XPS Investment

Carbon Reduction Pathways

How your pension scheme investments can become Net Zero aligned now

July 2022

Contents

Understanding Net Zero within investment decisions

There are many pension schemes that have agreed to target Net Zero carbon emissions by 2050 or earlier. But what next – how do you actually achieve this?

In this note, Alex Quant highlights the difference between the more idealistic 'Net Zero' portfolio and the more realistic 'Net Zero aligned' portfolio, and sets out what you can do to put in place a carbon reduction pathway within your scheme.

Key points for trustees when considering a Net Zero target:

1	Define your beliefs and priorities
2	Set your overall Net Zero objective
3	Review your current portfolio
4	Engage with your investment managers and define Net Zero pathway
5	Consider sustainable funds
6	Establish ongoing engagement and monitoring

There is now wide-ranging agreement on the importance of decarbonising the global economy in order to mitigate significant physical, economic and societal risks that will arise from climate change.

In 2022 the IPCC confirmed we are currently on track for 3.4°C warming based on current trends, significantly above the 1.5°C target defined in the Paris Agreement.

Most projections and estimates suggest that in practice, in order to achieve below 2.0°C alignment, all economies and countries will need to achieve Net Zero carbon emissions by 2050; this is a target to which the UK Government committed in 2019.

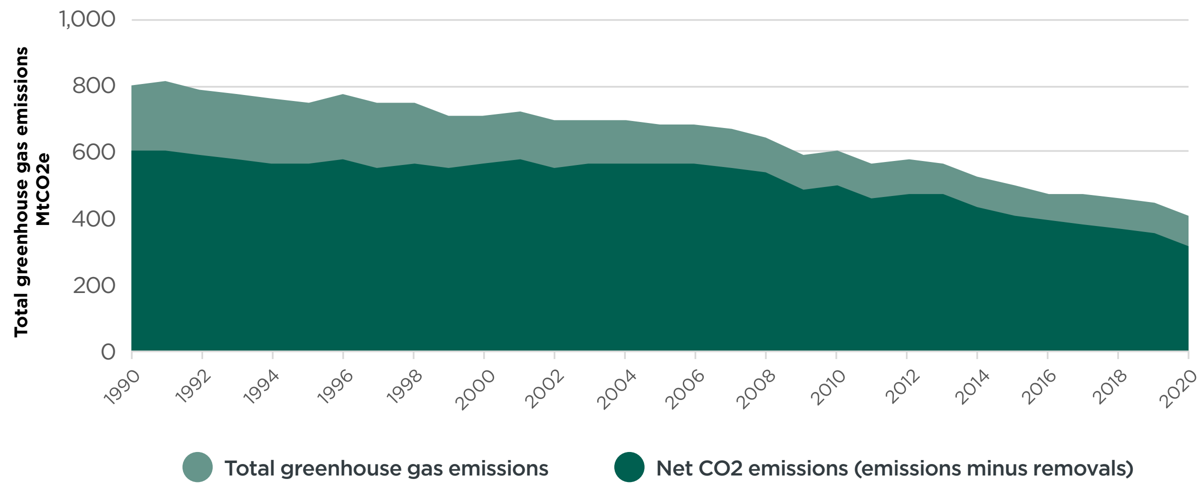
Paris Agreement and link to Net Zero

The critical international agreement aimed at curbing climate change risk is the 2015 Paris Agreement: 196 parties pledged their best efforts to limit global warming to below 2°C above pre-industrial levels, whilst also pursuing efforts to limit the rise to just to 1.5°C. As mentioned above, this broadly requires all economies and countries to achieve Net Zero by 2050.

To support their commitment, the UK Government has produced a roadmap to sustainable investing. The key highlights are enhanced reporting requirements for companies and asset owners – you can find more details here.

In fact, the UK has already been making good progress – having seen emissions peak in the early 90s.

UK GHG emissions between 1990 and 2020



Source: Department for Business, Energy & Industrial Strategy

Crucially the government has now mandated that UK companies must set out detailed public plans for how they will move to a low-carbon future – in line with the UK's 2050 Net Zero target. This is important because, while all stakeholders have a role to play in achieving net zero, it's only with top down pressure that change can be achieved at the speed required.

What is Net Zero?

Net Zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere.

There are two different routes to achieving Net Zero, which work in tandem: reducing existing emissions and actively removing greenhouse gases.

Whilst there is a focus on reducing gross emissions, the common interpretation of Net Zero allows for some emissions to be above zero so long as they are balanced out elsewhere to achieve Net Zero carbon global emissions – via carbon offsetting or carbon removal.

Why is this important for Pension Schemes?

As a major provider of finance to companies and governments around the world pension schemes have a critical role to play in supporting the delivery of Net Zero outcomes.

The transition to Net Zero is creating new markets for clean energy and sustainable products and services. Globally, there is already a huge amount of investment in the low carbon transition – in 2021 investment in the low-carbon energy transition totalled $755 billion globally. This was an increase of over 25% on investment in 2020. The level of investment required in the energy transition to achieve global Net Zero needs to average $2 trillion p.a. between 2022 and 2025, and up to $4 trillion p.a. by 2030 (Bloomberg's New Energy Outlook). This presents a huge opportunity for pension schemes to participate in this upside by aligning their portfolios to support Net Zero outcomes.

The Pensions Regulator Climate Change Adaptation Report from 2021 stated that too few schemes are giving enough consideration to climate-related risks and opportunities. Its survey results show that only 43% of DC schemes took account of climate change when devising their investment strategy, and 51% of DB schemes had not spent any time or resources assessing financial risks and opportunities associated with climate change.

However, we are seeing more and more schemes starting to think about embedding climate aware objectives into their strategy. The Task Force on Climate-Related Financial Disclosures ('TCFD') has introduced new climate-related reporting requirements for large pension schemes which will accelerate more formal target setting – we expect many of the chosen targets to be linked to Net Zero.

Going further, we believe Net Zero is likely to ultimately become a requirement for companies. Investment portfolios could be detrimentally affected if caught out by this.

Difference between 'Net Zero' and 'Net Zero aligned'

As relatively few companies are currently operating at Net Zero, we do not consider it appropriate for pension schemes to build a diversified Net Zero portfolio today. Whilst it is possible in theory to create a Net Zero portfolio immediately, by excluding the worst emitting sectors, this would lead to very different risk characteristics compared to the market index, and also remove exposure to those sectors with the most significant scope for change. This is an area where pension schemes have the power to influence change by utilising their engagement and voting rights through their investment managers. On a more practical level, investing in these sectors, such as energy and utilities, is critical for achieving real world change.

As well as exclusions at a sector level, achieving Net Zero today would likely require disinvesting from Emerging Markets. This misses a significant opportunity as it is in these markets where the most investment is required to deliver successful global outcomes.

Finally, a Net Zero portfolio today would also likely rely on purchasing and surrendering carbon offsets which comes at a direct cost to the scheme, at odds with its broader objectives. A change in emphasis towards an approach focusing on reducing gross emissions sustainably over time is fundamentally important – less 'net', more 'zero'.

That said it is achievable is to become Net Zero *aligned* today – investing with a clear strategy to deliver Net Zero by 2050.

Alex Quant
Head of ESG Research

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What can pension schemes do?

Roadmap to implementing a Net Zero aligned strategy

Setting a Net Zero target may feel overwhelming for many schemes, who may feel that as they are in pooled funds there is little they can do. However, we have set out below some clear steps for establishing a Net Zero aligned strategy:

1	**Define your beliefs and priorities**	**One size does not fit all.** It is essential that you formulate an overall policy that reflects your specific views as there is no single 'right' answer. You can use XPS's free **beliefs survey** to inform this discussion. Please get in touch for further details on this.
2	**Set your overall Net Zero objective**	This may be an objective to reach Net Zero by 2050 (or sooner) and can be recorded in a **Responsible Investment policy** document.
3	**Review your current portfolio**	Start with **assessing your current investments** – measure your carbon footprint and/or carbon intensity as far as possible, and quantify the impact of your investments on climate change, based on their warming potential (i.e. implied temperature rise). Run scenario analysis to understand the implications of climate change on your portfolio.
4	**Engage with your investment managers**	**Engage regularly with your managers** to understand their current approach to achieving Net Zero and scope to set a temperature pathway with each investment manager. This is of particular importance given the accelerated development in the technology and data managers have available to measure carbon intensity. As well as setting your long-term target for each mandate, **determine an appropriate pathway** to get there – this may involve, for example: a. A day 1 carbon reduction ambition (e.g. 30% below benchmark), b. Interim emissions targets (say 50% by 2030 or 2040), c. Annual year on year progress (a common parameter is 7% reduction in emissions per annum) with appropriate tolerances. d. Incorporate forward looking measures of carbon transition such as the Transition Pathway Initiative, or TPI There is no right answer here and the approach chosen will be strongly informed by the Trustees' views and ambitions. It does however need to be realistic and achievable and consistent with your broader scheme objectives. It should also provide flexibility to accommodate scenarios that are unforeseen to avoid detrimental actions, for instance if global progress against carbon

targets is affected by war. For most schemes right now this pathway will only cover scope 1 and 2 carbon emissions, which are easier to measure – see below for further details.

There are well established pathways defined under the EU Action Plan on Sustainable Growth which you may choose to utilise. Broadly these require (among other things):

- EU Climate Transition Benchmark (EU CTB): 30% reduction in carbon intensity and 7% annual reduction thereafter. No exclusions of activities.
- EU Paris-Aligned Benchmark (EU PAB): 50% reduction in carbon intensity and 7% annual reduction thereafter. Exclusions linked to unrenewable energy sources.

It's important to facilitate ongoing discussions with your investment managers to understand what changes can practically be made within your existing investment mandates. In a segregated mandate schemes have more discretion to define their preferred framework and targets. In a pooled approach, it's a case of investing in funds which are aligned to your overall ambition and closely monitoring the progress of the investment managers in relation to your Net Zero targets.

5 Consider sustainable funds

Where required, rotate your investments into **climate aware funds**, which may have explicit Net Zero objectives. For pooled arrangements, your current managers may offer sustainable alternatives of your current investments as an efficient, low governance solution, or you may need to switch into new funds.

These funds should focus on investing in companies best placed to adapt, and contribute, to the global low carbon transition. Examples include funds which are:

a. Reducing exposure to assets which refuse to reduce their emissions

b. Investing positively in climate solutions like renewable energy which have a lower carbon footprint

c. Investing in things like reforestation / carbon capture which remove carbon from the atmosphere

There's a growing range of funds across all asset classes which have explicit climate alignment objectives – we have green rated funds in passive and active equity, multi-sector credit, multi-asset, real assets, and fixed income.

6 Establish ongoing engagement and monitoring

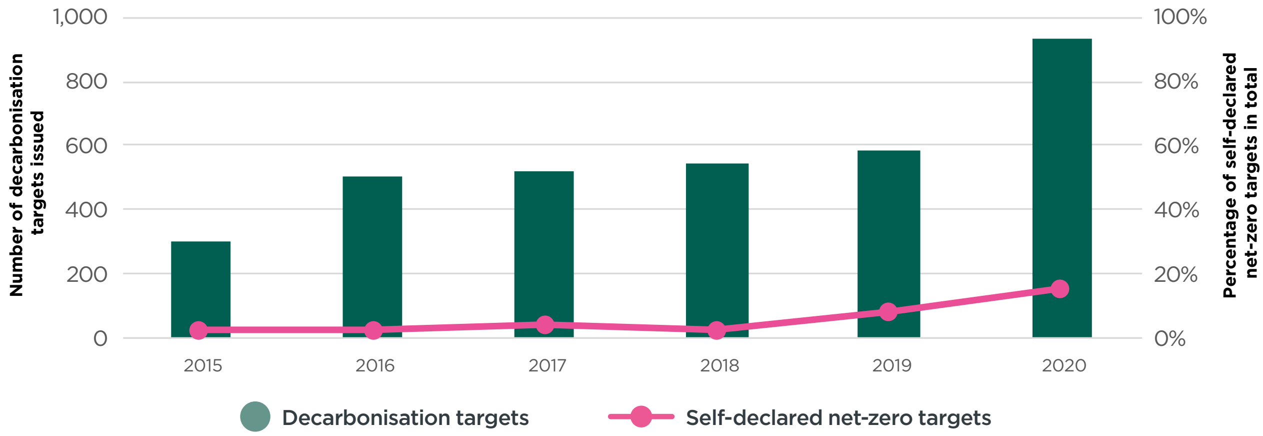
Assess and benchmark managers' performance over time (on carbon emissions and overall performance) against recognised climate benchmarks – for example the EU Climate Transition Benchmark or Paris-Aligned Benchmark. Company **emissions will fluctuate** due to various factors so portfolio de-carbonisation will not be linear from year to year. Measurement methodologies and availability of data will evolve so expect your chosen pathway to need to evolve. As your investment adviser, XPS can conduct this in depth engagement and monitoring on behalf of the Trustees in relation to performance against agreed targets, as well as the investment managers' underlying approaches and capabilities in terms of achieving net zero.

What can companies do?

How does a company achieve Net Zero?

A growing number of companies are committing to cut their carbon footprint to Net Zero in the future. Ultimately this will require them to reduce their absolute carbon emissions.

Number of companies in MSCI ACWI Index that set or added decarbonisation targets



Source: MSCI Breaking Down Corporate Net Zero Targets May 2021

Carbon emissions are categorised as follows according to the Greenhouse Gas protocols. Scope 1, 2 and 3 is a way of categorising the different kinds of carbon emissions created by companies from their own operations, and in its wider value chain.

Categorisation of carbon emissions

Scope 1

Covers direct emissions made by the company in its day-to-day operations.

This is the area under most control by a company.

Examples include emissions from fossil fuels burned on site and emissions from entity-owned or leased vehicles.

Scope 2

These are the indirect emissions that are created for example through the energy purchased to power and heat buildings.

It is often possible to reduce these emissions through the use of renewable energy.

Scope 3

These are the emissions that are associated with the companies that feed in indirectly, both up and down the value chain.

In nearly all cases Scope 3 emissions are the largest contributor and also the hardest to measure.

This can include emissions associated with suppliers, business travel, couriers, commuting, waste management, and working remotely. It's important to note that a large amount of scope 3 remains under the control of the company.

Full Scope 3 emissions cannot be calculated with any certainty. It also involves a considerable degree of double counting, where the same emission is counted numerous times overall by each company up and down a supply chain. Methodologies will likely continue to develop.

To reduce or to offset to achieve Net Zero?

To reduce absolute emissions (across scope 1, 2 and 3) companies will focus on:

- **Property:** Renovate or relocate to improve efficiency of buildings.
- **Suppliers:** Engage with supply chain and encourage suppliers to reduce their emissions. Where possible reduce suppliers, consolidate systems and bring technology in house.
- **Renewable energy:** Using renewable energy sources can dramatically reduce or remove Scope 2 emissions.

Of course, the pathway and speed at which a given company can address their emissions will vary. Companies will each face different challenges in reducing their absolute carbon emissions, and it's important to note that each will set their own unique pathway to Net Zero.

Consider a cement manufacturer or road haulage company or an airline, versus a professional services company – certain sectors require significantly more work and investment to reduce their emissions. It's much easier to reduce emissions associated with electricity use, for example, versus production of cement or flying a plane.

It's clearly impossible to reduce all absolute emissions to nil, so offsetting is required to remove the residual amount. For further information on carbon offsetting and the implications for investors you can read XPS's note here.

It is clear that for certain companies (such as the cement manufacturer described above), offsets will be required, as their business operation relies on emissions, and this is ok. As long as effective carbon pricing mechanisms continue to develop, buying offsets to achieve Net Zero will become a normal cost of doing business. The cost of paying for offsets is expected to become disproportionally expensive given the limited availability of land to plant new trees and the anticipated increasing demand for offsets. Therefore simply offsetting emissions without making reductions is not sustainable and doesn't address the significant reductions and change required.

In fact offsetting Scope 3, without reducing those emissions first, will in most cases be a very costly annual exercise. Offsetting today's emissions in 10 years' time could cost up to 50x times more (BNEF study). This also diverts capital from internal green investment into external sources limiting a company's ability to make the much needed reductions.

Case study

Companies should not be encouraged to simply sell their way to Net Zero through the divestment of heavy emission producing subsidiaries.

Anglo American, a FTSE 100 listed mining company, after pressure from investors to exit its coal businesses worldwide, demerged its South African thermal coal operations in 2021. The resulting entity, Thungela, listed in South Africa and London with 100% share capital held by Anglo American shareholders. This led to Anglo American reducing the total emissions of its business however the overall real-world emissions still exist.

How companies set their pathway

As the number of companies claiming carbon neutrality or Net Zero status grows, it's important to ensure these emission reduction claims are verified. There are a number of routes a company can take to evidence Net Zero alignment:

ISO-14064

ISO 14064 is the international standard for producing carbon emission inventories.

The standard provides comfort that a company's emissions calculations are fair and factors are appropriate but does not seek to verify performance or objectives.

Science Based Targets

The Science Based Targets Initiative reviews and approves emission targets ensuring companies have set ambitious objectives through rigorous review.

PAS2060

PAS2060 is an auditable standard of an entity's carbon neutrality. An entity is required to meet the ISO14064 standard, have a compliant carbon reduction plan and make verified offsets where required.

PAS2060 focuses on continual improvement.

The Science Based Targets initiative ('SBTi') is emerging as the pre-eminent way for many companies to verify their Net Zero pathways. The bar is set very high for verifiable Science Based Targets and it is a respected and industry recognised standard.

To be accepted by the institution, a Science Based Target ('SBT') must:

- **Be 'science based'** — This requires the targets to be aligned to the Paris Agreement, where the quantity of reductions to achieve this (for sectors and therefore a given company) have been determined by a body of scientific studies, notably the Intergovernmental Panel on Climate Change ('IPCC').
- **Result in an absolute reduction in emissions** — Reducing emission intensity without reducing carbon emissions would be rejected without good cause.
- **Meet the SBTi 2.0°C pathway as a minimum** — Ideally making targets for a 1.5°C pathway
- **Not include avoided or offset emissions** — These include emissions generated in a product lifecycle such as manufacturing a product that can be recycled.
- **Be rapid** — The world is targeting reductions by 2050, in many cases SBTi requires interim results as soon as 2030.
- **Separate target required for Scope 3 emissions** — Scope 1 & 2 and Scope 3 targets must be separate in most cases. This means setting a target for a significant reduction in energy consumption and, separately, a significant reduction in indirect emissions.

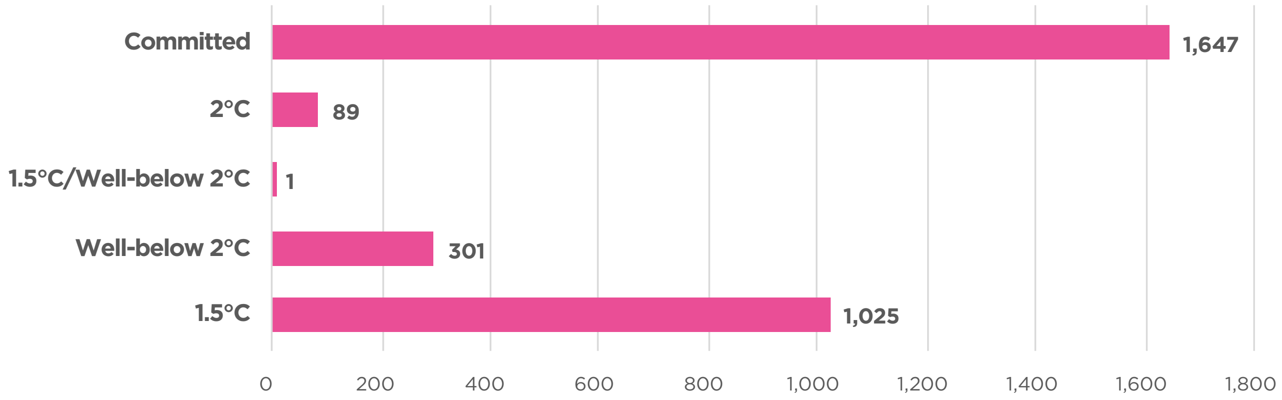
To be verified as 2.0°C aligned, companies must have a clear plan to reduce their absolute emissions by at least 40% within 15 years, and to be 1.5°C aligned must reduce their absolute emissions by 62% in the same timeframe.

Finally, SBTi have a further Net Zero designation which requires a company to reduce their gross emissions by 95% within 15 years. This is stricter than some other interpretations of Net Zero (which may allow for more gross emissions). This is critical as it makes clear that companies cannot rely on offsetting as a credible means of achieving the performance associated with a low carbon economy.

We note financial institutions like pension schemes can also set and have pathways verified by Science Based Targets initiative.

Where companies have a 'Committed' status on SBTi, this means they have confirmed their commitment to set a target, rather than having a verified target yet. Of the minority of those companies who have then progressed to set a target, these have typically been verified as 1.5°C aligned as shown in the chart below:

SBTi near term alignment classification of companies



Note: SBTi as at 20 May 2022

Summary

There is a clear direction of travel led by the UK government's commitment to Net Zero by 2050, and there are benefits for pension schemes thinking ahead and embracing a sustainable investment approach, which could include setting a Net Zero target:

- **Upside potential:** Long term fundamental thematic changes in economic policy and regulation are likely to arise as countries grapple to deliver on their Net Zero commitments.
- **Risk management:** Climate risk a poses systemic risk to financial markets, so positioning your portfolio to manage this risk is in your members' long term best interest.
- **Member and sponsor alignment:** Key stakeholders increasingly have expectations around how pension schemes are invested.

Actions for Trustees

Checklist for setting an effective Net Zero Pathway

- **Define your beliefs and priorities:** One size does not fit all. Use our free beliefs survey.
- **Set your overall Net Zero objective:** Set a target to achieve Net Zero by 2050, or sooner and record this in a Responsible Investment policy.
- **Review your current portfolio:** Look at your scheme's carbon footprint, carbon intensity and review your existing policies.
- **Engage with your investment managers:** Conduct ongoing engagements and define pathway parameters – XPS can help you understand what's possible, and the various approaches that can be taken to define the target pathway.
- **Consider sustainable funds:** As needed which deliver climate aligned outcomes alongside financial objectives – speak to your XPS adviser about our range of recommended sustainable funds.
- **Establish ongoing engagement and monitoring:** Regularly monitor your managers to hold them to account against your chosen Net Zero Pathway. XPS can conduct this in-depth engagement and monitoring on your behalf.

About us

XPS Pensions Group is a leading pensions consulting and administration business fully focussed on UK pension schemes. XPS combines expertise, insight and technology to address the needs of over 1,500 pension schemes and their sponsoring employers on an ongoing and project basis. We undertake pensions administration for over 968,000 members and provide advisory services to schemes and corporate sponsors in respect of schemes of all sizes, including 51 with assets over £1bn.

XPS Investment provides clear and independent investment advice that can be quickly and effectively implemented. We advise pension schemes and their corporate sponsors and have over £140bn of assets under advice.

If you wish to explore how you can pursue a Net Zero aligned portfolio please contact Simeon Willis, Alex Quant or your usual XPS consultant.

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Award winning

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