

Notice Of Exempt Solicitation: (VOLUNTARY SUBMISSION)  
NAME OF REGISTRANT: Marathon Petroleum  
NAME OF PERSON RELYING ON EXEMPTION: Majority Action  
ADDRESS OF PERSON RELYING ON EXEMPTION: PO Box 4831, Silver Spring, MD 20914



Written materials are submitted pursuant to Rule 14a-6(g)(1) promulgated under the Securities Exchange Act of 1934. Submission is not required of this filer under the terms of the Rule but is made voluntarily.

## **Marathon Petroleum [NYSE:MPC]: Due to the Company's Failure to Set Adequate Net Zero by 2050 Target, Realign Investment Plans to Limit Global Warming to 1.5°C, and Ensure Alignment of Policy Influence Activities:**

- **Vote AGAINST director Evan Bayh (Item 1a), Chair of the Sustainability and Public Policy Committee**

***The physical and financial risks posed by climate change to long-term investors are systemic, portfolio-wide, unhedgeable and undiversifiable.** Therefore, the actions of companies that fail to align to limiting warming to 1.5°C pose risks to the financial system as a whole, and to investors' entire portfolios, in addition to specific risks to those companies. See **Appendix A** for more information regarding Majority Action's Proxy Voting for a 1.5°C World initiative and the transformation required in key industries.*

Marathon Petroleum is a downstream energy company that operates the largest U.S. refining system, with 2.9 million barrels per day of crude oil capacity across 13 refineries.<sup>[1]</sup> Its midstream division consists mainly of its master limited partnership MLPX<sup>[2]</sup>, is the largest fossil gas processing company in the United States.<sup>[3]</sup> According to the company, nearly 10% of the fossil gas produced in the U.S. passes through Marathon Petroleum's networks, including the Marcellus, Utica and Permian basins.<sup>[4]</sup> It is among the 167 focus companies named by Climate Action 100+ as one of the largest global emitters and "key to driving the global net-zero emissions transition."<sup>[5]</sup>

Petroleum and fossil gas products, including those used in transportation, buildings, industrial processes, and electricity production, account for nearly 80% of carbon emissions from the U.S. energy system.<sup>[6]</sup> The U.S. is the largest petroleum and fossil gas producer in the world, having overtaken Saudi Arabia and Russia in recent years.<sup>[7]</sup> To stay within the available carbon budget to limit warming to 1.5°C, oil and gas companies must not just decarbonize their own emissions, but global consumption of fossil fuels must fall as well.<sup>[8]</sup> In 2021, the International Energy Agency (IEA) set out the implications of a 1.5°C pathway for the oil and gas sector in its 'Net Zero by 2050' scenario ("NZE"). Under the NZE, fossil fuel use **falls dramatically** and can be satisfied with existing assets, with **no need to invest in new oil and gas fields.**<sup>[9]</sup>

**Failure to set ambitious decarbonization targets in line with 1.5°C pathways, and align companies’ business plans and policy influence to those targets is a failure of strategy and corporate governance, for which long-term investors should hold directors accountable. At companies where the production, processing, sale, and/or consumption of fossil fuels is central to its core business, and greenhouse gas (GHG) emissions reductions have profound strategic implications, the board chair, and lead independent director where the position exists, should be held accountable.**

## Failure to set adequate net zero targets

<b>Net zero by 2050 commitment that covers all relevant emissions sources, in particular Scope 3 emissions from the burning of products sold, and on a full equity share basis</b>	<b>X</b>
<b>Net zero commitment has limited use of offsets, negative emissions, or unproven or uncommercialized technologies, including carbon capture and storage</b>	<b>X</b>
<b>Company has adopted robust interim targets, including substantial reductions by 2030</b>	<b>~</b>

Marathon Petroleum does not have a net zero by 2050 target.<sup>[10]</sup> The company has committed to a 30% reduction in greenhouse gas emissions *intensity* by 2030 in scope 1 and 2 emissions from 2014 base, and has a 2030 target for reducing absolute scope 3 emissions by 15% below 2019 levels.<sup>[11]</sup> The company’s own materials note that this reduction target is not aligned with a 1.5°C pathway.<sup>[12]</sup>

As part of a lower-carbon strategy, the company states that it has reduced refining of crude oil<sup>[13]</sup> and will continue to increase the refining of ‘renewable’ fuels and natural gas (which made up 43% of its volumes in 2020).<sup>[14]</sup> However, emissions savings associated with ‘renewable’ fuels may be lower than expected; recent research shows GHG emissions associated with direct and indirect land-use changes related to crops used for bio-based fuels, namely soybeans and corn, may be more significant than previously understood.<sup>[15]</sup> [16] [17]

The company makes numerous references to carbon capture projects in which it is participating as part of its lower-carbon strategy, without addressing some of the risks of relying on carbon capture and storage to reduce absolute emissions (see Appendix for more detail on CCUS broadly).

## Capital allocation and investment plans not aligned with 1.5°C pathways

Company has a plan to realign capital expenditures to meet a net zero decarbonization commitment, including substantial reductions in production in line with the IEA Net Zero by 2050 Scenario.

X

According to Rainforest Action Network, Marathon Petroleum is one of the 15 key oil and gas midstream companies supporting fossil fuel expansion globally.<sup>[18]</sup>

According to the Climate Action 100+ Net-Zero Company Benchmark, Marathon Petroleum had not, as of December 2021, met any of the indicators for capital allocation alignment; to do so, the company would need to align future capital expenditures with its long-term GHG reduction target(s), commit to align future capital expenditures with the Paris Agreement's objective of limiting global warming to 1.5°C, and disclose the methodology it uses for such alignment.<sup>[19]</sup> While Marathon Petroleum states that 40 percent of its growth capital is allocated to converting refineries to "low carbon" products, this portfolio consists of both fossil gas and renewable fuels, which as detailed above may have marginal emissions savings.<sup>[20]</sup> In addition, the remainder of Marathon Petroleum's growth includes substantial investments in the expansion of pipelines and logistics to transport crude from the Permian Basin to customers, including global export markets.<sup>[21]</sup> According to an analysis conducted by Oil Change International, carbon emissions from Permian oil and gas production through 2050 could alone exhaust nearly 10 percent of the global 1.5°C carbon budget (see Appendix).<sup>[22]</sup>

## Misalignment of policy influence activities with net zero commitment and 1.5°C pathways

Alignment of policy influence activities with net zero target and limiting warming to 1.5°C

X

According to InfluenceMap, the company received a near-failing E- grade for its obstructive policy engagement.<sup>[23]</sup> InfluenceMap lists active and negative engagement on various issues including limiting the ability of local governments to restrict the use of fossil gas. According to Climate Action 100+, as of March 2021, Marathon Petroleum does not meet any of the criteria for climate policy engagement alignment, except its disclosure of trade association memberships.<sup>[24]</sup> A January 2022 assessment of Marathon's disclosures of trade associations<sup>[25]</sup> by InfluenceMap notes that the company does not identify its trade associations' misalignment with the Paris Agreement, finding them "not inconsistent with the ambition of the Paris Agreement," despite some of Marathon's likely trade associations whose climate policy engagement is clearly misaligned with the Paris Agreement, such as the American Petroleum Institute.<sup>[26]</sup>

**Additional governance concerns**

A Carbon Tracker analysis published in September 2021 rated Marathon Petroleum's financial statements as "significant concern" for investors due to the company's lack of transparency on climate-related assumptions.<sup>[27]</sup>

Marathon Petroleum currently has a classified Board, and Chairman John Surma is not up for re-election in 2021. We therefore recommend a vote against the chair of Marathon Petroleum's Sustainability and Public Policy Committee, Evan Bayh.

**Conclusion: Marathon Petroleum has failed to set adequate net-zero targets, align its capital investments with limiting warming to 1.5°C, or ensure its policy influence activities would support doing so. Therefore, we recommend that shareholders vote AGAINST Sustainability and Public Policy Committee Chair Evan Bayh (Item 1.a) at the company's annual meeting on April 27, 2022.**

---

## Appendix A: Proxy Voting for a 1.5°C World

**The world is currently on track to reach disastrous levels of warming, driving massive harm and threatening the lives and livelihoods of millions.** Corporate leaders in the industries responsible for this crisis have failed to take up the leadership required to change course.

**“Climate risk” is systemic, escalating and irreversible - and corporate boards urgently need to take responsibility for averting and mitigating this risk.**

The UN Intergovernmental Panel on Climate Change (IPCC) in 2018 made clear that in order to have at least a 50% chance of limiting warming to 1.5°C and avoiding the most catastrophic effects of the climate crisis, we must bring global, economy-wide carbon emissions down to net zero by 2050 at the latest.<sup>[28]</sup> According to the International Energy Agency (IEA), in order to achieve net zero emissions globally by 2050, the electricity sector must reach net zero emissions in OECD countries no later than 2035 and there can be no investment in new fossil fuel production from today.<sup>[29]</sup> The IPCC also recognizes that reducing rates of deforestation and forest degradation also represents one of the most effective and robust options for climate change mitigation.<sup>[30]</sup>

That means that corporate directors must ensure that companies set ambitious decarbonization targets in line with 1.5°C pathways, and align companies’ business plans, capital expenditures, and policy influence to those targets. Despite the escalating climate crisis, systemically important U.S. companies continue to invest in the expansion and continued use of fossil fuels, further accelerating global warming.<sup>[31]</sup>

**The physical and financial risks posed by climate change to long-term investors are systemic, portfolio-wide, unhedgeable and undiversifiable.** Therefore, the actions of companies that directly or indirectly impact climate outcomes pose risks to the financial system as a whole and to investors’ entire portfolios. In order to manage this systemic portfolio risk, investors must move beyond disclosure and company-specific climate risk management frameworks and focus on holding accountable the relatively small number of large companies whose actions are a significant driver of climate change.

When directors fail to transform corporate business practices in line with 1.5°C pathways, responsible investors must use their most powerful tool – their proxy voting power – to vote against directors.

**Bold and unprecedented action by investors is a prerequisite to averting further global economic and financial catastrophe. While past shareholder efforts at standard setting, disclosure and engagement have laid important groundwork, company commitments won thus far have been far too incremental, far too hard fought, and collectively insufficient to the scale of the crisis.**

---

**Business-as-usual proxy voting will not suffice to address the seriousness of the crisis at hand.** We urge investors to vote against directors at companies failing to implement plans consistent with limiting global warming to 1.5°C.

## Key Sectors Are Critical to Curbing the Climate Crisis

The electric power, finance, transportation, and oil and gas sectors are key drivers of the production and consumption of fossil fuels and must all make dramatic transformations to curb the worst of catastrophic climate change and protect long-term investors. Similarly, companies driving deforestation – including companies that source key deforestation-linked agricultural commodities, driving market demand for one of the greatest threats to the world’s forests – must adopt comprehensive climate policies and end deforestation.

Substantial votes against board members at these companies could help realign business and investment plans to the goals of the Paris Agreement, hold companies accountable for lobbying and policy influence practices that obstruct climate action, and align executive compensation to key decarbonization goals.

While each industry and company will need to chart its own path in pursuing decarbonization consistent with limiting warming to 1.5°C, setting a target to reach net zero emissions by no later than 2050 is a critical first step. In the absence of such a target, investors can have no confidence that the company will be able to transform its business consistent with limiting warming to 1.5°C.

## Voting Guide: Oil & Gas

Petroleum and fossil gas products, including those used in transportation, buildings, industrial processes, and electricity production, account for nearly 80% of carbon emissions from the U.S. energy system.<sup>[32]</sup> The U.S. is the largest petroleum and fossil gas producer in the world, having overtaken Saudi Arabia and Russia in recent years.<sup>[33]</sup> In general, U.S. oil companies lag behind their European peers in adopting net zero by 2050 ambitions<sup>[34]</sup>, or investing in renewable energy production.<sup>[35]</sup>

To stay within the available carbon budget to limit warming to 1.5°C, not only must oil and gas companies decarbonize their own emissions, but global consumption of fossil fuels must fall as well.<sup>[36]</sup> In May 2021, the IEA set out the implications of a 1.5°C pathway for the oil and gas sector in its ‘Net Zero by 2050’ scenario (“NZE”).<sup>[37]</sup> Prior IEA scenarios such as the Beyond 2°C Scenario (aligned to limiting warming to 1.75°C by 2060<sup>[38]</sup>) and the Sustainable Development Scenario (aligned to the Paris Agreement’s upper target of well below 2°C<sup>[39]</sup>), still fell short of limiting warming to 1.5°C.

---

Under the NZE, fossil fuel use falls dramatically and can be satisfied with existing assets, with no need to invest in new oil and gas fields, and no new coal mines or mine extensions.<sup>[40]</sup> However, according to analyses by Carbon Tracker, the world's largest oil companies have projects both sanctioned (those currently producing or under development) and unsanctioned (those not yet under development) over the course of the next two decades that would exceed the carbon budget for 2.0°C of global warming, let alone 1.5°C.<sup>[41]</sup> This signals that many companies are not yet fully committed to meaningful reductions. While oil demand fell in 2020 due to COVID-19 disruptions,<sup>[42]</sup> oil demand and pricing are currently rebounding,<sup>[43]</sup> and any expansion plans are fundamentally at odds with the immediate global production reductions required within most Paris Agreement-aligned scenarios.<sup>[44]</sup>

As shale-focused companies rely primarily on continued new drilling to sustain production, these companies are particularly at risk: in order to limit to 1.5°C and be aligned with the IEA NZE, shale-focused companies in particular must reduce production by more than 80%.<sup>[45]</sup> However, many U.S. companies continue to expand into shale-rich regions such as the Permian Basin<sup>[46]</sup> (see Capital Allocation section). The Permian is predicted to account for much of the growth in US oil production, and much of this will likely be exported and burned overseas; an Occidental Petroleum company executive recently noted the trend by saying “every single molecule from here on out has to be exported.”<sup>[47]</sup>

## Target setting

To avoid the risk of global temperature overshoot, emissions need to fall by 45% from 2010 levels by 2030, reaching net zero by 2050.<sup>[48]</sup> Net-zero commitments should also incorporate interim targets and milestones that allow accelerated emissions reduction between now and 2030 rather than delaying the hard task of emissions reduction until after that date. Net zero commitments must cover projects on a full equity share basis, such that all joint ventures and subsidiaries are covered by the company-wide target. Companies should achieve net zero by 2050 with limited use of offsets, negative emissions, or unproven or uncommercialized technologies, including carbon capture and storage (CCUS). Relying on CCUS—rather than phasing out the production of fossil fuels—is a risky strategy<sup>[49]</sup>; even pro-CCUS sources acknowledge that many proposed CCUS technologies are as yet unproven, and a massive infrastructure investment and buildout would be required to capture enough carbon to limit warming to 1.5°C.<sup>[50]</sup> Oil and gas companies should clearly disclose specific plans to use offsets or negative emissions to achieve net zero emissions by 2050, so that investors may assess the quality and credibility of their plans.

## KEY DATA SOURCES:

- CDP (formerly Carbon Disclosure Project), company survey responses<sup>[51]</sup>
  - Science-Based Targets Initiative, Companies list<sup>[52]</sup> and Sector Guidance<sup>[53]</sup>
  - Climate Action 100+, Disclosure Indicators 1-4<sup>[54]</sup>
  - Oil Change International, Big Oil Reality Check<sup>[55]</sup>
-

## Capital allocation

Given that oil supplies currently in production already exceed the carbon budget for limiting warming to 1.5°C, oil and gas companies must immediately cease approving investment in new projects that fall outside the carbon budget. At minimum, Arctic and oil sands projects should be halted because they are inconsistent with limiting warming to 1.5°C<sup>[56]</sup>, economically marginal due to elevated production costs, and carry additional environmental and human rights risks.<sup>[57]</sup>

Oil production in the Permian Basin in Texas and New Mexico – almost entirely fracking<sup>[58]</sup>—has nearly quadrupled from 2010 to today,<sup>[59]</sup> while natural gas production has more than tripled.<sup>[60]</sup> According to an analysis conducted by Oil Change International, carbon emissions from Permian oil and gas production through 2050 could alone exhaust nearly 10% of the global 1.5°C carbon budget.<sup>[61]</sup> The climate impact of Permian oil and gas is even greater than coal based on the amount of methane that escapes into the atmosphere during hydraulic fracking.<sup>[62]</sup> It is estimated that the Permian Basin has a 60% higher methane leakage rate than other U.S. oil and gas regions.<sup>[63]</sup> Given that the vast majority of these emissions would come from wells not yet in production at the end of 2020, much of these emissions could be avoided if companies simply halted all drilling of new wells.<sup>[64]</sup>

Investors should use the NZE scenario as a floor to assess companies' climate policies, transition scenarios and capital allocation alignment. Importantly, no new oil or gas fields should be approved for development under a 1.5°C pathway; no investment in new oil and gas production should be undertaken,<sup>[65]</sup> and production levels must fall by the 2030s.<sup>[66]</sup> Under such a scenario, asset stranding of additional production assets as well as existing assets is a major risk to investors.<sup>[67]</sup>

## KEY DATA SOURCES

- Rainforest Action Network, [Banking on Climate Chaos](#)<sup>[68]</sup>
- Carbon Tracker, [Fault Lines \(2020\)](#)<sup>[69]</sup> and [Adapt to Survive \(2021\)](#)<sup>[70]</sup>
- Carbon Tracker, [Company Profiles: Oil & Gas Companies](#)<sup>[71]</sup>
- Climate Action 100+, [Climate Action 100+ Net-Zero Company Benchmark: Company assessments, see Disclosure Indicator 6](#)<sup>[72]</sup>

## Policy influence

Oil and gas companies must fully align their policy influence activities, including political spending and lobbying, with the policy settings required to accelerate sector-wide emissions reductions on a timeline necessary to limit warming to 1.5°C. Oil and gas companies must provide full disclosure of all political and lobbying spending in all jurisdictions to allow investors to assess this alignment. Finally, companies must ensure the alignment of the policy influence activities of any trade associations or similar entities of which they are members or to which they contribute with 1.5°C outcomes, or cease membership of such organizations.

---

**KEY DATA SOURCES:**

- Climate Action 100+ Net-Zero Company Benchmark: Company assessments, see Disclosure Indicator 7<sup>[73]</sup>
  - InfluenceMap, List of companies and influencers<sup>[74]</sup>
-

## Summary table

TARGET SETTING	1.1	Net zero by 2050 commitment that covers all relevant emissions sources, in particular scope 3 emissions from the burning of products sold, and on a full equity share basis
	1.2	Net zero commitment has limited use of offsets, negative emissions, or unproven or uncommercialized technologies, including carbon capture and storage
	1.3	Company has adopted robust interim targets, including substantial reductions by 2030
CAPITAL ALLOCATION	2.1	Company has a plan to realign capital expenditures to meet a net zero decarbonization commitment, including substantial reductions in production in line with the IEA Net Zero by 2050 Scenario
POLICY INFLUENCE	3.1	Alignment of policy influence activities with net zero target and limiting warming to 1.5°C

[1] Marathon Petroleum, "Operations/Refining," (website), <https://www.marathonpetroleum.com/Operations/Refining/>, accessed March 16, 2022

[2] Marathon Petroleum, "Operations/Refining," (website)

[3] Marathon Petroleum, *Perspectives on Climate-Related Scenarios: Risks and Opportunities*, June 2021, <https://www.marathonpetroleum.com/content/documents/Responsibility/2021-MPC-MPLX-ClimateReport.pdf>, p. 12

[4] Marathon Petroleum, 'Perspectives on Climate-Related Scenarios: Risks and Opportunities,' p. 13

[5] <https://www.climateaction100.org/whos-involved/companies/page/4>

[6] US Energy Information Administration, 'Total Energy.' Data browser. <https://www.eia.gov/totalenergy/data/browser/index.php?tbl=T11.01#/?f=A&start=1973&end=2019&charted=0-1-13>, accessed March 1, 2022

[7] US Energy Information Administration, "United States Remains Largest Producer of Petroleum and Natural Gas Hydrocarbons," <https://www.eia.gov/todayinenergy/detail.php?id=26352>, accessed March 1, 2022

[8] International Energy Agency (IEA), *Net Zero by 2050: A Roadmap for the Global Energy Sector*, May 2021. <https://www.iea.org/reports/net-zero-by-2050>

[9] IEA, 'Net Zero by 2050,' Figure 3.4, p. 103

[10] Climate Action 100+, 'Marathon Petroleum Company Assessment,' <https://www.climateaction100.org/company/marathon-petroleum/> Accessed March 6, 2022

[11] Marathon Petroleum, *Planning for the Energy Evolution: Strengthening the Resiliency of our Asset Base*, February 2022, [https://www.marathonpetroleum.com/content/documents/Responsibility/scope3/Scope3\\_Target\\_Basis-Proof.pdf](https://www.marathonpetroleum.com/content/documents/Responsibility/scope3/Scope3_Target_Basis-Proof.pdf) p. 6

[12] Marathon Petroleum, 'Planning for the Energy Evolution: Strengthening the Resiliency of our Asset Base,' p. 4

[13] Marathon Petroleum, 'Perspectives on Climate-Related Scenarios: Risks and Opportunities,' June 2021, p. 5

[14] Marathon Petroleum, 'Perspectives on Climate-Related Scenarios: Risks and Opportunities,' June 2021, pp. 5, 12

[15] Timothy Searchinger, et. al. (2008), "Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions From Land-Use Changes," <https://www.science.org/doi/10.1126/science.1151861>

- 
- [16] Spawn SA, Lark TJ & Gibbs HK (2019) [https://iopscience.iop.org/article/10.1088/1748-9326/ab0399/meta?utm\\_campaign=Carbon%20Brief%20Daily%20Briefing&utm\\_content=20220107&utm\\_medium=email&utm\\_source=Revue%20Daily](https://iopscience.iop.org/article/10.1088/1748-9326/ab0399/meta?utm_campaign=Carbon%20Brief%20Daily%20Briefing&utm_content=20220107&utm_medium=email&utm_source=Revue%20Daily) p4
- [17] Lark et al (2022). “ Environmental outcomes of the US Renewable Fuel Standard” <https://www.pnas.org/doi/abs/10.1073/pnas.2101084119>
- [18] Rainforest Action Network, *Banking on Climate Chaos*, 2021, <https://www.ran.org/bankingonclimatechaos2021/> , p. 128.
- [19] Climate Action 100+, ‘Marathon Petroleum Company Assessment,’ <https://www.climateaction100.org/company/marathon-petroleum/> Accessed March 6, 2022
- [20] Marathon Petroleum, ‘Perspectives on Climate-Related Scenarios: Risks and Opportunities,’ p. 5
- [21] Marathon Petroleum, *Annual Report 2021*, [https://www.marathonpetroleum.com/content/documents/Investors/Annual\\_Report/2021\\_MPC\\_Annual\\_Report\\_and\\_10K.pdf](https://www.marathonpetroleum.com/content/documents/Investors/Annual_Report/2021_MPC_Annual_Report_and_10K.pdf) p. 62
- [22] Oil Change International, *Drilling Towards Disaster*, <https://priceofoil.org/content/uploads/2019/01/Drilling-Towards-Disaster-Web-v2.pdf>, pp. 7 and 26
- [23] InfluenceMap, ‘Marathon Petroleum’ profile, <https://lobbymap.org/company/Marathon-Petroleum>, Accessed March 18, 2022
- [24] <https://www.climateaction100.org/company/marathon-petroleum/>, at Indicator 7
- [25] Marathon Petroleum, ‘Political Engagement’ (website). <https://www.marathonpetroleum.com/Sustainability/Political-Engagement/>, accessed March 24, 2022
- [26] InfluenceMap, “Marathon Petroleum: Detailed assessment of Marathon Petroleum’s corporate industry association review,” January 2022, <https://lobbymap.org/site/data/000/944/MARATH-1.PDF>
- [27] Carbon Tracker, Flying Blind: The Glaring Absences of Climate Risks in Financial Reporting, September 2021, <https://carbontracker.org/reports/flying-blind-the-glaring-absence-of-climate-risks-in-financial-reporting/full-report/>
- [28] IPCC, *Special Report on Global Warming of 1.5°C*, 2018, [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_Low\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf) , pp. v, 5, 7-10, 95-97 and 116
- [29] International Energy Agency (IEA), *Net Zero by 2050: A Roadmap for the Global Energy Sector*, May 2021. <https://www.iea.org/reports/net-zero-by-2050>, Slide 8.
- [30] IPCC. *Special Report on Climate Change and Land, Summary for Policy Makers* January, 2020, [https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM\\_Updated-Jan20.pdf](https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf), pp 23-24 and 26.
- [31] Climate Action 100+: Net-Zero Company Benchmark Company Assessments <https://www.climateaction100.org/progress/net-zero-company-benchmark/>
- [32] US Energy Information Administration, ‘Carbon Dioxide Emissions from Energy Consumption by Source’, <https://www.eia.gov/totalenergy/data/browser/index.php?tbl=T11.01#/?f=A&start=1973&end=2019&charted=0-1-13>, accessed March 19, 2022
- [33] US Energy Information Administration, “The U.S. leads global petroleum and natural gas production with record growth in 2018,” <https://www.eia.gov/todayinenergy/detail.php?id=40973>, accessed March 16, 2022
- [34] Luhavalja, Amanda, et al. “Path to Net Zero: European Oil Majors Outpace US Companies on Climate Goals,” *S&P Global Market Intelligence*, July 28, 2020, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/path-to-net-zero-european-oil-majors-outpace-us-companies-on-climate-goals-59543423>, accessed March 16, 2022
- [35] Quinson, Tim, “US Oil Companies Lag Far Behind Greener European Rivals,” Bloomberg, March 24, 2021, <https://www.bloomberg.com/news/articles/2021-03-24/u-s-oil-companies-lag-far-behind-greener-europe-rivals-green-insight>
- [36] IEA, ‘Net Zero by 2050 Scenario’
- [37] IEA, ‘Net Zero by 2050 Scenario’
- [38] IEA, ‘Energy Technology Perspectives 2017.’ <https://www.iea.org/reports/energy-technology-perspectives-2017>
- [39] IEA, ‘Sustainable Development Scenario.’ <https://www.iea.org/reports/world-energy-model/sustainable-development-scenario-sds>
- [40] IEA, ‘Net Zero by 2050 Scenario.’ pp. 21 -22.
- [41] Carbon Tracker, ‘Adapt to Survive.’ p. 4 and pp.14-16
- [42] International Energy Agency, *World Energy Outlook 2021*, <https://iea.blob.core.windows.net/assets/4ed140c1-c3f3-4fd9-acae-789a4e14a23c/WorldEnergyOutlook2021.pdf> p. 19.
- [43] Deloitte, 2022 Oil and Gas Industry Outlook, <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/energy-resources/us-2022-outlook-oil-and-gas.pdf> p. 4.
- [44] Oil Change International et al, *The Sky’s the Limit: Why the Paris Climate Goals Require A Managed Decline of Fossil Fuel Production*, [https://priceofoil.org/content/uploads/2016/09/OCI\\_the\\_skys\\_limit\\_2016\\_FINAL\\_2.pdf](https://priceofoil.org/content/uploads/2016/09/OCI_the_skys_limit_2016_FINAL_2.pdf), pp. 19-21 and 24.
- [45] Carbon Tracker, ‘Adapt to Survive.’ p. 6 and p. 15.
- [46] Oil Change International. *Drilling Towards Disaster: Why US Oil and Gas Expansion Is Incompatible With Climate Limits*, January, 2019, <https://priceofoil.org/content/uploads/2019/01/Drilling-Towards-Disaster-Web-v2.pdf>, p. 7.
-

- 
- [47] Collier, Kiah. "As Oil and Gas Exports Surge, West Texas Becomes the World's 'extraction colony'" *Texas Tribune*, August 10, 2018, <https://www.texastribune.org/2018/10/11/west-texas-becomes-worlds-extraction-colony-oil-gas-exports-surge/>
- [48] IPCC. 'Special Report on Global Warming of 1.5.' 2018
- [49] Oil Change International, *Big Oil Reality Check*, September 2020. <http://priceofoil.org/content/uploads/2020/09/OCI-Big-Oil-Reality-Check-vF.pdf>, pp. 8, 9, and 18.
- [50] Global CCS Institute, *Global Status of CCS 2021*, <https://www.globalccsinstitute.com/wp-content/uploads/2021/11/Global-Status-of-CCS-2021-Global-CCS-Institute-1121.pdf> p. 35
- [51] <https://www.cdp.net/en/responses?queries%5Bname%5D=&utf8=%E2%9C%93>
- [52] <https://sciencebasedtargets.org/companies-taking-action>
- [53] <https://sciencebasedtargets.org/sectors>
- [54] <https://www.climateaction100.org/progress/net-zero-company-benchmark/>
- [55] Oil Change International, 'Big Oil Reality Check'
- [56] Carbon Tracker, *Breaking the Habit: Why None of the Large Oil Companies are "Paris-aligned", and What They Need to Do to Get There*, September 2019, [https://carbontransfer.wpengine.com/wp-content/uploads/2019/09/Capex-report-2019\\_Infographic.pdf](https://carbontransfer.wpengine.com/wp-content/uploads/2019/09/Capex-report-2019_Infographic.pdf),
- [57] BankTrack, Oil Change International, Rainforest Action Network, Sierra Club. *Banking on Climate Change: Fossil Fuel Finance Reportcard 2017* [https://priceofoil.org/content/uploads/2017/06/Banking\\_On\\_Climate\\_Change\\_2017.pdf](https://priceofoil.org/content/uploads/2017/06/Banking_On_Climate_Change_2017.pdf), pp.4, 13 and 20
- [58] Oil Change International. 'Drilling Towards Disaster.' p. 26
- [59] Please see chart: Total Oil Production in the Permian Basin <https://www.dallasfed.org/research/energy11/permian.aspx#Oil>
- [60] Natural Gas Production in Permian Basin chart <https://www.dallasfed.org/research/energy11/permian.aspx#Gas>
- [61] Oil Change International. 'Drilling Towards Disaster.' pp. 7 and 26
- [62] <https://thehill.com/policy/energy-environment/155101-report-gas-from-fracking-worse-than-coal-on-climate>
- [63] Zhang, Y. et al. "Quantifying methane emissions from the largest oil-producing basin in the United States from space." *Science Advances*: 22 Apr 2020. <https://www.science.org/doi/10.1126/sciadv.aaz5120>
- [64] Oil Change International, Earthworks, and the Center for International Environmental Law, *The Permian Climate Bomb*. <https://www.permianclimatebomb.org/chapter-2>
- [65] Carbon Tracker. 'Adapt to Survive.' pp. 4-5, 8-10
- [66] Carbon Tracker. 'Adapt to Survive.' p. 6.
- [67] Carbon Tracker. 'Adapt to Survive.', pp. 4-5, 8-10
- [68] Rainforest Action Network, *Banking on Climate Chaos*. March 2021. <https://www.ran.org/wp-content/uploads/2021/03/Banking-on-Climate-Chaos-2021.pdf>
- [69] Carbon Tracker, *Fault Lines: How Diverging Oil and Gas Company Strategies link to Stranded Asset Risk*, October 2020, <https://carbontracker.org/reports/fault-lines-stranded-asset/>
- [70] Carbon Tracker. 'Adapt to Survive.'
- [71] <https://carbontracker.org/company-profiles/>
- [72] <https://www.climateaction100.org/progress/net-zero-company-benchmark/>
- [73] <https://www.climateaction100.org/progress/net-zero-company-benchmark/>
- [74] <https://influencemap.org/filter/List-of-Companies-and-Influencers#>
-