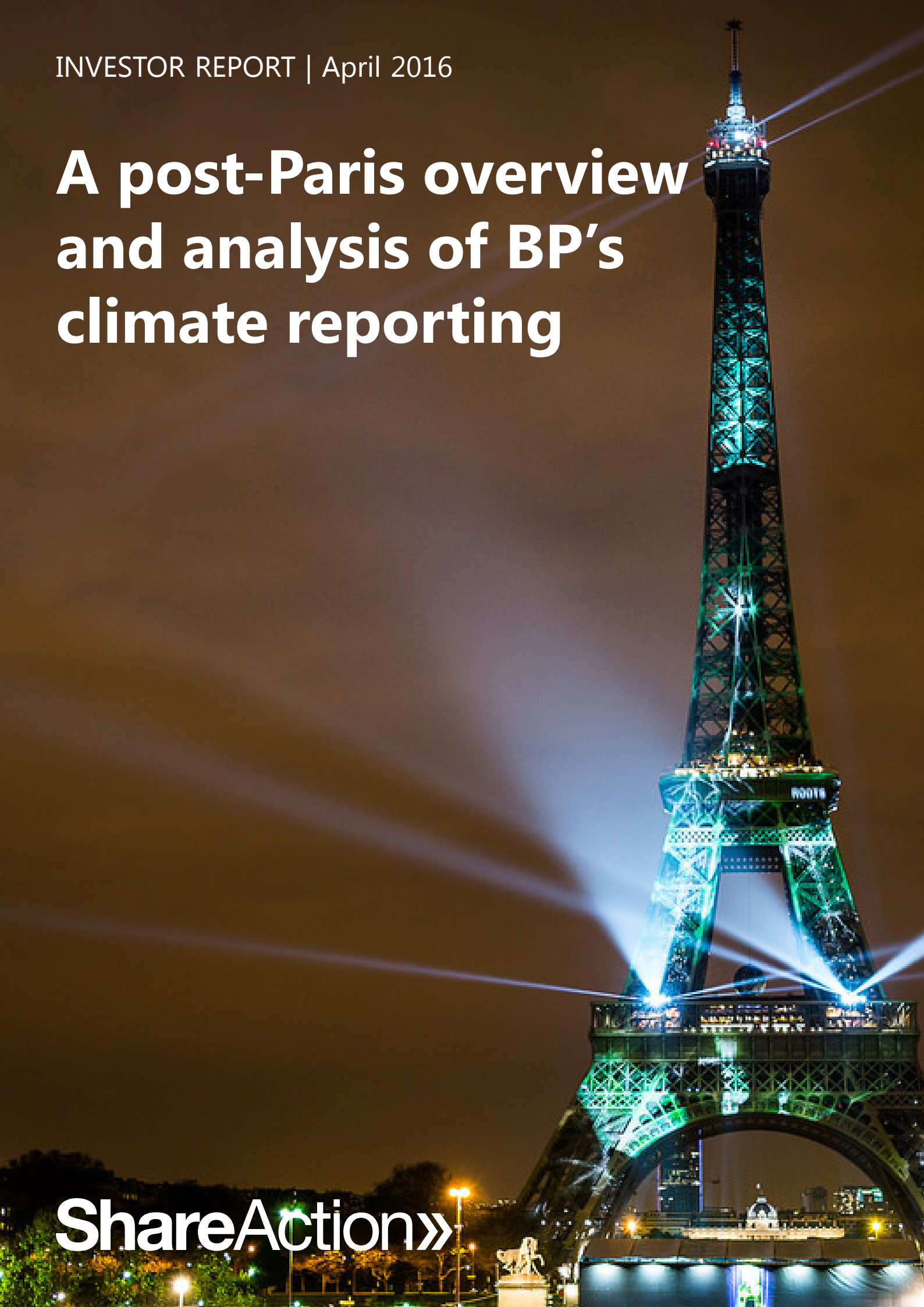
INVESTOR REPORT | April 2016

A post-Paris overview and analysis of BP's climate reporting



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Executive summary

This paper explains and analyses the enhanced reporting provided by BP following a shareholder resolution filed and passed in 2015, which directed the company to disclose additional information on areas relevant to climate risk and strategic resilience.[1] We find that in this first year of enhanced reporting, there is limited evidence indicating that the company is fully engaged with moving onto a new path that will make it resilient in a low carbon world. This year's reporting suggests a gap between BP's current business strategy and the transformative shift required to align with the Paris agreement of limiting global temperature rises to 'well below 2°C, with an ambition for 1.5'.[2]

Key findings

- BP's reporting on resilience against low-carbon post-2035 scenarios lacks depth, with the company continuing to doubt the likelihood of a 2°C outcome and forecasting a 'base case' of fossil fuel demand consistent with 4 – 6°C warming.
- KPIs and executive incentives continue to encourage the replenishing of fossil fuel reserves, particularly topical in light of CEO Bob Dudley's controversial high pay package that was informed by these metrics.
- The company does not provide comprehensive details of how it might adapt R&D and investment strategies for resilience under low carbon, low demand scenarios.
- In many cases, the company does not address the requests made by investors in the supporting statement that was circulated with the resolutions.

Investors that voted in support of the 2015 shareholder resolutions and are supportive of the Paris target should urge BP's board for more rapid and ambitious progress. This paper includes analysis on the five areas of the shareholder resolution, and suggestions for investor engagement on each.

Report cover photo source: Yann Caradec, Flickr

Background & introduction

UN negotiations held at COP21 in Paris, December 2015, raised the bar of climate ambition, setting a target for limiting temperature rises to below 2°C (hereinafter, <2°C). This has been welcomed by investors alert to the portfolio-wide harm associated with unmitigated climate change. It is now imperative for companies to develop and adopt strategies for resilience under a <2°C scenario, and fiduciary investors have an important stewardship role to play in holding them accountable to this.

Pre-Paris, in April 2015, a shareholder resolution directing BP to publish enhanced reporting on five areas relevant for post-2035 resilience was filed and passed at the AGM. In light of developments at COP21, this paper considers whether BP's enhanced reporting indicates the company is preparing for strategic resilience under a <2°C economy. This analysis goes beyond technical compliance with the resolution, recognising that post-Paris, shareholder and wider stakeholder opinion will require much more to satisfy the resolution's purpose of realising long-term strategic resilience.

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Compared to US peers such as ExxonMobil and Chevron, BP has made progress in its reporting on climate risk. Nonetheless, BP's reporting does not indicate that the company is transitioning for low carbon resilience in a manner shareholders require if they seek to align their investment strategy with the <2°C limit. This paper considers how investors might engage with BP to encourage progress on each area of the resolution:

1. Asset portfolio resilience to post-2035 scenarios
2. Strategic KPIs and executive incentives
3. Low carbon energy R&D and investment strategies
4. Greenhouse gas emissions management
5. Public policy interventions

2016 reporting

Documents taken into consideration for this analysis include the BP Technology Outlook,[3] BP Sustainability Report,[4] BP Energy Outlook[5] and BP Annual Report.[6] Whilst BP indicates specific pages designated for each of the areas (see table below), this report considers information found more widely across the documentation to provide shareholders with a rounded picture of BP's approach.

Special resolution – strategic resilience for 2035 and beyond

A coalition of shareholders filed a special resolution in 2015 regarding BP's preparation for a lower-carbon future. The resolution, which was supported by the BP board, requested that our reporting include information in five areas:

Resolution element	Where reported
Ongoing operational emissions management	*BP Sustainability Report 2015*, pages 17 and 42 How we are working to improve the energy efficiency of our operations and product use.
Asset portfolio resilience to post-2035 scenarios	*BP Sustainability Report 2015*, page 18 *BP Energy Outlook* *BP Technology Outlook*, page 8 How we adapt our investment strategy to changes in policy, market or technology conditions.
Low-carbon energy R&D and investment strategies	*BP Sustainability Report 2015*, page 16 Information on our gas, biofuels and wind businesses, as well as our research activities.
Strategic KPIs and executive incentives	*BP Annual Report 2015*, pages 20 and 22 Information on how our executives are currently rewarded.
Public policy activities	*BP Sustainability Report 2015*, page 15 Our activities supporting our advocacy for carbon pricing, along with working with governments and peers on methane and flaring reduction.

Find more online
bp.com/sustainabilityreport
bp.com/technologyoutlook
bp.com/energyoutlook

Photo source: BP Annual Report (2016), page 47

Asset portfolio resilience to post-2035 scenarios

In order to assess BP's portfolio resilience to post-2035 scenarios, it is necessary to understand how the company is evaluating and responding to the risks associated with low carbon, low demand schenarios.

The supporting statement circulated with the 2015 resolution asked for an assessment of "[BP's] portfolio's resilience against the range of IEA, and any other relevant post-2035, scenarios", referencing in footnotes the IEA 450 Scenario. Information was sought on the role of "exploration, disposals and cash distributions to investors". In the context of a low carbon transition, the role of hydrocarbon exploration will be heavily reduced, and companies might look to dispose of high-carbon assets, as well as considering wind-down strategies with cash distributions to investors.[7]

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Key points

- BP does not, as the supporting statement requested, report on portfolio resilience against IEA 450 – instead dismissing the likelihood of a 2°C outcome. The company does not supply economic data regarding the viability of its current portfolio or projected pipeline of projects under the different IEA scenarios.
- BP's 'base case' forecast for fossil fuel demand is consistent with 4 – 6°C warming. Whilst the company also includes a 'faster transition' possibility consistent with the IEA Bridge scenario, it does not clarify which demand scenario strategic decision making is based upon.
- At the launch event for its Energy Outlook, BP stated it had not considered how the material consequences of catastrophic temperature rises seen under the 'base case' (drought, flooding, famine etc.) might affect GDP growth and demand forecasts.
- BP does not provide an account of how it would respond and adapt to low carbon, low demand scenarios consistent with <2°C pathways.

Analysing the risk that a <2°C economy poses to BP's business model

Dismissal of the IEA 450 scenario

BP's 2016 reporting does not respond to the request included in the resolution's supporting statement to test portfolio resilience under the IEA 450 scenario. This scenario is widely used as an industry benchmark consistent with limiting temperature rises to 2°C. However, it is important to note that IEA 450 only correlates to a 50% chance of remaining beneath 2°C, and is heavily dependent on BECCS (Biomass Energy Carbon Capture and Storage) technology that is not yet mature or scalable, and involves high risks.[8]

BP's Energy Outlook does not consider the IEA 450 scenario a plausible one for 2035, and does not test portfolio resilience against this scenario.[9] The company does not offer a breakdown of central microeconomic details (such as Net Profit Value) under any of the low carbon scenarios included in the supporting statement.

The assertion that 2°C is an unlikely outcome is found throughout BP's reporting. For instance, it is stated that: "[fossil fuels] currently account for around 56% of total energy consumption, and we believe that will decrease to about 54% in 2035. For comparison, under [the 450 scenario], oil and gas would still make up 50% of the energy mix in 2030 and 44% in 2040 – assuming carbon capture and storage is widely deployed".[10] Further,

BP projects that "global CO2 emissions from fossil fuels may be 20% higher in 2035 than they were in 2014… This is not what BP wants to see, but what we currently think is likely".[11]

> "BP's 2016 reporting does not respond to the request included in the resolution's supporting statement to test portfolio resilience under the IEA 450 scenario.

Limited evaluation of portfolio resilience

For investors to properly assess the resilience of BP's portfolio, it is important the company evaluates a full range of potential demand scenarios, not just those most favourable to BP's business model. Under carbon-constrained circumstances, a number of factors could contribute to demand destruction, including: disruptive low carbon technologies, the rapid decarbonisation of the global vehicle fleet, and growing stringency in emissions legislation.[12] BP's 2016 reporting does not adequately describe these risks to investors.

In the Energy Outlook, BP outlines a 'base case' for fossil fuel growth that it considers 'most likely'. This forecasts demand vastly exceeding the carbon budget for limiting temperature rises to <2°C (see graph below). BP highlights uncertainties in the 'base case', including a 'faster transition' possibility. 'Faster transition' is consistent with IEA's Bridge Scenario, which retains a possibility of limiting temperature rises to 2°C in the case of austere climate policies after 2030 and the successful development and deployment of negative emission technologies.[13] The company does not indicate in reporting whether it is currently basing strategic decision making on the 'base case' or 'faster transition' scenario.

Key challenges to the 'base case' and 'faster transition' demand forecasts are outlined below.[14] Failing to take these disruptive trends into account could significantly impair BP's approach to portfolio resilience, leading to value destruction in the case that strategic decision making is premised upon assumptions that overestimate future demand for hydrocarbons.

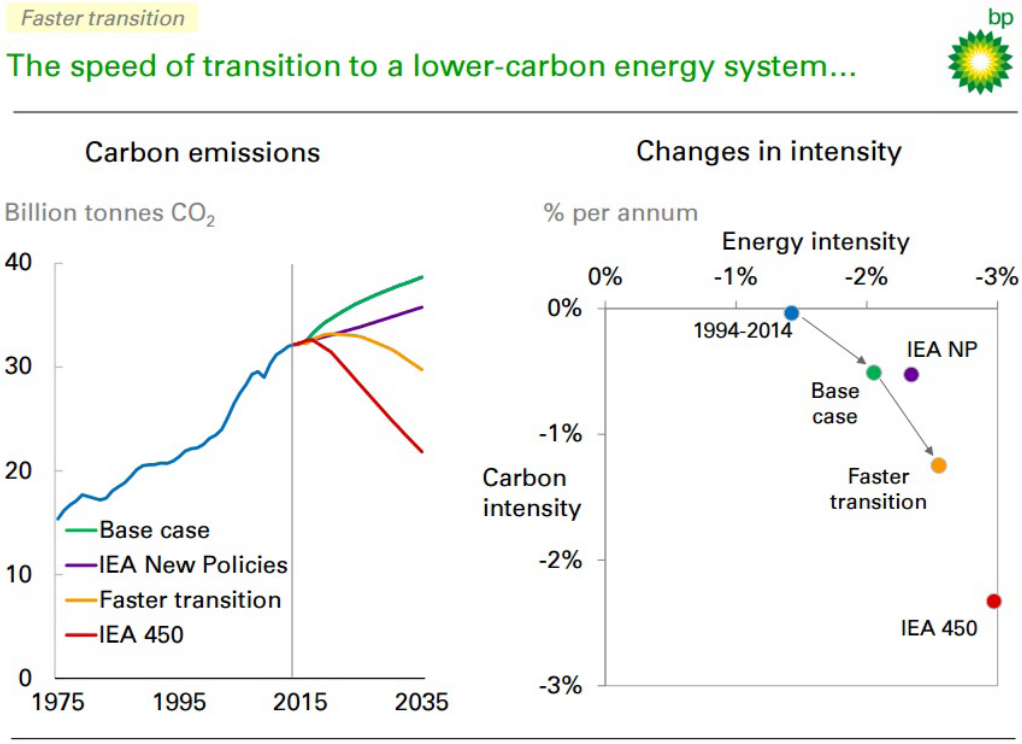

Photo source: BP Annual Report (2016), page 78

Stalling of growth in renewables

BP has historically underestimated the growth and increasing competitiveness of renewables, having to scale up its predictions annually.[15] The 2016 Energy Outlook again takes a conservative outlook, with the 'faster transition' case assuming renewables will provide just 15% of the base energy production by 2035. This assumes the growth rate will drop to 10.5% per annum in the next five years, and 6.6% in the following decade – a steep fall from the current average growth rate of 17.4%.[16]

> "In the Energy Outlook, BP outlines a 'base case' for fossil fuel growth that it considers 'most likely'. This forecasts demand vastly exceeding the carbon budget for limiting temperature rises to <2°C...

Predictions of stalling progress are divergent to forecasts of exponential growth many analysts have made for renewables, due to their rapidly falling costs. For instance, Citi estimates the cost of solar could fall by as much as 45% by 2020,[17] and Bloomberg New Economic Finance (BNEF) projects that utility-scale solar costs will fall by 46% between 2015 and 2040, becoming competitive with conventional power generation by 2026. This leads BNEF to project that fossil fuels will account for a 44% share of generation in 2040[18] – compared to BP's predication that they will continue to provide around 60% by 2035. This divergence in forecasts could lead BP to allocate capital to projects that would be economically stranded if BNEF's demand outlook is proved correct.

A pessimistic outlook on the take-off of renewables is found elsewhere in BPs reporting. For instance, BP suggests there is an issue in "the practicality of providing [renewable] energy to consumers when and where it is needed, at a price that is affordable and at a scale that is acceptable. It will be for communities and policymakers to judge the practicality as well as the social and environmental acceptability of taking such steps". In BP's Sustainability Report, water usage and 'visual intrusion' are noted as factors undermining the environmental and social acceptability of renewables. In light of the much more severe social and environmental costs associated with global temperature rises, the concerns BP raises about the sustainability of renewables seem misplaced.

Electric vehicles

Within BP's Energy Outlook, vehicle ownership is a key contributor to the projected growth in demand for fossil fuels. Indeed, BP's prediction that the global vehicle fleet doubles is thought to support an increased production of liquid fuels, including high-cost projects like tar sands and deepwater drilling.

> "This divergence in forecasts could lead BP to allocate capital to projects that would be economically stranded if BNEF's demand outlook is proved correct.

A prospective risk to this outlook comes from disruptive technological advances and market trends in hybrid and electric vehicles (EVs). Queried about this at the Outlook launch, BP said it expects that EVs will not be cost-competitive until after 2035. This contradicts the research of Bernstein, which finds that EVs could be cost-competitive with internal combustion engine cars by 2025.[19] This bullish outlook is supported by recent developments: for instance, the costs of Tesla's recent Model-S were at least five years ahead of the industry average.[20] As costs continue to fall and battery technology makes

rapid improvements, many predict that EVs will continue on an exponential growth trend.[21]

In China and India – where BP foresees the largest increase in vehicle ownership – air pollution resulting from increasing transport is leading policy makers to rapidly introduce more stringent legislation.[22] The environmental health costs of BP's estimated doubling of the vehicle fleet could trigger an additional tightening of legislation, further undercutting the structural demand for liquid fuels.

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Government action

Government policy is the climate risk to which BP gives most attention. In the Annual Report, it is reported that climate change policies "could result in substantial capital expenditure, taxes and reduced profitability. In the future, these could potentially impact our assets, revenue generation and strategic growth opportunities".[23] BP identifies over 20 policies and directives that may "have a significant effect on the production, sale and profitability of many of BP's products".[24] These policies – from legislation on tailpipe emissions, to cap and trade emission trading schemes[25] – form part of a tapestry of initiatives driving forward the low-carbon economy.

It is welcome that BP acknowledges that these policies pose a material risk to the company's current business model. However, it is unclear how this recognition is being integrated into strategic planning. Investors might question why these more ambitious policy outcomes are not reflected in BP's projected demand outlooks, and why the company does not disclose plans for resilience under the scenarios these policies are designed to bring about.

For example, BP recognises the Chinese government's substantial range of initiatives: including its target to peak CO2 emissions in 2030 (and intention to peak earlier and increase the non-fossil fuel share of all energy to 20% by 2030), emissions trading pilot programmes, and its adoption of more stringent vehicle tailpipe emission standards and vehicle efficiency standards. However, in the Energy Outlook, BP considers China to be a central driver of the growing demand for fossil fuels, particularly in association with increased vehicle ownership.

Further, BP acknowledges the agreement reached at COP21 to hold temperature rises to "well below 2°C above pre-industrial levels and to pursue efforts to limit temperature rise to 1.5°C".[26] However, at no point does the company consider this scenario as one that needs planning for.

"It is welcome that BP acknowledges that these policies pose a material risk to the company. However, it is unclear how this is being integrated into strategic planning.

Material impacts of 4 – 6°C temperature rises on demand

If the <2°C limit in temperature rises is not met, deployment of capital to projects that exceed this

carbon budget would contribute to the broader physical devastation associated with unmitigated climate change (flooding, drought, famine etc.) and its related economy-wide harm. Research from The Economist indicates that 6°C of warming represents value losses worth US$43trn – 30% of the world's manageable assets.[27] The European Systemic Risk Board has recently showcased the high financial cost of a late and sudden low-carbon transition in response to material climatic impacts.[28] These factors are likely to effect the predicted GDP growth underpinning BP's 'base case' forecast.

Such material effects are likely to have further implications for the fossil fuel demand that BP forecasts. By stimulating political and social will to enact more forceful policies, tighter emissions legislations could be enforced. This could be done, for example, through the COP21 'ratchetting' mechanism.[29]

When asked at the Outlook launch whether analysis had been performed on the downside implications these climate effects might have on BP's forecasts regarding GDP growth and demand for fossil fuels, the response was that these had not been accounted for.

> "Further, BP acknowledges the agreement reached at COP21 to hold temperature rises to "well below 2°C"... However, at no point does the company consider this scenario as one that needs planning for.

Key questions

- Is BP basing decisions about capital expenditure for project development and R&D on the projections contained in the Outlook? If so, which scenario are these based upon?
- How is BP managing the risk of demand destruction in the case that neither the 'base case' nor 'faster transition' scenario reflect the scale and speed of global decarbonisation? How does this risk management inform capital discipline?
- Has BP tested business model robustness against a range of credible disruptive scenarios – including continued exponential growth in renewable energies and EV penetration – that would generate greater demand destruction than seen under 'faster transition'? If not, the company should be encouraged to produce and disclose these evaluations. These stress tests should cover both the existing portfolio and BP's pipeline of projects.

Preparing for portfolio resilience in a <2°C economy

The resolution's supporting statement asked for information regarding "the role exploration, disposals and cash distributions to investors will play in the nearer term". In the context of a low carbon transition, the role of hydrocarbon exploration will be severely reduced, and companies might look to dispose of high-carbon assets, as well as considering wind-down strategies with cash distributions to investors. This year's reporting contains no discussion of what a strategy for low-carbon resilience might look like in these three areas.

Whilst recognising that there is no one set pathway for fossil fuel companies transitioning for a <2°C compliant business strategy, it is important that shareholders start to see substantive commitments towards this end. In the future, investors should request quantifiable measures and milestones to track how BP is developing its business model.

Although BP rejects the likelihood of a <2°C scenario coming into effect, under the heading 'Resilience – now and in the future', BP outlines its approach to "mak[ing] sure our business is sustainable – commercially, environmentally and in a lower-carbon future".[30] These are now examined.

‘A balanced portfolio with flexibility’

“The diversity of our portfolio – upstream, downstream and renewables – helps us to provide energy to support economic development and to contribute to a lower-carbon future. Natural gas accounts for around half of our Upstream portfolio and our biofuels production has grown year-on-year.”

Portfolio diversification is a possible option for BP in aligning its business strategy for consistency with the <2°C target. Whilst natural gas is a lower emitting fossil fuel compared to coal and oil, its role as a ‘transitional fuel’ can be overstated. For instance, recent analysis suggests that 19.3% of BP’s total capex on gas would be unneeded under the IEA 450 scenario, as well as 26.2% of the company’s total capital expenditure on oil.[31] This underscores the need for a much more fundamental diversification, and accompanying wind-down strategy for high-carbon assets.

> “Investors should also raise concern about projects with long timelines for production, where value may never be realised under a carbon-constrained future.

BP also holds investments in Brazilian biofuels, as well as in 16 windfarms in the US. However, it is not disclosed how much, as a total percentage, alternative energies make up BP’s total portfolio. It is further unclear whether these investments form part of a more comprehensive strategy for portfolio transition, with no long-term targets for increasing this proportion reported upon.

‘Dynamic investment strategy’

“BP’s proved reserves are produced, and historically replaced, over a 13-year time frame on average. This means we have time to adapt our investment strategy to changes in policy, market or technology conditions.”

Understanding how quickly BP can adapt to different scenarios is important for assessing strategic resilience. However, more details are needed, including: information regarding the proportion of capex allocated for base production, and for growth and expansion projects; and the proportion of these allocations currently committed and uncommitted. Investors should also raise concern about projects with long timelines for production, where value may never be realised under a carbon-constrained future.

‘Climate change adaptation’

“We use specialized climate models … to help us predict possible climate impacts relevant to our operations, as well as to better understand how extreme weather events might impact our business in the future… For example, we decided to place some of the new South Caucasus pipeline deeper underground to avoid potential washouts due to flooding. And, in Iraq … we are selecting new equipment to better withstand extended periods of high temperatures.”

It is notable that BP acknowledges the material consequences that climate change will have on operations, but as previously mentioned, not how these might affect the variables underpinning BP’s demand scenarios.

Key question

- BP needs to be much clearer with shareholders about its approach towards corporate transition for a <2°C outcome. Is the company developing a managed decline strategy? If not, how will BP reinvent its portfolio for consistency with a <2°C economy? Investors should ask to see targets and milestones to track progress towards this goal in a way that can be externally monitored.

KPIs and executive incentives

This year (2016), investors have an important opportunity to influence BP's remuneration policy. BP's remuneration plans are put up to a binding vote every three years and were due to be revisited this year for the 2017 vote. The 59% vote against Chief Executive Bob Dudley's $20 million pay package at the 2016 AGM adds further weight to the need for a policy reformation.

The 2015 resolution directed the company to report upon key performance indicators relevant to climate risk. The supportive statement to the resolution requested disclosure of BP's "evolving approach to KPIs and executive incentives in light of the challenges of climate change", with a particular interest in the role played by the reserves replacement ratio (RRR).

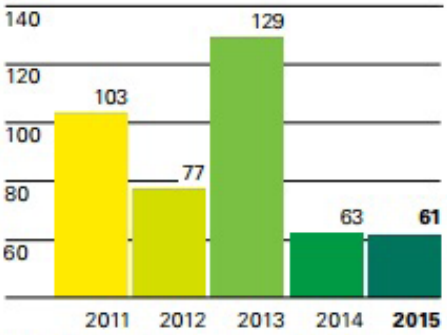
As fossil fuel companies integrate the <2°C limit into business strategies, they must restructure KPIs and executive incentives to reflect the fundamental shifts in behaviour that will be required; moving away from indicators that encourage behaviour inconsistent with low carbon resilience – such as metrics based on exploration volumes.

Key points

- BP does not report upon an evolving approach to KPIs and executive incentives in light of the challenges of climate change, as requested by the supporting statement, with no discussion on how the role of RRR might change in the future.
- BP's KPI and executive incentive structure continues to incentivise fossil fuel production. Whilst shifting away from these metrics will take time, clearer signals of progress are needed.

In the 2016 Annual Report, BP describes 14 indictors used to measure performance against the

Reserves replacement ratio (%)



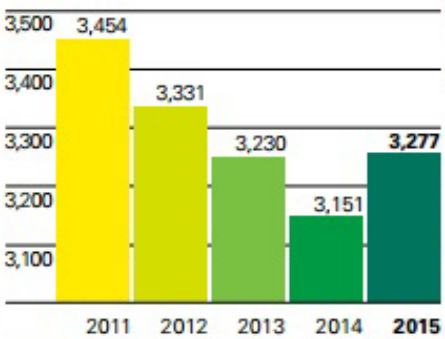
Proved reserves replacement ratio is the extent to which the year's production has been replaced by proved reserves added to our reserve base.

The ratio is expressed in oil-equivalent terms and includes changes resulting from discoveries, improved recovery and extensions and revisions to previous estimates, but excludes changes resulting from acquisitions and disposals. The ratio reflects both subsidiaries★ and equity-accounted entities.

This measure helps to demonstrate our success in accessing, exploring and extracting resources.

2015 performance This year's reserves replacement ratio was similar to 2014. See page 229 for more information.

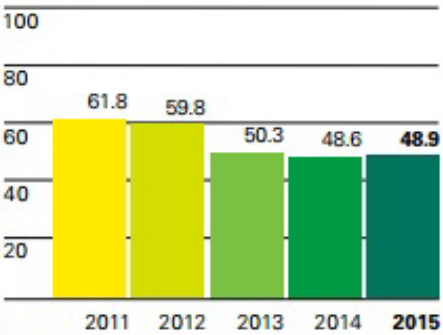
Production (mboe/d)



We report production of crude oil, condensate, natural gas liquids (NGLs), natural bitumen and natural gas on a volume per day basis for our subsidiaries and equity-accounted entities. Natural gas is converted to barrels of oil equivalent at 5,800 standard cubic feet of natural gas = 1 boe.

2015 performance BP's total reported production including Upstream and Rosneft segments was 4.0% higher than in 2014. This was mainly due to favourable entitlement impact in our production-sharing agreements★ in the Upstream segment.

Greenhouse gas emissions[b] (million tonnes of CO_2 equivalent)



We provide data on greenhouse gas (GHG) emissions material to our business on a carbon dioxide-equivalent basis. This includes carbon dioxide (CO_2) and methane for direct emissions. Our GHG KPI encompasses all BP's consolidated entities as well as our share of equity-accounted entities other than BP's share of TNK-BP and Rosneft.[c]

2015 performance The increase in our reported emissions is due to updating the global warming potential for methane. Without this update, our emissions would have decreased primarily due to divestments in Alaska.

[b] The 2015 figure reflects our update of the global warming potential for methane from 21 to 25, in line with IPIECA's guidelines.
[c] For more information on our GHG emissions see page 46.

Photo source: BP Annual Report (2016), page 21

company's strategic priorities and business plans. These show that BP continues to incentivise fossil fuel production, with greenhouse gas emissions considered on a much smaller scale and only on an operational basis, rather than taking the total lifecycle into account. BP continues to include RRR within its list of strategic priorities, as well as the production rate of hydrocarbons (see table on page 10).

> "As fossil fuel companies integrate the <2°C limit into business strategies, they must restructure strategic KPIs and executive incentives to reflect the fundamental shifts in behaviour that will be required

Incentivising fossil fuel production

The 20% pay rise awarded to BP's Chief Executive Bob Dudley this year attracted a high level of investor dissent.[32] These concerns seem particularly valid given that executive pay and bonuses are still linked to metrics that encourage the replenishing of fossil fuel reserves, an activity that could undermine future portfolio resilience under low demand, low carbon scenarios.

The proved reserves replacement ratio (RRR) is the extent to which production is replaced by proved reserves, expressed in oil equivalent terms. BP's Sustainability Report notes that this year's RRR was 61%, similar to 2014.[33] RRR is listed under the 'Long-term: performance share plan' as a strategic imperative.[34] Strategic imperatives make up one third of the weighted criteria for the performance shares received by top executives.[35]

In the context of declining access to conventional oil fields, for international oil companies to maintain high replacement ratios, executives are incentivised towards nonconventional and frontier projects that tend to be higher cost and higher risk – such as tar sands and ultra-deepwater.[36] This is unhelpful in the context of economic decarbonisation, where high break-even projects risk becoming stranded.

Recommendations

- For BP to transition for consistency with the 1.5 – 2°C target, there is a need for the company to refocus its strategic direction. This must be reflected in the KPIs and metrics that incentivise senior executives and influence decision-making procedures.
- Investors should encourage BP to move away from metrics based on exploration volumes, and request a more comprehensive restructuring of executive incentives to focus on portfolio diversification and wind-down strategies for high carbon assets.

Greenhouse gas emissions management

The 2015 resolution directed BP to report on how the company is seeking to reduce its operational emissions (those resulting from operative practices such as gas flaring, well testing and refining). Given that the largest proportion of BP's emissions are not operational, but those expended by consumers (roughly 80- 90%),[37] a more comprehensive approach might consider total lifecycle emissions. As the economy shifts towards decarbonisation, both energy producers and their consumers will have to adapt behaviour. A comprehensive approach to emission management would thus allow BP to develop portfolio resilience in the face of these changing circumstances.

Key point

- BP reports a 25% drop in customer emissions between 2011 and 2015. We recommend that investors request BP implements a strategy to continue reducing lifecycle emissions on this scale, benchmarking and setting targets for further reduction.

Total lifecycle emissions management

BP reports that its total customer emissions have fallen from 539 million tonnes (Mte) of CO2 in 2011, to 402 million in 2015 (see table below) – a decrease of 25%.[38] This is mainly due to contraction of operations and divestment of assets. Nonetheless, investors should welcome this fall and request BP implements a strategy for further reducing lifecycle emissions on this scale. This strategy and its accompanying benchmarking and reduction targets should be publicly communicated to allow for external evaluation.

Operational emissions management

Whilst total lifecycle emissions should be the focus of future emissions management, BP's operational emissions are by no means insignificant. BP reports that its direct GHG emissions have actually increased, due mainly to the update of the global warming potential from methane. Direct GHG emissions were 48.9 million tonnes (Mte) in 2015, up from 48.6 Mte in 2014.

BP lists steps that the company is taking to address this, including methane reduction initiatives and decreasing flaring. However, the company reports that it has experienced an increase in GHG intensity in upstream operations, set to continue as its portfolio moves towards more technically challenging and late-life operations. The firm reports that it is "difficult to establish an appropriate GHG target that can be cascaded throughout the organization with the objective of achieving cost-effective emission reductions. For these reasons, BP, like some of our peers, does not set enterprise-wide GHG targets".[39]

Internal carbon pricing

Another mechanism BP uses to manage operational emissions is to apply an internal carbon price of $40 into investment decisions in industrialized countries. The company reports that this allows it to "assess how potential carbon policy could affect our businesses… This is particularly important as we expect, by 2020, around two thirds of BP's direct emissions will be in countries subject to carbon policy".[40] BP states that it also stress tests at a higher carbon price, although doesn't disclose further details on this.

Given that the majority of BP's emissions occur in the consumption of its products, more significant than the increased costs of operations is the impact that carbon pricing policies are likely to have on demand. The increased costs associated with carbon pricing would incentivise consumers towards lower-carbon energy sources and products, cutting into the structural demand for BP's products. As such, investors should

	2011	2012	2013	2014	2015
Direct carbon dioxide (CO_2)[e] (million tonnes (Mte))	57.7	56.4	47.0	45.5	**45.0**
Direct methane[e] (Mte)	0.20	0.17	0.16	0.15	**0.16**
Direct greenhouse gas (GHG)[f] ($MteCO_2$ equivalent (CO_2e))	61.8	59.8	50.3	48.6	**48.9**
Indirect carbon dioxide (CO_2)[eg] (Mte)	9.0	8.4	6.7[h]	6.8[i]	**6.9**
Customer emissions[j] ($MteCO_2$)	539	517	422	406	**402**
Flaring (Upstream) (thousand tonnes (kte) of hydrocarbons)	1,835	1,548	2,028	2,188[k]	**1,863**

Photo source: BP Annual Report (2016), page 8

encourage BP to apply a total lifecycle carbon price into investment decisions, expanding upon its current focus on operational emissions.

In its Energy Outlook, BP identifies $100 as the necessary carbon price for keeping temperature rises to 2°C.[41] Investors could ask BP to use this as the carbon price in its calculations.

> “Given that the majority of BP’s emissions occur in the consumption of its products, more significant than the increased costs of operations is the impact that carbon pricing policies are likely to have on demand.

Recommendations

- Encourage BP to benchmark and set targets to reduce total lifecycle emissions. These targets could build upon recent rates of reduction in consumer emissions.
- When factoring carbon pricing into investment decisions, BP should consider the effect a carbon price would have on demand, as well as the cost of operations.

Low carbon R&D and investment strategies

The supporting statement to the 2015 resolution requested details on post-2015 plans for low carbon energy R&D and investment strategies. A <2°C consistent investment strategy does not necessarily imply a refocus on renewable energies: the company might also consider returning capital to shareholders, or applying its skillset into a different market area. This was recognised in a report by the Oil and Gas Climate Initiative (OGCI), of which BP is a member, that noted whilst oil and gas companies are currently looking into renewables, they are also "exploring new business models to ensure we can play a competitive and dynamic role in a low greenhouse gas future".[42]

Key point

- Although BP has a range of low carbon initiatives, reporting does not indicate if these make up a comprehensive investment strategy for portfolio transformation for <2°C resilience.

> "BP does not report on future budget allocations for low carbon R&D, nor on targets for increasing exposure to renewables.

BP does not report on future budget allocations for low carbon R&D, nor on targets for increasing exposure to renewables. BP provides shareholders with a number of examples of low carbon initiatives, but does not offer a comprehensive strategy regarding the role R&D and investment strategies will play within a <2°C transition:[43]

- **Biofuels business**: BP operates three sugar cane mills in Brazil.
- **Wind**: BP reports that it is among the top wind energy producers in the US, holding interests in 16 onshore wind farms.
- **Energy efficiency in products**: BP has developed lubricants to improve the fuel efficiency of vehicles, and works with vehicle and equipment manufacturers to achieve more efficient use.
- **Supporting research**: BP reports that it is "[i]nvesting in start-up companies to better understand evolving alternative and advanced technologies such as electric vehicles, batteries and bio-lubricants".
- **Carbon capture and storage (CCS)**: BP states some limited capacity in CCS projects.

> "Investors should continue to encourage BP to consider and develop an investment strategy consistent with limiting temperature rises to 1.5 – 2°C.

Investors should continue to encourage BP to consider and develop an R&D strategy consistent with limiting temperature rises to 1.5 – 2°C. In the future, this could be presented as a transition strategy, phasing out some forms of R&D expenditures and replacing them with others.

Public policy interventions

The 2015 resolution's supporting statement requested information on "BP's public policy programme, including positions on key policy measures, especially for the critical 2015 to 2020 policy making period'.[44] To ensure the constructiveness and consistency of BP's policy position, there is a need for full disclosure of BP's association with third party organisations that lobby on the firm's behalf.

As the recent case of ExxonMobil having documents subpoenaed as part of an investigation by the New York Attorney General has demonstrated, investors have an interest in transparency around companies' interactions with policy matters – including through think tank and advocacy groups.[45] BP's reporting falls short of this more comprehensive breakdown of lobbying activities.

Key points

- BP does not offer a breakdown of details on factors key for assessing public policy intervention, such as its membership and affiliation with trade associations and other third party groups.
- BP has inconsistent messaging on certain policy positions – such as its support for the Paris target of limiting temperature rises to <2°C – and takes unhelpful stances on other policy areas necessary for mitigating temperature rises, such as through its support for 'carbon leakage' provisions.

Lobbying and political donations

Under the section 'Lobbying and political donations',[46] BP states it does not use funds or resources to support political candidates or parties. The company says it interacts with governments on a range of issues in accordance with legal frameworks, and based on the company's code of conduct. The company does not offer a further breakdown of details on political lobbying.

Shareholders should have full disclosure of memberships and total funding and resource allocation (including fees and staff time) for all entities to which BP is linked – or those that act on the company's behalf – on issues of climate or energy policy. This should include trade associations and federations, Chambers of Commerce, general business forums, PR consultants/agencies, think tanks, advertising agencies, and special interest advocacy groups. There is also a need for disclosure of management oversight for ensuring consistency between the company's position and that of any third parties to which the company belongs or is associated, with mechanisms in place to respond to misalignments.

Public policy positions

COP21 target

BP sends mixed signals on its support for the target set at the Paris agreement. On the one hand, positive messaging is found. In the Chairman's introduction to the Annual Report, the "direction provided by the historic agreement reached at the UN climate conference in Paris" is welcomed – a position reiterated in the Sustainability Report, where the company adds that it is pleased "the agreement creates the possibility for carbon pricing to help deliver global goals and national contributions. We will continue to work in our own right, and collaboratively … to evolve our businesses towards, and help deliver, the aims of the agreement. We continue to work with all relevant stakeholders to play our part".[47]

> "Whilst BP states it wants to "play our part" and help deliver the aims of the Paris agreement, this is not reflected in the company's strategic planning for future resilience.

Whilst BP states it wants to "play our part" and help deliver the aims of the agreement, this is not reflected in the company's strategic planning for future resilience. As it has previously been established in this document, BP is dismissive of the likelihood of a 2°C outcome, and does not see it as

a scenario that requires serious planning. Until BP's strategic planning is aligned with its stated advocacy positions, this inconsistency invites questions around the depth of BP's support for the Paris target and commitment to "evolve our businesses towards, and help deliver, the aims of the agreement".

Carbon pricing

BP advocates carbon pricing as its preferred mechanism for reducing emissions, and has engaged collaboratively with other oil companies on the issue. BP reports carbon pricing "would make energy efficiency more attractive and lower-carbon energy sources… more cost competitive. This might make our operations and products more costly in some cases. We consider that this is fair – as long as the carbon price impacts all GHG emitters equally – and we are keen to compete on this level playing field".[48]

The concept of a 'level playing field' is expanded to suggest that until a single global carbon price is agreed, national carbon pricing mechanisms "should address the impacts of unequal international competition. Otherwise there is a risk of carbon leakage, meaning that energy-intensive industrial activity and investment could just move from one country to a less-regulated part of the world".[49]

> "The issue of carbon leakage has been queried within academic literature. Empirical studies show that emissions policies in the UK and EU have had little to no impact on business competitiveness...

The impacts of 'carbon leakage' have been queried within academic literature. Empirical studies show that emissions policies in the UK and EU have had little to no impact on business competitiveness, and that there is no evidence of investments in Europe being cancelled, or production moved, because of the European Union Emissions Trading System (EU ETS), or the UK's Climate Change Levy.[50] Despite this, under the EU ETS, European industries received over €24 billion between 2008-2014, with substantial pay-outs made to high-emitting industries.[51] This can be counter-productive for changing corporate behaviour and reducing total emissions. In light of this, BP should review its advocacy work around carbon leakage if the company wishes to promote carbon pricing as a credible policy solution.

To achieve a meaningful carbon price, BP should monitor whether member trade associations are seeking to obstruct reforms to emissions trading systems. For example, EU member trade associations BUSINESSEUROPE and Cefic have previously lobbied against reducing the over-supply of carbon allowances, and in favour of subsidising high-emission industries.[52] If BP takes a different stance to these trade associations, it should publicly distance itself from these positions. If this is not done, external stakeholders including investors cannot assess the consistency of BP's public policy interventions.

Recommendations

Investors should continue to push BP towards best practices in terms of transparency in the public policy sphere:[53]

- Disclosure of memberships of all entities to which the company is linked or those that act on its behalf on issues of climate or energy policy, including: trade associations and federations, Chambers of Commerce, general business forums, PR consultants, think tanks, advertising agencies, and special interest advocacy groups.
- Disclosures regarding the company's position on and engagement with key upcoming climate legislation, such as reforms to the EU ETS and the US Clean Power Plan.
- Disclosure of management oversight for ensuring consistency between the company's position and that of any third parties to which the company belongs or is closely associated, with mechanisms in place to respond to misalignments.

Conclusion

In the post-Paris context, investors will be looking beyond technical compliance to satisfy the 2015 shareholder resolution's purpose of realising long-term strategic resilience. BP's 2016 enhanced climate reporting is not reflective of the level of transformation required for portfolio resilience under a <2°C economy. Investors are encouraged to push forward a robust engagement strategy with the company on each of the five areas of the resolution, seeking firmer signals that the company is making headway on a transition pathway for consistency with the <2°C target.

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