IS BP ON TRACK FOR 1.5°C?

Reality check for financial institutions
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BP aims to become Net Zero across its activities on an absolute basis by 2050 or sooner. However, based on our calculation using the company’s own carbon intensity projection, BP is not on track to meet the 1.5°C climate goal. Even under the conservative assumption that BP does reach its emissions targets and reduces its production as per the IEA’s Net Zero-based 1.5°C scenario (referred to as the 1.5°C scenario in this briefing), 1 by 2050, BP will have emitted 50.9% more greenhouse gas (GHG) than what is authorized under a 1.5°C compatible carbon budget. In fact, BP will be overshooting its share of the remaining carbon budget to limit global warming to 1.5°C as soon as 2033.

Why? Because BP short term plans are totally incompatible with efforts to stay below 1.5°C. BP is the 3rd biggest European oil and gas developer according to the Global Oil and Gas Exit List (GOGEL) and the 10th largest developer in the world. The sale of BP’s shares in Rosneft could lead to a major decline in BP’s oil and gas production between 2022 and 2030. However, it remains to be seen whether BP will choose to invest in the renewable energy transition or more oil and gas. If BP chooses to replace its Russian assets with other oil and gas assets, the energy mix will remain very oil and gas-intensive, further jeopardizing the fossil fuel decline and any longer term climate ambitions.

Our methodology

This briefing analyzes how and if the company is aligned with a 1.5°C reference scenario. This scenario was computed by the Transition Pathway Initiative, based on the IEA Net Zero Scenario and on a IPCC scenario, to provide pathways for greenhouse gasses emissions and energy production.

A company is considered aligned if its cumulative GHG emissions fit within the 1.5°C carbon budget. To make these calculations, we considered its “climate” ambitions and targets, to calculate a conservative estimate of its cumulative GHG emissions. We also look at other indicators indicating the direction the company is taking: near term oil and gas production trend, CAPEX trends and energy mix forecasted in 2030, and reliance on offsets. To find out more, please look at our methodology.
1. BP’S DECARBONIZATION PATHWAY WILL EXCEED ITS 1.5°C CARBON BUDGET

a. Emission levels will remain too high for too long

In 2022, British Petroleum (BP) pledged to achieve Net Zero carbon intensity of its sold energy products by 2050 or sooner. However, committing to distant carbon neutrality targets is not enough to keep global warming below 1.5°C. Our analysis shows that BP’s short- to-medium term strategic and operational orientations (Greenhouse gas (GHG) emissions, CAPEX allocation, etc.) are not consistent with achieving carbon neutrality by 2050 and therefore put the climate at risk.

Although BP has pledged to reduce its carbon intensity of sold energy products (scope 1 & 2 & 3) by 5% by 2025, and by 15% to 20% by 2030 (see table 1 in the annex), these targets will not stop the company’s emissions from increasing quickly over short-term.

According to the company’s own projections and our calculations, between 2021 and 2035, BP’s carbon intensity of energy products is on average 49.2% higher than the maximum carbon intensity levels allowed by the 1.5°C reference scenario (see graphic 1).

In other words, each unit of energy the company will produce until 2035 (and beyond) will consistently emit too much GHG. Given that oil and gas production levels will also remain high, BP will keep releasing high levels of GHG emissions. For BP to align with a 1.5°C decarbonization pathway, its absolute emission levels must decrease.

b. BP’s 1.5°C carbon budget is exceeded by 2033

Given that BP does not plan to reduce carbon intensity fast enough, its absolute emissions are still significant and could remain so for a long time if BP does not cut down on production as planned. BP’s decision to exit Rosneft has created uncertainty on projected oil and gas production levels (see part 2). For our calculations, we assume that BP’s production profile falls in line with the 1.5°C reference scenario. By 2050, our analysis shows that BP will have exceeded its 1.5°C carbon budget by at least 50.9% (see graphic 2).

Even in the unlikely event that BP did start reducing hydrocarbon production as per the 1.5°C reference scenario, the major would still overshoot its allocated carbon budget as early as 2033. Based on BP’s own carbon intensity projections, Reclaim Finance calculations indicate that 83.9% of BP’s carbon budget would be consumed as early as 2030.

This carbon budget overshoot could keep increasing. The decision to exit Rosneft leads to a sharp decrease in production levels but this decline could be temporary and depends on what BP does next. Before the decision was made, we calculated that given BP’s assets, the major was likely to see an increase in hydrocarbon production by 2030 (see part 2). If BP acquires new oil and gas assets to make up for the loss of its Russian assets, the company’s production could go up again, putting the climate at risk (see chapter 2).

c. What to expect on offsets?

Unlike its peers, BP does not (yet) have an offset target. The company is currently scoping and investing in Carbon Capture Use and Storage in power generation and in blue hydrogen production. As for so-called “Nature-Based Solutions”, BP will be announcing its 2030 strategy by the end of 2022. In any event, resorting to offsets will either be unrealistic or far from enough to re-align the company with 1.5°C given its projected carbon intensity and hydrocarbon production plans.
Does the TPI benchmark really assess alignment with 1.5°C?

In November 2021, TPI updated its energy sector benchmark, stating that a company is “aligned with 1.5°C” on the ground that the company’s carbon intensity is predicted to converge with the scenario’s pathway by 2050. However, this conclusion is misleading. TPI declares a company aligned as soon as the carbon intensity of the company falls below the carbon intensity level allowed by the 1.5°C reference scenario that same year. TPI’s approach, centered only on carbon intensity, does not take into account excess GHG emissions and fossil production stocks built up between today and 2050.

On the contrary, our stock-based method (based on carbon budgets), considers the cumulative GHG emissions piling up each year as a result of annual fossil production. If both carbon intensity and oil and gas production remain high, then GHG emissions increase quickly and fall short of the remaining carbon budget to stay below 1.5°C. For a company to be deemed “aligned” (in the short, mid or long-term), its absolute emissions must fall within the carbon budget allocated by the IEA net zero scenario in that same time frame (short, mid or long term).

Why offsets are not an easy fix

For over two decades, oil companies have responded to pressure to reduce their emissions by promoting the use of carbon offsets, especially via tree plantations in tropical countries. As pressure to cut emissions has increased in recent years, so has the companies’ interest in offsets. However numerous studies have shown that tree plantations and supposed forest protection projects often have much lower carbon benefits than claimed and can have seriously negative impacts on Indigenous and other local communities, especially by taking over the land that they use for farming or other purposes. Furthermore, studies have repeatedly shown that the carbon offsets market as a whole is rife with fraud, flawed methodologies, opacity and conflicts of interest. As a result, the great majority of offsets generated since the global market started to grow in the late 1990s — 85% of the Kyoto Protocol Clean Development Mechanism’s offsets according to one widely cited analysis — are likely fictitious and do not represent emission reductions or removals.

“’’No new oil and gas fields are required beyond those already approved for development.”

IEA, WEO 2021
2. BP IS INVESTING IN AN OIL AND GAS FUTURE

a. Oil and gas production will increase in the near term

Reducing oil and gas production is a crucial part of any credible decarbonization pathway and is required to achieve deep and absolute emission cuts. Both the UN Production gap report and the 2021 World Energy Outlook Net Zero scenario entail a decline in fossil fuel production during this decade.11

Before the war on Ukraine, BP had committed to reduce its oil and gas production by 40% compared with 2019 levels by 2030.12 However, given this target does not cover BP’s production coming from Rosneft,13 what BP has really committed to is a 17.1% decrease of oil and gas production by 2030.14 The blue lines on graph n°3 shows that post-covid, production was increasing again, instead of decreasing as it should. Furthermore, our calculations showed the importance for BP to commit to stop developing new oil and gas assets. If not, BP’s overall production would not decline enough: -8.7% by 2030, compared with 2019 levels.15

The situation has drastically changed due to BP’s decision to sell its 19.75% stake in Rosneft announced February 27th.16 It leads to a 41.2% decrease in production by 2030,17 compared with 2019 levels (see the red lines on graph n°3). However, BP has not yet announced whether it would replace its Russian assets with other oil and gas assets or invest more in the energy transition.18

The cut could be even deeper (-55.7% by 2030 against 2019 levels) if BP made the decision to stop developing more oil and gas assets beyond those already under field evaluation or development.19 This decision has not been made: despite the sale of its Russian assets, BP remains the third biggest European oil and gas developer and the tenth worldwide.20

According to Carbon Tracker modeling,21 to align with the IEA’s Net Zero scenario, BP’s production would need to drop by 34% by 2030, compared with 2021 levels. According to our calculations, the current situation will lead BP to reduce oil and gas production by only 30.5% compared with 2021 levels. If BP replaces Rosneft with other fossil fuel assets and/or keeps developing new oil and gas assets, the company’s production will not decrease enough by 2030.

b. BP, a key player in oil and gas expansion

While BP is investing in renewables and planning to lock in 50 GW of clean energy capacity by 2030, the company is also investing in new fossil fuel operations across the world. According to the Global Oil and Gas Exit List, BP ranks among the top 10 oil and gas developers in the world.

Why increasing gas production is toxic for the climate

BP pledged to reduce its oil and gas production by 40% by 2030, (notwithstanding the oil and gas produced by Rosneft). At the same time, LNG capacity is due to double by 2030. Gas production results in methane leaks in the atmosphere at different stages (eg: venting during extraction and evaporation during transportation of LNG by boat). Methane is a potent greenhouse gas with a warming potential 85 times that of CO2. According to the IPCC, methane emissions have nearly tripled since pre-industrial times and are increasingly responsible for rising temperatures. The IEA net zero roadmap is also adamant that there is no room for both new oil and new gas fields in the 1.5°C carbon budget.

In 2020, the company’s resources under production amounted to 21,396 mmboe, the equivalent of 20 years of production (at its recent level).22 The 3,189 mmboe22 worth of assets currently at the development stage will allow BP to quickly add the equivalent of three years of production to its production portfolio. BP also owns 7,845 mmboe of discovered hydrocarbon reserves that have not yet entered the field evaluation or development stage.

From 2019 to 2021, BP spent, on average, $939.2 million23 per year on exploration. BP has pledged to stop searching for undiscovered new oil and gas in 2030 but it’s unclear whether BP could cut down on exploration before then.

BP is increasingly tapping into unconventional oil and gas reserves. According to the Global Oil and Gas Exit List,24 more than 57% of the oil and gas reserves currently being developed by BP will come from unconventional sources, essentially fracking and ultradeep water drilling. Both present enormous risks for the environment. BP is well aware given past experience with the Deepwater Horizon oil Spill in the Gulf of Mexico in 2010, leading BP to pay up $20.8 billion in fines, the largest corporate settlement in United States history.

Source: Reclaim Finance calculations based on Rystad Energy UCube
c. Investments and energy mix remain heavily fossil fuels oriented

Despite claims that BP is massively investing in renewables, a quick look at the CAPEX allocation demonstrates that the major’s investment strategy is still focused on fossil fuels.

In 2022, BP announced a 4 to 5-fold increase of its “low carbon” CAPEX by 2025 and a 6 to 7-fold increase by 2030 (up to $6 billion). Although this is a significant increase from 2020 levels, it amounts to 27% of overall CAPEX which in turns, means that in 2025, more than 70% of the CAPEX will still be going to oil and gas.

It is furthermore unclear how much of this investment capacity will be dedicated to renewable energy specifically given that in BP business plan, “low carbon” activities cover a wide range of activities, including CCUS investments.

This will not be enough for BP’s energy mix to transition away from fossil fuels in the near and medium term. BP’s energy mix in 2030 will still be fossil-fuel powered: assuming the company meets its targets, BP’s maximum renewable share of its energy mix would range from 13.9% to 21.4%, depending on its strategy following Rosneft’s exit.

The oil and gas majors argue that they are in the process of “diversifying” their energy mix. However, for the time being, their diversification strategy is adding renewable energy capacity on top of oil and gas production, instead of replacing it. As long as the company maintains high levels of fossil fuel productions, it will not achieve the deep emission cuts required - 50% by 2030 - to keep climate change in check.

What the IEA says about the need for new CAPEX in oil and gas

According to the IEA Net Zero scenario, oil and gas capex will be divided by two up to 2030. The IEA estimates that an average $365 billion per year would be spent on oil and gas until 2030: that’s 50% less than oil and gas capital expenditures before the COVID crisis ($719 Mds a year from 2016 to 2018).

Furthermore, the IEA explicitly states that investments are needed in existing fields, but it bans investments in new oil and gas fields after 2021. From the $365 billion, only $77 billion (20%) would go to new fields that have been approved for development before the end of 2021.

According to the IEA, the investments in oil and gas would continue to drop as time goes by, reaching an average $171 billion per year from 2031 to 2050.
Table 1. BP’s pledged mitigation targets

<table>
<thead>
<tr>
<th>Base year</th>
<th>Target year</th>
<th>Reduction target</th>
<th>Net target</th>
<th>Geographical scope</th>
<th>Emission scope</th>
<th>Emission type</th>
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<tr>
<td>2019</td>
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<td>Absolute</td>
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<td>Absolute</td>
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<td>World</td>
<td>1 &amp; 2 &amp; 3, carbon intensity of sold energy products</td>
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</tr>
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1. In this briefing, we analyze companies alignment against a 1.5°C reference scenario computed by the Transition Pathway Initiative. The latter based its work on the IEA Net Zero Scenario and on a IPCC scenario, to provide pathways for greenhouse gas emissions and energy production. See our methodology for more information.

2. BP, BP sets ambition for net zero by 2050, fundamentally changing organisation to deliver

3. To simplify, the “carbon intensity of sold energy products” of the company is referred to by “carbon intensity” of the company in the rest of this briefing.

4. To analyze whether or not a company’s decarbonization pathway is aligned with the 1.5°C carbon budget, it’s critical to look at two indicators simultaneously: the carbon intensity pathway and the production pathway. Any company aligning on the emissions pathway only, but producing too much - or the other way around - will end up emitting too much GHG. The overarching goal being for absolute emissions to decrease, we hence look at the carbon intensity and production pathway of the company and compare it to the benchmark described by the 1.5°C reference scenario.

5. This is a conservative hypothesis: due to lack of reliable data regarding BP’s production plans beyond 2024, we make the assumption that the company’s production levels will decrease in accordance with the IEA Net Zero demand projections. However, nothing in BP’s current plans confirms this direction. In fact, we estimate that BP’s hydrocarbon production will have increased by 2030 (see chapter 2).

6. Data on production levels is very reliable until 2024 and takes into account the production profile of reserves under production as well as oil and gas fields currently under evaluation or development. After 2024, the production levels will depend on the company’s plans that have not yet been made public.

7. Reported climate data are sourced from BP ESG datasheet 2020

8. TPI, Energy sector “finally moving out of first gear” on climate as first three oil and gas firms align with 1.5°C pathway,

9. See Reclaim Finance analysis here The TRI benchmark: misleading approach, dangerous conclusion

10. This projection takes into account the potential development of BP’s discovered reserves until 2030 using Rystad Energy data.

11. According to the 2021 Production Gap report, global oil and gas production must fall by 4% and 3% respectively each year by 2030. According to the 2021 World Energy Outlook, global oil and gas demand will fall by 20% and 10% respectively by 2030.

12. BP, BP update on strategic progress

13. Oil Change International, Oil Change International response to BP’s new commitment to major cuts in extraction by 2030.

14. Calculations made by Reclaim Finance using BP projections and Rystad Ucube energy data.

15. This projection takes into account the potential development of BP's discovered reserves until 2030 using Rystad Energy data.

16. BP, BP to exit Rosneft shareholding, 2022.

17. This projection takes into account the potential development of BP’s discovered reserves until 2030 using Rystad Energy data.

18. No statements made by BP as of March 7th, 2022.

19. Calculations made using Rystad Energy data excluding the potential development of BP’s discovered reserves until 2030.

20. See Global Oil and Gas Exit List.

21. Carbon Tracker Initiative, Adapt to Survive: Why oil companies must plan for net zero and avoid stranded assets, 2021

22. Data collected by Urgewald for the Oil and Gas Exit List on the Rystad Ucube Energy database.

23. See Global Oil and Gas Exit List, 2021.

24. Global Oil and Gas Exit List (data collected in October 2021 on Rystad Energy Ucube database).


26. According to Reclaim Finance calculations, based on BP's hydrocarbons and primary energy-equivalent renewable production plans. Refer to the methodology and datasheet for further details.

27. BP, GHG emissions

28. A net target is a target the company aims to achieve using offsets.

29. Targets can apply either to the absolute emissions (absolute amount of GHG emissions) or to the intensity of emissions (amount of GHG emissions per unit of energy produced).