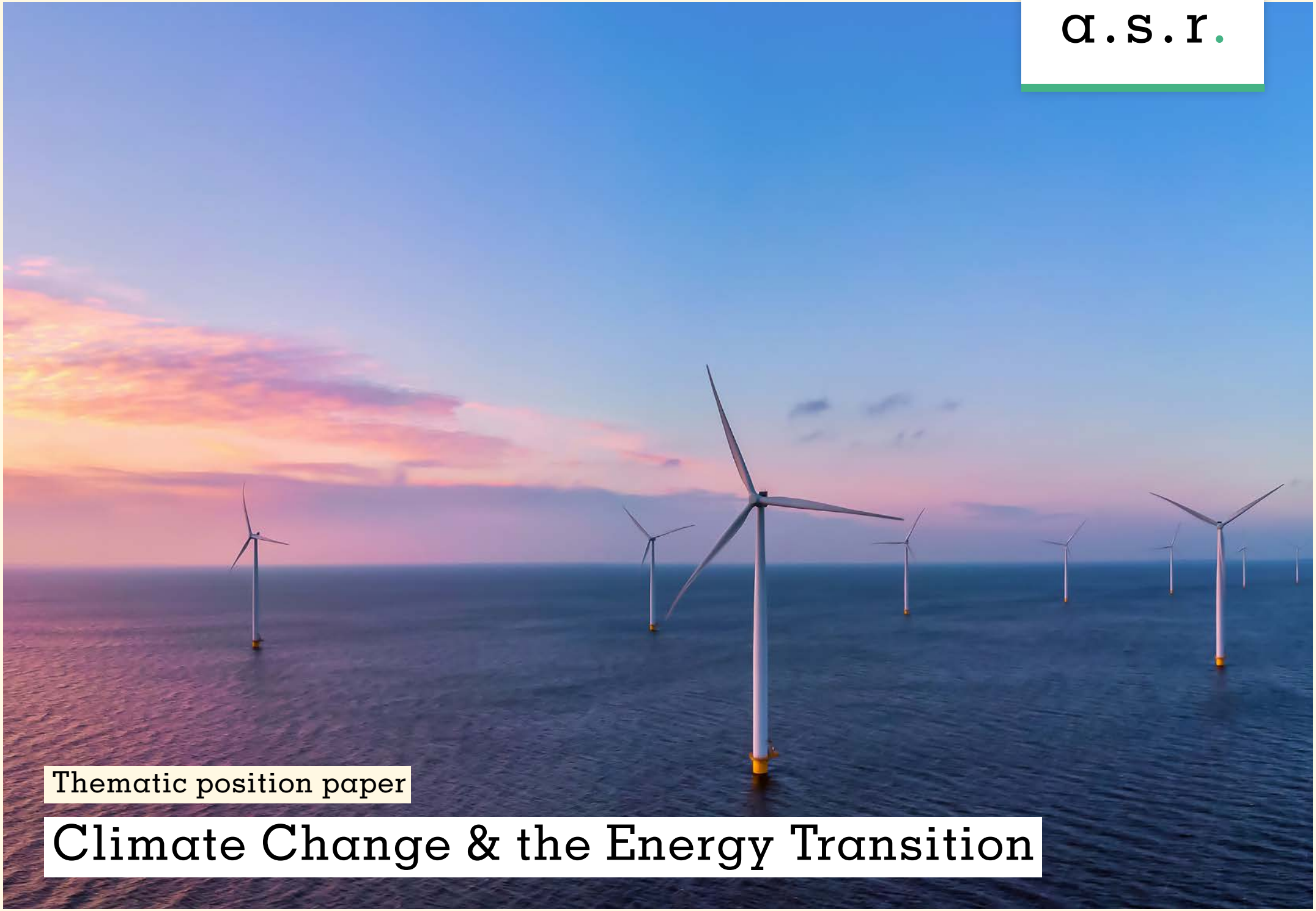
a.s.r.



Thematic position paper

Climate Change & the Energy Transition

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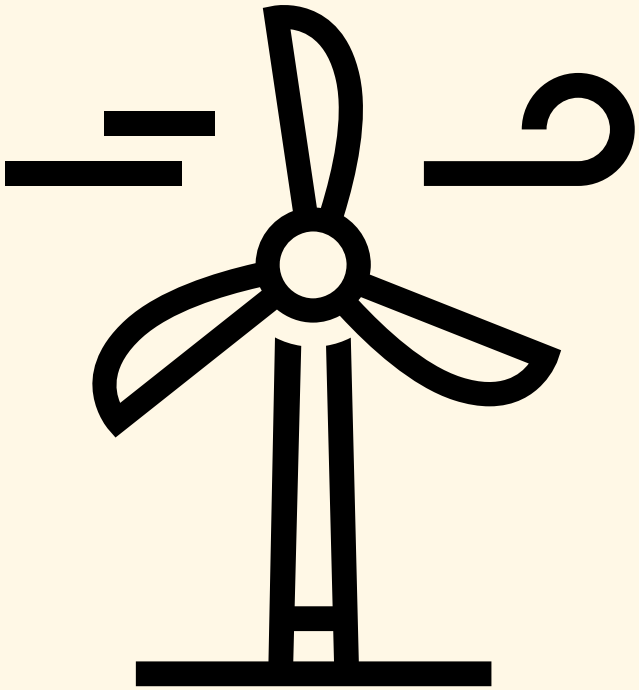


1. Introduction

This position paper is part of a series of four, each focusing on one of the key themes in our Sustainability Strategy and Policy for Responsible Investments:

- Climate change and the energy transition
- Biodiversity and natural resources
- Health and wellbeing
- Human rights

In each paper, we explain the theme's importance and relevance for our clients' investments, outline our approach to reducing harm, driving change, and creating positive impact, and set out the targets we have committed to. We also detail how we monitor and report on progress to ensure transparency and accountability.

a.s.r. Asset Management

a.s.r. Asset Management is a wholly owned subsidiary of ASR Nederland N.V. (a.s.r.) and specialises in managing investment funds and providing investment services to a.s.r. and third-party clients. a.s.r. Asset Management's investment services include:

- **Collective asset management:** We manage a range of investment funds that serve the needs of different groups of clients.
- **Individual asset management:** We offer asset management services tailored to the requirements defined in investment mandates given to us by individual clients.
- **Order processing:** We handle the receipt and transmission of orders on behalf of clients.

2. Management summary

Climate change poses significant risks to the global economy, ecosystems, and society, primarily due to human activities that release greenhouse gases (GHGs) into the atmosphere, such as burning fossil fuels. Rising temperatures contribute to more extreme weather events, rising sea levels, and ecosystem disruptions. Achieving the goals of the Paris Agreement – limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C – requires urgent and significant reductions in GHG emissions.

We integrate climate change considerations into our investment decisions to manage climate-related risks on behalf of our clients and support the transition to a low-carbon economy. Our Policy for Responsible Investments outlines how we incorporate ESG considerations, including climate change, into our investment decisions to achieve our three policy goals. For climate change, this involves the following:

Reduce harm: We exclude investments in economic activities that are incompatible with a low-carbon economy or have a severely negative impact on climate change, such as coal mining, generating electricity from coal, and producing oil and gas.

Drive change: We engage with companies to encourage them to align their business with the Paris Agreement and request that they develop climate transition plans backed by science-based GHG reduction targets. Our focus is on companies on the demand side of the fossil fuel value chain, given our strict fossil fuel exclusions.

Create positive impact: We make impact investments across a range of asset classes that help address the challenges posed by climate change. We focus on both climate mitigation (reducing GHG emissions) and climate adaptation (building resilience to the effects of climate change).

Our ambition is to reach net-zero financed GHG emissions across all assets we manage on behalf of our clients by 2045 – five years ahead of the Paris Agreement target. To define our pathway to net zero, we have set the following intermediate targets:

- A 25% reduction in carbon intensity (tCO_2e / million euros invested) in 2030, compared to 2023.
- A 75% reduction in carbon intensity (tCO_2e / million euros invested) in 2040, compared to 2023.

These targets apply to investments in government bonds, corporate bonds, and equities that we manage for a.s.r.'s own account. We intend to expand these targets to include additional asset classes when suitable measurement methodologies and data become available, further aligning our clients' investments with our net-zero ambition.

3. Climate change & the energy transition

What is climate change and how is it caused?

Climate change refers to long-term changes in average temperatures and weather patterns. It is widely accepted among scientists that human activity, particularly the burning of fossil fuels, is the primary driver. When coal, oil, and natural gas are burned, they release greenhouse gases (GHGs) such as carbon dioxide (CO_2) into the atmosphere, trapping heat and driving global warming.

As temperatures rise, the consequences become more severe. We are already witnessing longer, more intense heatwaves, heavier rainfall leading to frequent flooding, and more powerful storms and hurricanes due to warmer ocean temperatures. The IPCC's Sixth Assessment Report (AR6) warns that extreme weather events will not only become more frequent but also more destructive, posing growing threats to infrastructure, food security, and human life. Meanwhile, melting ice caps and rising sea levels threaten coastal cities and entire ecosystems, putting millions of people at risk of displacement. Evidence also shows that global warming is accelerating faster than previously anticipated, underscoring the urgency of action.

Why does climate change matter for investors?

Climate change presents both risks and opportunities for investors. Extreme weather events can disrupt operations, damage infrastructure, and strain supply chains, leading to direct financial losses. Regulatory changes, such as carbon pricing and emissions caps, can further impact the profitability of carbon-intensive industries. Companies that fail to adapt may face stranded assets, declining valuations, and reputational risks, making climate change a key consideration for long-term investment stability.

At the same time, the transition to a low-carbon economy presents significant opportunities for growth. Investments in renewable energy, clean technologies, and sustainable infrastructure create new avenues for value creation while reducing systemic climate risks. Investors who act early can support companies that are innovating and adapting, positioning themselves ahead of the regulatory curve and helping drive meaningful environmental and economic change

What are global climate goals?

The science is clear: to avoid the worst impacts of climate change, global warming must be limited to well below 2°C, and ideally to 1.5°C, above pre-industrial levels, as outlined in the Paris Agreement. Achieving this requires immediate and rapid reductions in global GHG emissions, with emissions peaking by 2030 and reaching net zero by 2050. Missing these milestones would significantly increase the risk of severe and irreversible damage to ecosystems, economies, and communities worldwide.

To meet these goals, the global economy must undergo rapid decarbonisation. This means phasing out fossil fuels and transitioning to clean energy sources. Major sectors such as transportation, industry, and buildings must be electrified, while renewable sources of energy – such as wind and solar – must be scaled up. In harder-to-decarbonise sectors, such as heavy manufacturing and aviation, low-carbon technologies like green hydrogen and carbon capture will be key to achieving the necessary emissions reductions.

However, progress to date has been insufficient. The remaining carbon budget – the total amount of CO2 that can be emitted while maintaining a reasonable chance of staying within these temperature thresholds – is depleting rapidly. This highlights the pressing need for immediate action to mitigate the worsening impacts of climate change.

Is time running out?

The concept of a fixed carbon budget highlights the finite amount of greenhouse gases that can be emitted before exceeding key temperature thresholds. While achieving net zero emissions by 2050 is important, the pace of emissions reductions over the next decade is what will determine whether the world stays within the limits of the Paris Agreement.

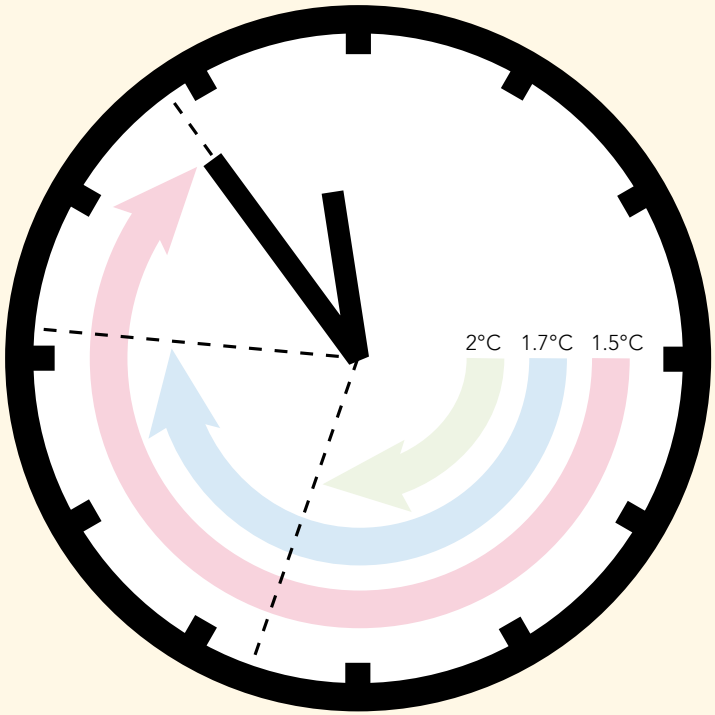
As of January 2025, the remaining carbon budget for a 50% chance of limiting global warming to 1.5°C is 235 GtCO2 – equivalent to just six years of current annual GHG emissions[1]. For a 67% chance, the budget is even smaller. For a 1.7°C threshold, the budget extends to 14 years, and for 2°C, it allows for 27 years of emissions at today's rates. These figures make it clear that urgent and substantial emissions reductions are necessary to avoid breaching critical temperature thresholds.

Recent data highlights how close we are to these limits. According to the Lancet Countdown, the annual mean surface temperature reached 1.45°C above pre-industrial levels in 2023[2]. The Copernicus Climate Change Service further reported that August 2024 marked the 13th month in a 14-month period where global-average surface air temperatures exceeded 1.5°C[3]. These trends show the accelerating pace of climate change and the rapidly shrinking margin for error.

1 https://globalcarbonbudget.org/download/1253/?tmstv=173132376
2 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)01822-1/fulltext
3 https://climate.copernicus.eu/surface-air-temperature-august-2024

Countdown to carbon budget exhaustion

(One minute to 12 represents one year)



Based on figures from the Global Carbon Budget 2024 Report

If the remaining carbon budget is exceeded, large-scale GHG removals will be required to restore balance. However, technological solutions like carbon capture and storage remain costly and unproven at scale, while nature-based approaches, such as reforestation, come with their own problems. Overreliance on these solutions delays meaningful action and increases the risk of irreversible damage.

Compounding these challenges, the global geopolitical landscape and shifting climate sentiment in some regions add complexity to achieving consensus and driving action. Political instability, uneven climate commitments, and economic pressures in high-emission regions could slow progress, while rising public concern in other areas creates opportunities for stronger engagement and action.

In response to these realities, we focus on accelerating emissions reductions by engaging with companies to adopt credible climate transition plans, underpinned by science-based targets. Our work aims to ensure alignment with the Paris Agreement and help mitigate the most severe impacts of climate change.

How do we see our role?

We see our role as twofold: first, managing the financial risks that climate change poses for our clients and stakeholders, and second, facilitating the transition to a low-carbon economy through our investment decisions. By incorporating climate-related risks into our investment decisions, we aim to mitigate their financial impact and ensure our clients' portfolios can remain resilient in an increasingly volatile landscape, where extreme weather and evolving regulations will likely shape financial outcomes.

At the same time, we are committed to using our influence to drive change and support the goals of the Paris Agreement. We engage with companies, encouraging them to adopt sustainable business practices and set ambitious decarbonisation targets. With direct investments in areas such as renewable energy, energy storage, and low-carbon technologies, we help create positive impact and drive the systemic changes needed to transition the global economy while generating long-term value for our clients. We also avoid investments in economic activities that are incompatible with a low-carbon future or in companies whose operations have a significantly harmful impact on the climate.

Links between climate change and other focus themes

Our Sustainability Strategy and Policy on Responsible Investments define four focus themes: climate change & the energy transition, natural resources & biodiversity, health & wellbeing, and human rights. Climate change is a cross-cutting theme that affects and amplifies challenges in all these areas. This means that addressing climate change isn't just about solving one issue – it also helps mitigate risks and create opportunities across our other focus themes.

Biodiversity & natural resources:
For natural resources & biodiversity, climate action is essential to protect ecosystems and avoid further habitat destruction. Unchecked climate change accelerates natural habitat loss, particularly in vulnerable ecosystems like forests, wetlands, and coral reefs. At the same time, biodiversity loss can also worsen climate change, as degraded ecosystems lose their ability to act as carbon sinks, releasing stored carbon back into the atmosphere and further driving global warming.

Health & wellbeing
Health & wellbeing are also directly impacted by climate change. Rising temperatures and extreme weather events increase the risk of heat-related illnesses, respiratory conditions, and food insecurity. Climate solutions that reduce pollution, such as cleaner energy sources, also help address major health risks like air pollution, which is responsible for millions of premature deaths each year[4].

4 https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health

	Natural resources & biodiversity	Health & wellbeing	Human rights
Climate change	Accelerates habitat loss and threatens biodiversity Protecting ecosystems and ensuring a just transition are key to mitigating these impacts	Rising temperatures, air pollution, and extreme weather increase health risks, especially for vulnerable populations Climate action reduces pollution and protects health	Impacts access to resources, leads to displacement, and threatens human security A just transition respects the rights of workers and vulnerable communities

Human rights
Climate change presents significant human rights challenges, particularly for indigenous communities, workers, and vulnerable populations. Indigenous peoples face disruptions to their lands and traditions, while workers in high-emission industries need support for a just transition to sustainable jobs. The shift to clean energy also brings risks, as mining for critical minerals can lead to community displacement, environmental harm, and increased risks of child and forced labour. It is important to uphold human rights across supply chains as the world transitions to a low-carbon economy.

Climate change can also be a driver of mass migration, with rising temperatures and extreme weather displacing communities and creating climate refugees. These displaced populations face significant human rights challenges, including limited access to shelter, healthcare, and livelihoods. Ensuring their rights are protected is a key part of a fair and inclusive response to the climate crisis

4. Climate-related risks and impacts

What are climate-related risks?

Climate-related risks include physical risks caused by climate change and transition risks linked to the shift toward a low-carbon economy. These risks can be seen both as outside-in, where environmental and regulatory changes affect the financial performance of companies, and inside-out, where a company's actions contribute to climate change and exacerbate these risks.

Physical risks stem from the direct impacts of climate change, and include acute events such as storms, floods, and wildfires, as well as chronic changes such as rising sea levels and increasing temperatures. The IPCC[5] warns that these risks will escalate as global temperatures rise, leading to widespread damage to infrastructure, ecosystems, and livelihoods, particularly if global warming exceeds 1.5°C. These risks are already materializing, with further intensification expected in the near to medium term. From an outside-in perspective, companies and countries with assets or operations in vulnerable regions face increased financial risks, while corporate emissions and resource use contribute to the inside-out impact of exacerbating these risks.

Transition risks arise from the global shift toward a low-carbon economy, including regulatory changes (e.g. carbon pricing), technological advancements, and evolving consumer preferences. Companies that fail to adapt – particularly in carbon-intensive sector – risk higher costs, stranded assets, and loss of market share.

5 Sixth Assessment Report — IPCC

From an outside-in perspective, companies face financial losses if they do not align with the transition, while from an inside-out view, their emissions and business practices contribute to transition risks for the broader economy. While these risks pose challenges, they also offer opportunities for companies and investors that lead in low-carbon innovation and sustainability.

Why are climate-related risks relevant for investors?

For investors, climate-related risks can directly impact financial returns. Both physical risks and transition risks affect companies and countries, making it important for investors to assess both outside-in risks and inside-out risks.

Physical risks, such as extreme weather and long-term environmental changes, can disrupt business operations, damage assets, and strain public finances. Companies in vulnerable areas face increased costs and lower profitability, while governments may face higher debt burdens due to recovery and adaptation spending. These physical risks are equally relevant for our parent company, a.s.r., which faces exposure through its insurance and mortgage business. As extreme weather events increase, they can lead to higher claims costs and affect property values, further influencing financial outcomes. These physical risks often compound with transition risks, as regulatory responses to climate change can further influence financial outcomes.

Transition risks also pose significant challenges. As the world shifts toward a low-carbon economy, companies in carbon-intensive sectors may face shrinking revenues or rising costs from regulatory and market changes. Similarly, governments that lag in the transition may encounter higher borrowing costs or reduced investment, as investors increasingly prioritize climate-aligned opportunities. Managing these risks forms a core part of our broader approach, whereby we aim to align our clients' portfolios with both financial and sustainability goals.

How do our investment decisions impact climate change and climate-related risks?

Our investment decisions are connected to real-world economic activities, such as building factories, producing energy, and growing crops. These activities, funded through our investments and those of other investors, are responsible for generating the GHG emissions that drive climate change. While financial markets and the real economy may sometimes seem disconnected, our investments are indirectly linked to these emissions through the businesses, industries, and sovereign states we support. The "inside-out" impact of these financed emissions is important for us to understand, as they contribute to global warming and exacerbate climate-related risks.

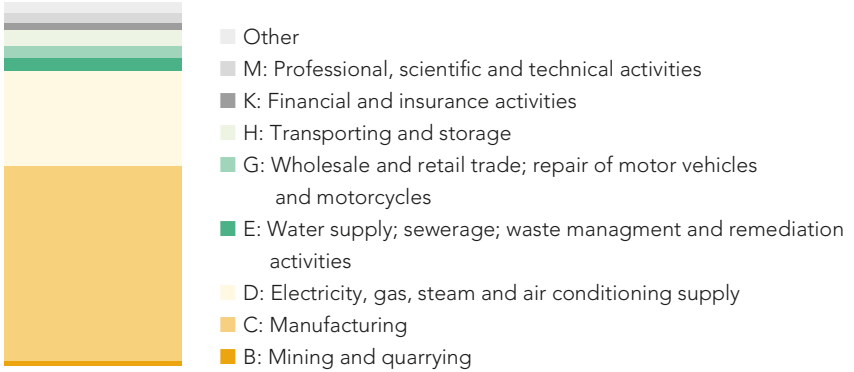
Understanding the carbon footprint of our investments, and identifying which real-world activities generate these emissions, is the first step in managing our climate impact. We can currently measure the financed GHG emissions of investments made in government bonds, corporate credits, and equities[6]. We do not yet have the necessary data or suitable methodology to measure financed emissions from other asset classes.

6 Companies are allocated to sectors based on NACE codes

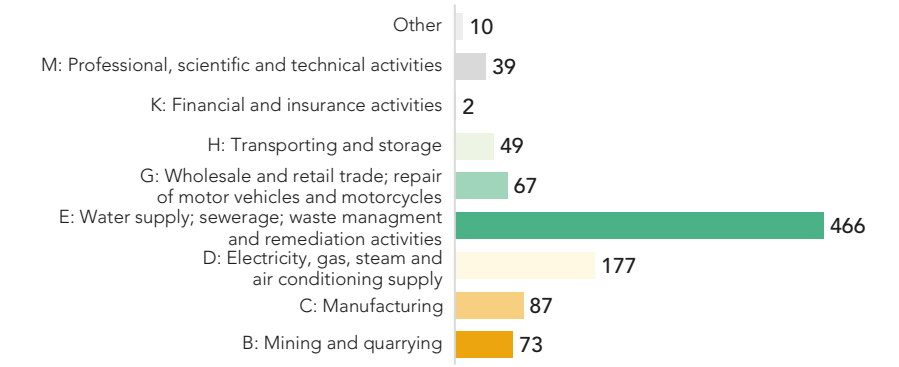
The charts on the right provide a breakdown of the carbon footprint of the investments we manage on behalf of the a.s.r.'s own account as at 31 December 2023. The underlying figures include investments in corporate bonds and equites and are based on the financed Scope 1 and 2 GHG emissions of the underlying companies. The top chart shows how the absolute financed GHG emissions of a.s.r.'s own account investments are distributed across sectors[7], while the bottom chart shows the variation in average carbon intensity of underlying companies across sectors.

The analysis shows that the majority of GHG emissions financed by a.s.r. through its corporate bond and equity investments are attributed to companies in manufacturing (NACE industry code C), electricity and gas supply (NACE industry code D), and water supply, sewage, and waste management (NACE industry code E). In terms of carbon intensity (tCO2e per million euros), manufacturing and utility companies are the most carbon-intensive. While mining companies (NACE industry code B) contribute less to a.s.r.'s absolute financed GHG emissions due to our zero-tolerance policy on coal mining, they still standout for having an above-average carbon intensity.

Financed GHG emissions of a.s.r. own account holdings in corporate bonds and equities (Absolute GHG emissions in tCO2e, Scope 1 and 2)



Average carbon intensity of a.s.r. own account holdings in corporate bonds and equities by sector (tCO_2e per million €, Scope 1 and 2 GHG emissions)



7 https://ec.europa.eu/competition/mergers/cases/index/nace_all.html

5. The journey to net zero

How will the net-zero journey unfold?

Achieving net zero requires us to do more than only reduce GHG emissions; it requires is to fundamentally transform the global economy. Key sectors, such as energy, transportation, and agriculture, among the largest contributors to global emissions, and they must undergo substantial changes to meet the goals set out in the Paris Agreement. To successfully decouple economic growth from carbon emissions, we must shift towards a sustainable, low-carbon economy that benefits both people and the planet.

Energy generation, primarily reliant on coal, oil, and gas, remains the largest source of global emissions. Significant emissions also come from the transportation sector, as well as from agricultural practices, such as livestock production. Transitioning to net zero will require a complete overhaul of these systems, fundamentally transforming how we produce energy, grow food, and transport goods across the globe.

While the end goal is clear – achieving net-zero emissions by 2050 at the latest – the precise path to this goal remains uncertain. The realised pathway will depend on several factors, including the timing of global climate action, advancements in technology, and shifts in consumer behaviour. Delayed action will inevitably lead to the need for more aggressive decarbonisation later on, assuming the 2050 deadline for achieving net zero is maintained. Innovation, such as breakthroughs in battery storage, green hydrogen, and carbon capture technologies, may reshape the journey entirely. Government policies, such as carbon pricing and subsidies for renewable energy, will also play a crucial role in determining the pace of the transition. Changes in consumer preferences, such as the increasing shift toward plant-based diets and electric vehicles, shouldn't be ignored and can have a significant influence on the trajectory.

Making use of climate scenarios to forecast the unknown

Climate scenarios can help investors to account for this uncertainty. They provide a way to explore possible transition pathways and assess how different policy choices, technological advances, and market shifts could impact our investment decisions. We can also use them to inform our investment decisions, such as determining which sectors or economic activities to exclude, or where to invest to best support the energy transition.

Climate scenarios are generally divided into two categories: exploratory and normative. Exploratory scenarios assess how the future might unfold based on current trends or specific assumptions. In the context of climate change, these scenarios help us understand how global warming may progress if no additional significant action is taken or if current climate policies are maintained.

On the other hand, normative scenarios work backwards from a desired outcome – such as achieving net-zero emissions by 2050 – and map out the specific steps needed to reach that goal. These scenarios serve as blueprints for action, outlining the system changes needed to achieve global climate goals. For investors, normative scenarios provide useful insights that help in aligning portfolios with long-term climate objectives and prioritising investments that contribute to a sustainable, low-carbon future.

Scenario	Description
Stated Policies Scenario (STEPS)	An exploratory scenario that reflects the impact of policies that are already in place. It provides a baseline, showing how the world might evolve under current policy commitments. This scenario is often referred to as "business as usual" and highlights the gap between current efforts and the targets needed to meet the Paris Agreement goals.
Announced Pledges Scenario (APS)	An exploratory scenario that assumes governments will meet their current climate pledges, including net-zero commitments and Nationally Determined Contributions (NDCs). This scenario gives us a sense of how far existing climate pledges take us toward limiting global warming to 1.5°C, showing whether announced policies will be enough or if more ambitious actions are required.
Net Zero Emissions by 2050 Scenario (NZE)	A normative scenario that defines a pathway achieve net-zero emissions by 2050 and limit global temperature rise to 1.5°C. It outlines the systemic changes needed to achieve this goal, acting as a roadmap for policymakers, businesses, and investors.

To better understand how the energy transition might unfold, we look at three key scenarios developed by the International Energy Agency (IEA): the Stated Policies Scenario (STEPS), the Announced Pledges Scenario (APS), and the Net Zero Emissions by 2050 Scenario (NZE). These scenarios are widely recognised across different industries and by policymakers for their alignment with global policy outcomes and their detailed insights into the transformation of the energy system. They offer a clear view of potential trajectories for global GHG emissions and energy systems under different levels of climate ambition and action, serving as proxies for slow (STEPS), moderate (APS), or fast (NZE) energy transitions.

We also make use of climate scenarios from other providers, including the Network for Greening the Financial System (NGFS), the UN Principles for Responsible Investment (UN PRI), and Ortec Finance, that are tailored to meet specific needs, such as strategic asset allocation or portfolio stress testing. While these scenarios are not directly equivalent to the IEA's, they are complementary and help us to consider the impact of climate change from different angles.

The table on the following page illustrates how a selection of key climate indicators – such as global warming projections, fossil fuel demand, and global energy supply – currently look and how they are projected to evolve under the three IEA scenarios. By comparing these indicators across different pathways, we can better understand the range of possible outcomes for the global economy and energy system.

	Current	STEPS	APS	NZE
Global warming	1.3°C in 2023	2.4°C in 2100	1.7°C in 2100	1.4°C in 2100
Total CO_2 emissions	36.9 Gt in 2022	35.1 Gt in 2030 29.7 Gt in 2050	30.8 Gt in 2030 12.0 Gt in 2050	24.0 Gt in 2030 0 Gt in 2050
Global demand for fossil fuels				
Coal (Mtce)	5,807 in 2022	5,007 in 2030 3,465 in 2030	4,377 in 2030 1,530 in 2050	3,257 in 2030 499 in 2050
Oil (mb/d)	96.5 in 2022	101.5 in 2030 97.4 in 2050	92.5 in 2030 54.8 in 2050	77.5 in 2030 24.3 in 2050
Natural gas (bcm)	4,159 in 2022	4,299 in 2030 4,173 in 2050	3,861 in 2030 2,422 in 2050	3,403 in 2030 919 in 2050
Fossil fuel prices				
Oil (USD / barrel)	$98 in 2022	$85 in 2030 $83 in 2050	$74 in 2030 $60 in 2050	$42 in 2030 $25 in 2050
Natural gas (USD / Mtu)	$810 in 2022	$919 in 2030 $921 in 2050	$827 in 2030 $370 in 2050	$719 in 2030 $187 in 2050
Share of global electricity generation				
Renewables	28% in 2022	44% in 2030 67% in 2050	49% in 2030 77% in 2050	56% in 2030 85% in 2050
Biomass	2% in 2022	3% in 2030 3% in 2050	4% in 2030 5% in 2050	3% in 2030 4% in 2050
Nuclear	9% in 2022	9% in 2030 8% in 2050	10% in 2030 8% in 2050	10% in 2030 8% in 2050
Coal	36% in 2022	23% in 2030 9% in 2050	19% in 2030 2% in 2050	13% in 2030 0% in 2050
Oil	2% in 2022	1% in 2030 1% in 2050	1% in 2030 0% in 2050	0% in 2030 0% in 2050
Natural gas	22% in 2022	18% in 2030 11% in 2050	17% in 2030 5% in 2050	16% in 2030 0% in 2050

	Current	STEPS	APS	NZE
Global demand for critical minerals				
Cobalt (kt)	215 in 2023	323 in 2030 438 in 2050	344 in 2030 521 in 2050	410 in 2030 539 in 2050
Copper (kt)	25,915 in 2023	30,883 in 2030 37,638 in 2050	31,358 in 2030 39,485 in 2050	33,446 in 2030 40,713 in 2050
Lithium (kt)	165 in 2023	471 in 2030 1,196 in 2050	532 in 2030 1,607 in 2050	705 in 2030 1,728 in 2050
Nickel (kt)	3,104 in 2023	4,451 in 2030 5,428 in 2050	4,754 in 2030 6,146 in 2050	5,570 in 2030 6,030 in 2050
Rare earth elements (kt)	93 in 2023	127 in 2030 180 in 2050	133 in 2030 200 in 2050	148 in 2030 2020 in 2050
Graphite (kt)	4,632 in 2023	9,609 in 2030 12,487 in 2050	10,419 in 2030 14,733 in 2050	13,023 in 2023 16,352 in 2050

Source: All figures sourced from IEA scenarios (World Energy Outlook 2023 and Critical Mineral Outlook 2024) except for the 2023 global warming value which is taken from Climate Change Tracker.

6. Our approach

Our Policy on Responsible Investments is built around three core goals that reflect our commitment to contributing to a better world: reducing harm, driving change, and creating positive impact. This section outlines our approach to climate change and explains how we apply our policy tools and Strategic Asset Allocation (SAA) process to manage climate-related risks and opportunities. These efforts align with global sustainability objectives, including UN Sustainable Development Goals (SDGs) 7 (Affordable and Clean Energy) and 13 (Climate Action).

Asset allocation

We incorporate climate change considerations in our Strategic Asset Allocation (SAA) process, given the impact climate change is expected to have on economies and financial markets over both the short and long term. The SAA process establishes the overall asset allocation for a.s.r. and its subsidiaries, balancing objectives such as solvency, return on capital, and the requirements of different stakeholders.

Our approach considers how climate-related risks and opportunities affect the economic and financial market assumptions underpinning the SAA process. These include factors such as GDP growth, inflation, and asset returns. There is a great deal of uncertainty surrounding how climate-related risks, including transition risks, physical risks, and market risks, will impact these factors. However, the current consensus is for transition risks to increase inflation in the short term (5-10 years), and for physical risks to reduce economic growth over the longer term (15 years and beyond).

Our approach considers how climate-related risks and opportunities affect the economic and financial market assumptions underpinning the SAA process. These include factors such as GDP growth, inflation, and asset returns. There is significant uncertainty surrounding how climate-related risks – including transition risks, physical risks, and market risks – will impact these factors, as these effects are highly dependent on the climate scenario that ultimately unfolds. To address this uncertainty, climate scenario analysis is an important part of our approach, helping us to understand and prepare for a range of possible outcomes. Current consensus suggests that transition risks are likely to increase inflation in the short term (5–10 years), while physical risks are expected to reduce economic growth over the longer term (15 years and beyond).

We make use of a range of well-regarded sources to inform our "climate aware" assumptions, including the UN Principles for Responsible Investment (PRI) and the Network for Greening the Financial System (NGFS). We expect the scope and quality of information provided by these bodies to improve over time as more research is carried out and better data becomes available. We are following these developments to ensure our approach reflects the latest insights and addresses current modelling and data limitations.

We also use climate scenarios from Ortec Finance to assess whether a.s.r.'s balance sheet is resilient under different temperature outcomes and transition pathways. Further information can be found in the a.s.r. annual report.

Reduce harm

At a policy level, we use exclusions to avoid investing our clients' money in companies that fall short of our minimum standards or are involved in activities that cause significant harm to people and the planet. For climate change, exclusions play a dual role: reducing financial risks for our clients and limiting the negative impacts of our investments on climate change. In other words, exclusions address both outside-in and inside-out impacts.

Exclusions linked to transition risks help us avoid sectors that are likely to face significant regulatory and market challenges as the world transitions to a low-carbon economy. For example, companies involved in coal mining are increasingly exposed to the risks of stranded assets, rising operational costs, and declining demand. At the same time, these exclusions also address the negative environmental impacts of our investments, since burning coal is one of the most carbon-intensive activities and a major contributor to global warming.

In many cases, these exclusion rationales are interconnected. By excluding companies based on transition risks, we are also reducing our contribution to activities that have a severely negative impact on climate change. In this way, exclusions not only protect our clients from potential financial losses but also support the broader global effort to mitigate climate change.

The table below provides an overview of the exclusion rules we make use of for investments in companies in connection with climate change:

Exclusion rules	Screening criteria
Exclude companies mining and producing thermal coal	Companies deriving >0% of revenues from mining and producing thermal coal
	Companies producing more than 10Mt of thermal coal per year
	Companies developing new thermal coal mines or extending existing mines
Exclude companies generating electricity from thermal coal	Companies deriving >5% of revenues from coal-fired electricity production
	Companies developing new coal-fired power generation capacity of at least 100MW
Exclude companies producing conventional oil and gas	Companies classified under the following Bloomberg NACE codes: ✔ 0610: Extraction of crude petroleum ✔ 0620: Extraction of natural gas ✔ 1910: Manufacture of coke oven products ✔ 1920: Manufacture of refined petroleum products ✔ 3521: Manufacture of gas.
Exclude companies involved in unconventional oil & gas production and transportation	Companies deriving >5% of revenues from unconventional oil & gas production and transportation
Exclude investments in fossil fuel commodities	Commodity investments in all forms of oil, natural gas, and coal
Exclude companies whose majority business relates to nuclear energy	Companies deriving >50% of revenues from nuclear power generation, nuclear parts & services, and/or uranium mining

For government bonds and other government-issued debt, our exclusion approach focuses on countries that are not making sufficient progress in improving their environmental performance. We assess countries using the SDG Index from the SDG Transformation Centre, measuring their progress on climate-related goals, including SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action), as well as broader environmental goals such as SDG 14 (Life Below Water) and SDG 15 (Life on Land). We exclude investments in debt from governments that have an average score of less than 50 across these four SDGs.

Drive change

Our active ownership activities form a key part of our overall climate strategy, helping to drive the energy transition across the sectors we invest in. We make use of two main tools here – engagement and voting – to influence corporate strategies and stimulate alignment with the Paris Agreement. By engaging directly with companies and exercising our voting rights, we aim to accelerate the shift to a low-carbon economy and hold companies accountable for their climate impact. When engagement fails to deliver the necessary progress, we use voting as a tool to reinforce our position.

Bilateral climate engagements

In addition to the climate engagements conducted by our third-party engagement service provider, we carry out direct bilateral climate engagements to support our fossil fuel exit strategy. These engagements target companies in high-emitting sectors across our portfolio, focusing on their climate strategies and transition plans to ensure alignment with the Paris Agreement.

The fossil fuel exit strategy

Our fossil fuel exit strategy is implemented over three and covers the following parts of the fossil fuel value chain:

1. **Phase 1 (2021)** reduced our exposure to coal production and thermal coal power generation, given coal's outsized impact on global warming and the need to phase it out by 2030-2040 to achieve the goals of the Paris Agreement.

2. **Phase 2 (2021-2024)** focused on engaging with oil and gas producers to evaluate whether they were aligned with the Paris Agreement. At the end of 2024, we took the decision to exclude companies producing oil and gas due to insufficient progress from the sector to align with the Paris Agreement.

3. **Phase 3 (2024-2027)** focuses on the demand side of the fossil fuel value chain, in particular companies from the manufacturing, mining, and utilities sectors due to their contribution to our carbon footprint. Our goal with these engagements is to encourage investee companies to implement credible climate transition plans backed by science-based GHG reduction targets that align with limiting global warming to 1.5°C.

Our expectations of companies

We have agreed a clear set of expectations for companies that we make use of when engaging on climate issues (see below). These expectations are aligned with best practices and international frameworks, including the Task Force on Climate-Related Financial Disclosure (TCFD), the Science Based Targets initiative (SBTi). They cover the key elements of corporate climate strategies and climate transition plans.

Topic	Issue	Expectations
Strategy and governance	Climate strategy and climate transition plan	✔ Companies should embed climate-related risks and opportunities in their long-term business strategy. ✔ Companies should prepare a comprehensive climate transition plan that addresses operational and value chain emissions and demonstrates how the company will align its business with a low-carbon economy.
	Board accountability and oversight	✔ The board should hold senior management accountable for delivering on climate-related goals and have a clear governance structure in place to oversee the transition plan. ✔ The board should be composed of members with sufficient knowledge and experience in climate-related issues to effectively challenge the company's strategy and ensure the climate transition plan is robust and credible.
Targets	Commitment to net zero	✔ Companies should commit to achieving net-zero GHG emissions across their full value chain (Scope 1, 2 and 3) by 2050 or sooner
	Science-based GHG reduction targets	✔ Companies should set GHG emissions reduction targets that cover their full value chain emissions (Scope 1, 2, and 3). ✔ Companies should set targets that lead to a reduction in absolute GHG emissions, not only an improvement in carbon intensity. ✔ Companies should set targets that are aligned limiting global warming to 1.5°C pathway and have them validated by industry bodies, such as Science-Based Targets initiative (SBTi).
	Interim milestones	✔ Companies should set interim GHG reduction targets (e.g. 2030, 2035 etc.) to define their intended decarbonisation pathway and allow progress towards long-term targets to be tracked.

Topic	Issue	Expectations
Capital allocation and investments	Alignment of investments	✔ Companies should ensure their investment decisions are aligned with their decarbonization goals. ✔ Companies should avoid significant investments in high-carbon assets unless they clearly align with a net-zero pathway.
	Avoiding carbon lock-in	✔ Companies should avoid long-term investments in high-carbon assets that would lock them into unsustainable pathways. ✔ Companies should only make new high-carbon investments if they can demonstrate they are compatible with a low-carbon future.
Risk management	Climate scenarios	✔ Companies should make use of climate scenarios to assess their resilience under different potential climate outcome. ✔ Companies should publicly disclose the results of their climate scenario analysis and explain how they have made use of the results.
	Integration of climate risks	✔ Companies should integrate physical climate risks and transition risks into their risk management framework.
Disclosure and transparency	GHG emissions reporting	✔ Companies should measure and disclose their Scope 1, 2 and 3 GHG emissions in line with the Greenhouse Gas Protocol and other relevant industry standards (e.g. PCAF) ✔ Companies should seek reasonable assurance on their published GHG emissions
	Executive compensation	✔ Companies should disclose how climate performance impacts executive pay.
	Lobbying efforts	✔ Companies should disclose their lobbying efforts and how they are aligned with their publicly stated climate goals.

Voting guidelines

Where we have shareholder voting rights, we exercise them in a way that reinforces our engagement activities. We generally vote in favour of social and environmental proposals that seek to promote good corporate citizenship while enhancing long-term shareholder and stakeholder value. For climate change, this means supporting resolutions to promote the integration of climate risks into company strategy, enhance transparency, and drive meaningful action toward decarbonisation.

In general, we vote **in favour** of resolutions that:

- **Promote robust climate disclosures:** Require companies to measure and disclose their Scope 1, 2 and 3 GHG emissions and publish climate-related information in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- **Support the adoption of science-based targets:** Encourage companies to set and implement credible, science-based targets for reducing GHG emissions, aiming for net-zero by 2050 or sooner.
- **Advocate for comprehensive climate transition plans:** Support shareholder proposals that require the adoption of detailed and transparent climate action plans.
- **Require independent third-party verification** of climate data and progress toward emissions reduction targets.
- **Support responsible climate lobbying:** Promote transparency in lobbying activities, ensuring they are aligned with public climate commitments.

In general, we also **vote against** resolutions that:

- **Fail to integrate climate-related performance in executive compensation:** Vote against remuneration packages that do not include meaningful climate-related performance indicators, such as progress toward emissions reduction targets.
- **Sanction insufficient climate-related disclosures and actions:** Oppose the re-election of directors at companies that are significant GHG emitters but have failed to provide adequate climate-related disclosures or implement credible strategies for managing climate risks.
- **Propose investments or policies that increase reliance on fossil fuels:** Vote against proposals that encourage expansion into new fossil fuel projects or undermine the global effort to transition to cleaner energy sources.

Create positive impact

In 2024, a.s.r. committed to allocate 10% of its assets under management to impact investments that create positive impact across our four focus themes. For Climate Change & the Energy Transition, we aim to invest in companies and projects that contribute to two key climate-related goals:

- **Climate mitigation:** Contribute to the net-zero transition by supporting activities, such as renewable energy production, that reduce global greenhouse gas emissions.
- **Climate resilience:** Strengthen the resilience of communities to climate change impacts by enhancing access to sustainable infrastructure and adaptive water management solutions, ultimately improving the livelihoods and well-being.

Our Impact Investment Framework provides details of how we invest across different asset classes and the underlying economic activities we aim to support in connection with these goals.

7. Targets

Our overall ambition is to support achievement of the Paris Agreement's goals by facilitating the energy transition and reaching net-zero financed emissions. We aim to reach net-zero financed emissions across all the assets we manage on behalf of clients by 2045, five years earlier than targeted by the Paris Agreement.

We understand this is an ambitious goal. However, the world is not currently on track to achieve the goals of the Paris Agreement, and we recognise the risk of relying too heavily on achieving net zero by 2050. By bringing forward our net-zero ambition, we aim to reduce the risk that decarbonisation efforts are delayed, which could result in overshooting the goals of the Paris Agreement, surpassing 2°C of global warming, and exacerbating the associated climate risks.

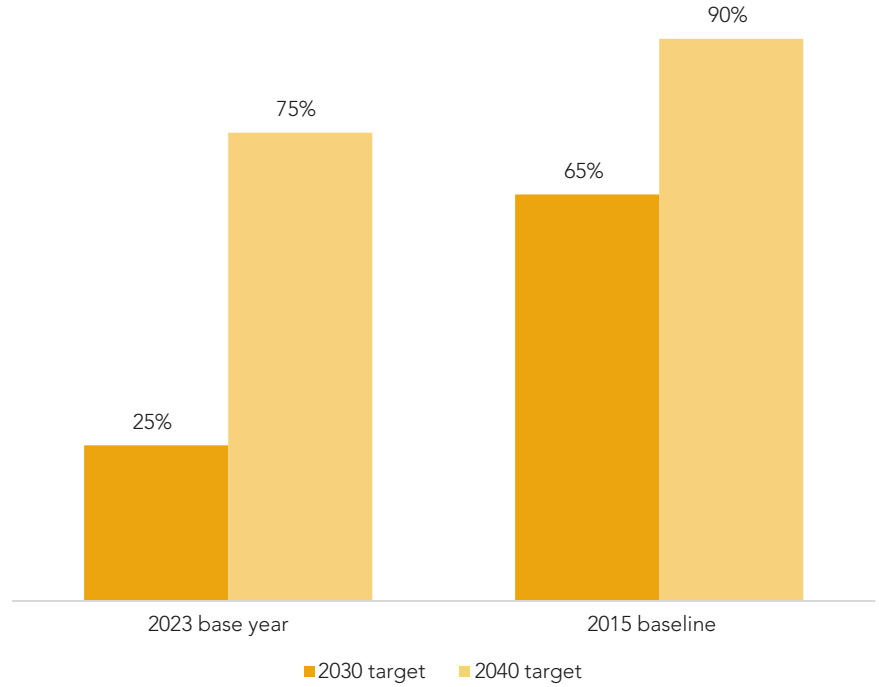
We have set intermediate GHG emissions reduction targets that define the pathway we intend to follow on our way to net zero. These targets apply to the assets we manage for the a.s.r. own account and are limited to asset classes where we can measure their financed emissions. For now, this means our 2030 and 2040 targets cover investments in government bonds, corporate bonds, and equities[8]. We intend to bring other asset classes in scope of our targets once suitable measurement methodologies and data become available.

8 Our targets are sector-agnostic and apply to underlying investments within an asset class regardless of its sector.

Target	Date	Unit	Scope
25% reduction in carbon intensity versus 2023	31 December 2030	tCO_2e / million euros invested	a.s.r. own account assets
75% reduction in carbon intensity versus 2023	31 December 2040	tCO_2e / million euros invested	a.s.r. own account assets

These targets build on our earlier decarbonisation efforts, through which AVB achieved a 55% reduction in the carbon intensity of the a.s.r. own account between 2015 and 2023[9]. Using 2015 as a consistent base line – the year the Paris Agreement was signed and the baseline for our previous climate targets – our current targets equate to around a 65% reduction in carbon intensity by 2030 and a 90% reduction in carbon intensity by 2040.

AVB financed GHG emissions reduction targets
(Reduction in carbon intensity (tCO2e/million euros invested) versus base year



9 This figure includes own account assets of Aegon the Netherlands that were acquired by a.s.r. in 2023.

Target dependencies

Achieving our net-zero target by 2045 will depend not only on our internal efforts but also on significant action from both governments and companies. Current government policies, including Nationally Determined Contributions (NDCs), are insufficient to meet the Paris Agreement's goal and are expected to result in global warming well above 2°C[10]. Governments must ramp up their climate ambition by phasing out fossil fuel subsidies, expanding carbon pricing mechanisms, and offering stronger support for emerging green technologies like green hydrogen. The continued subsidisation of fossil fuels, currently estimated at over $7 trillion per year [11], undermines global decarbonisation efforts and must also be swiftly addressed to stimulate the required shift towards renewable and low-carbon forms of energy.

For companies, the urgency of decarbonisation is clear. We expect businesses across all sectors to commit to net zero, set science-based targets, and align their business with the Paris Agreement. This includes the adoption of low-carbon technologies, increased transparency in emissions reporting (including Scope 3), and a clear commitment to a just transition for workers and communities. Without strong action from both governments and companies, the world risks overshooting the upper limit of the Paris Agreement, and it will be increasingly difficult for us – and other investors – to achieve our climate goals.

Science-based targets

a.s.r. committed to set science-based targets in June 2024. AVB is supportive of our parent company's efforts, and we are currently working on setting additional climate targets in line with the SBTi target-setting guidelines for financials. For AVB, these targets are expected to cover investments we make in corporate bonds and equities.

10 Climate Action Tracker Thermometer

11 IMF Fossil Fuel Subsidy Database (2023)

8. Monitoring & reporting

This document outlines the Climate Change & Energy Transition strategy for AVB's investments. We want to be transparent on our approach and regularly report on the progress we are making toward achieving our climate targets.

We publish a combined annual Climate and Biodiversity report, which follows the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD) and the Taskforce on Nature-related Financial Disclosures (TNFD). This report, first published by a.s.r. in 2023, provides a comprehensive update on a.s.r.'s climate and biodiversity efforts, including details of the financed emissions (carbon footprint) from a.s.r. own account investments that are managed by AVB.

We also publish biannual progress reports on our active ownership activities, providing insights into our climate-related engagements. For meetings where we have voting rights, we disclose our voting decisions through our voting dashboard.

We maintain and regularly update lists of excluded companies and countries on our website. The list of excluded companies is updated twice a year, and the list of excluded countries is updated annually.

Appendix: Related documents

This document is part of a framework of documents that shape how we invest, ensuring alignment with our investment beliefs and contributing to our Sustainability Strategy. The framework includes the following documents, which can found here on the AVB website.

Document	Purpose
AVB Sustainability Strategy	Explains our Sustainability Strategy and defines our long-term strategic ambition. It defines three policy goals and four focus themes that shape our approach to investing. These are referred to and expanded upon in the AVB Policy on Responsible Investments.
AVB Policy on Responsible Investments	Explains how we invest in a way that contributes to our Sustainability Strategy and our policy goals. It explains how we use different tools to achieve these goals and defines minimum requirements investments must meet. It also defines our expectations and requirements of external investment managers where we appoint them to manage a proportion of our clients' assets.
Impact Investing Framework	The Impact Investing Framework complements the Policy on Responsible Investments by focusing specifically on how we aim to create positive social and environmental impact through investments. It outlines the requirements that individual investments must meet to qualify as impact, and explains how we measure and report on the outcomes that our impact investments help to create, ensuring transparency and accountability in our approach.
Exclusion List for Companies	Provides an overview of the companies we have excluded from our investible universe. These companies are selected based on exclusion rules and criteria defined in the AVB Policy on Responsible Investments.
Exclusion List for Countries	Provides an overview of the countries we have excluded from our investible universe. These countries are selected based on exclusion rules and criteria defined in the AVB Policy on Responsible Investments.
Climate & Energy Transition Position Paper **(this document)**	Explains in more detail how we intend to align our investments with the goals of the Paris Agreement and facilitate the transition to a net-zero world with our investment decisions.
Biodiversity & Natural Resources Position Paper	Explains in more detail how we include biodiversity & natural resources in our investment decisions to achieve our Policy goals.

Document	Purpose
Human Rights Position Paper	Explains in more detail how we include human rights in our investment decisions to achieve our Policy goals.
AVB Screening Guidelines	Explains in more detail how we analyse companies' ESG performance and practices using ESG data and overall ESG scores from external ESG research providers.
Voting Policy	Explains how AVB exercises shareholder voting rights on behalf of its clients, including ASR Nederland.

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