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MFS’ Net Zero Commitments

At MFS, our objective is to create long-term value for our clients by allocating capital responsibly. The way we do this is by actively identifying companies and securities we believe will generate strong investment performance for our clients over time. In our view, ESG integration, engagement and active ownership support this goal.

In July 2021, MFS joined the Net Zero Asset Managers initiative (NZAM), a voluntary collective of 301 international investment managers with $59 trillion in assets under management.¹ As a signatory of NZAM, MFS supports the goal of achieving net zero carbon emissions by 2050 or sooner in line with global efforts to limit warming to 1.5° Celsius. In our view, climate change is a systemic investment risk that cannot be diversified away. Future investment returns are likely to be impacted by climate change, the policies designed to combat it and consumer or other shifts that occur because of society’s increased focus on the topic.

**Definition: Net-Zero for corporates implies that for companies to reach net zero emissions, the following must occur:**

- A scale of value-chain emission reductions consistent with the depth of abatement is achieved in pathways that limit warming to 1.5°C with no or limited overshoot
- The impact of any residual emissions still unfeasible to be eliminated is neutralized by permanently removing an equivalent amount of atmospheric carbon

*Source: Carbon Trust.

Our approach to achieving net zero alignment is based on engagement, not exclusion. By effectively engaging with the companies in which we invest, we can manage the overall climate-related financial risks within our clients’ investment portfolios while also helping relevant industries recognize the risks and opportunities associated with the transition and related decarbonization efforts. That is why we believe that our research and engagement on climate topics is in the best interest of our clients and aligned with our purpose of creating long-term value responsibly.

When we joined NZAM, we were asked to set an interim 2030 target, to be reviewed every five years, for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner. MFS set the following targets:

1. 90% of in-scope assets under management (AUM) considered net zero aligned or aligning by 2030²
2. 100% of in-scope AUM considered net zero aligned or achieving by 2040
3. 100% of AUM considered ‘achieving “net zero” by 2050

Our in-scope assets currently include all equities and corporate credit, which are approximately 92% of assets under management as we write. We plan to ratchet up our in-scope assets over time so as to include sovereign and municipal bonds in a next step.

¹ NZAM assets under management figures are as of 31st December 2022. Source -www.netzeroassetmanagers.org.
² In-scope assets include all equity and corporate credit (approximately 92% of current AUM).
Our rationale for an AUM-focused target

1. **Focus on issuers (real world emissions), not portfolio emissions.**  
Decarbonizing the global economy requires greenhouse gas (GHG) emissions reductions across industries and sectors. Decarbonizing portfolios applying linear GHG reduction targets seems counterintuitive to us, for two primary reasons: 1) Sectoral decarbonization pathways are nonlinear. For example, in some hard-to-abate sectors certain technologies are still in development and it is understood that emissions may go up briefly before trending down. 2) Managing portfolios towards a GHG emissions reduction target might lead to the exclusion of sectors with larger emissions that are vital for transitioning to a decarbonized world, such as steel, cement and industrial gases.

Furthermore, while each of our portfolio managers has discretion, much of the climate-related research that happens at MFS is conducted by industry specialists, who support many different portfolio managers and strategies. As a result, we believe an AUM target using an engagement-based approach allows us to prioritize in-scope AUM on the path to achieving net zero while at the same time remaining true with our investment philosophy and mindful of our fiduciary responsibilities to our clients. We also believe this approach aligns with the NZAM initiative’s ambition to achieve real world emissions reductions in our portfolios.
2. **Engagement is our primary tool because we believe it is more effective.**

   We are confident that our approach of long-term, constructive stewardship is the best way for us to fulfill our duty to clients. We are excited about our ability to create value in a way that is so complementary to our investment process. We believe that large, long-term-oriented asset managers who engage companies and issuers can positively influence governance and business practices by helping executive teams and directors evaluate the climate-related risks and opportunities facing their industry. That is why we have developed a sectoral-focused engagement program that will report how companies’ climate transition plans compare to Paris-aligned temperature pathways, while factoring in issuer-specific risks and opportunities.

   Importantly, we do not use exclusion, or the purchase of “green” companies solely for the purpose of reducing portfolio carbon emissions, because neither reduces real world emissions nor aligns with our fiduciary obligations to our clients. We may, however, elect to selectively divest from an investee company if we believe an investee company is not making sufficient progress toward addressing the climate risks in their operations. We may also elect to invest in companies that aid climate change mitigation and adaptation if we believe this to be in the best interest of our clients and in line with our fiduciary duty.

3. **Every issuer is unique; contextual analysis is important.**

   For an active manager like MFS, bottom-up, contextual analysis of companies is at the core of our investment approach. Authentically integrating our climate related engagement program into our investment decision making means that we take into consideration geographical differences (e.g., emerging markets and developed markets), are appreciative of challenges and dependencies of company transition plans and understand how technological and regulatory changes impact issuers and industries differently.

4. **Integrated organizational structure: one investment platform.**

   As an active manager, we can leverage the unique perspectives and expertise of our global team of investment professionals. Engagements on climate related issues are performed by fundamental analysts, portfolio managers and the Stewardship team. Our collaborative approach ensures that company-specific business models are understood in engagements, our engagement program is aligned with our investment thesis and engagement insights are shared across the investment platform.
How do we prioritize?

Having opted for an AUM approach covering many listed issuers and corporate bonds, we have created an efficient climate-related engagement program.

Our NZAM-related engagements are prioritized based on a number of factors. These include total firm position size across asset classes, internal conviction, proportion of ownership (in equity), sectoral exposure to climate related transition risks, GHG emission equivalents and the company’s current status on net zero commitments and interim targets. The tiering is updated on an annual basis.

Issuers were allocated into four tiers of priority to guide the initial NZAM engagement program. The tiering guides the frequency and intensity of engagement, internal reporting requirements and allocation of central resources.

Our system is fluid and is a function of our ongoing learning process as we engage with these companies along the lines described above, on such changes as position sizes. The top three tiers cover over half of the firm’s AUM. For companies in these tiers, a formal analysis of targets, disclosure and transition plan will be undertaken and updated over time as needed (see page 6 for more information).

In alignment with the structure and culture of our global investment platform, we will take a sectoral approach to deep dive on companies in material sectors, although many engagements are happening concurrently. This focus will aid our ability to learn and develop nuanced approaches, such as taking into account specific regional regulatory regimes and pathway dependencies while also achieving scalability in our engagement efforts. In each of our NZAM progress reports we plan to introduce a different sector to illustrate our views developed in small working groups on significant headwinds and tailwinds, (inter)sectoral challenges such as technological developments, geographical nuances and policy implementations with regard to climate-related risks.

The sector views will be supplemented with related company case studies. We will start with the power utilities sector.
The power utilities sector

The power utilities sector plays a key role in decarbonizing the global economy, given that “electricity production is the single greatest contributor to global greenhouse gas emissions at 31% of total emissions.”

Countries such as the United States, Canada, the United Kingdom, Japan, France, Italy and Germany have announced plans to achieve predominantly decarbonized electricity sectors by 2035 while also committing to phasing out unabated domestic coal power generation and nonindustrial coal-powered heat generation by the 2030. Decarbonizing power production will allow other industries to decarbonize by electrifying their operations. According to the IEA Net Zero Economy 2050 roadmap, significant emissions reductions in electricity are required to align the global economy with a 1.5°C pathway by 2050.

The power sector can establish steep emissions reductions due to rapid technology cost reductions for solar, wind and storage; the expansion of enabling conditions that arise from national and subnational goals; and a growing demand for renewable electricity. Decarbonizing this sector will require the sustained rapid growth of renewable electricity and significant reductions in coal-fired and gas-fired generation at a global level over the next 10 years.

Opportunities

• Large-scale battery storage key for transition and plummeting costs
• Technological advancements leading to increased energy efficiency across generation, transmission and distribution
• New models of distribution such as microgrids and peer-to-peer energy trading
• Decarbonization becoming a key attribute of customer engagement, potentially keeping costs down

Net zero progress tracker

As the world grapples with the pressing issue of climate change, organizations have increasingly committed to setting decarbonization targets, disclosing emissions and aligning with net zero ambitions. The illustration below showcases the progress of our in-scope equity holdings. The data presented include a tiered breakdown of these holdings, a summary of our climate engagements from our baseline date and the percentage of the holdings that have committed to aligning with net zero carbon emissions.

<table>
<thead>
<tr>
<th>Tiered breakdown - in-scope equities (as of 31 December 2022)</th>
<th>Climate engagements (aggregate, from baseline date, 1 July 2021)</th>
<th>Aggregate holdings with a science-based target committed to or set</th>
<th>Other indicators of aligning with net zero - emissions</th>
<th>Net zero Aligned</th>
<th>Net zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>31</td>
<td>142</td>
<td>455</td>
<td>387</td>
<td>Not currently reported</td>
</tr>
<tr>
<td>Tier 2</td>
<td>137</td>
<td></td>
<td></td>
<td></td>
<td>Not currently reported</td>
</tr>
<tr>
<td>Tier 3</td>
<td>193</td>
<td></td>
<td></td>
<td></td>
<td>Not currently reported</td>
</tr>
<tr>
<td>Total as % of in-scope AUM</td>
<td></td>
<td>49.04%</td>
<td>45.63%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Our tiering system is fluid and evolving. We expect that the number of companies in each tier will change over the course of successive engagement cycles. For a breakdown of utility sector holding commitments, please refer to the appendix.

1 Figures are as of 31 December 2022.
2 We define companies as “aligning” in this report if they have science-based targets already set or in the process of having their target verified by a recognized body.

We take a conservative approach in quantifying the number of climate-related engagements embarked on during this time. The vast majority of our legacy climate engagements have not been captured in this report, so we have commenced an internal consolidation exercise to ascertain the extent of our engagement with target companies.
PSEG has established decarbonization targets and adopted the Task Force on Climate-Related Financial Disclosures (TCFD) framework. Its emissions reduction target includes plans to reduce the GHG emissions of its fleet by 80% by 2046 and achieve net zero emissions by 2050 (this will require technological breakthroughs).

Contributing to this reduction will be PEG’s sale of its remaining fossil fuel assets, its 25% investment in the 1,100 MW Ocean Wind Project and its investment in its Clean Energy Future investment program (energy efficiency, smart meters and EV charging infrastructure).

PEG’s gas distribution subsidiary is targeting a 60% cumulative methane reduction by 2030 through investment in its Gas System Modernization Program (GSMP). This target assumes the extension of the program beyond 2023 (which is likely).

**Follow-ups and next steps:** We will continue to closely monitor PSEG’s progress on its net zero commitments, particularly its investment in future clean energy programs.

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**Public Service Enterprise Group Inc. (PSEG)**

**Sector:** Utilities

**Industry:** Energy

**Engagement theme:** Targets

While we cannot say that progress comes from our engagement alone, we are pleased to present the following high-level cases showing examples of positive momentum as we work with our portfolio companies and take important steps on the path to net zero.
Engie set the stage for its own net zero transition by changing its purpose statement in early 2020 to focus on “accelerating the transition towards a carbon-neutral economy.” It set targets for renewables development and low-carbon-distributed-energy infrastructure plans and integrated its net zero ambitions and long-term business strategy.

Engie’s targets have been verified by the Science Based Targets initiative (SBTi). These include targets to reduce carbon emissions from power generation by around 70% by 2030 (from a 2005 baseline), plans to develop its renewable power generation capacity from 31 gigawatts in 2020 to 80 GW in 2030, plans to increase the share of renewables in its fuel mix to 58% by 2030 (from 34% in 2020), a complete coal phaseout by 2025 in Europe (2027 for the rest of the world) and ambitions for net zero emissions by 2045, continuing efforts that since 2015 have reduced by half levels of carbon intensity from energy production.

The company has successfully reduced its coal-fired capacity from 15 GW in 2015 to 4.3 GW in 2022. Coal now accounts for just 5% of total generative capacity. It has also closed all coal-powered facilities in Europe (including its Tejo plant in Portugal) and looks set to phase out coal globally by 2027. Going forward, the company looks favorably positioned to reduce direct emissions by 52% relative to 2017 levels and reach 167 gCO₂e/kWh by 2030.

However, Engie’s progress has not come without headwinds. Its generation mix is emissions-intensive relative to peers, with greater gas generation that may persist. We investigated ambition, headwinds and the credibility of the transition plan in a meeting with the board chair ahead of the company’s vote on its transition plan at its 2022 annual meeting.

Engie’s targets were verified by SBTi to a 2°C trajectory. The company, despite a desire to do so, is not currently able to commit to a target aligned with 1.5°C. It aims to reach net zero across all scopes by 2045 whereas 1.5°C pathways suggest 2035 should be the target year for developed market electricity generation. How much the company can help the climate might depend on increased government support for the development of biomethane and green hydrogen to decarbonize gas. In meetings with the board and management representatives, we encouraged the company to close the gap to 1.5°C and asked what could be done to achieve this. We welcome indicators measuring the company’s performance in these areas and its ability to decarbonize faster should circumstances and government policy allow. Following internal debate, we decided to support Engie’s transition plan at the company’s annual meeting.

**Follow-ups and next steps:** Our focus, along with lower emissions and risk reduction, will be the faster decarbonization of gas through the alignment of the values chain of the plan with strategy and capital allocation.
In October 2021, the US state of North Carolina passed key legislation in its efforts to achieve net zero emissions. A Duke energy–backed bill, among other measures, formalized the reduction CO2 levels by 70% by 2030 compared to a 2005 baseline and net zero by 2050.

This bill has helped Duke Energy’s transition efforts as it contains constructive regulatory mechanisms that incentivize the transformation of electricity generation and reduce CO2 emissions. Among these are provisions that allow for multiyear rate plans (to ease the burden of utility companies navigating constant rate increases), net zero performance–based incentives and provisions that will facilitate coal plant retirements through securitization and general rate case recoveries.

As of 2022 management has achieved a 44% reduction in CO2 emissions from 2005 levels (compared with an initial target of 40% by 2030). Notably, a significant portion of emissions reductions were a result of Duke retiring 56 coal units with a generation capacity of 7.5 gigawatts since 2005. Duke has since increased its goal and is now targeting at least a 50% reduction in CO2 emissions from electricity generation by 2030 while expanding the scope of its net zero goals to include Scope 2 and certain Scope 3 greenhouse gas emissions for electric and gas utilities.

It is worth noting Duke’s clear engagement process with the regulator on how to support the region’s transition to net zero. The company approached regulators with a multiple-choice plan with varying costs and speeds of transition.

In engaging, to test the viability of the company’s targets and the credibility of its transition plan, we investigated the factors shaping the speed of its transition to lower carbon generation, such as regulatory alignment, customer affordability, energy security and technology development. We discussed the outlook and role of gas generation as a transition fuel, including in replacing coal assets. Although Duke has not set a science-based target with the SBTi, we believe the company’s approach is credible, and we have confidence that it is aligning with longer-term decarbonization priorities.

Follow-ups and next steps: In the future, our engagements will focus on further understanding the pathway, progress on emissions reductions — including those related to the gas utility side of the business — and changes in the cost and scalability of technologies that will foster faster decarbonization during the 2030s.
Challenges and lessons learned

For many companies, the path to net zero emissions will be complex and uncertain. We expect that each organization will face challenges as it attempts to decarbonize operations and keep pace with what it means to meet real world net zero goals.

We have seen several themes play out as companies in the utilities sector work toward net zero:

1. **How best to retire coal assets?**
   Coal power plants require high levels of capital investment. They have provided large and nonintermittent supplies of electricity at a low operating cost over their decades-long lifetimes. Both the coal mining industry and coal power plants are major employers, and closing coal plants often means shutting mines, which can result in significant economic and social pressure in the affected areas. While a dramatic reduction in unabated coal use is an essential feature of all scenarios that meet global climate goals, phasing out coal also raises complex challenges in terms of energy affordability, the impact on local communities and the security of the energy supply, all of which utility companies must navigate. Importantly, we don’t want to simply encourage companies to sell coal assets because that would not reduce overall carbon emissions, only the transparency surrounding those emissions, especially when assets are sold to private buyers.

2. **The long-term role of natural gas**
   As mentioned, to ensure energy security, utilities need to provide nonintermittent power to consumers and businesses. As coal assets are retired and renewable infrastructure continues to improve, utilities are grappling with the role of natural gas in their generation mix. Some companies are evaluating ways in which new natural gas power plants can be built to accommodate green hydrogen as a fuel source in the future; however, how long these plants will be of use will be difficult for companies and investors to determine.

3. **Uneven commitment across jurisdictions**
   According to the Energy and Climate Intelligence Unit, 137 countries have so far committed to carbon neutrality, and although most commitments are centered around achieving net zero emissions by 2050, the actual pace of the transition process varies wildly depending on the region. While there are some early success stories of achieving carbon neutrality and commitment across Europe, there is a wide disparity in the level of commitment witnessed across and within other jurisdictions including Asia, the Americas and Africa. Hence, companies which operate across multiple jurisdictions often need to navigate differing and often complicated regulatory requirements when it comes to carbon emissions.

4. **Data objectivity constraints**
   While there is a consensus on measuring and reporting direct emissions, *i.e.*, Scope 1 and Scope 2, it is unclear how to effectively measure and report on Scope 3 emissions, *i.e.*, emissions that result from the full life cycle of the product. For utility companies, be they domestic or industrial, the task of measuring Scope 3 emissions is even more onerous because of the lack of adequate data further down the value chain.

5. **Impact of energy crisis and war in Ukraine**
   Russia’s invasion of Ukraine has resulted in resource supply shocks that have sent energy prices soaring around the world and highlighted the need for energy independence, particularly in Europe. The conflict has complicated the net zero transition for many regions, which have had to balance the short-term need for reliable and cost-effective energy with the long-term need to transition to cleaner sources of energy.

6. **Understanding the limits of our agency**
   As a long-term manager, we believe fulfilling our fiduciary duty to our clients involves exercising the power of stewardship and engagement to enhance the durability of the companies we invest in. However, we are aware of the limits of our agency and appreciate that positively influencing companies on their net zero commitments will take time. We are also aware of the difficulty of attributing progress on decarbonization to specific engagement efforts on our part.
## Going Forward

1. **Emphasizing the credibility of transition plans**
   The current focus of companies is on setting ambitious targets, and while there has been progress, we believe the focus needs to go beyond simple target setting to creating credible transition plans. In our view, timebound action plans — outlining how companies plan to pivot existing operations and business models toward meeting climate science recommendations — will catalyze necessary action and thus serve as a critical determinant of success on the way to net zero.

2. **Addressing tangential issues**
   We live in an interconnected world. Simply decarbonizing operations is not enough, and companies need to look at the effects of their activities and products on the larger value chain, including the impacts on local communities that may have been ignored in the past. Transition plans also need to address issues that are tangential to emissions reductions. The specific issues will depend on the company and the nature of its operations and products. These include water and resource use and deforestation.

3. **Operationalizing commitments**
   We continue to refine our prioritization process. Our goal is to achieve perfect harmony between our engagement priorities and our investment process. Staying true to our responsibilities as fiduciaries requires that we continually develop methods of balancing the objectives of short-term returns and long-term investment viability.

4. **Setting ambitious milestones**
   Since we established our interim NZAM target six months ago we have organized our engagement program, gathered relevant data on commitments, targets and disclosure by issuers, developed criteria for assessing transition plans and used these to further shape related engagements and assessments. We take a conservative approach to assessing whether a company is aligning with net zero and intend to report companies as having achieved this status only after we have reviewed the scope and alignment of their targets and the credibility of their transition plans. This can often require multiple engagements, as well as desk-based analysis. We aim to have evaluated these indicators for all companies in the top two tiers of the engagement program within a year of the publication of this report and the top three tiers by the end of 2024. We plan to begin reporting on this data in the progress report as of 2024. Currently we are not assessing any issuer as either aligned or operating in line with net zero. Our focus is on targets and plans. As we obtain enhanced data on the emissions performance of issuers over time we will begin assessing companies under these additional two categories, and we will begin reporting on them by the end of 2024.
## Appendix

### Net Zero Tracker: Utilities

<table>
<thead>
<tr>
<th></th>
<th>Number of utilities by tier (as of 31 December 2022)</th>
<th>Climate engagements (utilities-specific) from baseline date (1 July 2021)</th>
<th>Utilities sector holdings with SBTi target committed or set (tiered)</th>
<th>Other indicators of aligning with net zero emission disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>26</td>
<td>13</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>4</td>
<td></td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Tier 2</td>
<td>12</td>
<td>No breakdown available</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Tier 3</td>
<td>10</td>
<td></td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>
In 1924, MFS launched the first US open-end mutual fund, opening the door to the markets for millions of everyday investors. Today, as a full-service global investment manager serving financial advisors, intermediaries and institutional clients, MFS still serves a single purpose: to create long-term value for clients by allocating capital responsibly. That takes our powerful investment approach combining collective expertise, thoughtful risk management and long-term discipline. Supported by our culture of shared values and collaboration, our teams of diverse thinkers actively debate ideas and assess material risks to uncover what we believe are the best investment opportunities in the market.

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