By email: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Dear XXXXXXXXXXXX,

Your bond investments and climate change

We are writing to you as the Chair of Trustees of XXXXX (the scheme) to raise the issue of whether the scheme’s bond investments are compatible with the legal duties of the scheme’s trustees in light of the increasing financial risks posed by climate change.

ClientEarth is an international non-profit environmental law organisation headquartered in the UK. Our Accountable Finance initiative focuses on the legal implications of climate change and biodiversity-related financial risks and impacts for market participants, including pension funds.

As one the UK’s largest pension funds invested across the economy, you are legally obliged to exercise your investment power in a manner that adequately addresses the risks posed to your portfolio by climate change, for the reasons set out in this letter. We note the efforts that the scheme has made in respect of its portfolio stewardship and climate change, including XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX. However, our research suggests the scheme may not be using important tools to exercise its leverage as a bondholder to mitigate climate risk, with consequences for its portfolio as a whole.

This letter focusses on the scheme’s bond holdings and sets out the imperative that, in line with their legal duties, trustees should take action to:

a) cease providing capital through bonds to any energy sector company unless:

   (i) the company has a just and credible net zero transition plan with specific targets aimed at ending the use of and support for fossil fuels in line with the net zero greenhouse gas emissions modelled pathways of the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA) that limit warming to 1.5°C with no or limited overshoot; and

   (ii) the bond documentation includes covenants requiring implementation of that transition plan (the ‘Bond Covenants’),

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1 Throughout this letter, ‘trustees’ includes corporate trustees. Directors of corporate trustees should consider their obligations in that context.

2 At a minimum, this requires: being in line with the International Energy Agency Net Zero Roadmap 2023 which explicitly requires no new long-lead-time upstream oil and gas projects.

3 As set out in Recommendations 4 and 5 of The UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions, 2022, at p. 21-24
(together the “Investment Conditions”);

b) exercise, directly and/or through their asset manager(s), effective stewardship in relation to implementation of the transition plans of investee energy sector companies; and

c) communicate the Investment Conditions to all current and prospective investee energy sector companies.

In this letter, we refer you to the foundations for these actions:

1. your legal duties as trustees,
2. risks posed to the pension scheme by investing in fossil fuels, and
3. tools for mitigating climate risk through debt portfolios.

1. Your legal duties as trustees

The scheme’s trustees are bound by decision-making duties in respect of their investment powers, often referred to as ‘fiduciary duties’. These include duties to exercise the scheme’s investment powers for their proper purpose, a consider relevant factors, and act in accordance with the prudent person test. Climate change poses a material financial risk and is therefore a critical consideration under each of these three principles, as follows.

- The overarching proper purpose of the trustees’ investment power is to deliver benefits over the time-horizon of the scheme, in the context of that scheme. Climate change poses a threat to the scheme’s ability to deliver those benefits, through the impacts of climate-related risks on the scheme’s portfolio, including through physical and transition risks, as well as the resultant systemic risks to the financial system and the economy. These risks are discussed in more detail in section 2. below.

- Relevant factors for trustees exercising investment powers include, but are not limited to, financially material factors. Climate change represents a material financial risk, and is therefore a highly relevant factor in the decision-making process for trustees exercising investment powers. Every incremental increase in global temperature makes climate impacts more severe, catastrophic tipping points more likely and, as section 2. below explains, gives rise to increased financial risk.

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6 Trustee investment powers must be exercised with the “care, skill and diligence” a prudent person would exercise when dealing with investments for someone else for whom they feel morally bound to provide. See Re Whiteley (1886) 33 Ch D 347 at 355, as applied in Cowan v Scargill at [50], where it was noted that good faith and sincerity are not sufficient: “Honesty and sincerity are not the same as prudence and reasonableness.” See also Pollard, D., “The “prudence” test for trustees in pension scheme investment: just a shorthand for “take care””, (2021) 34 TLI 215.

7 Law Commission report, The Fiduciary Duties of Investment Intermediaries, (LC2014)

8 Lewis, A., Sustainable Investing by Occupational Pension Scheme Trustees: Reframing the Fiduciary Duty, Trust Law International, Vol. 36, No.3 2022 at p. 117-118
The prudent person test sets out an evolving duty of care and trustees acting within their investment powers should be judged “by the standards of current portfolio theory, which emphasises the risk level of the entire portfolio.”19 Trustees should therefore consider an up-to-date analysis of how climate change will affect investments across their portfolio over the short-, medium-, and long-term, including the use of appropriate climate scenarios.

Trustees will also be aware that climate-related regulation has been developing at pace since the Paris Agreement,10 with increasing disclosure and reporting requirements resulting in a growing need for pension funds to provide evidence to regulators to demonstrate that they have properly considered the climate risks and impacts of their portfolios. New reporting obligations have been introduced by a number of international authorities,11 which are being built upon by national bodies12 and rolled out across capital markets. Of particular relevance to the scheme is the clear imperative set down in The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 for trustees to assess, manage and disclose climate-related risks relevant to the scheme over the short, medium, and long term.13

On a practical level, it follows that the trustees must consider whether the scheme’s investment portfolio as a whole is best served by continuing to provide capital to economic activities that contribute to climate change impacts that will adversely affect the performance of other investee companies over the time-horizon of the fund.

Climate change represents a clear risk to a pension scheme’s ability to provide for members’ retirement.14 It is in the best interests of beneficiaries that trustees take the actions within their power to influence carbon-intensive energy sector companies to transition in order to mitigate: the negative financial consequences to the whole portfolio (i.e. across all investee companies) arising from climate change impacts; and the risks posed in particular to carbon-intensive energy sector companies by the transition.15 In relation to bond portfolios, a pension scheme can bring this influence to bear whether or not the scheme is a current investor in a particular company, sending an important message about the availability of capital.

The trustees can exercise significant influence and demonstrate effective assessment and management of climate related risk to their bond portfolio by applying the Investment Conditions.

To the extent that the scheme continues to invest in energy sector bonds where the Investment Conditions are not met, the trustees may be failing to exercise their investment powers in accordance with the proper purpose of the scheme, without

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10 A legally-binding international treaty on climate change which entered into force on 4 November 2016. Additional information regarding the Paris Agreement can be found in the Appendix.
11 Including the International Taskforce on Climate-related Financial Disclosures, the International Sustainability Standards Board and the European Union (in particular, the EU Sustainability Package, including the Sustainable Finance Disclosure Regulation and the Corporate Sustainability Due Diligence Directive.)
12 For example, the UK Transition Plan Taskforce
13 Schedule, Part 1, para. 1, 3, 12 and 13.
14 Department for Work and Pensions, Governance and reporting of climate change risk: guidance for trustees of occupational schemes, including at para. 29
15 Even where schemes are aiming for buyout, a diligent analysis of fiduciary duty confirms that the appropriate time horizon for the scheme (and thus its risk management activities, including stewardship) remains one that takes into account the payment of benefits over the lifetime of the scheme’s members. At the very least, this must remain the case for the trustees until any contemplated buyout is concluded, since to take any other approach would be inappropriate when a transaction may not reach a successful conclusion.
due consideration of relevant factors and/or contrary to their duty of care. They consequently risk breaching their legal duties, leaving them open to challenge.

2. Risks posed to the scheme by continued investment in fossil fuels

It is widely accepted that climate change presents financial risks both for individual investors and for the financial system as a whole.\textsuperscript{16} Regulations require that occupational pension scheme trustees identify, assess and manage risks brought about by the physical and transition risks of climate change.\textsuperscript{17}

Physical risks and transition risks can lead to systemic risks for the financial system and the wider economy.\textsuperscript{18} Two major sources of systemic risk have been highlighted in recent months and are discussed further in section 2.1: namely climate-change scenarios and credit ratings, which may have been significantly underestimating the pace of climate change and its impacts, as explained further below.

2.1 Physical risk

Physical risk is already crystallising around the world as weather and climate extremes create widespread adverse impacts and related loss and damage.\textsuperscript{19} Impacts on the worst affected areas are expected to have a ripple effect across geographies and economies, from supply chain impacts to mass migration.

Recent analysis from the Institute and Faculty of Actuaries and the University of Exeter suggests that pension schemes’ climate scenario models underestimate the rate and impacts of climate change, and therefore climate-related financial risk, and that, “the modelled results for a hot-house world are overly benign.”\textsuperscript{20} Another report contrasting existing scientific models and economic models, identifies a “huge” disparity between what scientists expect from global warming and what pension funds and financial systems are prepared for. The report warns that a wealth-damaging correction is “virtually inevitable.”\textsuperscript{21}

A paper published the same month also warned that current security prices do not adequately reflect climate data, creating a risk of price adjustments that will either create a long-term drag on portfolios or take effect suddenly, affecting economic stability.\textsuperscript{22} These are not lone voices: the Pensions Regulator has said that it recognises and shares these concerns.\textsuperscript{23}

\textsuperscript{16} See The Department for Work and Pensions, Governance and Reporting of Climate Change Risk: guidance for trustees of occupational schemes, June 2021; Bank of England Climate change, as updated 22 November 2023; and The Network for Greening the Financial System Climate Scenarios for Central Banks and Supervisors, September 2022

\textsuperscript{17} The Department for Work and Pensions, Governance and Reporting of Climate Change Risk: guidance for trustees of occupational schemes, June 2021, which states at para. 96, “Trustees must identify, assess and manage the transitional risks to their investments that the pursuit of a lower carbon economy will bring, as well as the physical risks to their assets brought about by the changes in our climate which are already taking place.” The guidance clarifies that, as a statement containing the imperative ‘must’, “This is a requirement imposed by legislation. Failure to meet the requirement may lead to enforcement action by The Pensions Regulator.”

\textsuperscript{18} Bank of England, Climate change, as updated 22 November 2023

\textsuperscript{19} Widespread and rapid changes are occurring in the atmosphere, ocean and ice caps, while weather and climate extremes in every region across the globe are leading to extensive adverse impacts and related losses and damages to nature and people, as reported in IPCC AR6 Synthesis Report 2023, Observed Changes and Impacts

\textsuperscript{20} Institute and Faculty of Actuaries, The Emperor’s New Climate Scenarios, at p.20, “Section I: Emissions”

\textsuperscript{21} Professor Steve Keen, Loading the Dice Against Pension Funds, July 2023

\textsuperscript{22} Riccardo Rebonato, EDHEC-Risk Climate Impact Institute, EDHEC Business School, Asleep at the Wheel? The Risk of Sudden Price Adjustments for Climate Risk, July 2023

\textsuperscript{23} Michael Hurley, Pensions Regulator voices ‘concerns’ on climate scenarios, Environmental Finance, 2 August 2023
The Institute for Energy Economics and Financial Analysis has also reported a “financial time bomb” in the form of growing and accumulating climate risks which are not accounted for in current credit ratings and, “will likely lead to rating volatility and instability, a costly affair for investors and issuers.”\(^{24}\) The report emphasises the risk to the bond market and ratings downgrades to bonds of hydrocarbon-dependent issuers in particular.

### 2.2 Transition risk

Transition risk arises from the response to climate change by governments, industries and consumers, and includes stranded asset risk which is of particular relevance to investments in fossil fuels.

Stranded asset risk relates to the risk of particular assets becoming ‘stranded’, in the sense that they cannot be economically or legally deployed, as a result of climate risk materialising. This may be due to: reduced demand and prices; governments implementing climate-related policy and regulation or taking action that expressly prevents the development of particular projects; and/or companies becoming unable to raise the finance necessary to develop or continue with such projects. Certain assets therefore risk becoming stranded and suffering from “unanticipated or premature write-downs, devaluations, or conversion to liabilities.”\(^{25}\) The IEA and the International Renewable Energy Agency (IRENA) have estimated that the total value of stranded assets in the upstream energy, electricity generation, industry and buildings sectors may reach $20 trillion.\(^{26}\)

Most countries in the world are committed to limiting global warming to 1.5°C in line with the goals of the Paris Agreement and the Glasgow Climate Pact, and to reducing global greenhouse gas (GHG) emissions accordingly. Countries must develop and implement policies to comply with these commitments, creating a global policy context that creates severe risks for carbon-intensive energy sector companies. New fossil fuel projects are at particular risk of becoming stranded due to the scientific consensus as to their incompatibility with limiting global warming to 1.5°C, with the IEA noting that those “choosing to undertake them need to recognise that these developments may fail to recover their upfront costs.”\(^{27}\)

Investors in those companies face associated stranded asset risk,\(^{28}\) and the Appendix to this letter points to authoritative analyses by UNEP, the IPCC, IEA and other experts demonstrating that maintaining or increasing fossil fuel capacity is not aligned with pathways to limit global temperature rise to 1.5°C.

### 2.3 Reputational and litigation risk

Finally, the financing of those businesses predicated on continued expansion of the very fossil fuels driving catastrophic climate change carries reputational risk, as recognised by


\(^{25}\) See Caldecott, *Journal of Sustainable Finance & Investment*, 7:1, *Introduction to special issue: stranded assets and the environment*, 11 December 2016, p.13, at p.2. Similarly, the IEA has defined stranded assets as “investments which have already been made but which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return, as a result of changes in the market and regulatory environment brought about by climate policy” (see IEA, *‘Redrawing the Energy-climate Map*, 10 June 2013, at p. 98).

\(^{26}\) See IEA and IRENA, *Perspectives for the Energy Transition*, 2017, at p.143

\(^{27}\) IEA 2022 *World Energy Outlook* report, p.81

\(^{28}\) See Semieniuk et al., *Nature Climate Change* 12, *Stranded fossil-fuel assets translate to major losses for investors in advanced economies*, 26 May 2022, 532-538, and Bank of England, *‘Results of the 2021 Climate Biennial Exploratory Scenario’*, 24 May 2022, Section 1, which discusses projected losses on corporate bonds in oil and gas mining.
the Department for Work and Pensions.\textsuperscript{29} This risk is growing as the threat to people and planet becomes increasingly clear\textsuperscript{30} and public pressure is increasingly brought to bear on fossil fuel investors, whether targeted directly as part of anti-fossil-fuel campaigns\textsuperscript{31} or through media reports.\textsuperscript{32} Frameworks have set expectations in the market that net-zero committed financial institutions will have a science-aligned phase-out policy,\textsuperscript{33} and litigation risk is growing for schemes that continue to invest in environmentally destructive activities.\textsuperscript{34} The litigation risks for the scheme in relation to its bond investments lie on two fronts: risks to investee companies which affect corporate value and creditworthiness;\textsuperscript{35} and risks to the scheme in relation to its bond investments.\textsuperscript{36}

### 3. Tools for mitigating climate risks through debt portfolios

The trustees’ legal duties, the distinctive characteristics\textsuperscript{37} and “unhedgeable” nature of climate risk,\textsuperscript{38} as well as the urgency and scale of transition needed to mitigate the worst impacts (including financial impacts) of climate change, require effective bondholder stewardship to hold investee companies to account and protect financial returns.\textsuperscript{39} Shareholder engagement based on dialogue has, to date, proven less effective than hoped in pushing carbon-intensive energy sector companies to transition, with pension funds such as the Church of England taking the decision to divest after years advocating for engagement with the sector.\textsuperscript{40,41} However, bondholder stewardship provides powerful tools

\begin{itemize}
\item \textsuperscript{29} The Department for Work and Pensions, \textit{Governance and reporting of climate change risk: guidance for trustees of occupational schemes}, at para. 99, 100
\item \textsuperscript{30} For example, as observed by UN Secretary-General Antonio Guterres in his statement to the Austrian World Summit, “Climate change is, quite simply, an existential threat for most life on the planet — including, and especially, the life of humankind.”, May 2023, and documented in detail in the IPCC AR6 Synthesis Report 2023, Observed Changes and Impacts
\item \textsuperscript{31} See for example, \textit{Investor updates - Stop Adani, Total greenwash: tell investors not to buy Total’s Toxic Bonds}
\item \textsuperscript{32} See, for example, \textit{Record Heat Is Burning Investors and They Don’t Know It}, Bloomberg, 12 July 2023
\item \textsuperscript{33} See, for example, the \textit{Science Based Targets Initiative’s framework for financial institutions}
\item \textsuperscript{34} See United Nations Environment Programme \textit{Global Climate Litigation Report 2023}, p.14, and LSE Grantham Research Institute on Climate Change and the Environment \textit{Trends in climate change litigation 2023}
\item \textsuperscript{35} \textit{Impacts of climate change litigation on firm value}, Centre for Climate Change Economics and Policy, LSE, May 2023, showed that climate litigation filings or unfavourable court decisions reduced firm value by -0.41% on average. The largest stock market responses were observed for cases filed against the largest emitters operating in energy, utilities and materials, reducing firm value by -0.57% following case filings and by -1.50% following unfavourable judgements. For examples of such cases, see \textit{York County v. Rambo}, in which bond investors accused the Pacific Gas and Electric Company of failing to disclose the risk of its non-compliance with electrical line maintenance standards and consequent contribution to increasing wildfires in the region, and \textit{Complaint to the SEC against JBS} for issuing a sustainability-linked bond based on a commitment to achieve net zero emissions by 2040, although the company’s emissions had been increasing.
\item \textsuperscript{36} Harvard Law School publication, \textit{The Rise of Climate Litigation}, notes the global rate of increase in climate litigation against financial sector actors and increasing diversity and complexity in the arguments being used, particularly those based on notions of fiduciary duty and greenwashing.
\item \textsuperscript{37} As acknowledged by financial regulators globally and in the UK. See for example the Pensions Regulator in its \textit{Climate Adaptation report}, October 2021
\item \textsuperscript{38} See the Cambridge Institute for Sustainability Leadership, \textit{Unhedgeable risk: How climate change sentiment impacts investment}, November 2015, at p. 30
\item \textsuperscript{39} See the Institutional Investor Group on Climate Change (IIGCC), \textit{Net Zero Bondholder Stewardship Guidance} at p. 2 and 19. The Department for Work and Pensions, \textit{Reporting on Stewardship and Other Topics through Investment Principles and the Implementation Statement: Statutory and Non-Statutory Guidance}, at paragraph 44, UN PRI \textit{A Legal Framework for Impact}, p.80 para.44-45, and The Pensions Regulator \textit{DB investment guidance} and \textit{DC investment governance guidance} in which it is noted that, “it is up to the trustees to exercise stewardship and ensure, as far as they are able, that this is done through the whole length of the investment chain” and that this “is particularly relevant for the management of macroeconomic, systemic risks such as climate change, which cannot be sufficiently hedged through portfolio construction and asset allocation alone.”
\item \textsuperscript{40} Reclaim Finance, The Sunrise Project and the Sierra Club, \textit{Who’s Managing Your Future?}, June 2023
\item \textsuperscript{41} Mooney A and Wilson T, \textit{Church of England dumps oil majors over climate concerns}, Financial Times, 22 June 2023
\end{itemize}
for risk mitigation that many investors have yet to deploy, and fossil fuel financing typically draws significantly greater sums from bonds than equities.\textsuperscript{42}

However, a recent report has highlighted that large asset managers are investing at scale in newly issued bond securities from companies engaged in fossil fuel expansion\textsuperscript{43} and the UK Asset Owner Roundtable has identified trends in asset manager misalignment on stewardship and engagement, with stronger discrepancies noted for US oil and gas issuers.\textsuperscript{44} For bondholder stewardship to be effective, it is essential that the trustees require any asset manager investing on their behalf to act in the best interests of the scheme’s beneficiaries.\textsuperscript{45} Sections 3.1 and 3.2 set out the mechanism through which the scheme can do so.

3.1 Denial of debt

The strongest voice for bond investors in the lifecycle of a bond comes at the point of financing or refinancing, with threat of denial of debt being a key lever.\textsuperscript{46}

As set out on page 1 and 2 of this letter, in order to comply with their legal duties in relation to managing climate change risk and to act in the best interests of their beneficiaries, the trustees should cease providing capital through bond purchases to any energy sector company, except where the Investment Conditions are met. For this to be an effective stewardship tool for the trustees, it should be clearly communicated to all relevant current and prospective investee energy sector companies, in order to provide the opportunity for those companies to adapt their activities and secure your investment, and these requirements should form part of the scheme’s Investment Management Agreement or equivalent agreement with its asset managers.

3.2 Bond Covenants

The Investment Conditions include the use of bond covenants requiring implementation of the issuer’s transition plan. Currently, climate-related promises in the bond market, even in ‘green’ bonds (including green, sustainable, social and sustainability-linked bonds), often lack enforceability and leave investors without effective recourse.\textsuperscript{47,48} Typically, where an issuer’s climate-related promises are not met (potentially increasing the credit risk associated with that issuer and its bond) the investor can sell the bond on the secondary market, but lacks a legal basis on which to press the issuer to take action to fulfil its climate-related promises (implementation of which would in turn protect the investor’s wider portfolio from increased climate risk) and is usually unable to benefit from financial redress.\textsuperscript{49}

\textsuperscript{42} Cojoianu et. al., Does the fossil fuel divestment movement impact new oil and gas fundraising? Journal of Economic Geography, Volume 21, Issue 1, January 2021, p. 141–164, “Bank loans were the preferred means of fundraising for the oil and gas sector (c. 64% of total fundraising over the 2000–2015 period), followed by bonds (26%) and equities (10%)”

\textsuperscript{43} At least $3.5 billion invested by 30 large asset managers in bond securities issued between 1/1/2022 and 19/5/2023 by companies actively engaged in fossil fuel expansion. Reclaim Finance, Who’s Managing Your Future?, June 2023, at p.6

\textsuperscript{44} Hoepner et al., UK Asset Owner Stewardship Review 2023: Understanding the Degree & Distribution of Asset Manager Voting Alignment, 17 November 2023

\textsuperscript{45} The scheme’s trustees cannot delegate responsibility in this regard to asset managers. See The Department for Work and Pensions, Governance and Reporting of Climate Change Risk: guidance for trustees of occupational schemes, June 2021, at para. 28

\textsuperscript{46} Hoepner A and Schneider F, Exit vs. Voice vs. Denial of (re)Entry, August 2022, including at p.12: “threatening to Deny Debt when a firm is looking to refinance provides for the strongest Voice power.”

\textsuperscript{47} Corke et al., Green Bonds Series: Part 4 - When ‘Green’ Bonds go Brown, Lexology October 17, 2019

\textsuperscript{48} Curtis et al., 2023, Green Bonds, Empty Promises, p.18-23

\textsuperscript{49} Sustainability-linked bonds include a penalty payment mechanism that is triggered by the issuer failing to meet sustainability related KPIs, but current bond structures allow for the link between sustainability and financial outcomes to be weakened, and research from the World Bank shows that high emitting issuers are more likely to use weak structures, World Bank IFC’s Structural Loopholes in Sustainability-Linked Bonds, October 2022, p. 2-3.
Depending on the nature of the issuer’s climate-related promises in the bond, those promises are also unlikely to be enforceable by a regulator or court.

The lack of recourse therefore creates a risk for trustees who are required to exercise their investment power with due assessment and management of climate-related financial risks for their portfolio as a whole. Selling the bond on the secondary market may protect the investor from increased credit risk associated with a company failing to meet its climate or transition targets, but does not create a strong incentive for the company to comply with those targets or mitigate the resultant risks to the rest of the scheme’s portfolio. It is therefore critical to include enforceable contractual arrangements in the bond prospectus that attach legal consequences to climate transition targets and provide the investor with protections over the lifetime of the bond. The Institutional Investor Group on Climate Change (IIGCC) and Paris Aligned Investment Initiative have recommended the use of issuer covenants to provide such an accountability mechanism.

Effective Bond Covenants should:

- set **climate conditions** in line with the issuer’s just and credible net zero transition plan, for example restrictions on the use of proceeds to exclude fossil fuel exploration and development, and/or verifiable transition plan targets to be met at agreed observation points during the lifetime of the bond, and

- specify **clear, enforceable consequences** of failure to meet those conditions. Experts have suggested that workable consequences include:
  - legitimate and proportionate financial consequences for the issuer (for example a penalty payment to the investor),
  - “put” events to enable bondholders to accelerate or redeem their bonds; or
  - margin ratchets requiring the issuer to pay increased coupons if specified targets are not met (a mechanism used in sustainability-linked bonds). Such a coupon should be meaningful, i.e. significant enough that the issuer does not receive a financial benefit despite not reaching the target, if it is to properly incentivise achievement of targets, and not be undermined by structural loopholes like late target dates or call options.

Such consequences could be automatic on failure to meet the agreed climate conditions (as in the case of step-up coupons in a sustainability-linked bond), or with a ‘cure period’ after which they take effect as a last resort (which might be appropriate for a put event, for example).

**Bond covenants** thus enable the investor to exercise rights between issuance and maturity, **providing an important tool for trustees to carry out, directly or through their asset manager(s), effective stewardship in relation to implementation of the issuer’s transition plan.** By elevating climate-related representations to commitments that can be effectively valued and priced, bond covenants also help to mitigate the risks to the scheme’s

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50 The IIGCC *Net Zero Bondholder Stewardship Guidance* discusses the use of climate covenants in bond documentation, including at p. 2, 16 and 17.

51 The Paris Aligned Investment Initiative’s *Net Zero Investment Framework*, at p.18, refers to the use of covenants and KPI linked bonds as mechanisms to ensure alignment criteria are met during the lifetime of the bond.

52 Corke et al., *Green Bonds Series: Part 4 - When ‘Green’ Bonds go Brown*, Lexology October 17, 2019

53 Köbel et al., *Who Pays for Sustainability? An analysis of sustainability-linked bonds*, January 2023

portfolio as a whole, and to the economy, that arise from the widespread mispricing of securities. Again, these requirements should form part of the scheme's Investment Management Agreement or equivalent agreement with its asset managers.

4. Conclusion

Climate change, caused largely by greenhouse gas emissions from fossil fuels,\(^5\) poses a material financial risk to pension schemes. Continued investment in bonds issued by companies involved in fossil fuel projects therefore poses significant financial, legal and reputational risks to the scheme. It is essential that the trustees mitigate these risks in order to protect the scheme and fulfil their legal obligations. Such mitigation can be achieved by taking the actions proposed on page 1 and 2 above, and we would welcome an opportunity to discuss them further.

Yours sincerely,

Joanne Etherton
Head of Purposeful Markets

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\(^5\) IPCC, *Climate change widespread, rapid and intensifying*, August 2021.
Appendix

Fossil fuels and Net Zero

The 1.5°C target

The Paris Agreement\textsuperscript{56} set the goal of limiting the increase in global warming to 1.5°C above pre-industrial levels, and was followed by the authoritative Special Report from the International Panel on Climate Change (IPCC) on the impacts of 1.5°C warming. This report and subsequent analyses, including by the World Resources Institute\textsuperscript{57} set out the severe physical impacts that are likely at 1.5°C and demonstrate that exceeding 1.5°C could trigger multiple global tipping points. The 1.5°C target is becoming increasingly difficult to reach, as emissions are not being phased down at sufficient speed, but the importance of maintaining the target is clear, as each increment of overshoot (even below 2°C) carries increased physical impacts and escalates the risks (including financial risks) to the scheme that are set out in the main body of this letter. In short, every incremental increase in temperature makes climate impacts more severe and catastrophic tipping points more likely.

Phasing down GHG emissions

The IPCC’s Sixth Assessment Report ‘Climate Change 2021: The Physical Science Basis’ published in August 2021 found that \textit{unless there are immediate, rapid and large-scale reductions in GHG emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach}.\textsuperscript{58} In response to the report, UN Secretary-General António Guterres stated that “\textit{We need immediate action on energy. Without deep carbon pollution cuts now, the 1.5-degree goal will fall quickly out of reach. This report must sound a death knell for coal and fossil fuels, before they destroy our planet... Countries should also end all new fossil fuel exploration and production…”}\textsuperscript{59}

There is scientific consensus that the exploration and development of fossil fuel is incompatible with the goal of limiting global warming to 1.5°C. In April 2022, the IPCC confirmed with “\textit{high confidence}” that projected CO\textsubscript{2} emissions from existing and currently planned fossil fuel infrastructure will exceed levels consistent with pathways that limit global warming to 1.5°C. The necessary implication is that many \textit{proven} fossil fuel reserves must be left in the ground if there is to be any realistic prospect of the goals of the Paris Agreement being achieved.

According to the ‘Production Gap Report’\textsuperscript{60} published in 2021 by the United Nations Environment Programme (UNEP) and other experts, governments’ national plans and projections showed that they plan to produce more than double the amount of fossil fuels by 2030 than would be consistent with a 1.5°C pathway. The effect of increased extraction of fossil fuels on increasing overall global emissions is also widely recognised. The Production Gap Report explains that “\textit{for oil, each barrel left undeveloped in one region will lead to 0.2 to 0.6 barrels not consumed globally over the longer term}.”

\textsuperscript{56} As noted in the main body of the letter, the Paris Agreement is a legally-binding international treaty on climate change which entered into force on 4 November 2016.
\textsuperscript{57} The World Resources Institute, \textit{Half a Degree and a World Apart: The Difference in Climate Impacts Between 1.5°C and 2°C}. See also McKay et al. \textit{Exceeding 1.5°C global warming could trigger multiple climate tipping points}, 9 September 2022
\textsuperscript{58} IPCC, ‘Climate change widespread, rapid and intensifying’ (August 2021).
\textsuperscript{59} UN Secretary-General, ‘Secretary-General’s statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment’ (August 2021).
\textsuperscript{60} See UNEP et al., \textit{Production Gap Report} (2021)
The ‘Net Zero by 2050 Roadmap’\textsuperscript{61} published in May 2021 by the International Energy Agency (IEA NZE 2021) underscored the need to phase out oil and gas production if we are to limit warming to 1.5°C. Under its pathway for limiting warming to 1.5°C, the IEA confirmed that “no new oil and natural gas fields are required beyond those that have already been approved for development.”\textsuperscript{62} On publishing its analysis, the IEA explained that “the Roadmap sets out more than 400 milestones to guide the global journey to net zero by 2050. These include, from today, no investment in new fossil fuel supply projects…”\textsuperscript{63}

The updated IEA NZE 2023 roadmap confirms that energy demand can be met while reducing fossil fuel emissions, and takes into account key changes that have occurred since 2021 in energy policies, technologies, markets and supply chains, including: the negative consequences of the carbon-intensive economic recovery from Covid and the energy crisis triggered by Russia’s invasion of Ukraine; and the positive advances in key clean energy technologies like photovoltaic cells and electric vehicles.\textsuperscript{64} The IEA NZE 2023 scenario takes into account energy security and a just transition, distinguishing between the needs of emerging and advanced economies and emphasising that countries with energy access issues must resolve these as part of their journey to Net Zero,\textsuperscript{65} and confirms that, “No new long-lead time upstream oil and gas projects are needed in the NZE Scenario, neither are new coal mines, mine extensions or new unabated coal plants.”\textsuperscript{66}

The IEA NZE 2023 scenario also sets out technology and sector-specific dashboards for: Fossil Fuel Supply\textsuperscript{67} for which a 97% reduction in GHG emissions is required; and Unabated Fossil Fuels in Electricity Generation\textsuperscript{68} for which a 95% reduction is required by 2040.

It is therefore clear from the authoritative analysis conducted by UNEP, the IPCC, IEA and other experts that continued fossil fuel development or maintaining fossil fuel extraction at current levels is not aligned with pathways to limit global temperature rise to 1.5°C.

\begin{itemize}
\item \textsuperscript{62} Ibid, at p. 99.
\item \textsuperscript{63} IEA, \textit{Pathway to critical and formidable goal of net zero}, 18 May 2021
\item \textsuperscript{64} IEA, \textit{Net Zero Roadmap: A Global Pathway to keep the 1.5°C Goal in Reach}, 2023 Update
\item \textsuperscript{65} Ibid. including at p. 56
\item \textsuperscript{66} Ibid. at p. 16
\item \textsuperscript{67} Ibid, at p. 105
\item \textsuperscript{68} Ibid, at p. 92
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