



# **The Taskforce on Climate related Financial Disclosures August 2018**

Climate change is an issue of global significance.

We subscribe to the scientific consensus that man-made emissions of carbon dioxide and other greenhouse gases are contributing to changes in the atmosphere that will cause significant changes in global temperatures.

While there are uncertainties around the specific impacts, the predicted changes pose a threat to environmental, social and political stability, and to the businesses and other assets in which we invest. It is an issue that could influence our ability to pay the pensions promised.

As long-term investors, we believe we can make better investment decisions if we have all the relevant information to include in our projections.

In 2017, the Taskforce on Climate related Financial Disclosures (TCFD) published its recommendations for improved transparency by companies and their investors with respect to how they were managing climate change risks and opportunities.

The TCFD's recommendations apply to asset owners like USS and we fully support this initiative.

Our responses to the TCFD's questions are provided in the report below.

USS was among the first pension funds globally to recognise the potential implications of climate change for long-term investors. In 2001, we published an industry leading discussion paper: *Climate Change: a Risk Management Challenge for Institutional Investors*<sup>1</sup>. Later that year we co-founded the Institutional Investors Group on Climate Change (IIGCC), which provides a forum for European institutional investors to collectively engage with policymakers on the long-term risks and opportunities of climate change.

The scheme made its first investment dedicated to renewables and clean tech in 2000.

In the years since, we have demonstrated our leadership on the issue of climate change by constantly advocating for it to be squarely on the agenda of institutional investors.

- The Institutional Investors Group on Climate Change (IIGCC): The IIGCC provides investors with a collaborative platform to encourage public policies, investment practices, and corporate behaviours that address long-term risks and opportunities associated with climate change. USS provided the first ever Chair for the IIGCC and continues to hold a position as advisor to the Board. The organisation has developed Investor Expectations providing guidance for investors in companies across a range of industry sectors (including utilities, oil and gas, and mining) in their engagement with companies regarding of climate change.
- CDP: We have been a signatory to CDP (formerly the Carbon Disclosure Project) since its first iteration in 2002. CDP offers a framework for companies to follow when providing key climate change data to their investors.

Climate change represents potentially significant risks for the assets in which we invest. The way in which our investee companies and assets manage these risks is therefore a key concern, in line with

---

<sup>1</sup> [https://www.uss.co.uk/-/media/project/ussmain/site/files/how-we-invest/USS Climate Change A Risk Management Challenge for Investors 2001.pdf](https://www.uss.co.uk/-/media/project/ussmain/site/files/how-we-invest/USS%20Climate%20Change%20A%20Risk%20Management%20Challenge%20for%20Investors%202001.pdf)

our responsibility to safeguard the fund for the long-term benefit of our members. We expect companies in which we invest to analyse climate change risks.

**USS will continue to address climate change as a risk to the fund's ability to make the returns it requires. We believe that the approach we have adopted, via integration and stewardship, is a prudent way for us to manage this risk, whilst also enabling us to make positive investments in the opportunities the shift to a low carbon future will provide.**

### **What are USS's governance arrangements around climate-related risks and opportunities?**

USS's Trustee Board has ultimate responsibility for addressing all issues relevant to the scheme, and this includes the oversight and management of risks and opportunities related to climate change.

The board agrees the Responsible Investment (RI) strategy, and formally reviews the RI team's activities annually, signing off key focus areas and policies. It has supported the scheme's activities associated with climate change risk and opportunities since 2001, when the scheme did its first work assessing the implications of the issue for institutional investors.

In addition to this annual reporting cycle, the board receives other input on ESG management, including climate change, as and when necessary. It also receives regular updates on the climate change related activities that the scheme's executive are involved in. Finally, in 2017 the USS board received training on climate change as part of its training on Responsible Investment.

The board delegates responsibility for day to day management of the scheme to the group executive, and the Investment Committee takes the lead in oversight of the executive's management of climate change and other ESG related issues.

USS is unlike the majority of UK pension funds, but more similar to large Canadian and Dutch funds, in having an in-house asset manager (USS Investment Management) to manage the implementation of the scheme's investment strategy, including the appointment of external managers. Currently external managers manage about a quarter of the scheme's defined benefit assets, but have managed all of the underlying defined contribution assets in the USS Investment Builder since this section of the scheme was launched in 2016.

USS demonstrates and resources its commitment to RI and addressing issues like climate change through its five-strong team of in-house RI experts. It also employs a separate Sustainability Manager for the scheme's property portfolio and other private market assets. Having this internal resource means that expertise on the investment implications of climate change is readily available to both trustees and the executive, and as noted above the RI team provides input to the trustee board on ESG issues, including climate change. As a result, the scheme is also less reliant on specialist pension fund consultants to provide advice on climate change and other ESG issues.

Day to day oversight and management of the scheme's climate strategy rests with the RI team. The team works with the internal asset managers to ensure integration of climate change and other ESG risks into investment decision making across asset classes. The RI team leads much of the stewardship activity associated with encouraging both listed companies and other assets to manage better climate change related risks and improve corporate disclosure.

Whilst USS Investment Management's CEO has ultimate responsibility for climate change related activities, the oversight of the RI function is via the Head of Equities, a member of USS Investment Management's Executive Committee.

Details of the RI team’s activities, including actions associated with climate change, can be found here: <https://www.uss.co.uk/how-we-invest/responsible-investment>

## What are the material impacts – both actual and potential – of climate-related risks and opportunities on USS?

Climate change is an issue of global significance; [the scientific consensus](#) is that man-made emissions of carbon dioxide and other greenhouse gases are contributing to changes in the atmosphere that will cause significant changes in global temperatures. While there are uncertainties around the specific impacts, the predicted changes (e.g. rising sea levels, flooding, droughts) pose a threat to environmental, social and political stability, and to the businesses and other assets in which USS invests.

As changes in the climate could have major effects on both the economy and the quality of life of our members, issues related to climate change are legitimate concerns of pension fund trustees. The policy response to a changing climate, including the Paris Agreement and the targets set for reducing emissions, also present both risks and opportunities to long term investors like USS.

As noted, USS first addressed climate change as an investment issue in 2001 with the publication of its [discussion paper](#) on the risks to institutional investors associated with changes in the climate. This report analysed the risks and responses to climate change and its potential impact on institutional investors, identifying a set of 10 action points to help institutional investors better manage the risks and opportunities associated with climate change. Following the publication of this report, USS has subsequently played an important role in the establishment and running of [IIGCC](#). Similar groups to the IIGCC have also now been developed in Asia, Australia and the USA.

The way in which our investee companies and assets manage these risks is therefore a key concern, in line with our responsibility to safeguard the fund for the long-term benefit of our members. As a result, we expect companies in which we invest to analyse climate change risks, both in terms of their carbon emissions and how they are adapting to a changing climate, to develop mitigation plans, and to disclose this information to investors. We also expect our investment managers to be addressing these risks where they are material.

USS considers climate change issues over the short, medium, and long term

- Short term - stock price movements resulting from increased regulation to address climate change, or weather related events (e.g. storm damage, flooding etc.);
- Medium term – regulation and other factors leading to changes in consumer behaviour and therefore purchasing decisions – an example of this would be the significant uptake in electric vehicles;
- Long term - Adaptation risk, where changes to the climate mean that there are potential major impacts to assets that USS owns. Examples would include increased sea level rise for coastal infrastructure assets or supply chain impacts for companies as a result of severe weather events. We / investee companies could incur significant costs to protect our interests (if indeed this is possible).

An example of a long to medium term theme that USS has acted upon is the impact of the transition to a low carbon economy and its potential impact on the demand for different commodities. The growth in electric vehicles means that demand for batteries increase: cobalt is one critical element in rechargeable batteries so demand is increasing. As a result, identifying ways to invest in cobalt in the short / medium term is a way to play this long term theme.

Climate change therefore represents potentially significant risks for the assets in which we invest. These risks can be:

- Physical – a changing climate may directly impact the viability of some assets or business models (for example, flood risk for real estate, or drought / fire risk for timberland assets);
- Regulatory – where governments establish policies to reduce emissions or encourage changes in technology in the shift to a lower carbon future. This could lead to, for example, the stranding of coal assets;
- Reputational – where members and beneficiaries express concerns regarding investments in certain sectors associated with fossil fuels. This may have implications for the scheme’s license to operate.

USS recognises that scenario analysis has a role to play in assessing potential risks that the scheme faces as a result of climate change and the associated policy response.

In 2017, USS participated in a WWF-led project to assess the alignment of the scheme’s public equity holdings to the 2°C climate scenario developed by the International Energy Agency (IEA). Using the [2° Investing Initiative](#) methodology, which was developed by the Sustainable Energy Investment (SEI) Research Consortium, the project assessed the alignment to a portfolio’s power production, the auto sector, and fossil fuel production investments against the IEA 2°C scenarios for 2020.

This project used asset-level data to create scenario analysis for each participating investor’s equity portfolio, with a focus on sectors likely to be most impacted by policy changes to address climate change risk and opportunity (in the case of renewables and electric vehicles).

The outcome of this analysis highlighted that whilst the USS public equity portfolio at that time was aligned with the 2°C scenario for the power sector, the scheme was not aligned for autos or fossil fuels (probably resulting from the benchmarks chosen, as USS tends to be more exposed to its home market which is more carbon intensive than the MSCI world). The analysis associated with this project is likely to evolve, and we are participating again in 2018.

USS, in line with the vast majority of pension funds, has not as yet evaluated its total investment strategy against various climate scenarios. There is a significant gap in the knowledge in the sector as to how this can be achieved.

In 2018, USS will be investigating what opportunities there are to conduct some form of scenario analysis. The [IIGCC](#) and other investor collaborative groups have a programme that focuses on the implementation of the TCFD, with a particular focus on scenario analysis.

We are also in discussion with a different service provider to undertake further 2°C alignment analysis and scenario analysis of our public market portfolios.

#### Investing in low carbon alternatives

Climate change, and the policy response to it, also provide investors with opportunities to invest in the transition to a low carbon future. Investing in such opportunities provides the scheme with some resilience against the impacts of a changing climate.

USS has in excess of £700m in committed financing to UK renewables. Investments include [L1 Renewables](#) which is USS's wholly owned renewable lending platform established in 2014. L1 Renewables supports UK onshore wind projects and project finance loans to operational wind farms, and also supports waste and biomass energy production. L1 Renewables has a total commitment of circa £520m. In 2017 USS also acquired direct equity interests in a number of offshore wind farms from a sale by the UK government of the Green Investment Bank. Finally, the scheme also has c. £360 million invested in timberland which acts as a carbon sink. These investments have been made

by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

## How does USS identify, assess and manage climate-related risks?

USS has the advantage of in-house expertise in fund management and responsible investment, which work in tandem to ensure that the scheme suitably assesses and manages the risks posed by a changing climate and the policy response to it. Asset managers take responsibility for identifying and managing all risks associated with their investments, and this includes climate change. USS Investment Management's RI team and property sustainability manager both work with the managers to help ensure that climate risks are being assessed and addressed, and work more broadly across the fund and externally on the issue.

### **Carbon Footprint**

The scheme has, for a number of years, been calculating the carbon footprint of its internally managed public equity investments. In addition to being able to estimate a total footprint for public equities against the benchmark, the footprint also enables us to identify and analyse the most carbon intensive companies in each equity portfolio, helping to inform our engagement and voting activity and allowing carbon risk to be integrated into our investment analysis. The scheme has engaged with companies where there are concerns. The outcomes of this process are published on the USS website as part of its commitment to the [Montréal Pledge](#). Every time the scheme has undertaken carbon footprinting, its public equity portfolio has been 'underweight' (less carbon intensive) than its benchmarks. For details of the overall footprint of the scheme's public equity portfolios when last assessed, please see [USS's disclosures](#)<sup>2</sup> in relation to its commitment to the Montréal Pledge.

For this analysis, carbon intensity is defined as thousands of metric tons of carbon dioxide emitted per million £ invested. On this measure, the USS public equity portfolio has a carbon footprint approximately 10% below that of the MSCI World Index. As USS is an active manager, the holdings in its portfolio will change over time as it invests in different companies in line with its fiduciary responsibilities. As a result, the USS carbon footprint will also fluctuate over time. In addition, as more companies begin to disclose their actual carbon emissions data, the carbon footprint of the MSCI World equity index will change.

### **USS use of carbon footprint data**

The most carbon intensive companies in the portfolio can be compared to their peer group to identify if any of USS's holdings are outliers in terms of carbon intensity. A variety of different carbon intensity metrics can be used for this analysis. For example, assessing the carbon emissions per tonne of cement produced provides better analysis of the relative carbon exposure of cement manufacturers.

The footprinting data provided to each of the equity desks has included their overall footprint vs individual benchmark, and the top 10 assets which contribute to this exposure. An additional benefit of this process is that it allows us to identify these companies and engage with them if they operate in a carbon intensive industry and we think they should be reporting. Such engagement would also take place if a company's performance was poor compared with its peers. This is in addition to the support USS has been giving to the Carbon Disclosure Project (CDP) since its inception in 2000.

### **Property**

---

<sup>2</sup> [https://www.uss.co.uk/-/media/project/ussmain/site/files/how-we-invest/Carbon footprint Montreal pledge.pdf](https://www.uss.co.uk/-/media/project/ussmain/site/files/how-we-invest/Carbon%20footprint%20Montreal%20pledge.pdf)



USS is largely a direct property investor, owning a number of office, retail and industrial buildings across the UK. The fund has detailed processes in place to assess energy costs, flood risk, and other climate / environmental considerations in the acquisition of assets. Energy use is important as buildings in the UK have to increasingly achieve specific standards of energy efficiency to achieve specified levels of certification. We also believe USS was amongst the first pension funds to attempt a carbon footprint of its real estate portfolio.

A changing climate is also predicted to impact the severity and frequency of storms in the UK, and this could increase flood risk to the property assets which USS owns. USS takes this risk very seriously: we assess flood risk to property assets.

### **GRESB**

The fund was one of the three founding investors of the [Global Real Estate Sustainability Benchmark](#). Now supported by a large number of pension funds and other investors, GRESB is an online system enabling the benchmarking of the sustainability activities of property fund managers. There is a significant focus on climate change and energy related activities within the GRESB survey. Whilst USS only has a small number of external property fund managers, these are actively encouraged to complete the GRESB assessment. The fund has also actively questioned these funds on their management of climate related risks and carbon / energy management.

### **Private Assets**

Due diligence on private assets (including Private Equity, direct investments and infrastructure) includes questions on climate change management and resilience if that is appropriate. Examples of issues raised in due diligence include the following:

- Assessing the risks associated with a rising sea level at a port investment;
- Implication of State vs Federal climate policy for a gas plant in the USA.
- Asking private equity managers how they monitor climate change related issues in their portfolios, both in their due diligence, and in their subsequent management of assets.

With directly held assets, where USS has either full or partial ownership, the scheme has good oversight of, and access to, energy, carbon and other climate related data. With private equity funds, where USS is one step removed from the underlying assets as a result of the LP:GP relationship, the data are more difficult to obtain. USS plans to work with other pension funds to encourage improved monitoring and disclosure of climate change related risks and data by the PE sector.

USS is also a member of GRESB Infrastructure: The GRESB Infrastructure Asset Assessment provides the basis for systematic reporting, objective scoring and peer benchmarking of ESG management and performance of infrastructure assets around the world. As with the real estate assessments, there is a significant focus on how infrastructure assets manage their energy and therefore carbon emissions, as well as other aspects of climate change risk.

### **Different types of investment**

Given the varied range of different types of investment USS has, the scheme has adopted a number of different approaches to managing climate change related issues. There are three key areas in which we undertake activity on climate change:

- **Integration of climate change related issues into investment decision making processes**

As noted, climate change and the policy response to it, have the potential to impact the value of the investments USS makes across asset classes. As a result, our fund managers include, for example, assessments of physical climate change in the due diligence of real assets, and our equity managers build carbon costs into their assessments of company valuations where it is relevant.

USS internal fund managers integrate climate related risks into their investment processes where these are material, particularly policy related risks such as the cost of carbon. At a stock level, scenario analysis has been used to assess the risks associated with potential costs of carbon. For example, as part of the analysis for an investment in a Japanese utility, the portfolio manager applied a cost of carbon in their modelling of the company's future returns to assess the impact of the imposition of such a charge. This was undertaken to assess this risk even though Japan has no current price placed on carbon emissions, and is not expected to introduce one in the near future.

To help its fund managers understand a specific climate related risk, USS has also hosted an International Energy Authority meeting with its internal asset managers to discuss the organisations' views on stranded assets. The fund has also held meetings with sell-side analysts to understand better the issues associated with stranded assets, the likely exposure of certain corporate sectors, and the implications for the scheme.

- **Engaging with companies to encourage better management of climate risk**

USS is an active owner of the assets in which it invests, regularly meeting with corporate executives and boards of companies. The Scheme has been engaging on climate related issues since 2001, and will engage in collaboration with other investors where this is likely to be more effective in encouraging change.

We regularly discuss climate change at meetings with companies, as part of our ongoing engagement. Targets of such engagement include major companies in the oil and gas and mining sectors. This includes encouraging disclosure of carbon emissions and information on how companies/assets are managing climate risks. For example, we have in the past voted in favour of shareholder resolutions at fossil fuel companies (e.g., BP and Royal Dutch Shell) requiring those companies to provide detailed annual reporting on carbon and climate change, or their support for industry bodies which lobby against climate change action. We have also co-filed shareholder resolutions on climate related issues at mining companies (for example, Rio Tinto, Anglo American and Glencore).

As a recent example, a member of the RI team, in conjunction with another large European investor and our service provider (Japan Engagement Consortium), held a meeting with a Japanese electric utility in Tokyo. This utility which has significant coal powered generation capacity, had been highlighted by our carbon footprinting process as a significant carbon source in our portfolio. The meeting was to discuss how the company was going to manage its exposure to climate change risk in a world facing a carbon transition. Issues discussed included alignment with Japan's targets for reduced emissions (NDCs – Nationally Determined Contributions), renewables and nuclear power. We were informed that this was the first time the company had held a meeting in their office specifically to discuss ESG issues.

Other companies where USS has engaged on climate related issues include the following:

- Royal Dutch Shell
- BHP Billiton
- BP plc
- Cemex
- Glencore
- Honda

- Rio Tinto
- Exxon
- Heidelberg Cement
- International Airlines Group

USS also uses its voting power at company AGMs to support climate change related shareholder resolutions. We have a history of supporting such resolutions going back almost 20 years, with a particular focus on corporate disclosure. Whilst we support most climate related resolutions, we are discerning and will only support those which make sense for the company and USS as long term investors. As noted, we have also co-filed shareholder resolutions requesting that companies disclose their plans for aligning with a transition to a 2°C world.

The scheme has also developed a more systematic way of integrating environmental and social issues into its voting process. This approach is based on company disclosure, the premise being that if investors are to integrate environmental and social considerations into their investment decision making processes, it is essential that companies disclose the requisite information about their performance on these important issues. This proactive stance includes the assessment of disclosure of carbon data. Such proactive voting is rare amongst investors, as most simply vote on the proxy issues presented. It is hoped that by making it clear that these are important issues for investors, these actions will drive improved transparency on climate change and other ESG issues by companies. It is also hoped that this approach will facilitate a more integrated approach to corporate reporting, and the integration of environmental and social issue considerations into remuneration policies.

- **Engaging with policy makers to ensure appropriate climate change policies are established to encourage the transition to a low carbon economy.**

Most of our engagement with policy makers on climate change is conducted through the Institutional Investors Group on Climate Change (IIGCC). Over the years, USS has met with policy makers from governments from across the EU, the European Commission itself, the UK government and also representatives from the Australian government and the Province of Alberta (where there are significant oil sands deposits).

- **Property**

The fund has policies and practices in place to ensure climate change and other sustainability issues are managed in its real estate portfolio: USS has an internal Sustainability Manager within its property team specifically to provide oversight and knowledge into the management of the fund's real estate assets.

- USS has had a policy on Responsible Property Investment since 2001.
- The fund largely invests directly in UK property and has detailed processes in place to assess energy costs, flood risk, and other climate / environmental considerations in the acquisition of asset. The fund also has policies and practices in place to ensure these issues are managed in the portfolio.
- The scheme has also established targets for the management of energy (and therefore emissions) at its most significant direct property holdings. [The headline policies are made publically available online](#), with detailed property level targets used internally for management of the assets.
- USS also has a small number of external property fund managers. The scheme has actively engaged with these funds in the past on their management of climate related risks and carbon / energy management.

- As noted previously, the fund was also one of the founders of the Global Real Estate Sustainability Benchmark which has a significant focus on energy use and therefore carbon emissions. Now supported by a large number of pension funds and other investors, GRESB is an online system enabling the benchmarking of the sustainability activities of property fund managers. There is a significant focus on climate change related activities within [the GRESB survey](#).

### **Carbon tilting a carbon intensive factor portfolio**

USS has, for a number of years, undertaken carbon footprinting of its public equity portfolio to identify where the scheme has specific climate change / carbon risk concentrations. As a result of these exercises, USS has identified that its Low Volatility public equity portfolio has a much higher carbon footprint compared to its benchmark than the other public equity portfolios run by the scheme. We believe this is due to the relatively short horizon of the volatility factors we use in the process which do not capture the longer term risk which climate change poses to asset values: as a result, the model favours utilities as they fit its low volatility criteria. We therefore decided to include a more explicit carbon factor in this portfolio in future. The USS Quant team, working with the RI team, analysed the implications of applying a low carbon tilt to the Low Volatility factor portfolio. This analysis suggested that, through a retrospective lens, this would not have materially impacted returns. As a result, a carbon tilt which takes out the top 3% of carbon emitting companies from the investment universe has been applied to the fund. This brings the carbon footprint in line with the portfolio's benchmark.

In contrast, we do not apply such an exclusion policy in our actively managed research portfolios. These portfolios are constructed using the insights of our research team. Our investment philosophy has a long-term horizon, and the research team includes sustainability factors in their assessment of fair value and this would include climate change risk. As noted, the public equity portfolio has historically returned a carbon footprint below its benchmark.

### **Other actions**

In order for the scheme to manage the risks associated with the changing climate, USS uses a number of different tools and participates in a number of different collaborations.

- **Transition Pathway Initiative**

USS Investment Management helped develop and launch (in January 2017) the Transition Pathway Initiative (TPI). Partnering with other global pension funds, FTSE and the Grantham Institute (part of London School of Economics) this project tracks companies' implementation of policies and practices that manage a shift to a low-carbon world. [The results of the assessments are freely available to other investors](#) and can be used in both stewardship activities and to enable USS Investment Management's fund managers to have an understanding as to where companies are in their transition.

The TPI assesses how companies are preparing for the transition to a low-carbon economy in two ways:

- It evaluates and tracks the quality of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition.

- It evaluates how companies' future carbon performance would compare to the international targets and national pledges made as part of the Paris Agreement.

The TPI has thus far released reports on oil and gas, mining, utility, steel and cement sectors (all high carbon), with the results of these assessments being [published through an online tool](#).

- **CA 100+**

USS has joined more than 200 global investors with over US\$22 trillion in assets under management as participants in the Climate Action (CA) 100+. This five year project will see investors engage the world's largest emitting companies to encourage them to act on climate change. As a result of this project, we will continue to engage with companies in collaboration with other investors (to share the workload) to ensure that they do more to reduce emissions, strengthen climate-related financial disclosures and improve their governance of climate change issues as they affect their business: the outcome will be better communication with investors on how companies are managing the transition risk.

## What metrics and targets does USS apply in assessing and managing material climate-related risks and opportunities?

As noted above, USS uses a number of tools and metrics to identify and manage climate change related risks to the scheme.

### Carbon footprinting

USS has a long standing commitment to carbon footprinting, which we have been undertaking since 2009 for our public equity portfolio. From these footprints we have sought to factor climate change considerations into our full range of investment decisions where it has a financial bearing.

Initially the carbon footprinting exercise was undertaken using an external specialist data analysis firm. The scheme then started to undertake internal carbon footprints as this enabled us to have a more timely assessment of individual portfolios exposure to carbon. In our latest footprinting, we have attempted to assess the carbon exposures across all asset classes. Given the complexity of this, we have once again started to use the services of a specialist in this area.

For each public equity portfolio, the carbon footprinting enabled the identification of the top 10 assets responsible for contributing to the carbon footprint of that portfolio. This information was communicated to individual portfolio managers and analysts to ensure that they are aware of where their greatest exposures lie. These data can be used for:

- Enhanced engagement
- Improved integration of carbon data in investment models

USS's public equity portfolio has consistently had a lower carbon footprint than its benchmark: as a predominantly actively managed portfolio, USS's internal investment team can choose which companies in which to invest. This enables them to incorporate ESG issues, including climate related factors, into their decisions. As previously noted, we publish our public equity carbon footprint as part of our commitment to the Montréal Pledge.

The scheme is unusual in that it has undertaken carbon footprinting across a number of assets (including fixed income, direct assets and hedge funds). We do not believe it appropriate to publish these footprint data at the present time for a number of reasons including the following:

- The methodologies for a number of asset classes are nascent and therefore it seems premature to publish footprint data based on methodologies which will change.
- Carbon data itself is lacking for some asset classes – for example, private equity.
- Whilst we collect data on energy use for our direct real estate assets, we do not collect tenant data. As a result, the footprints do not necessarily provide meaningful insights into carbon risk.

To stimulate debate on and development of carbon footprinting methodologies, USS participated in a video interview with Trucost / S&P Dow Jones Indices to discuss the approach USS has taken to measure carbon footprinting across all asset classes (not just public equities), and some of the challenges we encountered when we tried to do this. This can be viewed [here](#).

USS also participated in discussions on the issues facing carbon footprinting with a group of other asset owners. A report of these discussions, "*If carbon footprinting is the answer, then what is the question?*", which was published to help move forward the development of cross asset class footprinting, is available [here](#).

USS publishes the targets it sets for environmental and social issues associated with management of its real estate assets. These have been available [on the fund's internet site](#) for a number of years.

In addition, a number of the directly held assets in USS's Private Markets portfolio also set targets for energy reduction and other climate change related factors. Whilst we do actively engage with our assets (across asset classes) regarding their management of carbon risk, the fund does not currently set targets for carbon emissions reductions in other asset classes.