainability work, or which discourages involvement in business activities with negative environmental or climate effects are not reflected in this assessment. However, this is an important part of our responsible investment strategy.

As is clear from the above, further due diligence is required to assess companies' exposure to the SDGs. The approach to understanding and mapping SDG exposure will develop and increase in sophistication over time.

Company examples

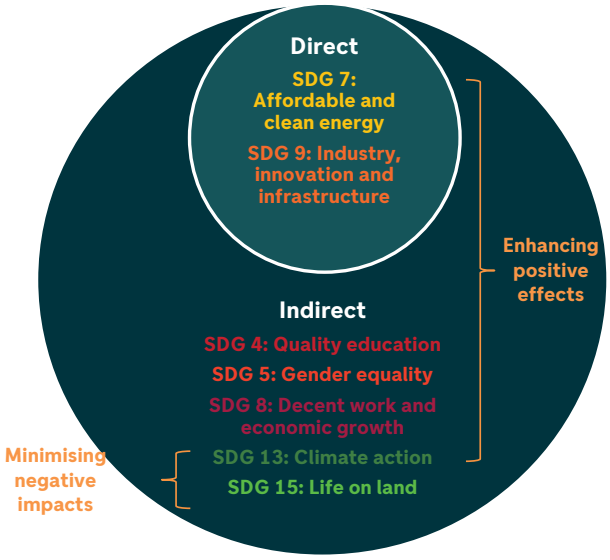
Here we provide deep-dive assessments of two companies' potential SDG exposures. 2019 reporting has been used where available in the assessments below. However, note that the latest available data at the time of calculation was used in the avoided emissions calculations in section 4 (primarily 2018 data).

There may be variations compared to previous iterations due to the continuously evolving nature of this assessment.

Scatec Solar

The company is a leading integrated independent solar power producer which delivers affordable, rapidly deployable and sustainable clean energy globally. The company builds, owns and operates solar power plants and currently has 1.9GW in operation and under construction worldwide.

In recent years, Scatec Solar has positioned itself as the leading developer and owner of solar parks in emerging markets. This gives the company a tremendous growth outlook as these are the markets where solar is the most cost competitive and largely untapped. A strong execution track record provides the company with excellent networks, including financiers and smaller project developers, helping to feed its pipeline. This will continue to drive growth beyond market expectations, which can be delivered with accelerated capital returns. The company's asset rotation strategy makes its business model relatively capital light.



Challenges	Solutions	Potential SDG exposure
Climate change Developing markets depends on electricity coming from highly polluting sources, including coal and diesel generation **Access to electricity** Approximately 1bn of the global population does not have access to electricity, and most of these people are based in developing countries	**Reduced emissions** Scatec Solar is one of the largest developers, builders and owners of solar parks in developing markets. Its business enables emissions reductions and cost savings.	**Direct** **SDG 7: Affordable and clean energy** **SDG 9: Industry, innovation and infrastructure** • 1.9GW of solar power in operation and under construction by the end of 2019 (targets 4.5GW by 2021) • Potential avoided emissions of 368,081 tonnes CO2 (according to ISS-ESG) for 2018. See section 4 for more i nformation on the methodology used. The company anticipates a significant increase in estimated avoided emissions moving forward. **Indirect** **SDG 13: Climate action** Contributes by enabling emissions reductions. The company also recognises the impacts of climate change risks and opportunities to its business.

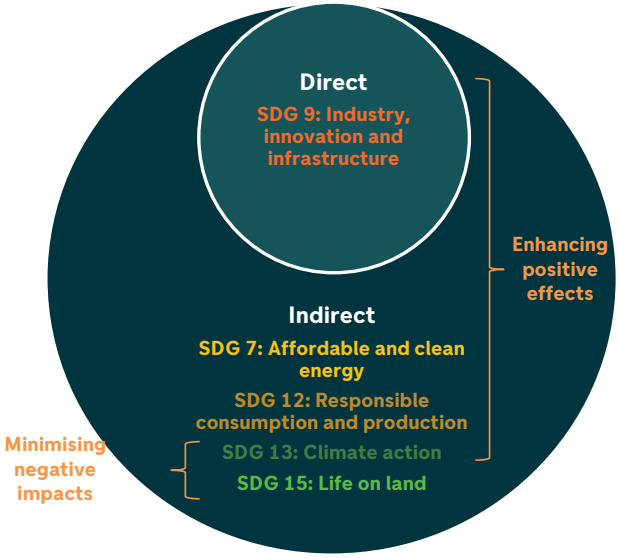
CONTINUATION TABLE FROM PREVIOUS PAGE

Challenges	Solutions	Potential SDG exposure
Inequality and social exclusion Closely linked to extreme poverty, which is an issue in many developing markets	**Increasing employment opportunities** Large-scale utilisation of unskilled labour in construction projects helps to increase employment opportunities and alleviate poverty. Bridging economic and social gaps for sustainable development.	**Indirect** **SDG 4: Quality education** **SDG 5: Gender equality** **SDG 8: Decent work and economic growth** **SDG 10: Reduced inequalities** • 8,000 jobs created in projects under construction (majority local and unskilled labour) • 56 ongoing local development programmes within clean energy, health, education and infrastructure • Diversity of workforce: 40 nationalities, average age of 37 globally, and 33% female employees (with goals to increase gender diversity by 10%)
Biodiversity loss The UN estimates that around one million plant and animal species are at risk of extinction due to human consumption and activities that disturb and destroy ecosystems. The knock-on effects will threaten food security, livelihoods and the economy, thereby also incurring major problems for humanity.	**Protecting biodiversity** Undertakes biodiversity assessments and implements measures to minimise impacts and restore biodiversity	**Indirect** **SDG 15: Life on land** Biodiversity assessments are part of baseline impact and environmental and social due diligence assessments. If impact cannot be fully mitigated, measures are implemented to minimise impacts and restore biodiversity, such as habitat enhancement and creating new conservation areas.

AMG Advanced Metallurgical Group

The company produces highly engineered specialty metals and minerals products and provides related vacuum furnace systems and services to the transportation, infrastructure, energy and specialty metals and chemicals end markets.

AMG has a portfolio of circular economy solutions in the metals and minerals industry that contributes significantly to emissions reductions. We believe the significant savings contribution will drive strong cash flow and that these more indirect emission contributions will increasingly drive investor interest. The company is currently in the process of significantly growing its exposure to vanadium recycling from spent refinery catalysts and downstream lithium operations; this will drive strong growth for years to come.



Challenges	Solutions	Potential SDG exposure
Climate change The transport sector (road, rail, air and marine) is the fastest growing contributor to GHG emissions and accounted for 24% of direct CO2 emissions from fuel combustion in 2018 [12], [13]. Buildings accounted for 28% of global energy-related CO2 emissions in 2018 when taking into account indirect emissions from upstream power generation[14].	**Reduced emissions** • Vanadium – used to make steel alloys, resulting in stronger and lighter material and energy savings • Lithium – supplied to battery industry for use in electrics cars and power storage • Graphite – insulating materials for buildings • Titanium and chromium – more efficient combustion and lighter aircraft in the aerospace industry • Aluminium – lightweighting of cars and airplanes (alternative to steel) and as a substitute for plastics in beverage packaging and most solar panel production • Tantalum – used in capacitors, essential components in electronics for efficient use of energy (ie. mobile phones)	**Direct** **SDG 9: Industry, innovation and infrastructure** Produces products that provide important energy savings benefits and inputs to the building and construction, aerospace, food and beverage and automobile sectors, amongst others **Indirect** **SDG 7: Affordable and clean energy** **SDG 13: Climate action** Contributes by enabling emissions reductions – ISS-ESG estimates that the company's thermal barrier coatings and turbocharger wheel castings alone could potentially avoid 8,697,386 tCO2. In reality, the company's avoided emissions figure is likely to be much higher, as this assessment focuses only on one product category. See section 4 for the description of the methodology. The company also recognises the impacts of climate change and environmental risks and opportunities to its business.

12 https://www.who.int/sustainable-development/transport/health-risks/climate-impacts/en/
13 https://www.iea.org/reports/tracking-transport-2019
14 https://www.iea.org/reports/tracking-buildings

CONTINUATION TABLE FROM PREVIOUS PAGE

Challenges	Solutions	Potential SDG exposure
Linear economy The unsustainable "take, make, waste" approach of linear economies contributes to high levels of GHG emissions, waste and pollution[15]. The move towards a circular economy is also necessary to meet the world's growing population's demand for raw materials[16].	**Recycling/circular economy** • High use of recycled materials • In regards to vanadium, AMG receives used catalysts from refineries and removes metal from them (the alternative would be to send these to landfill, which harms the environment)	**Direct** **SDG 9: Industry, innovation and infrastructure** The company utilises a high proportion of recycled materials and recycles waste. **Indirect** **SDG 12: Responsible consumption and production** **SDG 15: Life on land** Repurposes machinery that otherwise would be sent to landfill. This supports the circular economy whilst also minimising impacts to the environment and natural ecosystems.

15 https://www.ellenmacarthurfoundation.org/explore/cities-and-the-circular-economy
16 https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits

Positioning for the low carbon economy

Our portfolio holdings address our portfolio aims to reduce GHG emissions, contribute to the circular economy and reduce negative environmental impacts. Moving forward, companies that provide products and services that are aligned with the SDGs could see sales grow as demand shifts towards sustainable production. Moreover, companies who, through their own operations or through CSR activities, could also see reputational benefits to being SDG-aligned. We have observed growing investor interest in such companies over the past few years, and expect this trend to continue moving forward, incurring an associated reprising of such companies.

6. Active ownership through company engagement and voting

Active ownership through company engagement and voting activity seeks to ensure that our investment universe is in compliance with DNB's Group Standard for Responsible Investments. Our overarching aim is to influence companies to improve their practices, thereby securing long-term shareholder value and mitigating ESG risks in the best interest of our clients, as required as part of our fiduciary duty.

Our engagement is based on incident-based (reactive) and proactive engagements, as well as informed proxy-voting.

Milestone progression

In 2019, we had 23 company dialogues where 50% of dialogues covered governance topics, 27% covered environmental topics and 23% covered social topics. Most dialogues have reached milestone 3, where the company commits to address the concerns we have raised. As the dialogues are primarily proactive in nature, it is not uncommon that these will require some time before reaching milestone 5, where the concern(s) are resolved through the implementation of an effective strategy.

Progress is measured using the following milestones:

Milestone 1:

Concern raised and initial communication sent to company (email, call, letter, etc)

Milestone 2:

Dialogue is initiated, with the company acknowledging the importance of the concern

Milestone 3:

Company commits to address concern(s)

Milestone 4:

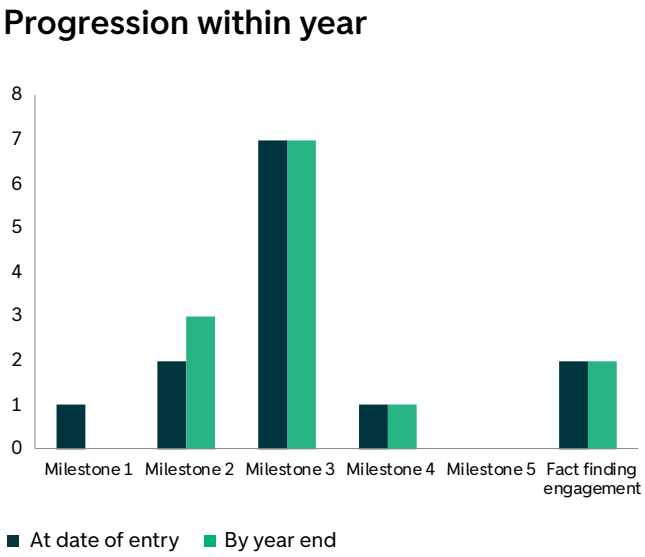
Company creates and implements a strategy to address concern(s)

Milestone 5:

Concern(s) are considered to be resolved, with sufficient management of ESG risks and opportunities as the result of an effective strategy

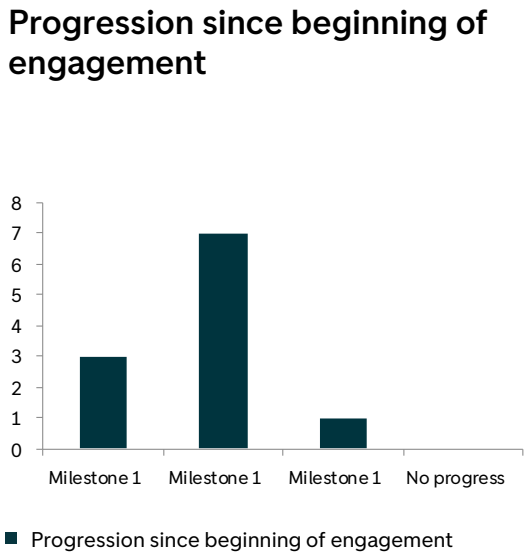
In 2019, our company engagements progressed as follows:

FIGURE 14. MILESTONE PROGRESSION WITHIN THE YEAR (2019)



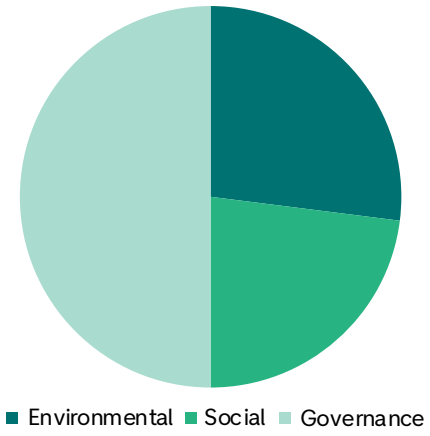
Since we initiated engagement, we have achieved the following milestone progression:

FIGURE 15. MILESTONE PROGRESSION SINCE THE BEGINNING OF ENGAGEMENT



The split of our company engagements by theme in 2019 (in terms of percentage of dialogues) was as follows:

FIGURE 16. ESG SPLIT OF DIALOGUES WITHIN THE YEAR (2019)



Company engagement examples

Renewable Energy Group

Engagement aim(s)	Result(s)
Improved sustainability work, including reporting and target setting on carbon emissions	 When the RI team engaged with the company in March 2019, the company said that sustainability work was a priority for 2019 and that it had plans to have made significant progress by the end of the year. By the end of the year, the company has improved its ESG rating from BB to BBB due to strengthened corporate governance. Strong governance practices include an independent pay committee, a majority independent board and addressing concerns associated with internal pay equity. The company is still working on its sustainability reporting, and a sustainability report and updates text on its website can be expected in 2020. In this report, we can expect disclosure of performance metrics on carbon. Reduction targets will be considered and set internally first, before sharing externally. The company has also engaged a consultant to learn more about CDP reporting, but it is unlikely to begin reporting in the near future. Moreover, the company is considering ways to expand diversity of thought, experience and representation across the entire organisation. Positively, the company recently appointed a female CEO. Apart from this, current efforts primarily focus on increasing diversity through recruitment processes. However, further plans in this area are being developed.

Huntsman Corp

Engagement aim(s)	Result(s)
To split the double role of CEO/Chairman of the Board and to encourage increased transparency around environmental reporting	 We engaged with the company to follow up on points related to governance and environmental reporting discussed in December 2018. We are pleased to see significant progress in terms of transparency of environmental reporting. The company has reported to the CDP Climate Change questionnaire for the first time and increased transparency in general on its website. Furthermore, it has set targets for various environmental Key Performance Indicators through its Horizon 2025 strategy. We look forward to following up with the company to learn how it makes progress on these goals. In regards to governance, we will continue to encourage the splitting of the CEO and Chairman of the Board role. We have clearly signalled our position on this topic through voting and engagement.

Voting

DNB AM's voting guidelines state that we shall vote at all Norwegian general meetings within our investment universe, and we have adopted a systematic approach to determining which global companies' general meetings we will vote at. This is determined by:

- The size of our position
- The largest holdings in each active portfolio
- Strategically important items and ESG-related topics

Voting will primarily happen by proxy, but we will physically attend shareholder meetings in certain cases. Our proxy voting service provider, ISS, facilitates the voting process by providing both standard voting analyses, and analyses based on our own voting guidelines. Based on these resources, the ESG team and Portfolio Managers make informed voting decisions as an integrated part of portfolio management.

Reoccurring themes include remuneration, issuance of shares, Board structure, double roles (between the Board, management and Nomination Committee) and capital structure (including authorisations). We are also increasingly seeing credible shareholder proposals related to ESG themes, specifically in regards to climate-related disclosure. Other ESG topics include reporting on political lobbying, gender pay disparity and responsible tax practices. In 2020, we expect that we will vote for further shareholder resolutions on ESG issues.

We engage with Boards, Management and Nomination Committees prior to AGMs and will explain our voting decisions to companies when we have voted against the company's recommendations. The results of our proxy voting are made publicly available. Through informed proxy voting we endeavour to secure long-term shareholder value and ensure that companies act sustainably.

7. Environmental labelling

We applied for these labels for the DNB Renewable Energy fund. As such, these only apply to DNB Renewable Energy, not DNB Miljøinvest, though both funds are essentially the same.

Key Achievements

DNB Renewable Energy receives the **German FNG Label** with the highest possible rating of three stars for the second year running.

The fund is awarded the label for its thematic investment in renewable, sustainable transportation and energy efficiency. Furthermore, established voting and formal engagement policies show active involvement with respect to ESG aspects. Extensive internal research and reporting were also positive contributors to the labelling.

In addition to adhering to DNB's Standard for Responsible Investments, the portfolio managers also commit to apply additional exclusion criteria, based on revenues, to ensure compliance with the label. The threshold for all of the below, unless otherwise specified, is less than 5% of company revenues:

- Manufacturers that mine uranium
- Companies that base their electricity generation on nuclear energy
- Operators of nuclear power plants and manufacturers of essential components for nuclear power plants
- Companies which use and/or produce hydraulic fracking technologies
- Manufacturers of conventional weapons
- Coal mining companies*
- Companies with base their power production on coal energy (less than 30% of revenues)
- Companies which exploit and/or concentrate oil sands*

* Stricter threshold than that defined in the DNB Group Standard for Responsible Investments.

The criteria for achieving the label are reassessed yearly and may become stricter. In this way, being awarded this label for a second year reflects continuous improvement the in the management of material ESG risks and opportunities.

DNB Renewable Energy also received the **LuxFLAG Environment Label** for the first time in December 2019. The label is valid from the 1st of January until the 31st of December 2020. The primary objective of this label is to reassure investors that the fund primarily aims to generate environmental performance and asset/sector growth with environmental practices. Some of the eligibility criteria for this label include incorporating ESG considerations into investment decision making and regular reporting of information for investors.

In addition, we started a project together with ISS ESG to calculate **Potential Avoided Emissions (PAE)** for key portfolio holdings in the DNB Miljøinvest/Renewable Energy portfolios. Through this project, we intend to highlight the importance of avoided emissions as a climate solution to the financial market.

Though carbon footprinting is important for understanding climate risk, it is a backwards-looking risk assessment metric. Moreover, scope 1 and 2 emissions are not always representative of how the products and services that companies deliver contribute to emissions reductions over their life cycles. For this reason, ISS ESG has assessed the PAE for one primary product category per company considering the entire value chain. These PAEs come from products and services which specifically target a reduction in emissions. The results of this analysis are expected in Q1 2020.

8. Disclaimers

MSCI ESG Research LLC

Although DNB Asset Management's information providers, including without limitation, MSCI ESG Research LLC. and its affiliates (the "ESG Parties"), obtain information from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness of any data herein. None of the ESG Parties makes any express or implied warranties of any kind, and the ESG Parties hereby expressly disclaim all warranties of merchantability and fitness for a particular purpose, with respect to any data herein. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein. Further, without limiting any of the foregoing, in no event shall any of the ESG Parties have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages

DNB Disclaimer

This report is based on analysis conducted by DNB Asset Management AS, a fund management company within the DNB Group. The report is based on sources which have been assessed as reliable, but DNB Asset Management AS cannot guarantee that the information obtain from these sources is precise or complete. Statements in the report reflect DNB Asset Management AS's opinion at the time the report was published, and DNB Asset Management AS reserves the right to change its opinion without notice. The report should not be interpreted as an offer to buy or sell our funds, any security or any other instrument or as a recommended investment strategy. DNB Asset Management AS accepts no responsibility for direct or indirect losses should the report be used to make investment decisions.

European SRI Transparency Logo

The European SRI Transparency logo signifies that DNB Asset Management commits to provide accurate, adequate and timely information to enable stakeholders, in particular consumers, to understand the Socially Responsible Investment (SRI) policies and practices relating to the fund. Detailed information about the European SRI Transparency Guidelines can be found on www.eurosif.org, and information of the SRI policies and practices of the DNB Asset Management can be found at: https://www.dnb.no/en/about-us/csr/sustainability-library.html. The Transparency Guidelines are managed by Eurosif, an independent organisation. The European SRI Transparency Logo reflects the fund manager's commitment as detailed above and should not be taken as an endorsement of any particular company, organisation or individual.

Sustainable Development Goals icons

- The use of the SDG Logo, including the colour wheel, and icons by an entity does not imply the endorsement of the United Nations of such entity, its products or services, or of its planned activities.
- The SDG Logo, including the colour wheel, and icons may not be reproduced for the purpose of self-promotion, or for obtaining any personal financial gain. Any fundraising and commercial use must only be undertaken with the explicit prior written permission of the United Nations as per section II above and subject to the conclusion of an appropriate licensing agreement.
- The United Nations will not assume any responsibility or liability arising from the translation of the text of the SDG icons into non-UN official languages.

DNB Asset Management AS

Mailing address:
P.O.Box 1600 Sentrum
N-0021 Oslo

Visiting address:
Dronning Eufemias gate 30
Bjørvika, Oslo

dnb.no