How we're investing for the energy transition

Introduction

GMPF's approach to oil and gas companies and the climate challenge

GMPF believes that the energy sector will play a critical role in the transition of the world to a low-carbon economy.

The climate challenge is an ever increasing focus for governments, regulators, and investors. In this edition of 'How we're investing for the energy transition' we have focused on several key areas:

- Our approach to investing in the energy transition
- How GMPF is seeking to drive the climate change agenda
- Why we are believers in engagement vs divestment
- Highlighted specific positive climate transition examples we are seeing within the oil and gas sector

Playing our part to help solve the climate challenge

Climate change can no longer be ignored. It is evident in natural disasters across the world today – wildfires, flooding, droughts, heat waves and extreme weather events. These are just a few examples of the effect climate change is having on our environment.

The world is finally realising that urgent action is needed to reduce the amount of greenhouse gases released into the atmosphere, and to do this on a large scale requires a massive amount of support and investment. The current energy crisis we are facing also creates an impetus to tackle climate change while achieving energy security and affordability.

The OECD estimates that USD 6.9tn is needed per year up to 2030 to meet the Paris Agreement targets. The world needs to shift our reliance from old fossil fuels like oil, gas and coal to renewable sources of energy like solar, wind, geothermal and new ideas for carbon reduction and hydrogen. This is the so-called 'energy transition' and it needs investment to support the planet and society. Oil and gas companies are critical not just to the world as we know it today but also in the future.

Over the next few pages we will take you through our approach, why we firmly believe that as the UK's largest local authority pension fund, it is our responsibility to play an active role in the energy transition and how we are going about it.

Are all oil and gas companies 'bad' investments for a low-carbon future?

While the role of the energy sector in investment strategies has become controversial over recent years with increasing calls for divestment – or selling of these assets – GMPF believes that the energy sector will play a critical role in the transition of the world to a low-carbon economy. This paper outlines GMPF's approach to the energy sector and why GMPF believes that investment and active engagement is not only important but ultimately necessary in transitioning the sector to a low-carbon future.

The provision of energy will become increasingly important in the global economy going forward, and investor influence on how the sector evolves will determine the ability of the world to meet its carbon reduction targets and limit global warming to 1.5 degrees – the temperature target that is widely acknowledged as the level in which fewer people will be frequently exposed to climate-related risks in the future. The energy sector will be one of the largest sources of funding for low-carbon distribution technologies, which will be essential in de-carbonising the entire transport sector.

Now more than ever, active dialogue and engagement with the energy sector are critical to ensure that companies transition their business models in light of these changes especially with

regards to energy security and affordability. Not all companies will be successful in this historical transformation, but GMPF believes that there are compelling investment opportunities for companies that are willing to embrace this historical transformation and become leaders in low-carbon energy in the future. We expect that several of the 'traditional' oil and gas majors will be key drivers behind this transformation.

Active engagement with the sector is required not only to mitigate the carbon risks of companies in the sector, but more importantly to work with the management of leading companies to accelerate the transition of the energy sector toward low-carbon energy sources as quickly and as efficiently as possible.

What is the energy transition and how are energy companies leading the way?

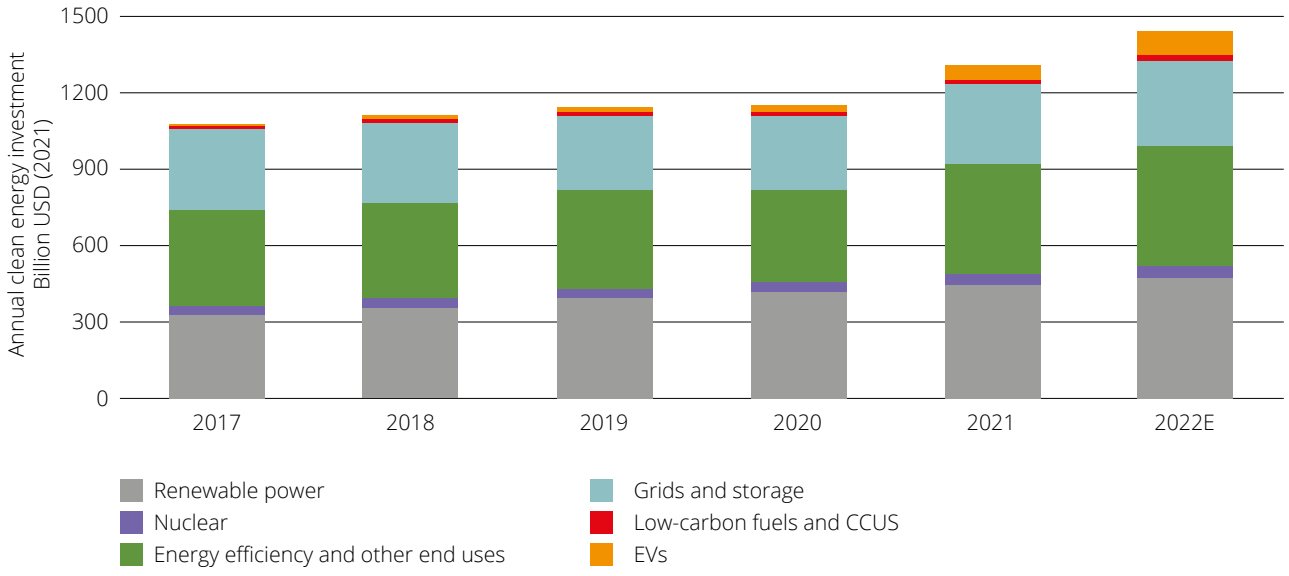
The energy sector is at the heart of the 'energy transition' – the historical transformation of our global energy system away from dependency on fossil fuels and toward low-carbon energy by the second half of this century.

The chart below shows how this transition is already happening.

Energy companies are investing increasingly large amounts into greener business activities such as offshore wind, liquid biofuels and carbon capture and storage, with many of the oil and gas companies aiming to reinvent themselves into sustainable energy companies of the future.

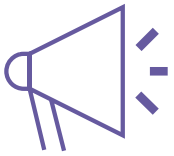
GMPF view companies that are already setting out their energy transition strategies as potential long-term winners – winners from an investment perspective but also winners for the planet. However, GMPF has high expectations for the companies it invests in and a decarbonisation roadmap is essential. GMPF expects our asset managers to actively engage with these companies. We provide examples of specific engagements on pages 12–13.

Global clean energy spending is steadily increasing



Source: IEA
Notes: Energy efficiency and other end-use includes spending on energy efficiency, renewables for end use and electrification in the buildings, transport and industry sectors. Low-carbon fuels include modern liquid and gaseous bioenergy, low-carbon hydrogen, as well as hydrogen-based fuels that do not emit any CO_2 from fossil fuels directly when used and also emit very little when being produced.

GMPF's fiduciary duties



GMPF is proud to be an activist investor, driving the climate transition, rather than selling these assets to others who might not hold these investee firms to account.

Are environmental, social and governance (ESG) factors taken into consideration as a part of GMPF's fiduciary duties?

As a local authority pension scheme GMPF is obliged, by law, to make the *pursuit of a financial return* our predominant concern. GMPF may take *non-financial considerations* (e.g. environmental, social or governance concerns) into account only if this would not involve significant risk of financial detriment to the scheme and where GMPF has good reason to believe that scheme members would support our decision.

With this in mind, GMPF has a key duty to:

(i) deliver investment returns needed to ensure GMPF can pay the pensions our members have worked hard to earn; and

(ii) to protect local tax-payers from high pension costs.

This is called our fiduciary duty. Any investment decisions GMPF make need to be backed by investment rigour. GMPF believe that climate-related (non-financial) risks and opportunities are in fact financially material to the performance of the investment portfolio and will become more so. This includes the risk of inflation in the energy industry due to under-investment in supply. These risks will become even more so over the expected lifetime of GMPF given the climate challenge we're facing right now and the energy transition just discussed, so GMPF already integrate climate change considerations into our overall investment strategy. GMPF's aim is to minimise adverse financial impacts and maximise opportunities for long-term economic returns in all asset classes.

What does 'active ownership' mean and how is GMPF playing a part?

GMPF is prioritising 'active ownership' across its investments. What that means is GMPF aims to be an active voice in the calls for companies to lower their carbon emissions. It's sometimes called being an 'activist shareholder'. As the UK's largest local authority pension fund with over GBP 28bn to invest, our voice has an impact on the companies GMPF holds in its portfolios. When it comes to climate change, GMPF sends a loud and consistent message to the directors of our investee companies. GMPF expects companies to have an action plan for carbon emissions reduction and to provide the market with detailed information on how they intend to get to net zero carbon emissions by 2050.

That means being transparent with us about their short-term and long-term commitments and GMPF holding management accountable for their actions.

What concrete actions are GMPF taking to be an 'activist shareholder'?

GMPF is proud to be an activist investor, driving the climate transition rather than selling these assets to others who might not hold these investee firms to account.

As part of its investment strategy, GMPF is a signatory of the UK Stewardship Code. This has 12 principles to comply with, including:

- Principle 7: Signatories systematically integrate stewardship and investment, including material environmental, social and governance issues, and climate change, to fulfil their responsibilities.
- Principle 10: Signatories, where necessary, participate in collaborative engagement to influence issuers.

By joining forces with more than 80 other Local Government Pension Scheme funds within the Local Authority Pension Fund Forum, GMPF collectively has a very powerful voice in challenging companies to disclose their business models and the assumptions that underpin their investment decisions, leading to greater capital discipline. This could have the dual success of enhancing shareholder value, whilst also reducing greenhouse gas emissions.

When it comes to the oil and gas industry, GMPF's voice is amplified by the power of a collection of influential global pension funds representing over USD 60 trillion in investments. GMPF's appointed external asset managers, such as UBS Asset Management (UBS-AM), are expected to operate a policy of constructive shareholder engagement with companies as part of the investment process. Our asset manager, UBS-AM, is part of Climate Action 100+ – a collaborative initiative of 700 investors which aim to collectively influence high greenhouse gas polluters and other companies to drive the clean energy transition and help achieve the goals of the Paris agreement on Climate Change. Climate Action 100+ collectively are able to engage with 166 companies who between them make up 80% of global industrial emissions.

Climate Action 100+
Global Investors Driving Business Transition

Climate Action 100+ is	With	Working with	Who make up
700	$68 trillion	166	80%+
investors working together	in assets managed by investors participating in the initiative	companies	global industrial emissions

Driving the climate change agenda

A consistent approach is taken across our active equity holdings and provides clarity on our expectations to the companies in which GMPF invests.

How does GMPF vote to help drive lower carbon emissions?

GMPF retains the maximum possible authority to vote *directly* at investee company meetings, rather than delegating authority to active asset managers. GMPF has dedicated voting guidelines that inform how its votes are cast. This combination of retained authority and a clear framework ensures a consistent approach is taken across our active equity holdings and provides clarity on our expectations to the companies in which GMPF invests. Both GMPF and UBS-AM voted against Total's climate transition plan as we felt the strategy was not in line with expectations, and the company had not committed to a periodic vote on the topic.

Should GMPF divest or engage with investee companies to drive the climate change agenda?

The urgency of the climate crisis has led to increasing calls for divestment from the energy sector, but GMPF believes that a much more productive and impactful approach is to remain invested and engage with energy companies to drive positive change. For example, over the past 3 years we've seen major oil companies transition strategies evolve significantly. While the European majors started their transition efforts with broad unfocused investments across many different areas including offshore wind, solar, storage, mobility, biofuels, hydrogen and carbon capture, we are now seeing companies develop more focused strategies that align with their relative competitive advantages. Specific to certain oil majors, for Equinor this is a focus on offshore wind while for Royal Dutch Shell the focus has shifted to hydrogen and biofuels with BP focusing more on biofuels and carbon capture. In general, the majors are shifting away from onshore renewables where they have little competitive advantage and moving towards areas like hydrogen, biofuels and carbon capture where they are the only companies with the technical capabilities to successfully implement these technologies at scale. In North America, we are seeing a major acceleration with the companies focusing on biofuels and carbon capture where they believe they have powerful competitive advantages. A clear sign of this change in mindset comes from Exxon who now see carbon capture as one of its biggest business opportunities.

Globally, we are also seeing regulation drive an acceleration in transition efforts as the American Inflation Reduction Act and Canada's carbon tax legislation have massively increased the activity of companies in North America.

This has more than offset a slight slowdown by some of the European leaders as they adjust their transition strategies to align with organizational capabilities.

By retaining our shares and voting rights rather than divesting from energy companies, we believe that investors can reap the rewards of a number of benefits. Firstly, GMPF maintains the ability to influence management of these companies and to work with them through our engagement strategy to accelerate the transition toward a low-carbon economy.

Second, given that the energy sector is itself a large source of carbon emissions, it is our responsibility to engage with companies in the sector to drive reductions on their carbon footprint.

Third, energy sector companies play a critical role in supplying the basis for all forms of transportation, and they will be critical in determining the manner and speed with which transportation will de-carbonise. It is our responsibility to help propel energy sector companies to re-orient their business strategies in order to transition modern transportation from a reliance on fossil fuels to one which moves toward renewable energy sources. Clean energy investment and energy efficiency are key to enabling energy security and affordability.

Fourth, calls for divestment not only overlook our essential role in influencing companies in the sector, but it also treats the sector with a broad brush and fails to recognise the important steps that the leading companies in the sector are taking to transition their businesses towards renewables.

While GMPF sees risk in investing in energy companies that are slow to embrace the changes facing the sector and will avoid them in its investment strategies, GMPF sees opportunity in investing and engaging with those companies that are moving their business models toward a low-carbon future.

While it will no doubt be radically transformed over the coming decades, the energy sector will remain essential to the global economy. GMPF's investment and engagement strategy with energy companies will be critical to determine how the energy sector transforms, which will have significant implications for the pace of global warming. At GMPF, we embrace the responsibility to influence and transform the sector and are proud to do so on behalf of our pension fund holders.

Climate Engagement Programme and Net Zero

Our appointed asset manager, UBS-AM, is sharpening their thematic engagement on climate change, with a focus on the net-zero alignment and transition planning of companies across our portfolio. This includes not only a robust and structured net-zero research framework, but also sector-specific expectations that aim to guide engagements and enhance their objective setting and tracking approach. UBS-AM has expanded the scope of the program to 75 companies across the energy, utilities, chemicals, and materials sectors, representing a 50% increase in their focus list.

Our objective through our investment with UBS-AM is to encourage companies to develop their transition planning and achieve emission reductions in line with a 1.5 °C net-zero pathway. UBS-AM's net-zero engagement framework enables them to assess and engage issuers on the alignment of their transition plans. It is based on guidance from market-leading standards such as IIGCC's Net Zero Investment Framework 1.0, Climate Action 100+ engagement process, and GFANZ's Expectations for Real-economy Transition Plans report, and provides a consistent, cross-sector framework to assess and engage companies on their transition planning.

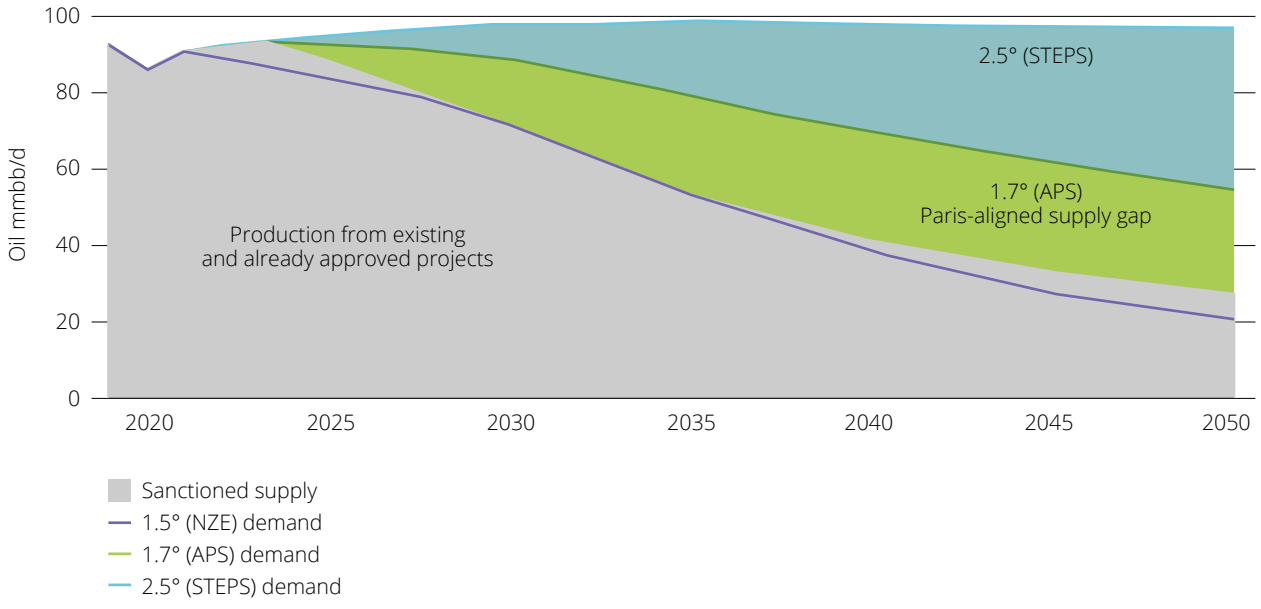
Driving the climate change agenda (continued)

What will happen to the demand for fossil fuels?

GMPF recognises that there will continue to be demand for fossil fuels in the near term as the energy sector de-carbonises, and it will be critical that this transition occurs not only as quickly as possible but also in an orderly fashion. Significant price spikes as seen in the recent energy and natural gas crisis, risk causing a reaction in public opinion against renewable energy. It will be important that the move toward renewables occurs in a phased manner that allows for stability both in price and in the supply of energy as the world de-carbonises.

The chart below from the Carbon Tracker Initiative shows that until the world has moved onto a net zero pathway, there will continue to be demand for oil and gas – and that there will be an emerging gap between supply and demand, exacerbated by the current geopolitical situation. In other words, in the absence of global government policy enforcing a 1.5 degree scenario, there is a significant risk of energy shortage. There is a widening gap between the sanctioned supply based on the current production and the energy demands of warming scenarios greater than 1.5 degrees.

Oil demand under different IEA scenarios vs future supply from existing projects



Source: IEA, Rystad Energy and CTI analysis
Note: Oil demand under temperature scenarios used in analysis compared to supply from existing fields, in million barrels per day

Investors in renewable energy

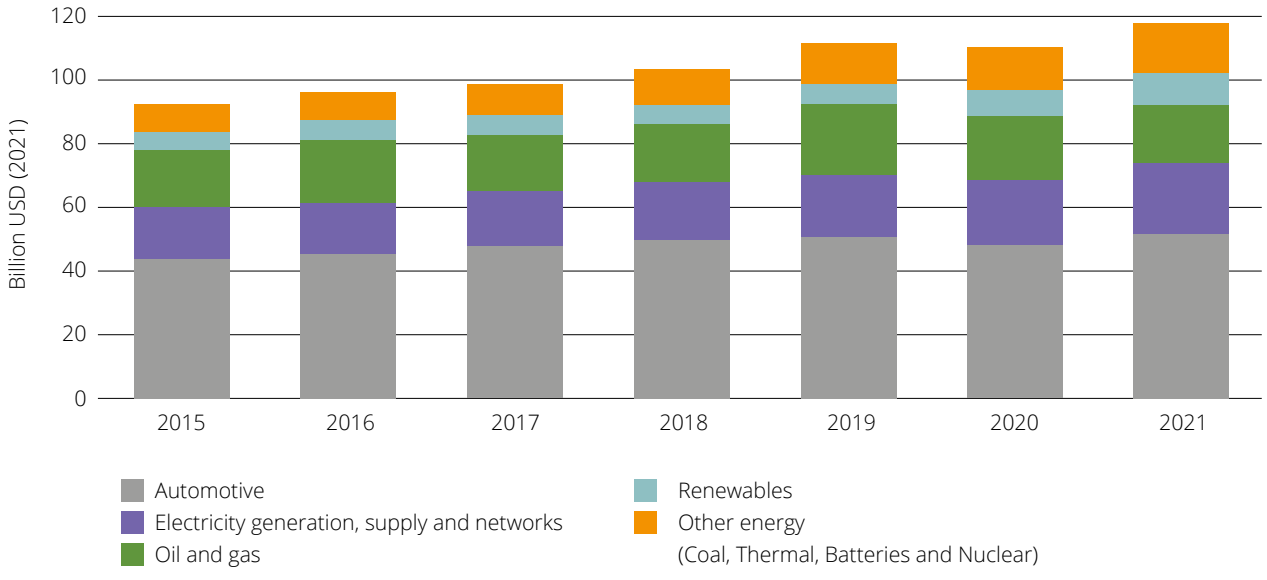
The energy sector will play a leading role in this transformation, as it will become one of the largest investors in renewable energy, infrastructure and technology.

What is clear is that the energy sector will play a leading role in this transformation, as it will become one of the largest investors in renewable energy, infrastructure and technology, and GMPF anticipates that this trend will continue in the future.

In 2021, listed companies spent three times as much in energy R&D as governments. In fact, oil and gas companies alone are spending more than half of what governments are spending on R&D – the equivalent of North America and Europe combined.

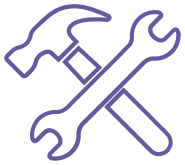
The legacy energy companies will be critical to the energy transition as they are the only companies with the technical and engineering expertise to achieve critical parts of the transition while their legacy oil and gas businesses will give them the financial capability to invest heavily in renewable energy. In fact, they spend nearly three times what governments spend on research and development in this area.

Spending on energy research and development by listed companies



Source: IEA, calculations based on Bloomberg (2022).
Notes: Values for 2021 are estimates based on reported data at the time of drafting. Corporate energy R&D spending includes reported R&D expenditure by companies active in sectors that are dependent on energy technologies, including energy efficiency technologies where possible. Automotive includes technologies for fuel economy, alternative fuels and alternative drivetrains. Fuel cells are included with hydrogen. To allocate R&D spending for companies active in multiple sectors, shares of revenue per sector are used in the absence of other information. Classifications are based on the Bloomberg Industry Classification System. All publicly reported R&D spending is included, though companies domiciled in countries that do not require disclosure of R&D spending are under-represented. Depending on the jurisdiction and company, publicly reported corporate R&D spending can include capitalised and non-capitalised costs, from basic research to product development. Coverage has been expanded relative to previous editions.

Technical know-how



Even when the world is able to move towards a net zero pathway, fossil fuel companies will be a critical source of technology, know-how and investment.

To provide some concrete examples of this huge investment in sustainable technologies, **Royal Dutch Shell** has indicated that it plans to be the world's largest supplier of renewable energy by 2030 and is almost certain to become the world leader in hydrogen due to its technical capabilities in this area.

Similarly, **Equinor** is likely to become the world leader in floating offshore wind due to its proprietary technology and its expertise in operating offshore platforms.

While these companies are early in their transition towards renewable energy, more advanced examples include **Orsted**, the former Danish Oil and Natural Gas, which is now the world leader in offshore wind and **Neste**, once Finland's state-controlled oil refiner and is now the world leader in advanced biofuels.

The percentage of energy sector capital expenditure going into sustainability and renewable energy initiatives has and will continue to grow, and GMPF believes that it is our obligation to continue to work with energy sector companies to accelerate these investments in order to limit global warming.

Even when the world is able to move towards a net zero pathway, fossil fuel companies will be a critical source of technology, know-how and investment.

For example, **Equinor** expects to invest USD 23bn in renewables from 2021 to 2026 as part of a clear ambition to become a net zero energy company by 2050, including scope 1, 2 and 3 emissions. Equinor intends to further accelerate low carbon spending such that it will be more than 50% of total capital expenditures by 2030.

BP says it will increase its annual clean energy investment from USD 500mn in 2019 to USD 7-9bn per year by 2030, with an interim goal of USD 5-8bn per year by 2025. (Please see additional information on BP in the case study below.)

Total has announced that it plans to finance USD 60bn in renewables investments by 2030 with an objective of 100 GW of gross capacity by 2030.

Shell is targeting a 25% share of investment on clean energy capital expenditure by 2025.

Transition strategies are evolving over time

Over the past three years we've seen major oil companies transition strategies evolve significantly. While European majors started their transition efforts with broad unfocused investments across many different areas including renewables, storage, mobility, charging, biofuels, hydrogen and carbon capture, we are now seeing companies develop more focused strategies that align with their relative competitive advantages. For Equinor, this is a focus on offshore wind while for Shell their focus has shifted to hydrogen and biofuels with BP focusing more on biofuels and carbon capture. In general, the majors are shifting away from

onshore renewables where they have little competitive advantage and towards areas like hydrogen, biofuels and carbon capture where they are almost the only companies that can successfully implement these technologies. In North America, we are seeing less overall progress with the companies focusing on biofuels and carbon capture where they believe they have powerful competitive advantages. A clear sign of this change in mindset comes from Exxon who now sees carbon capture as one of its biggest business opportunities. Globally, we are seeing an acceleration of transition efforts as the American Inflation Reduction Act and Canada's carbon tax legislation have massively increased the activity of companies in North America. This has more than offset a slight slowdown by some of the European leaders as they try to adjust their transition strategies to align with the organizational capabilities.

What role can hydrogen play – an area where the oil and gas majors are leading the energy transition?

The development of a low carbon "green" hydrogen economy is critical for the decarbonisation of many parts of heavy industry and heavy transport where electrification isn't a viable solution.

Unfortunately, hydrogen is highly explosive and very difficult to transport. This is an area where the integrated oil companies could play a critical role in the energy transition. As the largest current producers and users of hydrogen and companies with extensive expertise in dealing with explosive gases like hydrogen, the integrated oil majors are almost the only companies with the technical expertise to advance hydrogen development in the timeframes needed to reach net zero.

Royal Dutch Shell is a great example of this dynamic. As the clear world leader in hydrogen development, they currently operate 10% of the world's installed stock of hydrogen electrolysers as well as the world's first liquified hydrogen carrier which they build using technology from their liquified natural gas businesses. Royal Dutch Shell has extensive experience working with hydrogen in its oil refineries and does so with a safety record which while not perfect is one that is acceptable to society.

Shell is now building on this leading position via its Holland Hydrogen 1 Project in Rotterdam which will be the largest hydrogen facility in Europe when it starts operations in 2025. The facility will include 200MW of electrolysers which will use power from Shell and other offshore wind facilities to produce 60,000 kg per day of green hydrogen which will then be transported to Shell Energy and Chemicals via HyTransport, a specialized hydrogen pipeline that will serve the port of Rotterdam. This hydrogen can then be used to decarbonise chemicals and transport fuel production, as well as for heavy transport once more hydrogen fuel cell powered trucks start transporting goods from the port of Rotterdam. Over the next decade, this project is likely to be the center of one of several early European green hydrogen hubs, none of which could be developed without the technical capabilities of the European oil majors.

Eventually these early green hydrogen networks will grow and interconnect with each other as industrial facilities link to the hydrogen pipeline network and operating expertise become more common. In the late 2030's and 2040's, hydrogen expertise should become much more common as the hydrogen network starts to play a role akin to that of natural gas today. Shell, BP, Total and Repsol are needed to facilitate the shift from what is currently a niche technology to a point in which green hydrogen can reliably replace gas for industrial uses in Europe.

How successful can engagement actually be?

While engagement will be critical going forward to transition the energy sector successfully, GMPF has already seen several examples of its engagement efforts thus far in its investee companies. Below are two examples of companies where GMPF has started to see significant changes as a result of engagement efforts on our behalf by UBS Asset Management over the past several years.

Example 1: BP

UBS-AM identified BP as a company for engagement because of its carbon emissions trends and its fossil fuel exposure. UBS-AM established a dialogue based on bilateral meetings, as well as part of the Climate Action 100+ coalition. Portfolio managers, analysts and Sustainable Investment analysts have been in contact with company representatives, including board members, several times over the last two years in the context of investor governance and Climate Action 100+ meetings.

In 2020, the company announced a net zero emissions target by 2050 including scope 1, 2 and 3 emissions. As a first step, the company announced in August 2020, a 10x increase in low carbon investments, a 20x increase in renewable investments and a 40% reduction in oil and gas production by 2030. Over the last three years, proactive engagement, directly and collaboratively with other asset managers, has led to a positive change leading to BP unveiling one of the most ambitious transformation programs in the oil and gas sector.

In early 2023, BP further enhanced its ambitions regarding products that it sells in its marketing division and its targets for low carbon investments where it expects transition investments to reach 50% of total capital expenditures by 2030. However, it also announced that it will phase out oil and gas production more slowly than previously planned due to government concerns about security of supply after Russia's invasion of Ukraine and the resultant cut-off of gas supplies to Europe. In Q1 2023 as a result of this announcement, UBS-AM questioned BP intensely on the changes to their targets and will continue to press management to keep momentum in their ambition to be net zero aligned by 2050.

Example 2: Equinor

Another example of successful active engagement on our behalf is Equinor. UBS-AM flagged Equinor because of carbon emissions trends and fossil fuel exposure. In 2017, the company was considered one of the world's top 100 greenhouse gas emitters. But its stock had been attractive because of its exposure to large oil fields and its increasing investments in renewables, other low-carbon technologies and emission management solutions. UBS-AM began a dialogue with Equinor, in collaboration with two other asset managers as part of Climate Action 100+. With strategic engagement objectives set, the collective held a series of productive meetings with senior management, Equinor agreed to assess its portfolio, including new material capital expenditure investments, in relation to a "well below 2°C scenario" from 2020 onwards.

The company also committed to reviewing existing climate-related targets up to 2030 and set out new ambitions beyond 2030 for its business activities, informed by its assessment, stress testing and business strategy. These strategic commitments were followed by additional dialogue with the company in the following year. As part of these efforts, in 2020, Equinor announced additional, more ambitious climate change goals, including for example:

- Carbon neutrality of global operations (operated) by 2030.
- A 40% reduction in absolute greenhouse gas emissions in Norway by 2030, 70% by 2040, and near 0 absolute greenhouse gas emissions in Norway by 2050.
- Growing renewable energy capacity tenfold by 2026, and 30 times by 2035, becoming a global offshore wind major.
- Reducing net carbon intensity/ net energy production by at least 50% by 2050.

In 2020, Equinor announced a net zero commitment by 2050 across its entire value chain, one of the most ambitious net zero commitments in the entire energy sector. This was one of the main goals of UBS Asset Management's collaborative engagement.

In 2021, in line with UBS-AM's dialogue, Equinor enhanced thier strategic commitments, for example:

- Set interim carbon intensity targets of 20% reduction in 2030 and 40% in 2035.
- Committed to investments in renewables and new carbon solutions up to 50% of gross annual investments by 2030.

In 2022, the company presented its first energy transition plan, and strengthened their targets to reduce operated scope 1 and 2 emissions by 50% by 2030. While UBS-AM believe the plan is headed in the right direction, they voted against the transition plan to convey the view that the plan's ambition and scope can be strengthened.

As part of their role as a lead investor in Climate Action 100+ for Equinor, UBS-AM is working to increase efforts with the company in 2023 including additional engagement with the company's key stakeholders including the Norwegian government. Ultimately, UBS-AM believes that proactive engagement, collaboratively with other asset managers and on behalf of investors like GMPF, has been successful in realising positive change through engagement goals linked to science-based targets.

Risks

As long-term investors we make assessments of the capital investment strategies of energy companies and the likely impact on returns of pursuing particular strategies.

What risks are involved for GMPF in being such a large shareholder in the energy sector? Won't that mean GMPF is stuck with 'stranded' assets?

GMPF wants to ensure the views of its asset managers are aligned with theirs on the climate transition, and so GMPF put the following questions on the oil and gas transition challenge to one of them – UBS-AM.

GMPF: Is there a risk that our energy investments and their assets will become stranded or worthless in the future?

UBS: Share investing comes with inherent risks, many of which apply universally. Climate change creates an additional potential risk across many industries, but particularly in the energy sector. As such, our portfolio managers pay specific attention to assessing the following areas of risk when assessing companies to include in our portfolio - stranded assets, financial risk, regulatory change, market acceleration and technological change.

Spotlight on risk of stranded assets
GMPF: What do "stranded assets" mean?

UBS: In their analysis of the energy sector, the portfolio managers have considered the possible impact of assets becoming redundant or "stranded" by the energy transition away from fossil fuels and the impact that could have on future cash flows.

Stranded assets refer to both existing infrastructure as well as future potential investments. Environmental considerations which result in the rapid phase-out of hydrocarbons are more likely to impact the latter rather than the former. Even the most aggressive phase-out scenarios, such as the IPCC 1.5 degree or the IEA Below 2 degree scenarios, envisage significant usage of hydrocarbons until 2050 and only a modest reduction in demand between now and 2030. Indeed, the recent European energy supply crisis served as a demonstration of how important hydrocarbons are to our present day lives.

Since most publicly listed energy companies have relatively short reserve lives of between 7 and 15 years, the main impact of carbon mitigation will be to preclude or limit their future investment opportunities in oil and gas projects.

GMPF: How do our portfolio managers assess, manage and mitigate the risks of investing in oil and gas companies?

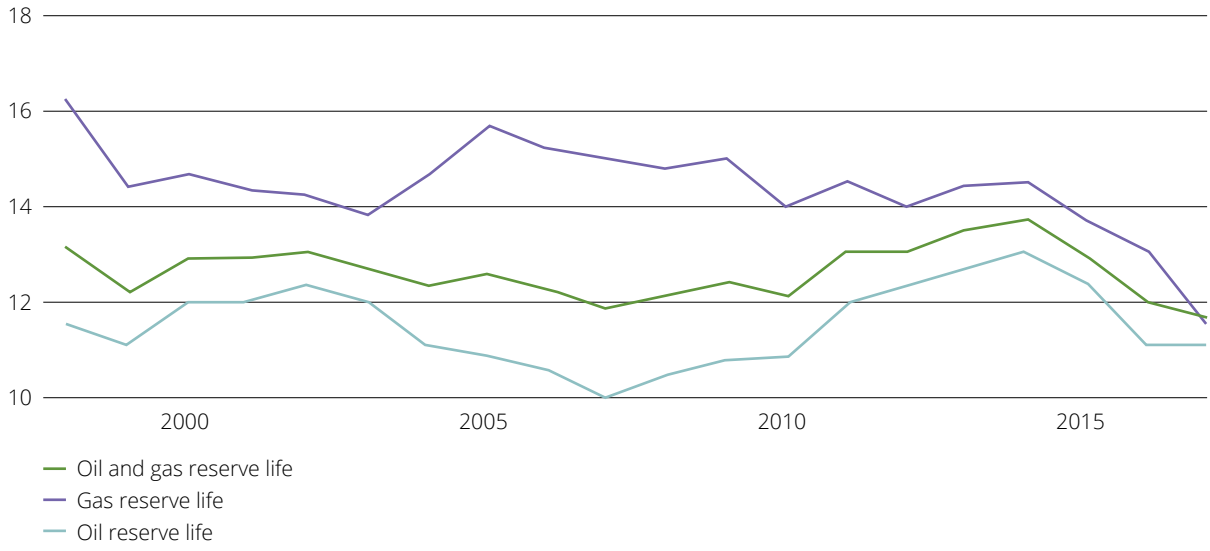
UBS: We have a multi-layered investment approach that is aimed at mitigating risks like this.

1) Our portfolio managers are selective about which companies we invest in. They exclude those where we feel the combination of risks are too high (e.g. avoid oil explorers in high cost regions). The process for excluding stocks includes use of UBS's proprietary ESG Risk Dashboard in combination with specialist sustainability analysts and energy sector specialists.

2) We invest where management teams seek to mitigate these risks through pursuing energy transition strategies. As long-term investors we make assessments of the capital investment strategies of energy companies and the likely impact on returns of pursuing particular strategies. These assessments are supported by regular engagements with board members of companies that we invest in, as illustrated in the BP and Equinor case studies.

3) Our portfolio managers do not place a value on future hydrocarbon projects when assessing energy companies. Applying this highly conservative valuation methodology means that the potential cost and risk of stranded assets becomes contained from a financial perspective.

Oil majors' reserves life
Reserves life for the world's top 8 oil and gas companies are at their lowest in 20 years



Source: Reuters Graphics, 2021

Risks (continued)

4) Current investment in oil & gas production is a response to prices and the energy crisis. As energy companies run down their legacy businesses, they are expected to generate substantial cash flows, thereby reducing investment risk and facilitating accelerated investment in green energy.

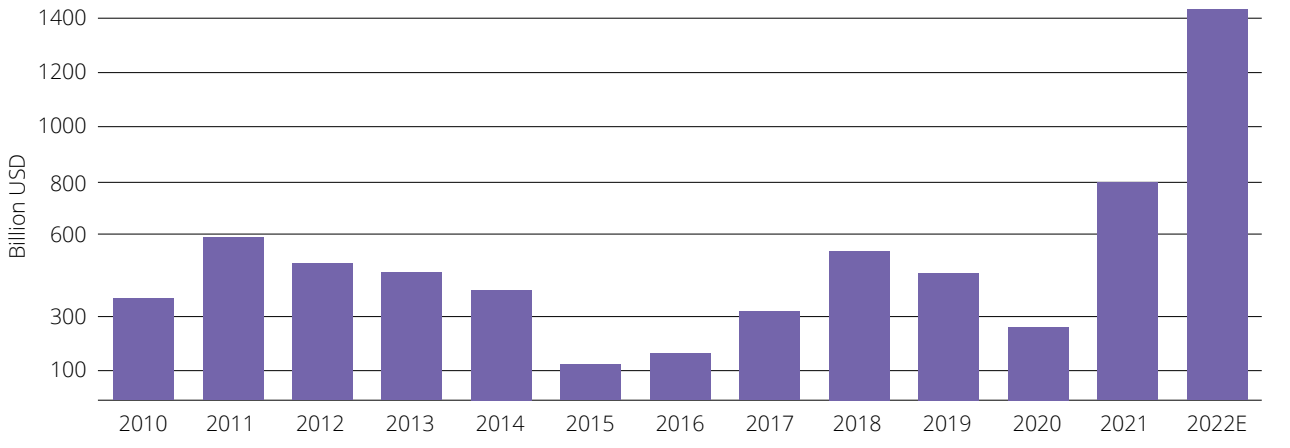
   The cash flow from energy companies can fund investment in green energy, R&D, and provide good dividends and returns to shareholders.

5) As the world moves through the current energy crisis and oil and gas companies focus on renewable and more sustainable energies, on average, the returns on new investments in low carbon or non-carbon energy sources will be lower than current financial returns on carbon-based energy investments. However, the returns they make are expected to be of higher quality and more sustainability-focused and therefore mitigate the impact of lower absolute returns.

   Indeed, we expect that as oil and gas companies progress over time, the shift in business activities away from carbon-based energies is likely to make them more highly valued by investors in the future.

By investing in companies that are on the journey of shifting towards carbon-free energy, we are able to marry the sustainability case with our fiduciary responsibility to achieve positive returns for the Fund.

Substantial cashflow enables reinvestment in renewables and shareholder returns



Source: Deloitte analysis based on data accessed from Rystad Energy Ucube, and US Energy Information Administration
Note: Brent assumption at USD 106/barrel. Includes all upstream companies producing more than 5,000 barrels/day

Climate change is everyone's challenge

GMPF firmly believes that climate change is everyone's challenge to help tackle.

That is why, like UBS-AM, GMPF recently co-signed the 2022 Global Investor Statement to Governments on the Climate Crisis coordinated by the Institutional Investors Group on Climate Change, which asked governments to raise their climate ambition and implement robust policies at COP27.

GMPF has called upon Government to urgently undertake the following five actions:

- Strengthen Nationally Determined Contributions for 2030 in line with limiting warming to 1.5°C.
- Commit to a mid-century net zero emissions target with clear sectoral decarbonisation roadmaps.
- Ensure ambitious pre-2030 policy action including strengthened carbon pricing, phasing out fossil fuel subsidies and thermal coal-based power, avoiding new carbon-intensive infrastructure (no new coal power plants) and developing just transition plans.
- Encourage investment in clean energy and energy efficiency to enable energy security and affordability.
- Commit to implementing mandatory climate risk disclosure requirements.

GMPF's view is that everyone (councillors, MPs and all pension scheme members) should be playing their part in the transition. Read more about this on the GMPF website and also how you can be part of the solution.