



2022 Climate Change Engagement & Voting Report

May 2023

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J.P.Morgan
ASSET MANAGEMENT

This report is an excerpt from J.P. Morgan Asset Management's 2022 Annual Investment Stewardship Report. These reports are as of December 31, 2022 and include information that was obtained at an earlier date during the course of engagements with companies or in the course of voting proxies. Such information has not been updated, verified or audited. The case studies and examples are provided for illustrative purposes only and may not be updated in the future. While we view engagement as an important part of understanding the risks and opportunities facing companies held in or client portfolios, such engagement may not be effective in identifying such risks and opportunities and we do not guarantee any particular results or company performance as a result of such engagement.



Contents

4	Introduction
5	Engaging companies on climate change
6	Engaging across the energy value chain
9	Engaging users of energy
11	Net Zero
12	In focus: Engaging companies on capital allocation to deliver net zero
15	Collaborating to address climate change investment risk
19	Stewardship as part of low-carbon investment solutions
21	Climate Stewardship in Alternative Markets
22	Escalation
24	Climate Change Voting
28	Sustainable Investing climate change related insights

Introduction

2022 saw another increase in extreme climatic events around the world, from forest fires in the Western United States, to record breaking heatwaves in Southern Europe, and the most severe flooding in Pakistan's recent history which left a third of the country under water.¹ With more than half of all adults surveyed^{2,3} recently by the World Economic Forum saying climate change has already had a severe effect in the area where they live, it is clear the increasing urgent and material challenges which climate change is posing to companies around the world. As investors, we know that these events damage assets affecting asset prices and disrupt supply chains and the ability of companies to do business. We are concerned about the potential for rising costs associated with the increasing frequency and intensity of such events and the consequential impact on investments.

At the same time, Russia's war in Ukraine put a much greater emphasis on domestic energy security in 2022, as countries tackle the energy crisis - balancing security of supply, cost, and decarbonization. In response, emissions could trend higher than previously expected as countries scramble to replace Russian energy sources to meet shortages. At the same time, the high costs of energy do not appear to be slowing ambitions regarding the commitment to decarbonize. In part because of these challenges around security, we believe that shifts in public policy to address the climate crisis are likely to accelerate within our investment time horizon across asset classes. We seek to identify companies that will benefit from the opportunities that arise from the anticipated rapid shift to a low-carbon world and assess the risks of investing in companies unprepared for this transition.

Engagement plays an important role in encouraging companies to consider the latest climate science and likely policy shifts and, to also build resilience into their planning, recognizing uncertainties which could impact the transition, in order to future proof and avoid energy crises like we have seen this year.

This report is an excerpt from our 2022 Annual Investment Stewardship Report.⁴ It outlines how we use our active ownership to address risks and opportunities through direct engagement with companies on climate change, having engaged with 539 companies on climate change in 2022. Our engagement model is built on an investor-led, expert-driven approach and leverages the knowledge of investment professionals around the world, working in close collaboration with investment stewardship specialists. Our engagement process benefits from the longstanding relationships our investment teams have with local investee companies, through regular interactions with board directors and chairs, senior executives, and CEOs. This report also demonstrates how we express our views through our voting activity, holding boards accountable and supporting resolutions that we feel will support companies toward progress in climate transition strategies that address financially material risks and opportunities facing such companies.

We hope you find our report useful in understanding the important role our investment stewardship plays as part of managing risk and generating long-term returns for our clients. For further information, please access our 2022 Annual Investment Stewardship Report. Thank you for your continued feedback, trust and confidence.

¹ <https://www.bbc.co.uk/news/world-europe-62712301>

² <https://www.ipsos.com/en/climate-change-effects-displacements-global-survey-2022>

³ <https://www.iea.org/topics/transport>

⁴ <https://am.jpmorgan.com/content/dam/jpm-am-aem/global/en/sustainable-investing/investment-stewardship-report.pdf>

Engaging companies on climate change

Top ten markets engaged on climate change

Country	%
1. United States	25.7%
2. United Kingdom	14.4%
3. Japan	11.9%
4. China	6.4%
5. France	3.8%
6. India	3.7%
7. South Korea	2.9%
8. Germany	2.4%
9. Taiwan	2.4%
10. Hong Kong	2.2%
11. Australia	2.2%

Top 10 sectors engaged on climate change

Industry	%
1. Capital Goods	17.1%
2. Energy	12.0%
3. Materials	11.9%
4. Utilities	9.8%
5. Banks	6.0%
6. Technology Hardware & Equipment	4.5%
7. Food, Beverage & Tobacco	4.3%
8. Commercial & Professional Services	3.8%
9. Real Estate	3.7%
10. Transportation	3.4%



539

Number of companies engaged on climate change



42

Number of countries engaged on climate change



26

Number of sectors engaged on climate change

Engaging across the energy value chain

Energy sector companies in different jurisdictions have been impacted differently by the energy crisis and this is reflected in our engagements. For many European countries the answer has been to cover shortages through import of liquid natural gas (LNG) to replace Russian gas supplies, and to accelerate the roll out of renewables with measures being implemented to speed up permitting and planning processes. Many Asian countries previously considering switching from coal to gas ahead of the transition to renewables, have had to reconsider plans as global gas prices have led to Asian customers being priced out of gas markets.

In the US, producers scrambled to secure LNG supplies ahead of winter meant that their low carbon sourcing requirements were deprioritized in the short term. However, we anticipate that the scrutiny on methane emissions along the LNG value chain will only increase as buyers try to mitigate the impact. With that in mind, JPMAM engaged with two key players in the LNG value chain to understand the challenges to sustainably produced LNG as well as to encourage the companies to adopt and set standards that could differentiate them from other suppliers.



Engaging across the energy value chain continued

The following two case studies are shown together because they illustrate engagement across the supply chain. EOG produces natural gas (extracts it from underground) and sends some of it to Cheniere, who liquifies it to be shipped to Europe and Asia.

Case study – Engaging the LNG value chain in North America



EOG Resources Inc.



USA



Equity, Bonds

Issue

We were concerned when a report by environmental groups identified the oil and gas producer EOG as one of the largest methane emitters in the US based on satellite surveillance readings. The findings were contrary to the progress described in the company's published reports stating that their methane emissions intensity rate has decreased 85% since 2017, with flaring down by half.

The 2022 Inflation Reduction Act in the United States has introduced a methane fee of up to \$1,500 per ton on emissions from oil and gas producers, pipeline operators and others, making excessive methane an increasingly material risk for companies.

Action

We engaged EOG to address these concerns which presented both reputational and transition risks. EOG noted that the report ranked producers on an absolute basis, which penalizes EOG as a large producer. They also noted that the methodology relied on extrapolation of data from flyovers that might capture intermittent emissions.

Notwithstanding the limitations of such methodologies, management acknowledged the scrutiny the industry and large publicly owned companies are under and shared their efforts to take action. EOG indicated that it has begun implementing a continuous methane monitoring system called iSense that replaces monthly Leak Detection and Repair (LDAR) monitoring in 90% of their Permian facilities. EOG indicated that it will roll out iSense to the rest of the company in 2023.

EOG has also announced a commitment to be net zero on a Scopes 1 and 2 emissions basis by 2040. This will be achieved by a combination of reductions, carbon capture/storage, and high-quality offsets for what cannot be reduced. The company emphasized the importance of corporate culture for achieving emissions reductions. They feel the organization has embraced emissions reductions on a bottoms-up basis, noting that what can be measured can be improved.

EOG provide emissions data to their customers, including Cheniere, with whom they have a partnership to provide gas for liquefaction that means EOG receives an LNG-linked price. When asked about the commercial opportunity for producing sustainably sourced natural gas, they explained that if LNG producers required a sustainability-related certification from their suppliers, it would be to EOG's advantage.

Engaging across the energy value chain continued

Case study – Engaging the LNG value chain in North America



Cheniere Energy, Inc.



USA



Equity, Bonds

Issue

While we have been impressed with some of the pioneering work being done by Texas-based LNG company Cheniere, the company has lacked corporate emissions reduction goals leaving them exposed to transition risks. Their efforts to measure emissions has also focused on the upstream supply chain and we had previously encouraged them to expand this further.

Action

We engaged with Cheniere this year to understand their GHG emission targets. We also wanted to highlight 1) the need to include their own facilities under their Quantify, Monitor, Report and Verify (QMRV) work, which aims to more accurately measure and quantify emissions; and 2) the opportunity for using their LNG life-cycle assessment (LCA) studies to expand into LNG markets and/or to increase supplies of more sustainably sourced natural gas.

The company informed us that they have expanded the QMRV work from upstream producers like EOG to the midstream companies which transport that gas to Cheniere's facilities. The company disclosed that their actual measurements generally revealed a higher level of emissions than was being reported, but with real variability between producers. They attributed the differences in performance to differences in the producers' corporate culture towards emissions and flaring. This confirmed what we heard from EOG.

Cheniere informed us that they have joined the Oil and Gas Methane Partnership (OGMP) 2.0 which is the United Nations Environment Program's (UNEP) data driven oil and gas, methane emissions reporting and mitigation initiative. OGMP 2.0's Gold Standard will require Cheniere to set a methane reduction target by 2025.

They explained that their data driven work has allowed them to start providing Cargo Emission tags to their customers so customers can track the emissions associated with that gas. Cheniere is unsure, however, whether emissions tagging will help differentiate them in the marketplace in such a tight supply environment, particularly in Europe at present.

Outcome and next steps

We note the enhancements being made by EOG to measure and reduce methane emissions and will continue to monitor implementation. We also welcome Cheniere's commitment to set its own methane reduction targets under the OGMP and to expand its QMRV work.

We note the risk to companies of findings that actual methane emissions exceed reported emissions when measured. The increasing use of new surveillance technologies will require companies to respond to this risk. We will continue to monitor how Cheniere responds to this risk.

Engaging users of energy

For companies with high energy usage (e.g., the transportation industry which is responsible for approx. 37% of global emissions)⁵ we consider the potential impact on a company's future performance from government policies to mitigate climate change as well as changes in demand for products and services.

For the shipping sector, hurdles exist for companies seeking to meet customer and regulatory demands for low carbon transport, ranging from a lack of scalable low carbon fuels, long-life assets and an unhelpful international policy environment. Some sources estimate that the sector could account for up to 10% of global emissions⁶ in future as other industries decrease their emissions more quickly. We are concerned about these challenges and their impact on client portfolios and engage companies to encourage them to make the necessary investments today to mitigate their increasing exposure to changes in policy and customer demand, and to ensure their long-term competitiveness (see Hapag Lloyd case study).

⁵ <https://www.iea.org/topics/transport>

⁶ <https://cedelft.eu/publications/fourth-imo-greenhouse-gas-study/>

Engaging users of energy continued

Case study – Engaging users of energy



Hapag Lloyd AG



Germany



Bonds

Issue

The International Maritime Organization (IMO) estimates the shipping sector currently comprises 2.9% of global emissions. As other industries decrease their emissions more quickly than shipping, which is growing in trade volume, the risks to shipping companies may increase as their share of global emissions is expected to rise to as much as 10% by 2050. In 2021 we participated in the Asset Manager & Asset Owner Task Force sub-group of the Sustainable Markets Initiative (SMI) – previously referred to as the Prince of Wales' Sustainable Markets Initiative. Through this work, we contributed to the development of a statement outlining Investor Expectations for Shipping Transition to Net Zero Emissions, which lays out considerations investors can take into account when engaging the sector on financial risks that shipping companies may face as the result of climate transition.

Action

We engaged with Hapag Lloyd in September 2021 with respect to sustainability linked bonds (SLBs) held in certain of our High Yield portfolios. While these bonds do not carry proxy voting rights, as capital providers we still value a direct line of communication to management to discuss financially material issues such as climate risk and sustainability performance targets (SPTs) linked to the bonds. At that time, we shared a draft of the paper being developed by participants of the SMI with the company. They provided feedback on the paper and we discussed the status of their decarbonization commitments, which at the time were limited to 2030 targets and did not include emissions from their leased fleet. We raised concerns that their targets did not take into account investments needed for the transition to a low carbon future in order to ensure the longevity of the business.

We then followed up in May 2022 to understand progress since our last engagement. The company shared its new decarbonization targets to reduce CO2 intensity of the entire fleet including its leased fleet by 30% by 2030, and to be climate neutral by 2045.

We discussed the company's decarbonization strategy to understand how they intended to reach the targets set. In the short to medium term, old inefficient vessels will be phased out and efficiency measures deployed to existing ships. They will also buy new fuel efficient vessels and new dual-fuel vessels. From 2030 decarbonization will be driven by low emissions fuels, as ships are transitioned from fossil fuels to biofuels and other low emissions fuels such as methane and ammonia. The company explained that the use of green fuels today is very limited due to limitations on supply of biofuels in particular.

We asked about the potential risks associated with the company's strategy which could expose it to continued transition risks. These included the need to increase the supply of green electricity required to power the development of green fuels, as well as the infrastructure needed to transport and store these fuels. The company shared a number of partnerships it is involved in to further innovation in this area.

Outcome and next steps

We welcome the enhanced decarbonization targets set by the company since our last engagement and early disclosures around the decarbonization strategy. We encouraged the company to provide greater quantification and information on capital planning as the strategy is developed in the months to follow.

Net Zero

As a global asset manager, JPMAM believes climate change and the transition to a low-carbon economy present significant risks and opportunities to clients' investment portfolios and to the assets that JPMAM manages on their behalf. As part of our business's strategy to help clients manage climate risks and opportunities, JPMAM became a signatory to The Net Zero Asset Managers initiative (NZAMi) in November 2021, in support of the goal to reach net zero greenhouse gas emissions by 2050 or sooner. JPMAM's commitment includes independently setting interim targets within 12 months for assets determined to be in scope for net zero pathways and creating investment products aligned with net zero emissions by 2050. On November 9, 2022, JPMAM's interim net zero targets were published.

JPMAM has included all of its AUM in listed equities and corporate bonds, as well as certain direct investments in forestry, in scope for its NZAMi targets. Those assets make up 45% of its total assets under management (\$1.2 trillion), as of December 31, 2021.

JPMAM will measure its progress towards its NZAMi targets by the proportion of companies in which it invests that have set their own credible net zero targets. By 2030, JPMAM anticipates that the percentage of its AUM held in companies with science-based targets will increase from 20% to 55%.

Investee companies that set and act on credible science-based net zero targets can help manage risk and build and sustain shareholder value over time to the benefit of client accounts. JPMAM will engage with investee companies on these and have refreshed our climate change engagement framework to include an enhanced focus on the scientific credibility of company targets and plans.

JPMAM's role remains first and foremost as a fiduciary to our clients, with a singular focus on acting in their best interests. Our ability to meet our NZAMi targets is dependent on sustained and consistent government policy, accelerated technological breakthroughs, and substantial adaptation in corporate business models. The ability to meet specific targets is contingent on action from a range of parties.



In focus: Engaging companies on capital allocation to deliver net zero



Lara Jackson
Vice President Investment
Stewardship



Lucy Parken
Managing Director,
Global Head of Sector
Specialist Team

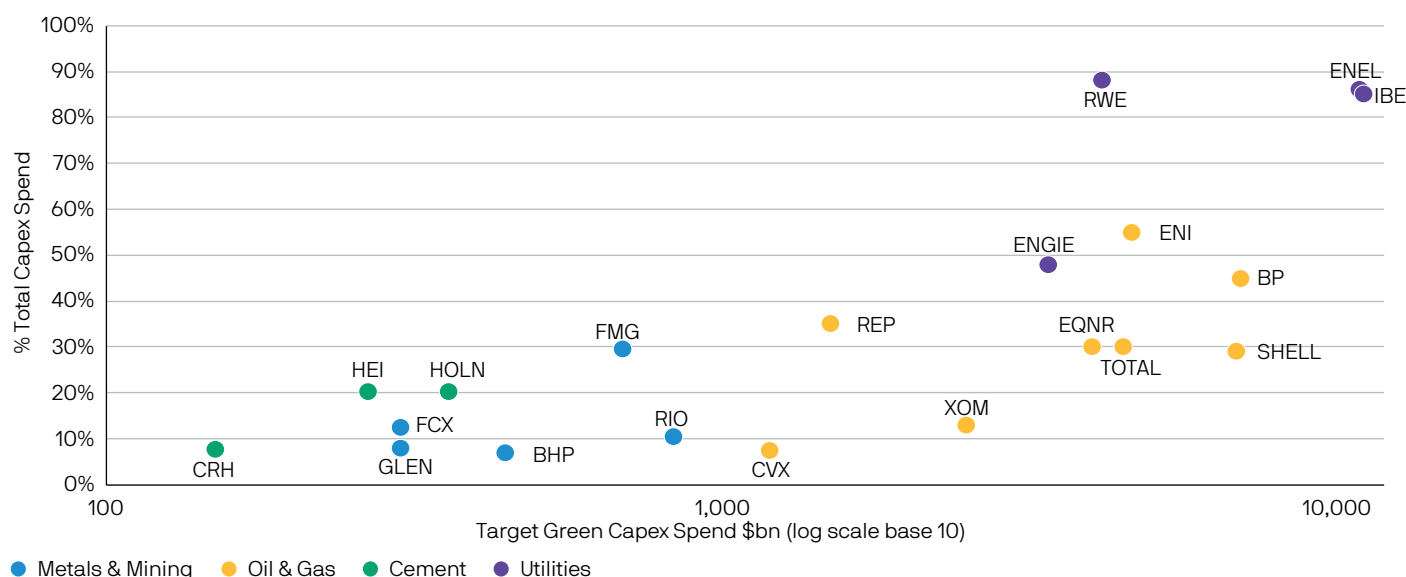
Context

Many companies, particularly in Europe have set science based medium term decarbonization targets. Increasingly our engagements with these companies are focused on implementation and understanding how companies are placed to deliver on the targets they have set. We believe such engagements are important to understanding how such companies are managing risks and taking advantage of opportunities associated with climate change.

While companies have disclosed high level transition plans, we find that information around the financial planning in place to support the delivery of plans is often lacking. Delivering on their targets will require aligning a company's capital investment to its climate risk management strategy.

Where 'Green' Capital Expenditure⁷ (CapEx) dedicated to decarbonization is disclosed, it allows us to start to assess the adequacy of capital allocation. By tracking annual CapEx spent on decarbonization we will be able to hold companies to account on the capital allocation they have promised. It also enables us to start conversations with management about the potential returns (in terms of both emissions reductions and financials) they expect from investments in the short and longer term.

Figure 1: Green vs Total Capex as disclosed by a sample of public listed companies.



Source: Wood Mackenzie, Bloomberg, Individual Company Reports, JPMAM Forecasts.

⁷ Green capex is defined differently by companies today but is used here to broadly define capital allocated to decarbonization initiatives. The EU Taxonomy for Sustainable Activities is one way green spend categories are working towards standardization.

In focus: Engaging companies on capital allocation to deliver net zero continued

Disclosure today: what we see

We analyzed disclosures of green CapEx from 2022-2030 for a small sample of major companies in heavy GHG emitting sectors: Oil & Gas, Cement, Metals & Mining and Utilities. We found a wide range in planned green CapEx spend as a proportion of total capex.

Only the Utilities sector is consistently reporting the proportion of total capex eligible under the EU Taxonomy for Sustainable Activities, with several companies reporting over 80% of total capex being eligible as decarbonization capex under EU taxonomy. Among the large-cap companies Engie is an outlier. In 2021 total group Capex was 48% eligible but growth capex was 78% eligible (capex in the Renewables and Energy Solutions divisions is mostly eligible, but Thermal Generation & Energy Supply are only marginally eligible).

Among Metals & Mining companies, Fortescue Metals Group (Australian iron ore producer) stands out as investing a high proportion of CapEx in decarbonization. This supports their sector leading ambitions to reach net zero by 2040.

In Oil & Gas, European companies include value chain emissions in decarbonization targets. These are supported by a higher level of green CapEx both in absolute terms and as a proportion of total capex compared to US peers.

Cement producers are investing relatively less in green CapEx. Companies have medium-term decarbonization targets, but we have observed limitations to their longer-term net zero ambitions which could be linked to the relatively lower level of green CapEx.

Our engagement asks:

As investors, we need to understand how companies will support climate targets with appropriate and credible capital allocation plans as part of their own climate risk management strategies.

Specifically, we ask investee companies to disclose:

- **Total capex dedicated to achieving decarbonisation targets as a proportion of overall capex, and an assessment of its adequacy to deliver scale of emissions reductions required.** Companies should include an assessment of their own financial position and use sector specific decarbonisation pathways to determine appropriate CapEx allocation and disclose these assumptions.

- **The breakdown of CapEx between proven technologies and investments in new or unproven levers, and where possible expected financial returns.** Whilst the capital expenditures of energy efficiency measures can have relatively short payback periods, the more profound changes needed to deliver deep decarbonisation typically require much greater investment, involve higher technology risks, and take longer to pay back. Feasibility assessments of new technologies should also be disclosed, as well as an assessment of their economic competitiveness.
- **Internal carbon pricing used to inform project assessment.** As regulation of carbon emissions increases around the world, companies must factor present and future costs of carbon into planning tools. This helps identify capital investment opportunities and risks, and acts as an incentive to drive energy efficiencies to reduce costs. Disclosure should include how carbon pricing assumptions vary across region and business segment and the scopes of emissions included in assessments.
- **Percentage share of CapEx which will remain invested in carbon-intensive assets and when capital will peak.** Where investment in new high carbon projects are made the assumptions that justify investments vs low carbon alternatives should be provided.
- **How incremental costs will be borne, particularly where margins are low, in order to remain profitable** e.g., through charging premiums for green products.

These disclosures allow us to identify which companies are better positioned to deliver on their decarbonization targets and mitigate their own risks. It allows us to identify companies that face additional financial, reputational and regulatory risks associated with hollow commitments and challenge whether investments are sufficient to deliver the transformations required to adequately mitigate transition risks.

We understand that decarbonization is not a linear process so understanding how and when companies will fund decarbonization is important to considering a company's future resilience and whether a company's commitment is realistic.

In focus: Engaging companies on capital allocation to deliver net zero continued

Further work

As part of understanding how investee companies are managing risks and taking advantage of opportunities that are important to managing our client portfolios, these types of disclosures allow us to start to have important conversations with companies about the efficacy of their decarbonization plans including their readiness to deliver on them economically. In 2023, we expect the proportion of companies reporting sustainable capex under the EU taxonomy to increase significantly. This will be helpful in enabling comparisons across companies and industries. Beyond capex, earnings associated with 'green' activities will also be an important metric to consider, particularly as costs for green technologies fall.

Further to this, it will be important for us as investors to understand how the capital allocated to particular decarbonization initiatives achieves both the investment returns and decarbonization results required over the long term. Assigning the returns to green capex specifically is difficult today and data is not sufficient to allow us to do this. Similarly, assessing the potential impact of investments on companies' longer-term costs of capital will also be important; further work will be crucial in this area.



Collaborating to address climate change investment risk

Collaborating to address climate change investment risk

While most of our engagement is conducted alone, we believe that collaborating with other investors and stakeholders that share common concerns about risks facing investment companies owned by them or their clients can help reinforce and, where needed, escalate our engagement efforts. Collaborative engagement is defined by JPMAM as when we have joint dialogue alongside other institutional investors with investee companies on financially material issues.

Collaborative engagement is supported by and encouraged by regulators, in certain markets, on certain issues. For example, in the UK, climate change industry collaboration is seen as important and expected. While adhering to all applicable rules and regulations, such as antitrust and competition laws, we believe that collaborative engagements can allow for effective communication of investor concerns to companies.

With recent media attention on collaborative engagements, it is important that clients understand what “collaborative engagement” means and does not mean. For example, while collaborative engagements involve multiple investors (such as other asset managers) with common concerns around risks and opportunities facing individual companies, each investor makes its own investment and proxy voting decisions. JPMAM does not share competitively sensitive information concerning its client accounts or its investment decisions with other investors. It does not work in concert with other investors on investment matters and makes its own independent decisions concerning investee companies including how to vote proxies and whether to change its allocations, invest in or divest from an investee company. Investee companies make their own strategic decisions based on their own assessment of the balance of views from various parties.

We are actively involved in investor networks focused on climate risk. In Europe, our Global Head of Investment Stewardship has co-chaired the IIGCC’s Net Zero Stewardship working group (see Framing net zero Stewardship below).

Framing net zero stewardship

We believe that engagement with companies on how they are managing climate change, including the credibility of any net zero targets they set, is part of managing risks and contributing to long-term shareholder value. What has not always been clear is how to most effectively conduct stewardship in a way over time which can meaningfully encourage improvements in corporate climate-related practices. We seek to play a leading role on this issue and so, we have served as the co-chair of Institutional Investors Group on Climate Change’s (IIGCC) Net Zero Stewardship Working Group. This is a group of approximately 70 investors who also share a common interest in more robust stewardship practice with relation to the transition to the net-zero economy.

In 2022, the group contributed to the discussions which led to the development of and provided feedback to the publication of the IIGCC Net Zero Stewardship Toolkit. This document is aimed at providing investors with helpful ideas sourced from across the industry on a series of voluntary good practices to enhance their stewardship practices when such investors identify risks and opportunities in the portfolios they manage. The toolkit helps investors formulate and articulate their own objectives for engagement and improve interactions with their clients so that such clients’ needs are well understood. J.P. Morgan Asset Management also hosted the launch event at our offices in London in the summer which was well attended by clients and other asset managers from across Europe.

Collaborating to address climate change investment risk continued

J.P. Morgan Asset Management industry group memberships related to climate & stewardship

Environmental

Asia Investor Group on Climate Change

CDP (Carbon Disclosure Project)

Climate Action 100+

FAIRR

Institutional Investors Group on Climate Change (IIGCC)

Net Zero Asset Manager's Initiative (NZAMi)

Transition Pathway Initiative

ICMA Green and Social Bond Principles

London Stock Exchange's Sustainable Markets Advisory Group

Collaborating to address climate change investment risk continued

J.P. Morgan Asset Management is also a member of Climate Action 100+, an investor-led initiative working to address material climate risk facing investee companies and secure ongoing long-term returns for their beneficiaries. This year we have co-led two and participated in five company engagements through that initiative (see KEPCO and PEMEX case studies).

Case study – Collaborating to address climate change investment risk



Korea Electric Power Corporation (KEPCO)



Korea



Bonds

Issue

KEPCO announced its commitment to phase out coal-fired power plants and reach carbon neutrality by 2050. We welcomed the long-term commitments which we believe are important to achieving long-term competitiveness in the market where KEPCO operates; however, we were concerned about its financing capacity to reach the climate targets. We wanted to know more about the company's medium-term targets and understand its roadmap for decarbonization and its impact on the company's long-term value and performance.

Action

In addition to having a direct dialogue with the company, we co-led a collaborative engagement to highlight common investor concerns about the company's ability to finance its decarbonization plan. Noticeably, with fuel costs rising faster and sharper than tariffs, KEPCO reported operating losses in 2021 and the first half of 2022. This, combined with significant capital spending, has drained cash from the company, resulting in soaring debts and shrinking equity. KEPCO's total liabilities to total equity ratio was 223% at the end of 2021, above the government guidance of 200%. As a result, KEPCO needs to implement the Budget Deficit Management System (BDMS) and will be evaluated by the government. Some of the debt-reduction measures in the company's plan include disposal of assets, streamlining the businesses and cost cuts.

Despite having budget constraints, KEPCO has committed to continue to expand its renewable energy portfolio and invest in clean technologies to achieve its net-zero target. The disposal of coal power assets should help raise some cash. However, the timing of the disposal is an unknown and the amount may be insufficient. More debt financing could be required. However, we are concerned that debt financings will not be a long-term solution and think the company will need to consider capital restructuring and capital injections from companies with financial strengths that are interested in energy transition. To improve its operating cash flow, KEPCO recognized the needs to increase its power tariffs and had been in discussion with the government about power tariff hikes.

Outcome and next steps

In December 2022, about a month after our engagement, KEPCO announced the increase in electricity tariff for the first quarter of 2023. We will continue to monitor the impact of the tariff and to follow up with KEPCO concerning their plans.

Collaborating to address climate change investment risk continued



Janet He, Head of Emerging Market Sovereign Research, visiting Pemex's Litoral crude processing facility in the southwestern Bay of Campeche in Tabasco in December 2022.



Petroleos Mexicanos



Mexico



Emerging Market Debt

Issue

Petroleos Mexicanos (PEMEX) is an oil company and one of Mexico's largest enterprises. PEMEX has been rated poorly across a variety of external ratings for reasons including governance concerns, controversial events around employee and community safety, methane emissions, and overall poor disclosure. We expect the company to face a challenging financial outlook and limited resources to address these issues – as such the Mexican Federal government ultimately needs to provide support for strategic decisions and is key to any engagement. While we are mindful of the constraints on the government and company, constructive engagement has led us to believe PEMEX can move along a positive trajectory.

Action

We engaged with PEMEX both bilaterally and collaboratively in 2022. Over time the company's management has acknowledged the rising significance of financial risks, including transition risks, to the company and its long-term investors. Subsequent conversations have focused on more targeted issues impacting long-term investors and customers including PEMEX's transition readiness. We also requested PEMEX to make more information publicly available (e.g., GHG emissions and reduction plans and governance arrangements), including an FAQ document covering actions on key environmental and social risks and an English translation of their annual Sustainability Report, which will facilitate risk assessments by investors. Methane emissions were also addressed following a meeting between us, PEMEX and the Environmental Defense Fund which highlighted PEMEX's high levels of methane emissions in Mexico and the reputational and financial risks such emissions raise. Lastly, we discussed controversial events flagged by third parties, in particular a 2019 pipeline explosion purportedly due to fuel theft.

Outcome/Next Steps

Though progress has been slow and changing personnel has been a recurring challenge for the engagement, we welcome the positive trajectory on disclosure and addressing key concerns. We have noticed meaningful change over this past year: PEMEX began regularly reporting on issues such as gas flaring and methane emissions in their quarterly earnings calls. The company website now has a dedicated page for ESG information covering GHG emissions reduction efforts, conservation and adaptation planning, and health and safety amongst other things. The company has communicated that the next Sustainability Report will be published in English in early Q1 2023. The company has discussed making the scope and coverage of their emissions targets public and beginning work on medium-term targets (beyond 2025). PEMEX has committed to investing \$2bn to reducing methane emissions and partnered with the U.S. EPA to better measure emissions, which we hope will keep the company competitive in the long run. While there is still significant progress to be made on methane, we are pleased the company has acknowledged the issue and made commitments that are also supported at the government level following commitments made by Mexico at COP27 to reduce emissions by 30% by 2030.

Stewardship as part of low-carbon investment solutions

The transition to a low-carbon economy presents an unprecedented opportunity for companies that are responding to the challenges of climate change, investing in innovative solutions and benefitting from shifts in market and consumer preferences. Energy storage, grid resilience, low-carbon transportation, energy efficiency enhancements and carbon capture and sequestration will all enable the transition. Companies that develop best-in-class solutions in these areas will be well positioned for growth due to the increasing urgency around mitigating climate change and growing policy and regulatory support.

Given the scale of the opportunity facing companies within this space, it is important for us to understand whether a company's proposed solutions are likely to effectively deliver their promised outcomes and a competitive advantage (see Carrier case study).

As disclosure standards are lacking for many of these emerging technologies and are uneven across jurisdictions, we seek to understand how their products and services present opportunity by contributing to resolving the challenges of climate change and ensure companies evidence their claims regarding the energy transition. Furthermore, we recognize that a company's positive product impact can be undermined by failure of the company to manage its own emissions and supply chain.

In 2023, we plan to engage further with solutions providers to ensure the credibility of claims of product performance specifically. Metrics such as 'emissions avoided' can provide valuable insights into outcomes of product use, but we will engage with companies to ensure transparent and credible methodologies are employed.



Stewardship as part of low-carbon investment solutions continued

Case study – Engaging with companies offering low-carbon investment solutions



Carrier Global



USA



Equity, Bonds

Issue

Buildings are responsible for 39% of global energy related carbon emissions. In light of this, building energy efficiency is gaining increasing attention and companies such as Carrier that can deliver high efficiency, low-emission heating, ventilation and air conditioning products may be well-placed to benefit from sustainability-driven order demand. However, these companies will also face increasing scrutiny to ensure products are effective and deliver promised benefits.

Action

We met with Carrier's Chief Sustainability Officer and ESG specialist to seek improved disclosure on how products are driving improved energy efficiency for customers, and better understand how the company evaluates product performance. We asked the company for green revenue figures, which the company discloses only for residential products. We encouraged disclosure for a wider set of products, with definitions of 'high efficiency' included.

We asked the company about the global warming potential of refrigerants, and the introduction of alternatives such as natural refrigerants. The company suggested the transport sector and supermarkets as opportunities where natural refrigerants, with a lower climate impact, can be used more easily, and Carrier stated that, where possible, it is working to meet standards it expects to be imposed by regulation before they apply to its business.

Carrier targets to reduce customers' carbon footprint by more than 1 gigaton by 2030 and aims to deliver this through: 1/3 by lower global warming potential refrigerants, 1/3 greater energy efficiency in products and 1/3 from new product development. We queried how Carrier calculated the 'emissions avoided' which contribute to this target and sought to ensure reference baselines are credible, both in terms of categorizing 'high efficiency', low global warming potential products and emissions avoided through food loss prevention.

We also spoke to the company about their decarbonization strategy. While the company had committed to a science-based targets initiative-validated 2-degree target, the company is having to reformulate targets following M&A activity and so has not gained validation.

Outcome and next steps

Carrier is focused on improving energy efficiency of products and investing in research and development to further lower emissions from product use, and the company is seeking to measure product outcome where possible. We will follow up with the company to monitor its progress.

Climate Stewardship in Alternative Markets

In an effort to directly impact the transition to a low carbon economy and provide ESG-minded investment opportunities related to climate, conservation and biodiversity, J.P. Morgan Asset Management has acquired Forest Management and Timberland Investing company, Campbell Global, LLC. Within Campbell Global, we directly own longstanding commercial forestry businesses in the US and globally. Responsible investing is a hallmark of JPMAM, and we seek to drive sustainable forestry practices which provide investment solutions whilst also improving the environment. We aim to replant the trees we have harvested, open our forests for recreational purposes, and report on our

activities with precision and transparency. We track and disclose key performance indicators across many facets including GHG accounting metrics and nature based KPIs. This helps to monitor and manage ESG considerations over the active management phase of the investment horizon and is critical to ensure the long-term sustainability of our assets for our clients and beneficiaries. To further demonstrate the commitment to responsible investing, Campbell Global ensure 100% of our properties are certified by a third-party forest certification provider, frequently going above and beyond local and federal laws and regulations in responsible management.



Campbell Global



USA



Alternatives

Issue

As owners of a commercial forestry business, assessing, measuring, and disclosing GHG emissions accounting is central to the long-term sustainable management of assets for our investment solutions and clients.

Action

Campbell Global’s GHG accounting, and reporting methodology relies on the Forest Industry Carbon Assessment Tool (FICAT) framework to quantify climate benefits derived from the purposeful implementation of sustainable forest management practices. Investors are provided with (1) annual estimates of net retained carbon, (2) carbon passed downstream to manufacturing customers in the form of delivered wood, and (3) the upstream/downstream greenhouse gas emissions (Scopes 1-3) over the cradle to scale horizon. In order to complete this annual stock change assessment, Campbell Global leverages its robust forest resource and accounting systems to harness property-specific data that enables aggregation of results at the portfolio and investor level.

Outcome and next steps

In 2021, Campbell Global’s total AUM delivered a net negative (carbon outcome of approximately 1.7 million metric tons CO₂e



Escalation

Engagements with targeted companies are documented, allowing us to monitor the stage of engagement. There will be times where, despite prolonged engagement, our concerns around managing risks and increasing and preserving long-term value of our client accounts have not been addressed. Under such circumstances we may undertake the following forms of escalation depending on the circumstances:

- Meetings with non-executive directors, a lead independent director or Chair;
- Voting against management and the non-executive directors;
- Communication to Chair or Lead Independent director disclosing our voting rationale;
- Collaboration with other investors or public statements with other investors as appropriate; and
- Reduction in holdings or divestment in certain cases.

It is important to note that while these engagements may be unsuccessful, securities of companies may be purchased and retained for reasons other than financially material ESG factors.

We will escalate concerns having reviewed the potential benefits of such action on our objectives, while ensuring we are always acting in the best long-term interests of our clients. Our approach to escalation considers the facts and circumstances of each specific case. However, we note that, voting escalation is principally aimed at equity holdings rather than other asset classes where opportunity to vote is far rarer. We do not generally differentiate our approach to escalation based on geography or fund type– unless there is a valid reason (e.g., our approach to proxy voting for certain votes specific to sustainable strategies).

Escalation continued

Case study – escalation



Saudi Aramco



Saudi Arabia



Equity, Bonds

Issue

Saudi Arabia through its majority state-owned Aramco oil company is the world's biggest explorer of oil. Unlike some of its international peers, Aramco historically has not publicly clearly acknowledged the risks to its business including risks associated with climate change and the transition to lower carbon fuels. In discussions with the Saudi Arabia government through its advisors on its sustainability strategy in 2021, JPMAM highlighted that Aramco needed a clearer position on how it intended to navigate risks it faced associated with transition to a lower carbon economy as part of furthering credibility for the state and company. In late 2021, JPMAM wrote a letter to the Chairman of the Aramco Board requesting additional information concerning the company's management of material climate risks, to which we did not receive a response.

Action

Following discussions we had with the company in Q2 2022, the company published its first ever Sustainability report. The report showed a rhetorical shift from its past position on the issue, acknowledging the Paris agreement and details the company's need to respond to the impact on its business from the low carbon transition. It included detail on the company's medium- and long-term operational decarbonization commitments to achieve net zero operational (Scope 1 and 2) emissions by 2050 and efforts the company intends to take to reach them, e.g., using Carbon Capture Utilization and Storage (CCUS) and reduction of methane emissions.

We joined the group investor meeting with the company following the report publication. Executives explained the future vision of the company as the lowest cost, lowest carbon intensity producer of oil; meeting the likely shrinking long-term global demand for oil and gas in any future potential transition scenario. It stressed the unique nature of the company's asset base compared to other international oil companies whose transition narratives are different and generally include a reduction in oil and gas production. Aramco explained how they are seeking to achieve a carbon intensity lower per barrel of oil than any other industry peer. It stressed its role in providing energy access and security to the developing world, through a 'just transition'.

The company committed to continue the dialogue via further meetings where aspects of the company's decarbonization strategy could be discussed in more detail.

Outcomes and next steps

We welcome the progress made by Saudi Aramco in regard to its acknowledgment of the climate change risks and its increased dialogue with investors on these issues. We note the engagement and the company's strategy is still in its earliest stages. We will continue the dialogue to dive further into the detail of the company's decarbonization strategy, associated risks, and future enhancements.

Climate Change Voting

In 2022, J.P. Morgan Asset Management voted on 88,963 proposals across 8,663 meetings and opposed management (either voting against or abstaining) approximately 9.1% of the time.

Our voting policies are designed to promote the best long-term interests of our client accounts.

As such, we will consider climate risk when voting in director elections, executive compensation or other management resolutions where we are not satisfied with the steps taken by the company to address the material risks it faces because of climate change, the quality of the engagement discussion or its progress (see AGL case study). We note that climate risks to companies may be highly dependent and increase significantly for companies in certain jurisdictions as governments and investors have expectations with respect to the company addressing transition risks.

Management proposals

	Environmental & Social – Director-related		
	Support	Not Support	Abstain
EMEA	336	13	–
Americas	3	–	–
Japan	–	–	–
APAC ex Japan	30	5	–
Global	369	18	–

Shareholder proposals

	Environmental* – Director-related		
	Support	Not Support	Abstain
EMEA	6	9	–
Americas	39	46	–
Japan	18	35	–
APAC ex Japan	1	18	–
Global	64	108	–

* Environmental shareholder proposals include climate related proposals and also a small number of proposals related to other environmental issues.

Climate Change Voting continued

Voting on climate change shareholder proposals is another important way of expressing our views where we think management could better manage climate-related financial risk. In 2022, we saw a significant increase in climate-related shareholder proposals, particularly in the USA. The SEC had historically allowed shareholder proposals to be omitted from the annual meeting if they related to “ordinary business problems”, however, new guidance issued this year clarifies that proposals covering significant social policy issues should not be excluded. We have also seen an investor coalition led shareholder proposal on climate issued for the first time in Japan (see Electric Power Development case study).

In 2022, we voted in favor of 44 climate-related shareholder resolutions. Climate resolutions are complex. We tend to support votes on governance and strategy transparency, climate-risk disclosure, and lobbying. Where we believe that climate change poses financially material implications to the business, we support shareholder resolutions which call for greater

details from companies that have set their own long term aspirational goals, such as the provision of interim target disclosures and roadmaps detailing strategic changes (see Dominion Energy case study).

In 2022, we have seen an uptick of management proposed resolutions on climate or so called “say-on-climate” votes in Europe and Asia. These are where companies put forward their climate action plans and progress reports for shareholder approval. Investors seek to understand whether targets set by companies are meaningful and properly implemented, and that action can be taken when this is not the case (see Engie case study). We have increased our scrutiny of the scientific credibility of company transition plans this year through our engagements and voting activity related to these proposals. There is still a need for standardization of how companies report their own transition plans to enable proper comparability and we welcome efforts to enable understanding and comparability.

Proxy voting – election of director



AGL Energy



Australia



Equity

Issue

Galipea Partnership, who holds an 11% interest in AGL, nominated four alternative individuals as candidates for election as non-executive directors at the company’s AGM, citing their energy transition and technology expertise as preferable to the nominees put forward for by the Board.

Action

The company is reported to have had one of the highest carbon emissions of any listed company on the Australia Stock Exchange and has demonstrated disappointing financial performance in recent years. Changes were needed to ensure the board had a sufficient number of directors with the requisite experience – not only in energy transition but also in public policy and organizational changes – to help the company overcome its business challenges in the era of energy transition in Australia. We saw room for improvement of the board in terms of size, diversity of experience and background. After assessing the skill sets of the nominees put forward by the Galipea Partnership, we decided to vote FOR the appointment of all four independent directors proposed.

Outcome and next steps

The four director candidates were successfully nominated by shareholders at the AGM and became AGL’s non-executive directors. We expect these four new directors to work closely with the existing directors and to help guide AGL to generate better value to the shareholders.

Climate Change Voting continued

Proxy voting – shareholder proposal on climate



Electric Power Development



Japan



Equity

Issue

Three shareholder proposals were filed at the company's 2022 AGM, asking the company to amend its Articles of Incorporation to add chapters to disclose a business plan with science-based short- and mid-term GHG emissions reduction targets aligned to the Paris Agreement, an assessment of the alignment of its capital expenditure with GHG emissions reductions, and details of the remuneration policies that facilitate the achievement of these targets.

Action

We met the managing executive officer to discuss the shareholder proposals and the mid-term business plan released by the company where it disclosed its new short-term GHG emission reduction target. However, as we thought the pathway was still not clear and the proposed disclosure would help our understanding of the company's business strategy and resiliency to climate change risk, we supported all three shareholder proposals.

Outcome and next steps

The proposals received 25.8%, 18.1% and 18.9% shareholders' support respectively. Post-AGM, we met the company to explain our voting rationale and express our appreciation for their response which included publishing updated disclosures in the integrated report, despite the resolutions not receiving majority support. The report elaborated on its scenario analysis along with financial impacts and disclosed necessary capital expenditures for GHG emissions reductions.

Climate Change Voting continued

Proxy voting – shareholder proposal on climate



Dominion Energy



USA



Equity

Issue

A shareholder proposal was filed at Dominion Energy asking the company to set intermediate scope 3 emissions reduction targets on route to their 2050 net zero aspiration.

Action

For Dominion, Scope 3 emissions largely relate to customers' use of natural gas and are about 40% of total emissions. Where Scope 3 emissions are significant and where the company has already set net zero scope 3 targets, and where we believe that the attainment of net zero will have significant shareholder implications, shareholders should be able to see more details behind these aspirational goals.

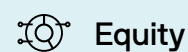
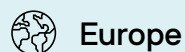
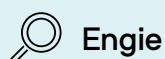
Intermediate targets will allow investors to assess progress as well as reliance on offsets, which is coming under scrutiny. We noted that for Scope 1 and 2, Dominion had outlined their proposed path through intermediate targets. For Scope 3, they have announced this 2050 aspiration without explaining how they would implement. Meeting their commitment could have material impacts on the company's strategy and failure to meet their commitments could present reputational risks to the company. Therefore, we believed investors should be able to understand what those impacts on strategy might be. We therefore supported the proposal.

Outcome and next steps

The proposal received 15.8% support from shareholders at the AGM. In order to address these risks, we will continue to engage with the company and encourage them to set intermediate Scope 3 emissions reduction targets.

Climate Change Voting continued

Proxy voting – say on climate



Issue

The company updated its climate targets and strategy in May 2021 following significant engagement and pressure from shareholders at the 2021 AGM and promised to provide shareholders a vote on the plan this year also known as a “say on climate” vote. Their updates include adopting a net-zero by 2045 strategy across Scope 1, 2 and 3 emissions, as well as absolute emission reduction targets for 2030 aligned with a well below 2°C trajectory.

Action

We acknowledged the significant improvements in Engie’s climate plans. However, we have concerns regarding the company’s plans noting that they fall short of their European peers, many of which have committed to targets aligned with 1.5°C consistent with expectations of regulators and investors. The company has a plan to build renewables assets and close coal assets in Europe by 2025 and the rest of the world by 2027. We therefore saw no reason why an acceleration in their targets to align with a 1.5°C pathway wouldn’t be possible and chose to vote AGAINST the plan in order to demonstrate the need for the plans to go further.

Outcome and next steps

The proposal received 4% of votes against by shareholders at the AGM. We will engage Engie around its climate risk strategy in 2023.

Sustainable Investing climate change related insights

Other Climate Change related insights exploring climate adaptation, the energy transition, and more can be found on our Sustainable Investing hub: jpmorgan.co.uk/sustainable-investing





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