

Investor Climate Compass

Navigating climate risk through engagement with the oil and gas sector



This report is co-ordinated and supported by the following organisations:



Asia Investor Group on Climate Change (**AIGCC**) is an initiative to create awareness among Asia's asset owners and financial institutions about the risks and opportunities associated with climate change and low carbon investing. AIGCC provides capacity for investors to share best practice and to collaborate on investment activity, credit analysis, risk management, engagement and policy. AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy.

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CDP, formerly the Carbon Disclosure Project, is an international non-profit that drives companies and governments to reduce their greenhouse gas emissions, safeguard water resources and protect forests. CDP represents institutional investors with assets of US\$100 trillion, helping to leverage investor and buyer power to motivate companies to disclose and manage their environmental impacts; whilst also providing insights into corporate environmental performance for investors. Over 5,800 companies with some 60% of global market capitalisation disclosed environmental data through CDP in 2016 alongside 500 cities and 100 states and regions, making CDP's platform one of the richest sources of information globally on how companies and governments are driving environmental change.

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Ceres is a sustainability nonprofit organization working with the most influential investors and companies in North America to build leadership and drive solutions throughout the economy. Through our powerful networks and advocacy, we tackle the world's biggest sustainability challenges, including climate change, water scarcity and pollution, and human rights abuses. The Ceres Investor Network on Climate Risk and Sustainability comprises more than 130 institutional investors, collectively managing more than \$17 trillion in assets, advancing leading investment practices, corporate engagement strategies and policy solutions to build an equitable, sustainable global economy and planet.

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Investor Group on Climate Change (**IGCC**) is a collaboration of Australian and New Zealand institutional investors and advisors, managing over \$1 trillion in assets under management and focusing on the impact that climate change has on the financial value of investments. IGCC aims to encourage government policies and investment practices that address the risks and opportunities of climate change.

www.igcc.org.au and [@IGCC_Update](https://twitter.com/IGCC_Update)



Institutional Investors Group on Climate Change (**IIGCC**) is a collaborative forum representing 137 organisations in 9 European countries who between them manage more than €18 trillion in assets. Its membership spans everything from belief-based funds to mainstream investors, from pension funds to fund managers and private equity houses. Its mission is to provide investors with a common voice to encourage public policies, investment practices and corporate behaviour which address long-term risks and opportunities associated with climate change.

www.iigcc.org and [@iigccnews](https://twitter.com/iigccnews)

AIGCC, Ceres, IGCC, and IIGCC collaborate regularly on global policy initiatives and projects as members of the **Global Investor Coalition on Climate Change**. They also work with CDP, PRI & UNEP FI to co-sponsor the **Investor Platform for Climate Actions**.

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Of the **10** companies covered in this report:

\$1.2 tn in market cap

14% of global oil and gas production

21m boe/d
2015 production

5 North American companies



5 European companies

Some oil and gas companies are moving firmly ahead of their peers on climate change risk management and disclosure. Others lag behind.



Progress

Investor engagement with the ten companies discussed in this report has delivered several key investor expectations

Governance



companies

have linked emissions performance with executive reward

Strategy



companies

have published 2°C/ 450ppm scenario analysis

Implementation



companies

have divested from high carbon assets eg. oil sands

Transparency



companies

have disclosed Scope 3 emissions figures alongside Scope 1&2 in 2015

Public policy



companies

have supported the Paris Agreement

based on a sample of 10 oil and gas companies

But there are many enduring challenges and new engagement objectives investors demand from companies in order to be resilient to the low-carbon transition

Governance



all companies

executive reward must reflect climate performance

Strategy



companies

only 2 quantify the financial impacts of the IEA's 450ppm scenario

Implementation



capex

only c. 1.5% of 2016 capex spent on low-carbon investments

Transparency



companies

only 4 have set emissions reduction targets

Public policy



all companies

all must strengthen public support for robust climate policy



Challenges

based on a sample of 10 oil and gas companies

How can investors drive stronger climate action in the oil and gas sector?

Further disclosure requests

Private & public calls asking for reports in line with TCFD on resilience to 2°C scenarios



Greater dialogue

on portfolio resilience and 2°C transition planning



Expand proxy voting

Develop policies to support 2°C resolutions and make intentions public



Broaden attention

Look beyond largest EU/US Oil & Gas majors, e.g. to Asian and mid-cap companies

Executive summary

As the 2017 corporate annual meeting season gets going for the world's largest oil companies, this report shows how through assertive engagement on climate change risks – both through private dialogues and public challenge using shareholder resolutions – institutional investors are having a major influence on the conduct and board level decision making of key oil and gas majors. The report also confirms there are some very clear laggards, most notably US oil giant ExxonMobil.

Using detailed input from key investors and CDP analysis, this review evaluates how 10 large oil and gas companies in the US, Canada and Europe have responded on five core areas of investor concern, as framed by the four investor networks that collaborate to make up the [Global Investor Coalition on Climate Change](#) (GIC) in their [Investor Expectations of Oil and Gas companies 2016](#).

This report highlights clear leaders such as Statoil, Eni and Total as well as encouraging progress by companies like ConocoPhillips (which in exchange for the withdrawal of a shareholder resolution last year published a detailed low carbon scenario analysis). This report also highlights the most pressing outstanding investor concerns that will be addressed during the 2017 proxy season, not least at Exxon's pivotal annual meeting in Texas on 31 May.

Given that the global low carbon transition is well underway and oil demand could peak within a decade, there can no longer be any difference for these companies between overall strategy and climate strategy. Lead investors are requesting greater disclosure in line with the Taskforce for Climate-related Financial Disclosures (TCFD) recommendations about portfolio resilience and 2°C transition planning. To that end, every company profiled in this report identifies a few key questions for institutional investors to raise with each company going forward be this via shareholder resolutions or through the greater use of private board-level dialogue – as part of their efforts to pursue ambitious stewardship strategies for 2017/2018. This review also discusses where investors should develop policies for proxy voting on climate related resolutions to help ensure the oil and gas sector focuses more clearly on climate risks, pursues stronger climate action and develops climate resilient business strategies that will deliver sustainable long term returns for major asset owners such as pension funds.

Lastly, it confirms where investors must head in order to broaden their engagement with the oil and gas sector – especially, toward Asian and mid-cap companies in US/Europe and Australia - as part of their support for major reductions in global greenhouse gas emissions and full implementation of the Paris Climate Agreement.

Comparative performance

Key highlights among the 10 sample companies examined in this review - **BP, Chevron, ConocoPhillips, Eni, ExxonMobil, Occidental, Shell & BG, Statoil, Suncor** and **Total**:

- **On governance:** Five now link executive compensation to GHG emissions performance, but only two companies link incentives to upstream or strategic intent to reduce emissions.
- **On strategy:** Seven have conducted a scenario analysis to identify how their business strategies must evolve to adapt to the impacts of Paris Agreement aimed at reducing GHG emissions to levels that will limit global temperature rise to less than 2°C. Only two companies, however, have sought to quantify the financial impacts of the IEA's 450ppm scenario.
- **On implementation:** Three have divested from high carbon assets such as oil sands in order to reduce their stranded asset risk exposure. Across the sample group only around 1.5 % of 2016 capital expenditures was directed into low carbon investments.
- **On transparency:** Eight disclosed their Scope 3 emissions alongside Scope 1&2 emissions (in 2015) but only four have set emissions reduction targets.
- **On public policy:** Eight have signaled clear support for the Paris Agreement, but all will need to be more active in offering public support for robust national and international climate policies.

Going forward investors must:

- **Engage collaboratively** on low carbon transition planning, working with peers globally to enhance dialogue with companies across all core expectations, while also establishing benchmarks to measure company progress.
- **Support calls to improve the quality of company disclosure** in line with the TCFD recommendations regarding company resilience to 2°C scenarios and the Paris Agreement.
- **Develop climate resilient proxy voting policies** to align their efforts on corporate reporting and governance of climate risk management, as well as work together to file and support comprehensive public resolutions where appropriate.
- **Broaden engagement beyond the largest EU and US oil and gas companies** to include Asian and mid-cap companies in US/Europe and Australia.

Going forward investors will expect oil and gas majors to:

- **Governance:** Define measureable objectives for board oversight in relation to climate change resilience; allow shareholders access to all board members and executive team. Link executive compensation packages to long-term low carbon transition strategies and climate performance indicators, not just production targets, reserve replacement and short term operational emissions.
- **Low carbon strategy:** Publish financial impact analysis of demand scenarios aligned to 2°C and the Paris Agreement – not just the scenarios companies see as most likely. Be transparent about all assumptions about carbon price, technology adoption and future oil prices – and publish stress tests against scenarios that would be challenging to the company's business models.
- **Implementation:** Communicate more on plans to measure and reduce methane emissions and sequester carbon since these are key pathways to curb GHG emissions. Be transparent about how committed R&D funds are being spent to increase investments in alternative energy and how success will be measured.
- **Transparency:** Disclose Scope 3 emissions. Set and disclose reduction targets that comprehensively cover their emissions footprint, not only for operational emissions, but also for long-term strategies, and efforts to curb methane emissions.
- **Public policy:** Members of Oil and Gas Climate Initiative (OGCI) should demonstrate engagement with policy makers to advocate for carbon pricing and for policies consistent with the Paris Agreement's ambition. All oil and gas companies must also disclose precisely how they are working with and via trade associations to address misalignments on climate policy.

Overview

Investors globally have set out a common climate agenda for the oil and gas sector via the **Investor Expectations guides** produced by the four regional investor networks that collaborate as the **Global Investor Coalition on Climate Change (GIC)** and through **CDP's Research Framework**. These demonstrate what climate-resilient business strategies and improved disclosure investors want from companies.¹

The ten oil and gas companies selected in this report are the largest (by market capitalisation) and highest impact oil majors that respond to CDP and already have some level of engagement with the investor community. The rankings in this report reflect detailed analysis across a range of carbon metrics and indicators which could have a material impact on company performance which serve as a proxy for business readiness in an industry set to undergo significant change as a consequence of the Paris Agreement. This means **companies deemed least prepared for a low-carbon transition rank lowest**. The first half of chapters visit North America and the second half cover Europe, each part in descending order by market capitalisation.

This report evaluates the impact of investor engagement on climate risk with oil and gas companies based on this 'expectations' agenda. Each company chapter includes an outline qualitative history of (public and private) investor engagement compiled by one or more investors. Each profile combines expert investor assessment with CDP analysis² to show how the company is positioned for the low-carbon transition and to identify the most pressing outstanding investor concerns to be addressed during this year's proxy season, which culminates in Exxon's AGM on 31 May. The report also suggests about three priority questions that investors should be asking of each company going forward – either through shareholder resolutions, AGM statements or via private dialogue – in order to ensure this sector develops effective 2°C analysis and transition planning.

Asset owners³ and managers are encouraged to use this company-specific review to set the direction of their stewardship strategies for 2017/2018 and to advance their dialogues with boards and senior managers in these companies. The considerations identified through this process can also be applied across a range of other companies in the same sector and across other jurisdictions.

Carbon asset risk in the oil and gas sector

Since 2011 in all regions of the globe the fossil fuel energy sector has felt major disruption to both demand and supply – such as 'peak coal' in China and the shale boom putting the US on track to become the world's largest oil producer.⁴ At the same time, there have been major technological innovations in fossil fuel production, low carbon energy technologies and demand management. Industry analysts agree that multiple dynamics are driving a swift and accelerating low-carbon transition.⁵ Notably, companies from the sector such as Shell and Statoil have even predicted peak demand for oil to occur within the next decade.

Governments continue to signal growing support for action to limit climate change. Between 1997 and 2015, the number of climate change laws and policies doubled every five years.⁶ This combined ambition translated to 197 countries submitting national plans which helped secure the Paris Agreement – a

¹ This report combines the research and expertise of CDP's company reported data and other climate risk metrics with the *Investor Expectations* and engagement actions driven through the GIC's regional networks, principally the Institutional Investors Group on Climate Change (IGCC) in Europe and Ceres Investor Network in North America. The investor networks and CDP work in tandem to advance the research and disclosure framework with expectations to keep pace with changing environment in which these companies operate.

² This report focuses on ten oil and gas companies analysed by CDP in November 2016, *'In the Pipeline: Which oil and gas companies are preparing for the future?'* – the latest sector to be covered in a series assessing material investment risks and opportunities in high-emitting sectors.

³ Includes pension funds, insurance companies, endowments and sovereign wealth funds

⁴ <https://www.eia.gov/tools/faqs/faq.php?id=727&t=6>

⁵ See recent Moody's report that the low-carbon transition will impact credit ratings as a result of material risks from these multiple dynamics: Moody's Investors Service (26 April 2017) "Oil and Gas Industry Faces Significant Credit Risks from Carbon Transition."

⁶ LSE's Grantham Institute (2015) "2015 Global Climate Legislation Study" In a study of 99 countries which together account for 93% of the world's emissions. http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/05/Global_climate_legislation_study_20151.pdf

development widely supported by hundreds of investors⁷ and many oil majors alike on the basis that an established energy transition must be globally managed to be stable and predictable. Increasingly, businesses are also warning governments not to move the goal posts – as ExxonMobil recently made plain when it urged President Trump not to pull the US out of the Paris accord.

Against this backdrop, a growing number of investors now demand greater transparency and better management of carbon risk from the companies in which they invest. As lower oil prices and the prospect of peak oil demand increase the risk of stranded unproductive assets, investors want portfolio oil and gas companies to demonstrate capital discipline. Moreover, as Mark Carney, Governor of the Bank of England suggested when he established the FSB Task Force on Climate-related Risk Disclosure (TCFD), an increasing number of investors also recognise that risks faced by the fossil fuel sector now pose a macro-prudential threat to the global economy as a whole.

Transparency in the oil and gas sector

Standardised reporting of greenhouse gas emissions (scope 1, 2, and 3) has become more important as asset owners⁸ have begun to carbon foot-print their own portfolios – for which they must aggregate values from different companies. Of the ten companies featured in this guide, all provide Scope 1 and 2 emissions and eight disclose Scope 3 *Use of Sold Products* figures to CDP using a range of estimation methodologies. Responding to this, CDP is to move to sector based questionnaires in Q4 2017 with associated scoring methodologies in Q1 2018 as part of the ‘Reimagining disclosure’ initiative.⁹

Taskforce for Climate-related Financial Disclosures (TCFD)

During negotiations for the Paris Agreement at COP21 in December 2015, Mark Carney, Governor of the Bank of England and Chair of the G20’s Financial Stability Board (FSB) announced the creation of the Task-force on Climate Related Risk Disclosures. The TCFD – chaired by Michael Bloomberg – has received considerable input from the oil and gas sector but also from all the regional investor networks and CDP.¹⁰ The TCFD’s final recommendations will be presented to the G20 during the Hamburg summit in July 2017 with the hope that G20 heads of state will agree to implement them into national regulatory frameworks. All the organisations behind this report strongly supported the TCFD and have welcomed its draft recommendations, particularly the focus on 2°C scenario disclosures, improved reporting on reserves, more general ‘all sector’ climate disclosure requirements and further supplemental disclosures by four non-financial groups (including an ‘Energy’ grouping that covers Oil and Gas, Coal and Electric Utilities). While climate-disclosures are already mandatory in some jurisdictions, these requirements are often poorly understood and rarely complied with. Investors believe that climate risks are material so they welcome how the TCFD looks set to recommend that companies must report on climate risk in mainstream or public financial statements, to render such reporting a routine part of financial disclosure and control.

⁷ The Global Investor Statement on Climate Change was signed by over 400 investors with more than \$24 trillion AUM <http://www.iigcc.org/files/publication-files/11DecemberGISCC.pdf>

⁸ Nearly half of the signatories to the Montreal Carbon Pledge were made up of pension funds, insurance companies and public financial institutions and 30% of the AUM are from insurance companies. See independent review by Novethic (Sept 2016). “Montreal Carbon Pledge: Accelerating investor climate disclosure.” Available at: <http://montrealpledge.org/>

⁹ <https://www.cdp.net/en/articles/media/press-release-cdp-announces-new-sector-focused-investor-strategy>

¹⁰ See for example IIGCC (2017) “Towards effective climate disclosure: IIGCC’s response to the FSB-Taskforce on Climate Financial Disclosure’s consultation on its draft recommendations.” http://www.iigcc.org/files/publication-files/IIGCC_Response_to_the_TCFD_Consultation_10.02.17_v4.pdf as well as “IGCC and AIGCC Response to the TCFD Public Consultation” <http://www.iigcc.org.au/iigcc-public-submissions>

Investors have been demanding enhanced disclosure via CDP and through Global Investor Coalition on Climate Change (GIC) networks for over a decade and regulated disclosure requirements have also evolved over this time.¹¹ However, significant gaps in carbon disclosure persist in the oil and gas sector, including concerning short-term climate priorities such as methane emissions. In 2016, some 206 oil and gas companies were asked to respond to CDP's annual climate change questionnaire in Europe and North America. Of those approached, 60 responded to the investor-led request but only 37 of which provided information relating to questions on methane emissions from the natural gas value chain included in CDP's oil and gas module. We highlight below the largest oil and gas companies approached by CDP in 2016 that did not respond to the climate change questionnaire and recommend investors to continue direct calls for disclosure to these companies:

Table 1: Largest current non-responders to CDP's annual investor-backed climate change information disclosure request and questionnaire

Company	Country	First year approached by CDP	Public GHG emissions disclosure
Apache Corporation	USA	2004	Yes
Chesapeake	USA	2007	No
Continental Resources	USA	2011	No
Marathon Oil	USA	2004	Partial
Pioneer Natural Resources	USA	2009	Partial
Saudi Aramco	Saudi Arabia	2016	No
China National Offshore Oil Corporation (CNOOC)	China	2003	Partial
PetroChina	China	2006	No
Sinopec (China Petroleum & Chemical Corporation)	China	2006	Partial

What does engagement on climate risk involve?

Investors have become more sophisticated about engagement over recent years, whether working alone or collaboratively. Climate change dialogue increasingly involves engagement at senior, often board, executive committee or CEO-level. Investors have meanwhile begun to tighten how they govern their engagement processes. Working collaboratively through investor networks such as the GIC, PRI, CDP, ICGN, ACSI, ACGA and other regional or faith-based networks, investors are setting targets, tracking progress and increasing pressure to address weak compliance. It's also more common for asset owners to participate in the conversations with companies alongside their managers, analysts and peers, thereby activating a greater part of the investment supply chain.

¹¹ Such as the National Greenhouse and Energy Reporting System (NGERs) for Australia, EU Non-Financial Reporting Directive and amendment to the UK Company's Act

Investor climate stewardship practices

Disclosure requests

As a first port of call when engaging with companies on climate risk investors ask for more information about operations, governance and strategy. (See Table 1 for further engagement targets)

- CDP's climate change questionnaire has been sent to companies since 2000 with support from over 800 investors. An additional oil and gas sector module is also supported by the Global Investor Coalition on Climate Change (GIC).
- In 2015 IIGCC wrote to 75 European high-emitting companies asking them about their policy positions and lobbying activities on EU climate and energy legislation.
- Investors have worked closely with the G20 Taskforce on Climate Related Financial Disclosures to ensure its framework for company reporting will support engagement and investment objectives.

Collaborative engagement meetings

Investors increasingly team up to share expertise with each other and to prepare for joint meetings or calls.

- 8:8¹² meetings between BP and A4A/IIGCC members involved senior company participation, helping secure board support for shareholder resolution.
- In 2013 the Ceres Carbon Asset Risk (CAR) initiative wrote to 45 of the world's largest energy companies to ask how they were prepared for stranded assets, beginning a dialogue they continue to this day.
- In Australia, the superannuation funds and pension funds that make up the Australian Council of Superannuation Investors (ACSI) have endorsed the TCFD framework and are engaging with five of the largest oil and gas companies to adopt the proposed framework.

Shareholder resolutions

Where companies ignore requests for information or improved governance, investors will often employ shareholder resolutions individually or with other co-filers to secure a response. Shareholder resolutions may also be used to signal the strength of investor support for enhanced climate-related disclosure.

- In the US – 84 resolutions were filed on Carbon Asset Risk between 2013 and 2017.¹³
- 'Strategic Resilience for 2035 and Beyond'¹⁴ resolutions filed by the *Aiming for A Coalition* in 2014/2015 set out to be supportive but stretching about disclosure 'asks' with companies where investors had established dialogue.
- In 2017, sustained attempts at private investor engagement failed to yield significant results, the Australian NGO Market Forces filed resolutions at Santos and Oil Search requiring each company to disclose more information about its preparation for the low-carbon transition. It is worth noting that due to regulatory limitations, shareholder resolutions are very rare in the Australian market.

¹² A group of eight IIGCC/LAPFF members have met with a similar number of BP executives on a regular basis for over three years

¹³ Ceres (2015) "Carbon Asset Risk: From Rhetoric to Action". https://www.carbontracker.org/wp-content/uploads/2015/10/car_action_FINAL101415.pdf

¹⁴ <https://www.churchofengland.org/media/2125554/bp%20resolution%20and%20statement.pdf>

Proxy voting policies

Investors can integrate climate risk management into their proxy voting policy to give it a consistently high priority with all companies. By making votes public investors also send a signal to both peers and companies that they are managing this risk. Pre-declaring votes in support of climate change resolutions – a step taken by fewer investors – can help influence the whole industry.

- The Church Investors Group developed a climate change voting policy (which other UK pension funds have adopted) which automatically votes against financial reports from any company that does not disclose to CDP. Aviva Investors has had a voting policy since 2001 linked to climate change disclosure and management.
- Leading up to Shell and BP's 2016 AGMs, 49 asset owners and managers¹⁵ pre-declared that they would vote YES on the Strategic Resilience Resolution from the Aiming for A Coalition.¹⁶ To make their intentions public some investors, such as Norge Bank Investment Management, had to amend their formal voting policy.¹⁷
- In March 2017, the world's largest asset manager, Blackrock, stated that it would be focusing on climate change on its 2017/18 Investment Stewardship Priorities and would vote against the re-election of company directors who failed to take climate change into account.¹⁸
- Under LGIM's Climate Impact Pledge, the largest companies in six sectors critical to a low-carbon transition, including oil and gas have been assessed on their strategies, governance and transparency to address climate change. Companies that fail to meet minimum expectations after one year of engagement, will be divested from the Future World Fund range and LGIM will vote against the Chair of the board on behalf of all holdings.¹⁹

Investor Expectations – five ‘asks’ about how a company is planning a smooth transition to a low carbon economy

Oil and gas companies are a significant contributor to greenhouse gas emissions. They also form a major part of many investor portfolios. Investors that recognise that climate change could have negative impacts (across any sector/ asset class) also have a fiduciary duty to consider their exposure to climate related risks. Corporate engagement has been identified by over 400 investors as one pillar in an overall strategy to increase low-carbon and climate-resilient investments.²⁰

Working together through the Global Investor Coalition on Climate Change investors representing over \$20 trillion AUM began developing a series of engagement guides in 2011, called the *Investor Expectations on Corporate Climate Risk Strategy*. Sector-specific guides covering the oil and gas, mining, electric utilities and automotive industries also been produced to inform collaborative engagement initiatives and shareholder resolutions since 2014.

The first guide for the oil and gas sector, published in 2014, demonstrated that investors believed a global agreement for climate action was both desirable and possible. An updated guide published two years later (Nov 2016) reflects a growing appetite amongst investors to discuss portfolio resilience to a ‘2°C scenario’ alongside evidence that transition planning is an integral part of corporate strategy. The 2016 Investor Expectations reference support for the TCFD and the content aligns well with the draft TCFD recommendations published in December 2016.



Governance

Clearly defined board and management governance processes to ensure adequate oversight of climate-related risk and strategic planning for a transition consistent with 2°C (and efforts to pursue 1.5°C).



Strategy

Integral management of climate-related risks and opportunities in business strategy to ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios.



Implementation

Scenario analysis and ‘stress testing’ embedded into key business planning processes, investment decisions with regular metrics.



Transparency and disclosure

A company’s view of, and response to, its material climate-related risks and opportunities in the annual report and/or on the corporate website.



Public policy

Engagement with policy makers in support of cost-effective measures to mitigate climate-related risks, support low carbon investment and ensure broad oversight regards company lobbying activity.

No information in this report (complete as of May 1st 2017) should be viewed as investment advice.

¹⁵ For partial list of investors to pre-declare see LAPFF (31 March 2015) <http://www.lapfforum.org/wp-content/Archive/institutional-investors-declare-support-for-vote-at-april-bp-agm.pdf>

¹⁶ Aiming for A was an independent investor coalition launched by CCLA in 2012. It ceased to exist as a free standing initiative in January 2017 but all of its activities continue, conducted through the IIGCC Corporate Programme and its Shareholder Resolutions Sub Group.

¹⁷ NBIM (15 April 2015) “Supporting shareholder resolutions on climate reporting in BP and Shell” <https://www.nbim.no/en/responsibility/our-voting-records/voting-intentions-published-ahead-of-general-meetings/supporting-shareholder-resolutions-on-climate-reporting-in-bp-and-shell/>

¹⁸ BlackRock (2017) “Investment Stewardship Priorities 2017-18” and “How BlackRock Investment Stewardship engages on climate risk”

¹⁹ Legal & General Investment Management (November 2016) “ESG Spotlight: Time to act on climate change: Engagement with consequences.” http://www.lgim.com/library/knowledge/thought-leadership-content/esg-spotlight/ESG_Spotlight-FWF.pdf?hootPostID=955f36caf420b4e6f04dad178327ff86

²⁰ For full list of investors who committed to work with companies in which they invest as well as take other actions on climate change by signing the Global Investor Statement on Climate Change see the Investor Platform on Climate Action at <http://investorsonclimatechange.org/>

Engagement Overview

Exxon has been resistant to requests to disclose its management of climate risk in line with the Investor Expectations framework. Though Exxon acknowledges climate change, it stands by its 2014 report 'Energy & Carbon – Managing the Risks' which states that a 2°C scenario does not merit examination because it is “not reasonably likely to occur”. Shareholder pressure has increased in recent years with nine shareholder resolutions on climate change put to Exxon since 2014. The Securities and Exchange Commission (SEC) has also increased scrutiny on Exxon’s climate risk reporting. Exxon’s most recent publication on climate change is a brochure 'Energy and Carbon' which was issued with its 2017 proxy materials and summarises its thinking on climate risk.

Recent engagement milestones

- **2013** – Carbon Asset Risk (CAR) Initiative sends joint letter to Exxon asking about stranded asset risk – company responds in 2014 with [Energy and Carbon: Managing the Risks](#)
- **2014-2017** Nine [resolutions](#) been introduced, with one (on reporting on carbon asset risk) being withdrawn when the company promised to address
- **2016** – A shareholder resolution from transatlantic partnership of investors including New York State Comptroller and the Church of England calls on Exxon to [annually assess a 2°C scenario](#)
- **2017** – A second shareholder resolution brought asks Exxon to publish '[2°C scenario analysis](#)'

CDP 2016 Performance Analysis – how does Exxon compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
9/10	6	4	9	10	3

- ✓ **Capital flexibility:** ExxonMobil had the lowest exploration and development spend per unit of production ('intensity') of the company sample in 2015 at US\$15.3/boe.
- ✓ The company has the second lowest 'Finding and Development' costs of US\$19.1/boe, meaning the company has been efficient at adding reserves in recent years.
- ✓ **Fossil fuel asset mix:** Of the American companies in the report sample, ExxonMobil has the highest proportion of forecast gas production in 2020 at 43%.
- ✗ **Fossil fuel asset mix:** ExxonMobil has the highest absolute level of proved reserves, of which, in 2015, 19% was made up of oil sands. However, in February 2017 Exxon 'de-booked' 3.5bn barrels (approximately 15% of its proved reserves) of oil sands which failed to meet SEC criteria for proved reserves.
- ✗ **Climate governance and strategy:** ExxonMobil is carrying out a wider assessment of its “major long-lived assets”. Its reserve reporting and asset valuation is being reviewed by the U.S. Securities and Exchange Commission (SEC). There is no evidence of climate targets being set for senior management. The company’s low-carbon activities are limited to biofuels and CC(U)S research.
- ✗ **Emissions and resource management:** ExxonMobil has achieved emissions reductions through asset level plans, facility investments and technology application but does not have a companywide emissions reduction target and its methane emissions disclosure is weaker than its peers'. The company also has the third highest flaring intensity of the 10 companies.

Investor perspective: Edward Mason, Church Commissioners for England



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Exxon appointed Dr Susan Avery, an atmospheric scientist, to the Board in January 2017. Dr Avery has not been ear-marked for any specific climate-related governance responsibility, however, and Exxon does not allow shareholders to meet to non-executive directors, leaving shareholders reliant on limited public disclosures about board oversight of climate-related risk. In its 2017 proxy materials Exxon gives the following as the position of the Board on climate risk: “the Board is confident that the Company’s robust planning and investment processes adequately contemplate and address climate-related risks and are sufficient to ensure delivery of long-term shareholder value”.²¹ Exxon’s examination of climate risk does not include consideration of the strategic implications of a transition consistent with 2°C and efforts to pursue 1.5°C.²²



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Exxon uses an internal carbon price to assess possible costs of future Scope 1, 2 and 3 emissions. It integrates assumptions on low carbon technology (including nuclear power, renewables and EV penetration) in its Outlook for Energy but these assumptions are low and consistent with the implementation of the Paris NDCs rather than a 2°C scenario.²³ Exxon does not use scenario analysis against a single or range of climate outcomes to test portfolio resilience nor does it believe that a 2°C scenario is relevant for consideration because it is “not reasonably likely to occur”. In spite of its position that climate change poses “serious risks”, Exxon’s Outlook for Energy projections through to 2040 are consistent with the IPCC’s pathway for 3 degrees of warming by 2100.



Implementation – Embed scenario analysis and ‘stress testing’ within key business planning processes, investment decisions and metrics on a regular basis.

Exxon does not use scenario analysis. It states that its confidence in the commercial viability of its portfolio derives from the sensitivity analysis in its Outlook for Energy and its investment stress testing. It notes in its 2014 report ‘Energy & Carbon – Managing the Risks’ that significant new investment in oil and gas production will be required even in a 2°C scenario. Exxon does not disclose information about either the sensitivities of the Outlook or the stress testing to which investment proposals are subjected.

In 2016, a shareholder resolution on Carbon Asset Risk requesting scenario analysis consistent with 2°C received 38.1% support from investors, a strong signal that it is on high on their agenda. Exxon’s management has discussed the issue in engagements but

Priority questions for ExxonMobil

Will the Board allow its institutional investors to access non-executive directors to gain insight into and assurance of the Board’s oversight of climate risk management?

Will the Board review its position on climate change scenario analysis, including in a 2°C scenario, in the light of the recommendations of the FSB Taskforce for Climate-related Financial Disclosures (TCFD), shareholder demand evidenced by voting on the New York State/Church Commissioners’ shareholder proposal, and the practice of its peers? (Including assumptions on how reliant Exxon’s future expectations of hydrocarbons consumption are dependent on the widespread adoption of CCS and how policy will be impacted by the ratcheting of ambition for the Paris agreement.)

Will ExxonMobil actively advocate carbon pricing, for example through engagement with the US administration and legislature, joining Oil and Gas Climate Initiative (OGCI) and/or the World Bank Carbon Pricing Leadership Coalition, and reviewing its support for associations that lobby counter to its position?

²¹ ExxonMobil (April 13, 2017) “Notice of 2017 Annual Meeting and Proxy Statement” <http://ir.exxonmobil.com/phoenix.zhtml?c=115024&p=irol-reportsProxy>

²² ExxonMobil (April 13, 2017) “Energy and Carbon – Managing the Risks” <http://cdn.exxonmobil.com/~media/global/files/energy-and-environment/report---energy-and-carbon---managing-the-risks.pdf>

²³ ExxonMobil (2017) “Outlook for Energy” <http://corporate.exxonmobil.com/en/energy/energy-outlook>

has maintained that its method of forecasting is adequate and that its stress testing process delivers leading returns for long lived investments across the business cycle. The company believes that its forecasts are in line with the IEA's new policies scenario and NDCs. The TCFD's recommendation on the disclosure of 2°C scenario analysis give more impetus to the ask of this shareholder resolution.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company's view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Exxon does not make disclosures about its reserves and resources beyond what is required by the SEC. Exxon does not have company-wide emissions reduction targets, stating that it favours “where appropriate, setting tailored objectives at the business, site and equipment levels”. Exxon engaged only indirectly with the TCFD via IPIECA, and has not committed to consider the recommendations at board level. The company has stated that the recommendations are being reviewed at staff level.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company's lobbying activity.

Exxon's most recent statement on climate change public policy was made on the entry to force of the Paris Agreement in November 2016.²⁴ It acknowledges that the Agreement is “an important step forward” with “ambitious goals”. Exxon states that it “supports the work of the Paris signatories” and believes “the company has a constructive role to play in developing solutions”. This is a bright spot from investor engagement with all companies as Exxon has been strongly urged by investors to support the Paris Agreement, and it has not only done so via its statement, but also in a letter to President Trump's administration as part of a White House consultation on removing the US from the Paris Accord.²⁵

At the same time, Exxon's position is that “all forms of energy” will be needed to meet global demand through to 2040 and that “the world will need hydrocarbons to lift billions out of poverty”.²⁶ Exxon's favoured public policy mechanism is a “revenue-neutral carbon tax”. However, it is not clear how actively Exxon lobbies for carbon taxation nor does it participate in the Oil and Gas Climate Initiative (OGCI) or the World Bank Carbon Pricing Leadership Coalition, preferring to engage with policy issues globally through IPIECA. Exxon remains a member of ALEC which opposes carbon taxation (and indeed any taxation intended to “direct the behavior of citizens”), “government manipulation of markets” that “artificially inflates the price of fossil fuels benefiting politically-preferred forms of energy”²⁷ and the Paris Agreement (which it believes should be put to Congress (where “there should be no problem in coming up with the votes needed to jettison the proposal”).²⁸

²⁴ ExxonMobil (4 November 2016) “Statement on Paris climate agreement entering into force” <http://corporate.exxonmobil.com/en/current-issues/climate-policy/climate-perspectives/statement-on-paris-climate-agreement-entering-into-force>

²⁵ Financial Times (28 March 2017) “Exxon urges Trump to keep US in the Paris Accord” <https://www.ft.com/content/acf309b0-13b3-11e7-80f4-13e067d5072c>

²⁶ ExxonMobil – “Engaging on climate change” <http://corporate.exxonmobil.com/en/current-issues/climate-policy/climate-perspectives/engagement-to-address-climate-change>

²⁷ ALEC (4 March 2017) “Carbon tax strait talk” <https://www.alec.org/article/carbon-tax-strait-talk/>

²⁸ ALEC (13 December 2016) “President-elect Trump should allow senate to reject the Paris climate agreement” <https://www.alec.org/article/president-elect-trump-should-allow-senate-to-reject-paris-climate-agreement/>

Engagement Overview

Chevron is one of the world's leading Oil and Gas companies though its climate risk disclosure is not commensurate with this leadership. Following the 40.8% support for the shareholder proposal received last year, in March 2017 the company published its inaugural "Managing climate change risks" report – a clear example of how strong votes can lead to company action. Investors have acknowledged the report as a first step by Chevron and withdrawn this year's resolution which repeated last year's request for a 2°C scenario analysis. However, there are key areas in which it falls short of investor expectations and future engagement will focus on obtaining the company's commitment to enhance this important disclosure regularly in line with evolving best practice. Currently investors are unable to test the core assumptions of the company as it does not disclose an internal carbon price or other key factors, nor does it appear to be developing at least rudimentary strategies for situations that it considers unlikely, in particular, a faster transition to a low carbon economy.

Recent engagement milestones

- **2013** – Carbon Asset Risk (CAR) Initiative sends joint letter to Chevron asking about stranded asset risk
- **2014-2017** More than **five resolutions have been introduced on climate change risk assessment** and reporting, four on company lobbying and four resolutions on appointing board members with environmental expertise
- **2016** – A shareholder resolution from transatlantic partnership of investors calls on Chevron to **annually assess a 2°C scenario. (40.8% support)**
- **2017** – A second shareholder resolution asking Chevron to publish a '**2°C scenario analysis**' has been withdrawn to encourage it to enhance its reporting in line with best practice guidance, in particular the FSB Task Force recommendations which were not finalised at the time of publication of its first "Managing climate change risks" report.

CDP 2016 Performance Analysis – how does Chevron compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
8/10	7	5	7	8	6

- ✓ **Capital flexibility:** Chevron has a lower than average reserve life of under 12 years, compared to the company sample average of close to 14 years. Indicates optionality in the way the company can shape future capital expenditure decisions according to changing regulatory or market dynamics. The company's gearing level of 20% placed it favourably relative to peers in terms of financial flexibility.
- ✗ **Fossil fuel asset mix:** Chevron's current portfolio is oil heavy, with only 31% of production in gas, but this is expected to rise to 42% in 2020 as large LNG projects Gorgon and Wheatstone come online.
- ✗ **Capital flexibility:** Of the companies assessed Chevron had the highest exploration and development intensity (spend per unit of production) in 2015 at over US\$30/boe and the second highest production (lifting) costs of existing assets among sample companies of US\$13.4/boe.
- ✗ **Climate governance and strategy:** Looking to divest its geothermal energy assets – indirect greater concentration of fossil fuels
- ✗ **Emissions and resource management:** Chevron's upstream emissions and flaring intensity, and methane emissions are above average among the company sample. However, it was one of only two companies to reduce its emissions intensity despite it lacking a current companywide emissions reduction target.

Investor perspective: Based on interviews with Tim Goodman, Hermes Investment Management and Anita Green, Wespeth



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Chevron states that its strategy and planning committee is responsible for managing the strategic and business planning processes at the Board's direction. These processes are intended to ensure its business remains resilient under a variety of circumstances, including the possible crystallisation of climate risks.²⁹ The Board has not disclosed that it has delegated authority for climate change to an executive committee member or a board member, investors must therefore hold the CEO and the full board responsible for the oversight of climate change risk planning.

The 41% vote in favour of two degree scenario analysis at the company's 2016 shareholder meeting appears to have made the Board realise that climate change is an important risk to mainstream investors and appears to have led to climate risk is being discussed more seriously at board level. Chevron's enterprise risk management process includes an annual risk review, which includes climate risks with executive management and the Board of Directors. While "Health, Environment and Safety" are a component in determining executives' annual bonus awards, there are no specific or quantitative targets related directly to climate change.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

After committing to improve its climate risk reporting at the 2016 AGM, Chevron published its inaugural "Managing climate change risks" report in March 2017. While the company does include a basic scenario analysis using aspects of the IEA's 450 scenario, there is limited detail and no specific numeric values or ranges are provided and so investors are unable to make any meaningful judgments. Chevron primarily develops price trajectories based on probabilistic modelling³⁰, which evaluate the likelihood of an event happening *based on past events*. This is different from forward-looking scenario analyses³¹, which evaluates the possible impact or consequences of *future operating conditions* within a defined time period. While probabilistic modelling is an important forecasting tool, scenario analysis strengthens strategic planning by allowing management to prepare for a wider range of economic, regulatory and societal conditions.³²

Priority questions for Chevron

What are the company's plans to update its "Managing Climate Risk" and other reporting in line with evolving best practice, in particular the Taskforce for Climate-related Financial Disclosures' (TCFD) recommendations?

Climate change is one of the biggest risks to the global economy. Global economic growth is disconnecting from energy consumption, and some economists predict slower population growth as a result of growing global prosperity. The IEA and other energy forecasters have consistently underestimated the growth of renewables and other factors. How does the company ensure that its planning sufficiently considers strategic options that are at variance from its core assumptions?

What is the company's strategy should the transition to the low carbon economy happen at a different pace than it envisages? What happens if the ambition of Paris is realised?

²⁹ <http://www.wespeth.org/Page.aspx?Preview=1&PageId=QS%2bpdwtH20IsD1sMBTDWG79DqRqGqL5ImXIEomr0kEc%3d>

³⁰ Statistical analysis tool that estimates, on the basis of past (historical) data, the *probability* of an event occurring again. www.businessdictionary.com

³¹ Process of visualising (1) what future conditions or events are probable, (2) what their consequences or effects would be like, and (3) how to respond to, or benefit from, them. www.businessdictionary.com

³² Jaffe, Amy Myers and Ceres, "A Framework for 2 Degrees Scenario Analysis: A Guide for Oil and Gas Companies and Investors for Navigating the Energy Transition," 2016



Implementation – Embed scenario analysis within key business planning processes, investment decisions and metrics on a regular basis.

Chevron's disclosure indicates a strategy that focuses on being a leading producer of low-cost fossil fuel assets. Oil and gas assets often have decades-long life cycles, but the company provides only high-level discussion of the potential impact of the transition to a lower-carbon economy on its longer-cycle projects. Chevron states that its exposure to carbon asset risk is "minimal;" investors require evidence to support the company's assertion. While the report generally does not provide detailed discussion of climate-related risks, a helpful example on p.11 describes the redirection of capital into low-cost Permian Basin assets and a brief discussion of new gas development. The extent to which climate risk was a factor in these decisions would be a useful disclosure. Reference to forward-looking strategy is non-specific.

The company's first "Managing climate risks" report, and the discussions around it, are meaningful steps to disclose how it incorporates climate factors into its strategic decision making. To strengthen the disclosure, the company should enhance discussion of the factors that support its chosen assumptions, such as future oil and gas prices, carbon prices, and energy efficiency measures. Investors are currently, in effect, asked to trust its rigour.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company's view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Chevron has addressed some of the issues raised in the 2016 proposal, albeit at a very general and cursory level. The lack of detail and quantitative information leaves much room for improvement for it to be of sufficient value to investors in assessing the company's risk exposure. Investors leading on engagement with Chevron will be encouraging the company to adopt the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosure, which at the time of writing are in near final form. Chevron discloses Scope 1,2,3 emissions. However, it does not disclose specific quantitative reduction targets although a qualitative description of its efforts is provided in its CSR reporting.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company's lobbying activity.

Wespath and Hermes believe that scenario planning is the most important area to focus engagement with the company at the moment. IIGCC notes the following in relation to public policy: there was a shareholder resolution filed in 2016 by the Philadelphia Public Employees Retirement System which was withdrawn for further discussion. Where the company discloses assumptions on future carbon price, renewables in the energy mix and EV penetration, they are all forecasted to be very low.³³ For this reason it is important for investors to understand how the company's political influence is integrated into its risk mitigation strategy for these trends.

InfluenceMap gives Chevron a score of E- as the company has appeared to have employed a number of tactics to oppose cap and trade legislation and renewable energy standards in California, energy efficiency regulations in Australia, and GHG standards in Oregon.³⁴ InfluenceMap reports that Chevron is also openly against a carbon tax and has pushed for increased fossil fuel subsidies in South Africa. Finally, it notes that Chevron is a member of ALEC and that there appears to be a misalignment in its lobbying activity as the company is a member of the International Emissions Trading Association (IETA.)

³³ Influence Map (Nov 2016) "The Oil Majors and Climate Risk"

³⁴ <https://influencemap.org/company/Chevron-f4b47c4ea77f0f6249ba7f77d4f210ff>

Occidental

Country: USA

Market Capitalisation (2016 Average): **US\$55 billion**

2015 Production: **0.67 million boed**

2015 Emissions (Scope 3 est.): **not reported**

2015 Emissions (Scope 1+2): **14.1 million tonnes**

Engagement Overview

Engagement on climate risk with Occidental began in 2013 with the Carbon Asset Risk (CAR) initiative letter. During 2014, engagement progress was delayed due to the company's split and collaborative engagement meetings began in 2015 where the perceived slow pace of progress led to a shareholder resolution in 2016. Since then, investors felt that Occidental's disclosure was lagging behind its global peers and that the company has not been sufficiently responsive to investor requests for more clarity on how its capital planning models are robust to various policy, technology and demand scenarios. The 2017 Shareholder resolution to publish a 2°C scenario has been supported by Glass Lewis and ISS and the company has welcomed ongoing dialogue on this.

Recent engagement milestones

- **2013** – 70 investors send joint letter to Occidental asking about stranded asset risk – Ceres follows up with company on behalf of investors
- **2014** – Occidental spins off California and Middle East assets and relocates to Houston
- **2016** – Shareholder resolution to '**Report on Carbon Asset Risk**' receives 49%
- **2017** – Occidental produces one page "Resiliency Statement" which is not publicly available.
- **2017** – Shareholder resolution to publish '**Publish an assessment of portfolio risks under a 2°C scenario**'

CDP 2016 Performance Analysis – how does Occidental compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
6/10	8	2	10	9	4

- ✓ **Capital flexibility:** Occidental has the lowest gearing (17%) and its large exposure to short-cycle unconventional plays provides financial flexibility and allowed it to cut exploration and development spend quickly since 2014 (reduced by 38%).
- ✓ It also has a low average reserve life (11.4 years) in combination with a high proportion of developed reserves (74%).
- ✓ **Fossil fuel asset mix:** Occidental currently has no oil sands production.
- ✗ **Fossil fuel asset mix:** Occidental has been a pure-play oil producer with vast majority of its assets in oil until recently. At present only 25% of current production is natural gas which is not expected to increase by 2020.
- ✗ **Climate governance and strategy:** Occidental currently has no alternative energy assets. The company is involved in a number of CC(U)S projects, primarily for Enhanced Oil Recovery (EOR).
- ✗ **Emissions and resource management:** Occidental significantly underperforms in upstream emissions intensity (59kg CO₂/boe) and did not disclose an emissions reduction target. Company historical disclosure of flaring and methane emission was incomplete.

Investor perspective: Based on an interview with Kirsty Jenkinson and Anita Green at Wespeth Investment Management



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Occidental amended the charter of its board's Environment, Health & Safety Committee to specifically include oversight of climate-related risks and opportunities. The company provides good disclosure regarding oversight and accountability; however, it should also describe the processes used to assess climate risk. The company appears to have no link set between senior management performance targets and climate indicators.

The company brought on a new CEO at the 2016 Annual meeting. Investors find that while some board members are supportive of the climate risk agenda, the change in leadership is an important time to send the signal that shareholders are expecting more transparency regarding the company's climate change-related risk assessment methods.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Occidental does not disclose how a 2°C or climate policy scenario would affect the company's portfolio or capital investment decisions.³⁵ There is also no disclosure regarding internal carbon price(s) or assumptions on regulatory, technological or demand forces which could affect the company.

The company's disclosure indicates its risk management approach is based on commodity price forecasting. Investors are requesting disclosure of scenario analyses, which can inform and strengthen corporate strategic planning by allowing management to consider and prepare for a wider range of economic, regulatory and societal conditions.



Implementation – Embed scenario analysis and 'stress testing' within key business planning processes, investment decisions and metrics on a regular basis.

Occidental states that it considers the financial risks of a lower carbon economy, but does not identify the factors used or explain how they influence the company's business planning. The company focuses on producing low-cost, short-cycle fossil fuel assets (predominately oil) but offers few signals regarding the potential risk to longer-cycle projects, or the impact of market shifts to non-fossil energy sources. The company recognises in its Securities and Exchange Commission filings that policies, regulations, and actions that place a price on carbon can have a significant impact on its business.

Occidental has invested in building capacity and infrastructure for CO₂ injection, which they have installed for around 40% of their assets in the Permian Basin. The company differentiates itself from other mostly pure play oil producers by developing cost-effective methods for Enhanced Oil Recovery that extend the life of already existing assets. Injecting recycled CO₂ from anthropogenic sources would meaningfully reduce the net CO₂ emissions from this practice.

Priority questions for Occidental

Given that CCS is the most likely way that Occidental can reduce emissions based on their fossil fuel asset mix – how is the company working to integrate this into their business model, including R&D and strategic partnerships? Can continued development of CCS technology be used to help the company's competitive positioning?

Will the company disclose before the 2018 Annual Meeting of Stockholders how capital planning and business strategies incorporate analyses of the short- and long-term financial risks of a lower carbon economy?

Will the company's published analysis outline the impacts of multiple, fluctuating demand and price scenarios on the company's existing reserves and resource portfolio – including the International Energy Agency's "450 Scenario," which sets out an energy pathway consistent with the internationally recognized goal of limiting the global increase in temperature to 2°C?

³⁵ Robeco (2016) "Highlights Voting Season 2016." <https://www.robeco.com/images/highlights-voting-season.pdf.pdf>



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Occidental responded to CDP’s water information disclosure request in 2016 but did not disclose estimated Scope 3 emissions of its operations. Occidental’s climate change disclosure was lagging behind peers in methane emissions, flaring emissions and Scope 3 emissions from the use of sold products.

Occidental indicates its intention to incorporate the Taskforce for Climate-related Financial Disclosures’ (TCFD) recommendations (focused on Governance, Strategy, Risk Management, and Metrics and Targets) into its future reporting. This is a welcome signal that can be strengthened by providing an expected timeline for enhanced disclosure and specifying if it will incorporate a 450 Scenario.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

Recent engagement with the company on policy revealed that it is working with environmentalists and other oil and gas companies in support of a bill to extend the Section 45Q tax credit for CCS.

According to Influence Map, Occidental has a low score of E-.³⁶ Along with other US oil majors, Chevron and ConocoPhillips, Occidental has not publicly welcomed or supported the Paris Agreement. Occidental is a member of the Western States Petroleum Association (WSPA) which actively campaigns against climate policy in California such as cap and trade, electric vehicles and GHG targets. Occidental did withdraw its membership in ALEC, which actively lobbies against climate change policies, in 2014 but continues membership in several other obstructive associations and participates in media campaigns opposing renewables.

³⁶ <http://influencemap.org/company/Occidental-Petroleum>

ConocoPhillips (COP)

Country: USA

Market Capitalisation (2016 Average): **US\$52 billion**

2015 Production: **1.6 million boe/d**

2015 Emissions (Scope 3 est.): **195 million tonnes**

2015 Emissions (Scope 1+2): **25.8 million tonnes**

Engagement Overview

Over the past decade, investors and ConocoPhillips (COP) have met semiannually to discuss issues ranging from indigenous rights to global climate change. Starting in 2013, at meetings organised by Boston Common Asset Management, investors began specifically discussing carbon asset risk. The year prior, ConocoPhillips spun off its down and midstream assets, changing the business model for the company and making it the world's largest independent exploration and production company. Through dialogue with COP, investors learned the company was considering carbon-constrained scenarios in its business planning. Discussion also included COP's efforts to influence public policy and incentives for executive compensation. In 2015, Walden Asset Management filed a shareholder resolution requesting that COP disclose more detail about its low-carbon scenario analysis and how the results inform both business strategies and capital planning. Walden withdrew the resolution when COP agreed to additional dialog and disclosure. In 2015, ConocoPhillips was one of very few oil and gas majors to do this. Investors continue to engage the company on lobbying and executive compensation. Both issues appear on the 2017 proxy for a vote by shareowners.

Recent engagement milestones

- **2013** – Carbon Asset Risk (CAR) Initiative sends joint letter to ConocoPhillips asking about stranded asset risk – Ceres follows up to with more specific disclosure requests from investors
- **2013-2016** – ConocoPhillips begins publishing **carbon scenario analysis** information in Sustainability Development Reports
- **2014-2017** – **Three resolutions** have been introduced on climate change & executive compensation
- **2016** – After agreement with COP, resolution calling for **disclosure of 2-degree scenario analysis withdrawn**
- **2016** – ConocoPhillips publishes carbon scenario analysis in their Sustainability Development Report
- **2017** – Shareholder resolutions on **lobbying disclosure** and **executive compensation** filed with company to be voted on at their AGM (15 May 2017)

CDP 2016 Performance Analysis – how does ConocoPhillips compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
7/10	9	6	8	6	1

✓ **Capital flexibility:** The company has been able to sharply cut exploration and development spend on a per unit of production basis due to greater exposure to short-cycle US unconventional. It reduced its exploration and development the most of the sample companies from 2014-15 (43%).

✓ **Emissions and resource management:** Its natural gas flaring rate is also among the lowest of the companies, however its methane emissions remain high (see below).

✓ **Water resilience:** Lowest exposure to water stressed geographies (no onshore upstream assets in medium or high water stressed areas) and lowest water intensity of operations across the companies assessed.

✗ **Fossil fuel asset mix:** The company scored poorly in the fossil fuel asset mix key area, having previously had the second highest proportion of oil sands in its production (8%) and proved reserves (23%) among the companies. During Q1 2017 ConocoPhillips facilitated the sale of some of its oil sands assets for over US\$13bn, bringing it in line with other companies. However, in contrast to its peers, the company is forecast to have a lower proportion of production in gas by 2020 (37%) than currently (43%).

✗ **Capital flexibility:** Company gearing is high relative to peers at 40%, which has led the company to cut its dividend to shareholders by two-thirds in 2016. The announced asset sales are earmarked to significantly reduce this gearing, and pending closure, it should no longer provide strain on capital decisions.

✗ **Emissions and resource management:** ConocoPhillips has the highest rate of methane emissions but the strongest methane management disclosure and has reduced methane emissions by over 1.5 Million TeCO₂e since 2013 (21%).

Investor perspective: Tim Smith & Aaron Ziulkowski, Walden Asset Management



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Climate risks and opportunities are monitored and considered at the board and executive level at COP. The Public Policy Committee helps the board oversee enterprise risk management (specific focus on social, political, safety, and environmental issues) and develops/reviews the company's lobbying and political contributions. Ms. Jody Freeman, a professor of environmental law and policy at Harvard Law School, and former White House Counsel for Energy and Climate Change, is a member of this committee. ConocoPhillips has designated executive climate champions reporting to the CEO, and established a 'climate change network of excellence' and two climate change working groups on issues and policy. A cross-functional team of 50+ experts monitors indicators ("signposts") for insight on the trajectories of the global economy toward a low-carbon future, which executive management reviews quarterly. Resources reviewed include third-party research, such as the IEA's World Energy Outlook Scenarios for 2040.³⁷ Executive compensation is not directly linked to climate change management, but rather to development and implementation of strategic plans which consider climate and sustainable development risks and opportunities. A shareholder resolution brought by the Unitarian Universalist Association of Congregations since 2015 requests more articulation of how incentive compensation for executives promotes resilience to low-carbon scenarios. Walden has also expressed concern about ConocoPhillips plans for a virtual stockholders meeting.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Four corporate supply & demand scenarios inform ConocoPhillips' business planning, including a "carbon scenario". In addition, four carbon constrained scenarios have been developed, which vary based on: the speed of change assumed for technology development; government policy responses; and demand for fossil fuels. Three scenarios align with pathways to deliver emissions reductions assumed necessary to have a reasonable likelihood to limit warming to 2°C. ConocoPhillips notes in "**Our Perspective on Future Energy**" that there is "not just one pathway to a 2-degree future."

The company evaluates the robustness of its portfolio of assets across all these scenarios to identify leading indicators of change in the business environment and enable actions to lower the cost of supply, shorten project cycle times, develop technology to reduce costs, curb emissions, and cut product losses in an economically efficient manner.



Implementation – Embed scenario analysis within key business planning processes, investment decisions and metrics on a regular basis.

As a result of its scenario analysis COP identified a number of action steps to preserve future value, including reducing GHG emissions and methane/gas leakages as well as lowering cost of supply and shortening product cycle times.³⁸ In its 2017 10-K, COP discloses that it uses an estimated market cost of GHG emissions in the range of \$9 to \$43 per tonne of carbon (depending

Priority questions for ConocoPhillips

Will the company report on its lobbying in response to shareholder resolutions on lobbying policies, direct and indirect payments used for lobbying as well as a description of the decision-making process and oversight by management and the Board? Specifically, in regards to how the company is engaging with the Chamber of Commerce on the Clean Power Plan? And how is the company still working within the WSPA to align their position with the company's own in support of cap and trade?

The company is about to have a virtual only Stockholders meeting – we are concerned that a number of companies are doing this. Will the company revert to an in-person meeting next year?

How does incentive compensation for executives promote long-term sustainability of the company's business model in light of the low-carbon transition?

³⁷ Ceres and Amy Meyers Jaffe (2017) *A Framework for 2 degrees scenario analysis* <http://tools.ceres.org/resources/reports/a-framework-for-2-degree-scenario-analysis>

³⁸ ConocoPhillips. <http://www.conocophillips.com/sustainable-development/environment/climate-change/climate-change-strategy/Pages/default.aspx>

on timing, country and region) to evaluate future opportunities. In March 2017, COP announced the sale of some of its Canadian oil sands and natural gas assets, a move viewed positively by the market because it reduces the company's exposure to high cost and carbon-intensive assets. However, the company does not appear to have a strategy to diversify its business to include renewable energy in its asset portfolio.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company's view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

COP discloses its proven reserves according to resource type: crude oil, natural gas liquids, natural gas, and bitumen. It also discloses average production costs per barrel of oil equivalent by region. ConocoPhillips is one of the few oil and gas companies to set specific emissions reduction targets for its operations. In its 2016 CDP response, COP provides a description of its intensity and absolute emissions reduction goals. The latter are measured against a "business as usual" GHG emissions scenario. Despite encouragement from investors, the company has not set a longer-term emissions reduction target. In addition to disclosing its Scope 1 and 2 GHG emissions in its CDP response, COP also discloses its methane emissions and describes recent technological investments to reduce flaring of gas and to detect and repair leaks leading to fugitive methane emissions as well as other GHG emissions. For example, an upgraded waste heat recovery unit in Norway will cut nearly 50 thousand tonnes of CO₂ per year.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company's lobbying activity.

COP received an E- score from Influence Map because the company did not publicly support the Paris Agreement and has actively campaigned against both renewables and carbon taxes in Australia and the UK. However, the CEO recently stated publicly that the US should remain in the Paris Agreement³⁹, although it is not known how ConocoPhillips responded to the White House consultation on the matter. The company is a member of IPIECA, who publicly "welcomes the Paris Agreement as an important step in addressing the risks of climate change."⁴⁰ The company is a member of the National Association of Manufacturers, the US Chamber of Commerce and has diminishing involvement in the Western States Petroleum Association (WSPA); all three groups actively challenge climate change policy. In years past, COP supported federal cap & trade legislation that ultimately did not pass Congress. The company states that in public policymaking "details matter" and publishes its "history of climate change policy engagement" in its sustainability reporting online to provide examples of what it has and has not supported.

COP discloses publicly its position on climate change, as well as "principles of effective climate change policy." While the company individually has actively supported cap and trade legislation, it has not supported collaborative statements on climate policy, such as through Ceres. In discussions with the company, they emphasise that some such initiatives can create burdensome workload and yield limited value. They also state that they monitor such initiatives through IPIECA and consider separate actions on a cost/benefit basis. ConocoPhillips reports that employees serving on trade association committees that advocate for legislation or regulation must work closely with the government affairs office, business units, and the legal group. Direct and indirect activities that influence policy are frequently reviewed by both the Executive Leadership Team and the Public Policy Committee of the Board of Directors. The company discloses on an annual basis trade association memberships with dues in excess of \$50,000. With AFSCME, Walden Asset Management has coordinated the filing of 50 resolutions this year to companies on climate lobbying. Investors around the globe have registered their concern about climate lobbying, and the resolution to ConocoPhillips is co-filed by RobecoAM, Pettelaar and the employee pension fund for the state of Rhode Island.

³⁹ Reuters (15 March 2017) "Trump seeks input from U.S. energy companies on Paris climate pact" <http://www.reuters.com/article/us-usa-trump-climatechange-idUSKBN16M2CB>

⁴⁰ See [Exploring low-emissions pathways](http://www.ipieca.org/resources/awareness-briefing/exploring-low-emissions-pathways-advancing-the-paris-puzzle/), the development of which was led by COP's Director of Climate Change <http://www.ipieca.org/resources/awareness-briefing/exploring-low-emissions-pathways-advancing-the-paris-puzzle/>

Engagement Overview

Investors have been engaging with Suncor on climate change since before 2008. In 2009, NEI Investments filed a resolution on carbon price scenario planning which was withdrawn as the company agreed to report carbon price scenarios and 5 year GHG forecasts. Suncor management and board supported a 2016 shareholder resolution on low-carbon resiliency that received 98% support. The company published its response to this on April 17th 2017, ahead of the AGM, and has improved both its disclosure and its governance of low-carbon resiliency issues as a result.

Recent engagement milestones

- **2016** – Company announces goal to reduce GHG intensity 30% by 2030
- **2016** – Shareholder resolution to “**Regularly disclose preparations for a low carbon future**” passes by 98.2%
- **April 2017** – Company releases **Suncor’s Climate Report: Resilience Through Strategy**, a stand-alone document which to be integrated into sustainability report in future.

CDP 2016 Performance Analysis – how does Suncor compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
10/10	10	10	6	5	2

- ✓ **Capital flexibility:** Suncor has the lowest ‘Finding and Development’ costs of the companies featured of US\$13.8/boe. These are company costs associated with reserve additions from 2011-2015 and tend to be lower for oil sand reserve additions given the commonly large reserve finds.
- ✓ **Emissions and resource management:** Suncor has low flaring levels and methane emissions due to resource type it produces (oil heavy).
- ✓ **Emissions and resource management:** Suncor holds some renewable energy assets including wind assets (144MW) and an ethanol plant.
- ✓ **Climate governance and strategy:** The company’s internal carbon price is used to analyse the outlook for oil and gas products as well company operating costs.
- ✗ **Fossil fuel asset mix:** Suncor has the highest exposure to oil sands (circa 80% of its production and 95% of proved reserves) and longest reserve life of the sample companies (22 years). This gives Suncor an asset base heavy in high cost, high carbon and long dated projects.
- ✗ **Fossil fuel asset mix:** Due to its business model it has the highest upstream emissions intensity of companies assessed of 68kg CO₂/boe, compared to an average of 30kg CO₂/boe.
- ✗ **Fossil fuel asset mix:** Suncor’s production operations or ‘lifting’ costs per barrel of oil equivalent (US\$18.4/boe) are the highest of the sample companies.
- ✗ **Fossil fuel asset mix:** It sold its conventional natural gas operations in 2013 and recently acquired Canadian Oil Sands, making it almost entirely an oil player.

Investor perspective: Jamie Bonham, NEI Investments



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

As a result of the 2016 resolution on low-carbon resiliency, the company has elevated carbon risk to a principal risk, meaning it is a risk that can potentially undermine strategic corporate objectives – this is a substantive development as it includes an annual board-level review of scenario analysis outcomes within the risk management process.

NEI has engaged the company since 2010 on improving the link between compensation and ESG performance. Suncor has responded well and consistently improved disclosure on the specific metrics, targets, and performance against targets for ESG links. However, we have been trying to get the company to link explicitly to its 5-year sustainability targets and climate metrics specifically and have been less successful, though elements of the 5-year goals show up (for example the CEO's activity in publicly advocating for a price on carbon and efforts to develop technologies to reduce environmental impacts are part of his compensation discussion and analysis, and energy intensity is one of the metrics for corporate performance).

Future engagement will be on linking explicitly to the GHG intensity reduction target and other low-carbon strategic goals – the company is receptive to the idea but the dialogue continues.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

As a result of ongoing investor engagement on low-carbon resiliency reporting, the company now also uses scenario analysis in line with the Taskforce for Climate-related Financial Disclosures' (TCFD) recommendations. The company developed three scenarios substantially based on the scenario work of IHS Markit, one of which roughly aligns with the goal of limiting emissions to 450 ppm. The company provides high-level results of all three scenarios, including impacts on operations and risk of stranded assets, but notes all three scenarios point to a requirement to aggressively lower the carbon intensity of their operations.

The company provides a broad description of the technology assumptions made for each scenario, policy and market access developments, and provides a rationale for how the company's assets will remain viable – though they do explicitly note that some projects will not go forward in the 450 scenario. The company uses its internal carbon price to analyse the outlook for its products under certain climate policy actions.

The company reports on the estimated impacts of its carbon pricing outlook, stating that the production weighted average after-tax cash cost per barrel of global upstream production over the period 2018 to 2027 to be \$0.60/bbl. Ongoing dialogue around strategy may focus on breakeven cost disclosure – it does disclose on operating cash costs of \$24.95/bbl in Q4 2016.

Priority questions for Suncor Energy

Now that climate change is a principal risk for the Board, what are the plans to ensure the Board has the competency to manage this risk? With the company's increased footprint in the oil sands, and its acknowledgment that it needs to aggressively reduce its emissions intensity to remain viable, how is the Board ensuring that its GHG reduction targets are properly incentivised? Will we see reduction targets or innovation goals linked directly to compensation?

With the current growth in renewables and low-carbon technologies, how is the company ensuring that Suncor is best prepared to exploit opportunities in this market?

Suncor's supportive position on carbon pricing and the Alberta Climate Leadership plan has poor alignment with one trade association, CAPP. To what degree can and does Suncor have influence over the policy positions in CAPP and what is the company doing to ensure CAPP is lobbying responsibly?



Implementation – Embed scenario analysis and ‘stress testing’ within key business planning processes, investment decisions and metrics on a regular basis.

Since NEI’s 2009 withdrawn resolution, the company produces an annual Carbon Price Outlook that assesses the potential trajectory of carbon pricing and is used to stress test its investments and capital decisions against. The company assumes a price of \$65 on an increasing percentage of its assets by 2035. Company has responded positively to the engagement and discloses multiple aspects of how it is addressing carbon risk, including its annual R&D spend, specific technologies aimed at reducing its carbon footprint (e.g. solvent-aided in-situ, electromagnetically assisted solvent extraction) as well as collaborations aimed at GHG reduction technologies.

Core part of the engagement with Suncor has been on R&D and innovation, in particular innovation on technologies to reduce the carbon footprint of its operations and in relation to new low-carbon technologies (such as renewables). Notably, the R&D budget was not cut in the face of the recent economic downturn and the company continues to state that innovation is key to future resiliency and success. Ongoing dialogue focus will be the pace and scale of efforts to commercialise low-carbon technologies, including renewables.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Suncor has been assessing the TCFD recommendations and believes it will be aligned with them now that the carbon asset risk report is out. NEI was one of several investors to engage the company on setting sustainability targets (such as its previous water reduction and energy efficiency targets) starting in 2008. The company has responded to these asks and has announced its second set of 5 year goals. The company recently announced a target to reduce the emissions intensity of its operations by 30% by 2030 – dialogue had focused on setting a GHG reduction target for several years.

Part of the 2009 withdrawal conditions were to provide 5-year forecasts for GHG emissions, which the company continues to do.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

Public advocacy on the need for progressive climate change policies has been a key ask in NEI’s dialogue for almost 10 years. The company currently shows tremendous leadership in this regard and responded very positively, from stating its public policy positions on climate change publicly on its website (i.e. we need to put a broad-based price on carbon) to actively working with government and other stakeholders to build support for carbon pricing (such as through its membership in the Carbon Pricing Leadership Coalition and its support for the EcoFiscal Commission). Suncor was one of four companies to publicly stand with the Alberta government when it announced its intention to place a price on carbon and implement other climate change policies and has since stood by its commitment to the plan. Suncor also publicly supports the Paris Agreement in its public statements. The company reports on the associations it is a member of and their policy positions. The key association that Suncor is a member of that has the least alignment from a policy perspective would appear to be CAPP, and the company’s efforts to publicly state Suncor’s own position on climate policy act to differentiate the company from CAPP.

Engagement Overview

Shell has made progress in recent years in several key areas related to the low carbon energy transition. Notable landmarks have included the improved disclosure of normative climate change scenarios and their effect on the business and the integration of climate related metrics into the remuneration structures. The successful shareholder resolutions provide a vital basis for coordinated engagement. Recent withdrawals from the Oil Sands and suspension of drilling in the Arctic exemplify the difficulties of replacing reserves in a low oil price, increasingly regulated environment. Investors are pleased with moves thus far, however scenarios testing tends to assume a best-case scenario and investors need to see clearer evidence of stress testing under low carbon scenarios. Key assumptions need to be disclosed, and the company has yet to fully embrace the potential impacts of disruptive technology such as Electric Vehicles in eroding demand for its core products.

Recent engagement milestones

- **2014** – The *Investor Expectations on Oil and Gas Company Strategy* is shared with the company to set agenda for engagement meeting.
- **2015** – The Board of Shell backs shareholder resolution on ‘Strategic Resilience for 2035 and beyond’
- **2016** – **A joint statement** by 31 investors managing \$5 trillion in assets asks Shell for greater clarity on specific elements of the resolution.
- **2017** – The Board includes references to managing the low carbon transition as part of the group scorecard, and as a specific element of the CEO bonus.
- **2016-2017** – Shareholder Resolutions are filed by Dutch Campaign group, *Follow this*, forcing company to consider re-introducing public targets for renewables.

CDP 2016 Performance Analysis – how does Shell compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
4/10	4	9	2	4	5

- ✓ **Fossil fuel asset mix:** Shell’s acquisition of BG increases its exposure to natural gas and it is the only company that currently produces more gas than oil (54% of production mix). It has also arranged for the sale of a significant proportion of its oil sands assets in recent months for US\$7.25bn.
- ✓ **Climate governance and strategy rank:** Shell has recently set up a “New Energies” division with a US\$200m a year spend on low-carbon assets. This compliments existing company wind and biofuel assets and a Shell-led consortium recently won rights to build 700MW windfarm in Holland.
- ✓ **Emissions and resource management:** Second lowest upstream emissions intensity of hydrocarbon production (20 kg CO₂/boe). However, this excludes the company’s emissions intensive GTL operations.
- ✗ **Capital flexibility:** Its gearing level and spends on production, exploration and development remain above the sample average, impacting its financial flexibility following the purchase of BG. Divestment programme has a US\$30bn target.
- ✗ **Emissions and resource management:** Shell does not disclose a comprehensive companywide emissions reduction target to be linked with executive remuneration. Any future companywide target would need to account the ongoing asset disposal programme.
- ✗ Shell has the highest flaring rate of the companies assessed.

Investor perspective: Matt Crossman, Rathbones with input from Bruce Duguid, Hermes Investment Management



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risks and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Shell has long taken a stance on climate change which aligns with established scientific opinion, though it has not always met investor expectations on communication of its management of climate risks and opportunities. Engagement has focused on governance, urging Shell to integrate policies and practices into strategic decision making and capital allocation. The sense of low momentum lead the Aiming for A group of investors to file a wide-ranging resolution at the 2015 AGM, which was passed with 98% of the vote, providing a baseline for all current engagement on the issue of climate risk.

In 2016, investors urged the company to clarify how strategic considerations around its preparedness to manage a period of increased uncertainty and change are reflected in key performance indicators and executive incentives. Changes have been made to align executive incentives to climate-related goals and the Board is increasingly well acquainted with climate change scenarios through the work undertaken by the scenarios team which includes low carbon policies. There is also now a direct link to GHG reduction for 10% of the annual scorecard which the company has confirmed is a robust metric by which to incentivise senior management and which covers 60% of emissions of the company.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy.

Although Shell has historically been a leader in the use of scenario planning and climate change, the linkages between this analysis and its own capital allocation and investment decisions have been less clear. Shell has produced periodic sets of scenarios which explore the possible ranges of responses of the world to climate change and the implications for its business model. The latest – Oceans and Mountains – does not pre-suppose a need to limit emissions to 450ppm CO₂e / 2°C, and predate the landmark Paris Agreement. Shell's scenarios present a qualitative view of its portfolio's vulnerability to low carbon scenarios, with no published quantitative analysis. It is therefore difficult for investors to form a view of the extent of financial materiality at risk under low carbon scenarios.

In 2016 Rathbone Greenbank Investments and 30 other global investors requested that future portfolio resilience modelling more clearly address the fundamental issue of demand for the company's products and that this strategic assessment of carbon asset risks be included in the company's Annual Report.⁴¹ current assumptions stated in the Sustainability Report focus too narrowly on the effects of carbon pricing and do not adequately analyse demand risks, for example, as posed by rapid uptake of electric vehicles, improvements in energy efficiency or distributed renewable power generation.

It appears that to date, the principal means by which Shell integrates climate risks into its business planning processes is through an internal carbon price of \$40/t CO₂e on new projects, while it also acknowledges the possibility of \$100/t CO₂e by 2030 under certain conditions. Shell does not appear to stress-test a low demand, low oil price scenario, instead using long term oil price assumptions of \$70 to \$120 a barrel. According to an independent analyst, under a low demand future scenario consistent with keeping global warming to well below 2°C, 6% of Shell's refining capacity is at risk of exiting the market by 2035.⁴²

⁴¹ IIGCC (23/05/2016) "Investor statement to Shell: Progress against the successful 2015 shareholder resolution" <http://www.iigcc.org/publications/publication/investor-statement-to-shell-progress-against-the-successful-2015-share2#sthash.zabuwcp5.dpuf>

⁴² CO Firm (Forthcoming) "From dusk til dawn – oil and gas in a Paris climate agreement world"

Priority questions for Shell + BG

Investors are asking for public disclosure of some form of scope 1 and 2 greenhouse gas targets (e.g. intensity based or 'like-for-like'), building on the inclusion of GHG intensity targets for the refining and chemicals business and gas flaring targets which are now included in the executive remuneration scorecard.

Investors would like Shell to disclose its climate-related financial risks to climate change in line with FSB Taskforce on Climate-related Financial Disclosure guidelines. This would include publication of the assumptions behind its 2°C scenario analysis and its conclusion that the company is resilient to the envisaged implementation of the Paris Agreement. It should also include stress-testing against more bearish outcomes for electric vehicle and renewables penetration in line with limited warming to 2°C or below and providing quantitative analysis on how this would impact capital planning.



Implementation – Embed scenario analysis and ‘stress testing’ within key business planning processes, investment decisions and metrics on a regular basis.

Shell has recently described its strategy as seeking the least number of regrets based on an analysis of potential low carbon scenarios. While it admits that its strategy is not optimised to a 2°C outcome (based on the absence of necessary public policy) it believes it has a sufficiently resilient portfolio and flexibility of capital to be robust in all low carbon scenarios. Shell has recently withdrawn from a number of oil sands investments and suspended offshore drilling in the Arctic. The company established the New Energies division in 2016. Whilst this new unit includes many established businesses such as hydrogen and biofuels, it also provides a framework for renewed investment in renewable energy. The established businesses included in the New Energies division represent some \$1.75bn of capital already employed, with a further \$200m earmarked for investment in the short term future. R&D is focused on three areas – new fuels, integrated energy solutions and connected customers.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Unlike many of its peers (and indeed unlike BG), Shell has not communicated a clear long-term group-wide GHG emissions reduction target.⁴³ Shell does, however, aim to achieve top-quartile carbon emissions performance across its assets. Investors would urge greater transparency around its internal targets and performance against those. The adoption of public targets would create a sense of accountability and, crucially, enable investors to monitor performance. A shareholder resolution filed at the 2017 AGM further calls for the company to adopt greenhouse gas emissions reduction targets aligned to the Paris Agreement over the period to 2050 and covering both the company’s own emissions and those associated with its products. Some see an emissions reduction target for the company’s products as limiting its commercial prospects while being unlikely to reduce emissions and even potentially counter-productive to the reduction potential of some of Shell’s relatively lower carbon products. However, some investors support the sentiment of the resolution, and still others are pushing for a compromise from the company in the form of a more workable target.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

Investors were pleased to see company’s recent moves in the area of public policy, including playing a leading role in the formation of the Oil and Gas Climate Initiative (OGCI), and the non-renewal of its membership with ALEC.⁴⁴ The company supports the Paris Agreement and advocates the implementation of more globally applied and consistent carbon pricing in order to most cost-effectively manage the cost of the transition to a low carbon economy. However, there is still room for further improvement. For example, Shell is supportive of emissions trading policies in the EU but also supports certain US trade associations that are regarded by some as antagonistic to climate and energy efficiency policies such as the American Petroleum Institute (API) and the Western States Petroleum Association (WSPA).⁴⁵

⁴³ Transition Pathway Initiative <http://www.lse.ac.uk/GranthamInstitute/tpi/company/royal-dutch-shell-b/>

⁴⁴ Influence Map (2016) “The Oil Majors and Climate Risk: What you need to know.”

⁴⁵ Ibid

Engagement Overview

Investors have been engaging with Total on climate change for some time in the run up to COP21 in 2015. Over two years, Total was called on to take a leadership role in acknowledging what a 2°C world might look like for an oil and gas company.

In view of the company's reluctance to welcome a shareholder resolution and a constructive intensive engagement with a strong coalition of investors, Total agreed to a statement from the Board committing to publicly and consistently disclosing its climate strategy in a 2°C scenario instead. As a result it produced its first climate report in May 2016. It also disclosed an ambitious climate strategy "20% low-carbon businesses (Renewable energies, energy storage and energy efficiency) in 20 years' time", committed to 500M\$ investment/year in renewables and nominated a climate expert on its board. However, asset resilience disclosure is based on the IEA 450 scenario, without further insight into the company's own thinking or granularity by type of assets. Total has also participated in a dialogue with shareholders on their public policy activity, working within trade associations to support climate change legislation. Total has called publicly for carbon pricing.

Recent engagement milestones

- **2014** – Investors meet to collaboratively engage Total on the [Investor Expectations: Oil and Gas company strategy](#)
- **2015** – Total agrees to publish disclosure complying with the same asks as Shell and BP's [Strategic resilience for 2035 and beyond](#)
- **2016** – 25 of its institutional shareholders, representing over \$6 trillion in assets under management co-signed a letter to request a statement from the Board committing to publicly and consistently disclosing its climate strategy in a 2°C scenario.
- **May 2016** – Total publishes [Integrating Climate into our Strategy](#)

CDP 2016 Performance Analysis – how does Total compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
3/10	5	7	4	3	10

- ✓ **Fossil fuel asset mix:** The company's hydrocarbon production mix is forecast to be 50% gas by 2020, with a company target of 60% by 2035. Second lowest production or 'lifting' costs of the companies at US\$6.7/boe.
- ✓ **Climate governance and strategy rank:** With the ambition of "20% low-carbon assets in 20 years" Total is positioning itself to have a fifth of its portfolio in low-carbon businesses by 2035. It ranked highest on company low-carbon spend following acquisitions of Sunpower (solar panel producer) and Saft (battery manufacturer).
- ✗ **Capital flexibility:** Only 51% of its reserves assets are developed, entailing further capital expenditure to bring to production. 10% of the company's reserve base is oil sands.
- ✗ **Capital flexibility:** The company has among the highest exploration and development spend per unit of production (intensity) of US\$25.6/boe.
- ✗ **Water resilience:** Total has the highest exposure to water-stressed regions and almost 70% of its upstream production is based in the Middle East and Africa.

Investor perspective: Based on interviews with Thibaud Clisson, BNP Paribas Investment Partners and Natacha Dimitrijevic, Hermes Investment Management



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

In 2016 Maria van der Hoeven (former director of the IEA and present RWE Board) joined the Board of Total as Independent Director, the only member of Total's Board with direct knowledge of climate issues.⁴⁶ Investors do not have access to independent board members, despite repeated requests over the years. The company also announced last year it would integrate climate into core strategy, creating a new (downstream) Gas, Renewables & Power segment, which provides greater financial reporting transparency. Additionally, all climate topics are now centralised under a new Head of Strategy and Climate – before they were in ESG. The director in charge was the former Head of M&A, and comes from the upstream business.

Total has made positive steps regarding remuneration, with 20% variable remuneration linked to ESG criteria (10% safety, 10% other ESG). However, this is only on the short-term and investors are pushing for linking fixed and long-term remuneration. Ex-post disclosed specific ESG elements of the 2016 remuneration were CO₂ emissions (no general target set) and the company improved ranking in non-financial rating agencies. These elements will change in 2017 into an unspecified qualitative criterion on the climate strategy.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Total suggests low carbon production will account for 20% of its energy mix in 2035, in line with the IEA 450 scenario. The specific methodology is not disclosed. Total solely disclosed based on this IEA scenario. It has not communicated any prediction on future electricity generation or Zero Emissions Vehicles (however, the head of PSA, the French auto company, will join the Board in 2018). Analysis of long term demand for oil and gas are discussed at the board strategy committee, but not communicated. Total uses an internal \$30-40/tonne carbon price on new projects.

Analysis of portfolio and capex resilience is the main weakness of Total's climate reporting to date. The reported 5% potential impact on net present value is calculated for a crude oil price of USD 60 to USD 80 compared to a reference scenario that includes a CO₂ price of 10\$/T or actual price if more, or nil until 2021, then 30 to 40\$/T until 2040. Total only provides general information on how its analysis impacts its investment decisions (no further oil sands) and no specific information on its impact on its current portfolio.



Implementation – Embed scenario analysis and 'stress testing' within key business planning processes, investment decisions and metrics on a regular basis.

As part of Total's new strategy to become Integrated Energy Provider, the company has created a new segment to expand in the electricity value chain in downstream gas, renewable energies and energy efficiency. Recent acquisitions appear to acknowledge the shift in power generation and shows interest in renewables and distributed generation (Saft – Lampiris). Total has announced that between 17 and 19 USD billion will be invested into climate and clean technology to support the aim of diversifying into the full energy value chain.

The company has also made several announcements on how it will decarbonise its assets, including confirmation of no new Oil Sands (no go as a policy, partial divestment but still operating Canadian fields), No oil exploration or production in the Arctic ice pack. Existing gas production in the ice pack, and wider Arctic operations. The company will put 10% of its R&D budget into CCS with 1.1bn Euro into R&D. Fully divested from coal since 2016.

Priority questions for Total

Will the company link fixed and long term remuneration to the same climate and energy targets as it has linked to the short-term?

Will the company disclose public targets and management process for reducing for methane emissions?

Will the company explain their methodology and publicly make available their analysis of any investments which have physical risk from climate change?

Will the company disclose how it will measure progress towards its target of 20% renewable energy in portfolio? (e.g. will this be turnover will this be energy generation?)

⁴⁶ Total (16 March 2017) Press release – [Total Minutes of the Board of Directors, March 2016](#)

Total made an announcement that one of its French refineries would become a bio-refinery which would be producing biofuels comprised half from palm oil and half from waste. Shareholders have expressed some questions around the certification of the palm oil.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company's view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Total has emissions intensity targets out to 2020 covering 100% of company emissions, however as these are based on efficiency gains they do not necessarily imply a decrease in GHG emissions. Total is currently working further on this indicator. It had an absolute reduction target until the end of 2015. Without a target, the indicator is still monitored and GHG absolute emissions are decreasing. However, the company still has limited transparency around processes to manage methane emissions and targets to reduce them. Investors are particularly concerned about growing methane emissions from recent acquisition of Chesapeake shale field in October of last year. Total has a target of 20% of portfolio will be low carbon but it is not clear how this is measured. Total has answered the questionnaire and contributed to TCFD either directly or through IPIECA and IHS. The company is considering the current recommendations as a draft and does not yet see them as binding.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company's lobbying activity.

Total has been a leader in the oil and gas sector in publicly recognising the urgency to act and responsibility of the energy sector in the goal to limit global warming to less than 2°C. However, Total belongs to API, Cefic and BusinessEurope which have been scored poorly for their climate lobbying by InfluenceMap. Total was also a founding member of the Oil and Gas Climate Initiative (OGCI.) Investors lobbied for and obtained full disclosure on trade memberships and lobbying contributions⁴⁷, however the company will not quit its trade associations, it rather states it will 'influence from within'.

⁴⁷ ShareAction letter (18/08/2015) <http://action.shareaction.org/page/-/Total%20Letter%20August%202015.pdf>

Engagement Overview

Investors have been engaging with BP on climate change for some time and in 2015, BP embraced a landmark resolution through which the company indicated a commitment to best practice disclosure on its strategic resilience. Since 2014, an established group of investors has met with BP regularly to inform the company of investor expectations and discuss positive steps already taken. Institutional investors, including Aviva Investors, Hermes Investment Management, and members of the Local Authority Pensions Fund Forum have also regularly attended and spoken at the company's AGM alongside CCLA.

Recent engagement milestones

- **2015** – **Strategic resilience for 2035 and beyond** shareholder resolutions are supported by the BP Board and >98% of shareholders.
- **2015** – BP publishes **first publicly available Technology Outlook**
- **2016** – BP publishes **second Oil and Gas (OGCI) annual report under BP CEO's chairman ship**
- **2017** – BP publishes **energy outlook includes 450ppm scenario ('even faster transition')**
- **2017** – BP publishes **energy transition reflected in strategy update and remuneration**

CDP 2016 Performance Analysis – how is BP positioned compared to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
5/10	1	8	5	7	9

- ✓ **Fossil fuel asset mix:** BP has the second highest current proportion of gas production (48%) and is expected to increase this to 55% in 2020 helped by the start-up of large gas projects (such as Shah Deniz stage 2 in Azerbaijan). It has almost no oil sands production and 55% of its proved reserve base is gas.
- ✓ **Climate governance and strategy rank:** It has the largest alternative energy business of the companies assessed but is yet to make any firm commitment on future low-carbon spend. In January 2016 the company released its 'Faster Transition' scenario, which showed oil demand peaking in the late 2020s.
- ✗ **Capital flexibility:** BP had high 'Finding and Development' costs over the 2011-2015 period (having been very reliant on Rosneft for reserve additions in recent years). Low proportion of assets developed relative to peers (55%), indicating that future capital investment is needed to bring these to production.
- ✗ **Climate governance and strategy rank:** No climate linked to CEO pay currently but this is due for revision at the 2017 AGM.
- ✗ **Emissions and resource management:** BP does not disclose a company emissions reduction target

*BP has been analysed excluding its 19.75% stake in Rosneft (lower than the 20% usually used in equity method accounting), in line with its GHG reporting to CDP.

Investor perspective: Helen Wildsmith, CCLA



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

BP has recently completed and communicated an update of its short, medium and long term strategy. Scenarios including a new 450 ppm one called an ‘even faster transition’, which is driven by accelerated policy, consumer and technology dynamics, were used to test strategic and portfolio resilience. Board and senior executives were involved in both processes, and the new Deputy CEO role covers longer term strategy.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

BP’s new strategy focuses on the shift from coal to gas, lower cost oil, its current alternative energy businesses (biofuels and wind) and venturing within several areas related to the low carbon transition. Following the company’s ‘Beyond Petroleum’ rebranding experience of the early 2000s there is a determination not to get too far ‘ahead of the curve’ in relation to low carbon opportunities, but be ready to accelerate further low carbon investment when the timing is believed to be right.



Implementation – Embed scenario analysis and ‘stress testing’ within key business planning processes, investment decisions and metrics on a regular basis.

BP’s recently announced major investments align with the updated scenario-driven strategy and most of the projects coming on line in 2017 are gas operations. Oil sands and frontier exploration have been down-played, whereas venturing is given a more prominent role, including in relation to CC(U)S and methane emissions management. Although the amounts that will be invested in venturing annually have been made public, indicative investment levels in the current, or additions to, the alternative energy area have not been announced as part of the recent strategy update.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Over the past 18 months, BP has made its Technology Outlook and accelerated energy transition analysis publicly available. However, its Energy Outlook still focuses on a base case through to 2035, with variations driven by critical uncertainties, rather than fully developed longer-term scenarios. The scripted version of the strategy update is publicly available in the investors section of the BP website. Current and projected portfolio resiliency metrics have not been disclosed ahead of the TCFD’s final recommendations, but strategic intent is now incorporated into executive remuneration (subject to approval at the 2017 AGM on 17th May). BP operational emissions management disclosure lags its European peers and reduction targets are not currently disclosed to CDP, although we are aware executive management are considering this at present.

Priority questions for BP

The Task-force on Climate Related Risk Disclosures’ (TCFD) recommendations are likely to lead to a further period of experimentation in climate risk disclosure, operational target setting, and strategic transition tracking. How will the board provide oversight of this process and encourage leadership across the sector through the OGCI and other industry bodies like IPEICA, including working with investor-backed initiatives like CDP and the Transition Pathway Initiative (TPI) as they also align to the TCFD’s final sectoral recommendations?

How will the board ensure that the pace of transition at BP is appropriate, including through KPIs and more transparent remuneration⁴⁸ incentives relating to environmental factors and BP’s strategic priorities?

Investors have recently renewed their public call⁴⁹ to the G7 for further progress on carbon pricing. How, in particular, could relevant OGCI members and IIGCC work together alongside the Carbon Pricing Leadership Coalition to help make meaningful carbon pricing a reality?

⁴⁸ Assuming it is approved by shareholders at the company’s 17th May 2017 AGM, BP’s new remuneration policy will reflect its new strategic priorities and include an underpin based on environmental factors: <http://www.bp.com/en/global/corporate/investors/governance/directors-remuneration-report.html>

⁴⁹ <http://investorsonclimatechange.org/200-global-investors-managing-15-trillion-assets-urge-g7-stand-paris-agreement-drive-swift-implementation/>



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

BP’s CEO chairs the Oil and Gas Climate Initiative (OGCI)⁵⁰ and the company is a member of World Bank’s Carbon Pricing Leadership Coalition. BP has had a centralised approach to public policy for over 5 years and left ALEC in 2015. The company remains a member of the American Petroleum Institute (API), which scores an F under the Influence Map methodology, where BP’s approach is to work towards alignment from within. Last year CDP ranked BP 5th equal (with Total) for carbon regulation supportiveness amongst the ten companies covered in this report, with all the OGCI members ranked ahead of non-members in this bespoke piece of 2016 research undertaken by Influence Map.

⁵⁰ BP, Eni, Shell, Statoil and Total are OGCI members. See <http://www.oilandgasclimateinitiative.com/about> for further information about this CEO-led initiative, which now also includes four national oil companies.

Engagement Overview

Investors have been engaging with Eni on climate change for over 15 years. This has become more public since 2014, as investors have engaged on Carbon Asset Risk and corporate lobbying. An established group of investors has met with Eni regularly to inform the company of investor expectations and positive steps have been taken, notably on board awareness, portfolio adjustments and the setting up of a New Energy Solutions Division. More disclosure is needed on the robustness of the 450 scenario review and some of its business targets underpinning new energy investments.

Recent engagement milestones

- **2014** – Investor Expectations of Oil and Gas companies is discussed with company
- **2015** – Eni sets up New Energy Solutions Division
- **2016** – Investor letter sent encouraging disclosure in line with A4A resolution
- **2016** – ESG Investor Day on Eni's Integrated Model
- **2017** – Eni publishes enhanced reporting in AR on 2DS stress test

CDP 2016 Performance Analysis – how does Eni compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
2/10	3	1	3	2	7

- ✓ **Capital flexibility:** Eni has been able to significantly cut capital spend and operating costs in response to the low oil price resulting in lower production costs, exploration and finding and development costs than peers. With relatively low gearing (24%), uncommitted capex of around 55% and a reserve life of 11 years, it has financial maneuverability in its future capital expenditure.
- ✓ **Capital flexibility:** The company has raised funds through selling interests in the Zohr field to BP (10%) and Rosneft (30%) to finance its development. Eni retains retaining 60% of the lucrative field.
- ✓ **Emissions and resource management:** The company reduced its upstream emissions intensity the most (-9% 2016 vs. 2015) and is on track to reach a 43% reduction target in 2025 (vs. 2014).
- ✓ **Fossil fuel asset mix:** Eni's future potential production is dominated by conventional resources and it currently has no oil sands production.
- ✓ **Fossil fuel asset mix:** The gas share of its portfolio is set to increase significantly from 46% of production currently to 55% by 2020, with large gas projects due to come online in the near future (such as Zohr in Egypt, scheduled for Q4 2017 start-up).
- ✗ **Capital flexibility:** Eni is entering another investment cycle as it increases spend on assets under development – only 57% of its current proved reserves base is developed.
- ✗ **Emissions management:** Despite ambitious targets in this area, the company has above average flaring and methane emissions intensities compared to the sample.
- ✗ **Water resilience:** Eni has the second highest exposure to water-stressed regions (75% of onshore assets located in areas of medium to high and high water stress issues) and over half of its upstream production is based in Africa.

Investor perspective: Matthias Beer, BMO Asset Management



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Eni has enhanced its board representation of climate experienced individuals in recent years. While this has been a positive development and there are indications the issue is considered seriously at board level, other executives in key positions appear to be more skeptical about the need for reviewing the long-term business model.

Eni is one of only five companies that incorporate emissions performance into executive pay levels, although the emissions performance indicator is not a group wide target. Its current GHG target includes specific targets to reduce upstream fugitive methane emissions. On remuneration, the long-term incentive plan still uses NPV of proven reserves as key indicator, together with relative total shareholder return compared to peer group. While free cash flow is already an objective in the annual bonus, we would prefer greater weighting of this indicator in the overall remuneration to reflect ability to generate cash in challenging environments while still protect dividends. Portfolio resilience is in part evidenced by robust cash generation ability even under low carbon scenarios that may lead to long-term demand disruptions.



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Eni has made its scenario analysis public in its 2016 Integrated Annual Report, which now has a section describing that it conducted stress-tests against the IEA 450 scenario, a key investor ask. The method employed evaluated risk of stranded assets by reviewing a sample of Eni's oil and gas assets under the conditions forecasted by the IEA. Eni considers its portfolio to be resilient in this scenario, in large part due to IEA's higher oil price assumption for 2030. The company states that different carbon price assumptions, when considered against oil prices, are less material in this sensitivity analysis. Investors would still like more transparency on the parameters used to select sample of assets and more granularity on impacts to book value revealed by the analysis (specifically which type of assets are at risk and which type offset this risk.)

Investors are encouraging Eni to conduct its portfolio stress-testing in line with the Taskforce for Climate-related Financial Disclosures' (TCFD) final recommendations. Eni has supported the TCFD initiative through participation on the TCFD Board. However, it is still unclear (pending publication of final TCFD report) to what extent the company will provide detailed reporting on alignment/gaps with TCFD.

Priority questions for Eni

Remuneration: Long-term Incentive Package (LTIP) still uses the Net Present Value (NPV) of proven reserves as key indicator, together with relative Total Shareholder Returns (TSR) compared to peer group. Portfolio resilience could be better reflected by greater weighting of Free Cash Flow (FCF) goals not just in annual bonus but also in LTIP to show cash generation ability and protect dividend even in a challenging price environment.

Scenarios: The company published high level conclusions on its review of the recoverability of the book values of the Company's oil and gas assets under a 450 scenario. It would be useful to get greater details on: parameters used to select sample of assets and assumption used for other key parameters (e.g. IEA450 uses high oil price assumptions; how ENI has stress tested against lower prices). What specific impacts on book value did the review highlight: i.e. which type of assets are at risk? Which type of assets offset this impact? How does this analysis inform board oversight including on Final Investment Decisions (FID)s?

New Energy Solutions Division: Other than solar investments, please provide clarity on specific business objectives that underpin the New Energy Division. What targets will be used to assess the growth and focus on this area (incl. capex and other KPIs to track progress)?



Implementation – Embed scenario analysis and ‘stress testing’ within key business planning processes, investment decisions and metrics on a regular basis.

Like with many peers, Eni is focused on lowering the average breakeven price points across its portfolio and on shifting towards gas while building up capability to assess and invest in new energy solutions. ENI references IEA analysis suggesting renewables will generate 33% of global electricity in 2030.⁵¹ The company has set up New Energy Solutions Division in 2015, reporting to CEO, which focuses on opportunities for industrial scale renewable, energy efficiency and energy access. Given Eni’s footprint in many energy poor countries (particular Africa), the company has been seeking to couple new energies strategy with an access to energy theme.

Eni has started to set targets for increases in its alternative energy portfolio, however capital employed in alternative energy still remains in the low single digit percentage. Other than for solar investments, it is not yet clear what specific business objectives and measures (incl. capex, outcome KPIs etc.) underpin this area. Eni plans to focus investments on low carbon related projects including renewables, green downstream and R&D, as well as contributions to the Oil and Gas Climate Initiative (OGCI). The 2020 renewables target is to achieve ca. 463MW installed capacity, mainly solar, backed by investing €0.55 bln.



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Eni’s internal group-wide scope 1 GHG emissions intensity reduction target is 43% from 2014-2025. Eni does have a flaring reduction target which is crucial given its current high flaring intensity. It discloses absolute scope 3 emissions but does not have any objectives linked to this disclosure. Investors would like more transparency around the assumptions and sampling methodology that go into its 450 scenario (see above). Eni participated on the TCFD Board and it is to be seen how do the final recommendations will link to reporting on science-based targets and scenarios.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

Eni belongs to Fuels Europe which is scored E- for its climate lobbying by InfluenceMap but also belongs to the International Emissions Trading Association (IETA) which lobbying in favour of a carbon price. Eni supported the World Bank’s Statement on Carbon Pricing and is a member of the Carbon Pricing Leadership Coalition. Eni needs to consider how these alliances are in misalignment and disclose to investors how it intends to address this misalignment. Eni provided some public support on EU targets for GHG emissions.⁵² Investors should seek to understand the company’s position on targets and whether they are engaging policymakers on this issue, as European investors have supported these targets as a means to provide greater long term certainty on the low-carbon transition.⁵³ Future engagement will examine how Eni can play a more leading role in pushing OGCI workstreams on reducing operational methane emissions, where they seem to be more comfortable with enhanced transparency.

⁵¹ Influence Map (2016) “The Oil Majors and Climate Risk: What investors need to know.” <https://influencemap.org/report/Oil-Majors-and-Climate-Fraud-ea2a6a78ed809d2b5f83495e37828b5e>

⁵² See https://www.eni.com/en_IT/media/2015/12/the-european-commission-vice-president-for-the-energy-union-maros-sefcovic-meets-enis-ceo-claudio-descalzi?lnkfrm=newssearch

⁵³ IIGCC (2016) “Implementing the Paris Ambition: Aligning corporate and investor voices on climate policy.” Not published – available only to members of IIGCC.

Engagement Overview

Statoil has been one of very few oil and gas majors to not only support the idea of stress-testing against a 2°C scenario analysis but to also set targets and commit capital to decarbonise its portfolio. After several years of engagement and the first shareholder resolution on climate filed by Swedish AP funds, Statoil has met most investor expectations regarding disclosure and low-carbon transition planning strategy. Investors continuing the discussion with the company are now asking for more insight on how Statoil thinks that the carbon price it forecasts could impact demand, as well as its management procedures for hydraulic fracturing, especially around methane emissions.

Recent engagement milestones

- **2014** – **Investor Expectations: Oil and Gas Company Strategy** shared with company by investors in Europe
- **2015** – Statoil is a founding member of the **Oil and Gas Climate Initiative (OGCI)**
- **2015** – The Board of Statoil backs shareholder resolution on ‘Strategic Resilience for 2035 and beyond’
- **2016** – Statoil publishes its Energy Perspectives 2016 which analyses a 2°C scenario.
- **2017** – Statoil releases its 2030 **Climate Roadmap**

CDP 2016 Performance Analysis – how does Statoil compare to peers?

Overall League Table rank	Fossil fuel asset mix rank	Capital flexibility rank	Climate governance and strategy rank	Emissions and resource management rank	Water resilience rank
1/10	2	3	1	1	8

- ✓ **Fossil fuel asset mix:** Statoil has the highest percentage of gas in its proved reserve base (56%) and has increased the proportion of gas in its production the most in recent years (7% annually since 2000). It has recently sold out of its Canadian oil sands projects for US\$630m. As a result, Statoil does not hold any oil sands exposure.
- ✓ **Capital flexibility:** With a low reserve life of 8 years and a high percentage of developed proved reserves (69%), it potentially has more flexibility than others to adapt its capital expenditure strategy. It also has the lowest production costs of currently operating fields at US\$5.9/boe.
- ✓ **Emissions and resource management:** The company has the lowest upstream emissions intensity of production at of 10kg CO₂/boe with a target to reduce it further to 9kg CO₂/boe. Statoil manages its methane (second lowest emissions per unit production) and flaring (third lowest) emissions better than its peers.
- ✗ **Water resilience:** Over a third of Statoil onshore upstream assets are based in areas of high stress.
- ✗ **Capital flexibility:** By 2020 the proportion of production made up of gas will lag behind its European peers at 43% of total hydrocarbon production. It has the highest financial gearing level of European players at 31%.

Investor perspective: Sylvia van Waveren, Robeco



Governance – Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Board: The company has the highest proportion of climate experienced individuals on its board (c.45%). Statoil's Board has a Safety, Sustainability and Ethics Committee.

Incentives: Statoil has around a fifth of management remuneration linked to climate performance. Members of the executive committee are remunerated based on the emissions reduction target. For 2016 the CEO will be remunerated based on the Upstream (exploration and production activities) CO₂ intensity KPI of 9 kg CO₂/barrel of oil equivalent (boe).



Strategy – Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Scenarios: In Statoil's *Energy Perspective 2016*, three scenarios are analysed, one the "Renewal" scenario within the two degree target and involves peak emissions in 2020. In its 2016 Sustainability Report, Statoil disclosed the results of the stress test against the IEA's 450 scenario, finding that it would have a positive impact of about 6% on Statoil's NPV compared to Statoil's internal planning assumptions as of December 2016.

Portfolio and capex resilience: The stress test demonstrates that the portfolio is resilient to the IEA's energy scenarios. Statoil applies an internal carbon price of 50 USD/tonne CO₂ for all new projects after 2020 in their investment decisions.



Implementation – Embed scenario analysis and 'stress testing' within key business planning processes, investment decisions and metrics on a regular basis.

Risk and business model implications: Statoil has not cancelled any projects as a result of its scenario analysis and there is some concern amongst environmentalists about the risks of arctic drilling in the Barents Sea which could also pose a litigation risk to the company. Investors are looking to understand what percent of Statoil's capex are going into projects that are not compliant with a below 2°C scenario.

R&D New Business opportunities: Statoil recently established a New Energy Solutions (NES) unit to develop renewable energy and other low-carbon assets and companies. This will build on Statoil's presence in offshore wind, with the company owning the 317 MW Sheringham Shoal Offshore Wind Farm in the UK (which generates enough power to supply roughly 220,000 households). In February 2016, Statoil also created Statoil Energy Ventures fund to invest up to \$200 million over 4-7 years in growth-stage low-carbon companies. Finally, from 2012-2015 Statoil invested \$460 million per year into dedicated low-carbon R&D, with a focus on energy efficiency, CCS, offshore wind, second-generation biofuels and geothermal. They expect 15-20% of their investments to be directed towards new energy solutions in 2030.

Priority questions for Statoil

In order to better understand the impact of different long term energy demand scenarios on "Asset portfolio resilience," what is Statoil's strategy on emission intensive oil types and the share of 2015-2025 capex on non -2°C production?

There can be environmental impacts from hydraulic fracturing. How will Statoil improve its disclosure of policies to reduce the environmental impacts and GHG emissions from hydraulic fracturing?

Statoil applies internal carbon prices to direct emissions as a part of the project evaluation process. How does the company apply such carbon prices in their analyses of future market demand of their products (rather than just for the projects)?

In relation to methane emissions, how can the company improve its reporting and reduction measures, that might be feasible in a cost-effective manner?



Transparency and disclosure – Disclose in the annual report and/or on the corporate website, the company’s view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions.

Assets and reserves: Statoil reports to CDP proven reserves in 11 hydrocarbon type/regions. It also report the break-even price of three Hydrocarbon product types, the only other company to do so in 2016 was ConocoPhillips.

Operational emissions: Statoil has metrics on GHG emissions scope 1,2,3. It has a reduction target on scope 1 (to save another 144,000 tonnes of CO₂ in 2017), that it aims to achieve by improving energy efficiency and reducing flaring.



Public policy – Engage with public policy makers in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investment and ensure there is broad oversight regarding the company’s lobbying activity.

Policy positions: Statoil advocates a “price on greenhouse gas emissions based on the emitter pays principle” as the preferred means to reduce greenhouse gas emissions, and was one of a group of six European oil and gas signatories to a 2015 letter “calling on the UN and governments to put a price on carbon”. The Company welcomed the Paris Agreement and states that the company is well positioned to do its part.

Trade Associations: Statoil is a member of a number of trade associations, including IPIECA, IOGP, API, the Center for Environment Policy Studies (CEPS), and the International Emission Trading Association. Statoil also funds climate-related research institutes such as MIT’s Joint Implementation Program and CICEP/CICERO.

Activity: Statoil reports a variety of policy engagement activities (“direct engagement with policy makers, “trade associations,” and “funding research organizations”).

Appendix I Company performance and engagement heat map/traffic light system

League Table Rank		1	2	3	4	5	6	7	8	9	10	Weighting:
Companies		Statoil	Eri	Total	Shell + BG	BP	Occidental	ConocoPhillips	Chevron	ExxonMobil	Suncor	Metric area
Country		Norway	Italy	France	Netherlands	UK	USA	USA	USA	USA	Canada	
Fossil fuel asset mix rank		2	3	5	4	1	8	9	7	6	10	30%
Production mix between oil and gas		5	3	3	2	1	8	9	7	6	10	50%
Proved reserves mix by oil and gas		1	3	5	4	2	6	9	7	8	10	50%
Capital flexibility rank		3	1	7	9	8	2	6	5	4	10	20%
Reserve life (R/P) and development status		1	3	9	5	6	2	7	4	8	10	40%
Production costs and capex intensity		7	1	4	10	6	5	3	9	2	8	30%
Finding and Development costs		6	3	7	9	10	8	4	5	2	1	15%
Financial gearing		9	4	5	8	7	1	10	3	2	6	15%
Climate governance and strategy rank		1	3	4	2	5	10	8	7	9	6	20%
Carbon regulation supportiveness		2	4	5	3	5	8	7	9	10	1	40%
Climate governance		1	2	4	3	5	10	7	8	6	9	30%
Low-carbon and alternative energy spend		4	4	1	3	2	8	10	7	8	6	30%
Emissions and resource management rank		1	2	3	4	7	9	6	8	10	5	20%
Upstream emissions intensity		2	1	3	4	5	10	8	6	7	9	30%
Emissions reduction target		2	1	3	6	10	10	6	6	10	6	20%
Methane emissions intensity and disclosure quality		2	6	4	3	8	5	7	9	10	1	25%
Flaring intensity		3	8	3	10	5	7	1	6	9	2	15%
Lost gas production		1	7	6	5	4	3	2	9	8	10	10%
Water resilience rank		8	7	10	5	9	4	1	6	3	2	10%
Water stress exposure		5	9	10	7	8	4	1	6	3	2	45%
Water withdrawal intensity		9	1	4	6	7	9	3	1	5	8	30%
Water disclosure		3	3	3	3	3	1	3	8	8	1	25%
Total		9	9	4	2	3	3	3	2	3	5	
		7	6	11	12	11	7	9	12	6	5	
		1	2	2	3	3	7	5	3	8	7	



Appendix II 2017 oil and gas company AGM schedule

Company	AGM date 2017	Investors pre-declaring support for 2D resolutions
ExxonMobil	May 31, 2017	See full list at and learn how to pre-declare at: https://www.ceres.org/2DSResolutions
Chevron	May 31, 2017	
Occidental	May 12, 2017	See full list at: https://www.ceres.org/2DSResolutions
ConocoPhillips	May 16, 2017	
Suncor	April 27, 2017	
Shell + BG	May 23, 2017	
Total	May 26, 2017	
BP	May 17, 2017	
Eni	April 13, 2017	
Statoil	May 11, 2017	

Appendix III Guidance on using CDP company responses and data points to prepare for company engagements using the Investor Expectations framework

In order to assist investors in identifying relevant information on company carbon asset risk within CDP's dataset and inform their engagement activities with oil and gas companies, the below table links relevant questions from CDP's annual climate change questionnaire with the expectations and guiding questions outlined in the GIC's 'Investor Expectations of Oil and Gas Companies: Transition to a lower carbon future' document.

1 Governance

Expectation: Clearly define board and management governance processes to ensure adequate oversight of climate-related risk and the strategic implications of planning for a transition consistent with 2°C and efforts to pursue 1.5°C.

Board expertise and process for understanding climate-related risks	CC1.1 Where is the highest level of direct responsibility for climate change within your organisation?
Strategy oversight	CC2.1 Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities. CC2.2 Is climate change integrated into your business strategy?
Incentivising strategy	CC1.2 Do you provide incentives for the management of climate change issues, including the attainment of targets?

2 Strategy

Expectation: Integrate the management of climate-related risks and opportunities into business strategy and ensure business models are robust, responsive and resilient in the face of a range of energy transition scenarios through appropriate scenario analysis.

Scenarios	OG1.7 In your economic assessment of hydrocarbon reserves, resources or assets, do you conduct scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition?
Portfolio and capex resilience	OG1.3 Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year OG6.1 For each relevant strategic development area, please provide financial information for the reporting year. OG6.2 Please describe your future capital expenditure plans for different strategic development areas.

3 Implementation

Expectation: Embed scenario analysis and 'stress testing' within key business planning processes, investment decisions and metrics on a regular basis.

Risk and business model implications	CC2.2c Does your company use an internal price on carbon? OG6.1 For each relevant strategic development area [1], please provide financial information for the reporting year
Research and development and new business opportunities	OG4.1 Is your organisation involved in the transfer or sequestration of CO ₂ ? OG6.3 Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas

4 Transparency and disclosure

Expectation: Disclose in the annual report and/or on the corporate website, the company's view of, and response to, its material climate-related risks and opportunities as outlined in the rest of this document and operational emissions. Pro-actively use other means, such as CDP and through dialogue with investors, to publicise your position on climate change and the company's greenhouse gas emission levels. Further, to engage with investors in an open and transparent way.

Assets and reserves	<p>OG1.2 Please provide values for annual gross and net production by hydrocarbon type (in units of BOE) for the reporting year.</p> <p>OG1.3 Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year.</p> <p>OG1.5 Please provide the average breakeven cost of current production used in estimation of proven reserves.</p>
Operational emissions	<p>OG2.3 Please provide masses of gross Scope 1 carbon dioxide and methane emissions in units of metric tonnes CO₂ and CH₄, respectively, for the organisation's owned/controlled operations broken down by value chain segment.</p> <p>OG2.4 Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO₂e for the organisation's owned/controlled operations broken down by value chain segment.</p> <p>OG5.1 Please provide estimated emissions intensities (Scope 1 + Scope 2) associated with current production and operations.</p> <p>CC3.1 Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?)</p> <p>OG7.7 Did you have a methane-specific emissions reduction target that was active (ongoing or reached completion) in the reporting year and/or were methane emissions incorporated into targets reported in CC3?</p>

5 Public policy

Expectation: Engage with public policy makers and other stakeholders in support of cost-effective policy measures to mitigate climate-related risks and support low carbon investments, such as those advocated for in the 2014/2015 Global Investor Statement on Climate Change. Ensure there is broad oversight and transparency regarding the company's lobbying activity and political spending on climate-related regulatory issues (including carbon/methane emissions, energy and transport), as well as consistency between a company's public positioning on climate change and its lobbying activities.

Policy positions	<p>CC2.3 Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following?</p>
Trade Associations	<p>CC2.3b Are you on the Board of any trade associations or provide funding beyond membership?</p>
Activity	<p>CC2.3f What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?</p>

