ASSESSMENT OF QATARENERGY'S CLIMATE STRATEGY

RECLAIM Finance

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INTRODUCTION

In 2023, QatarEnergy ranked as the 13th largest oil and gas producer and 2nd largest upstream developer worldwide. The company is the 3rd biggest liquified natural gas (LNG) terminal developer, mostly due to its liquefaction infrastructure expansion plans.[1]

As one of the largest National Oil Companies (NOC) and one of the largest greenhouse gas (GHG) emitters globally, QatarEnergy is among the few companies in the world whose climate strategy (or lack thereof) in the coming years will have a determining impact on our collective ability to limit global temperature rise to 1.5°C. The company has not pledged to achieve carbon neutrality by 2050 so far.

QatarEnergy's investors and other financial stakeholders both have a key interest and a crucial responsibility to ensure the company swiftly aligns with a 1.5°C pathway.

The key findings of this briefing are:

- QatarEnergy does not provide sufficient information on its decarbonization plan to allow investors and other financial stakeholders to correctly assess its capacity to align with a 1.5°C pathway. Insufficient information is given on the company's emissions, capital expenditure (CAPEX) plan, its 2030 production volumes, as well as on the reference scenario it uses to establish its climate plan.
- Taking into account QatarEnergy's oil and gas production from currently producing fields, plus its fields under development and field evaluation, the company's production in 2030 will be 20% higher than the level required to align with the International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario (NZE).
- QatarEnergy plans to increase its LNG gross capacity by more than 20% between 2022 and 2024 and by more than 50% between 2022 and 2030.
- QatarEnergy is constructing new regasification terminals and plans to develop new ones in the coming years. Consequently, with its current LNG strategy, 47% of QatarEnergy's 2030 total net liquefaction capacity will exceed the NZE.
- QatarEnergy plans to develop new regasification terminals in the coming years. Consequently, with its current LNG strategy, 10% of QatarEnergy's 2030 total net regasification capacity will exceed the NZE.
- Renewable energy will represent in 2030 less than 1% of its energy mix.
- QatarEnergy has pledged mitigation targets for 2030 on scopes 1 and 2 only. As the group does not disclose any scope 3 target nor exhaustively reports its current emissions, it is not possible to project QatarEnergy's GHG emissions trajectory.

1. QATARENERGY IN A NUTSHELL TODAY

QatarEnergy is the state-owned oil company of Qatar, fully detained by the Qatari state. The NOC is active in diverse activities including upstream, LNG, downstream, and renewables.

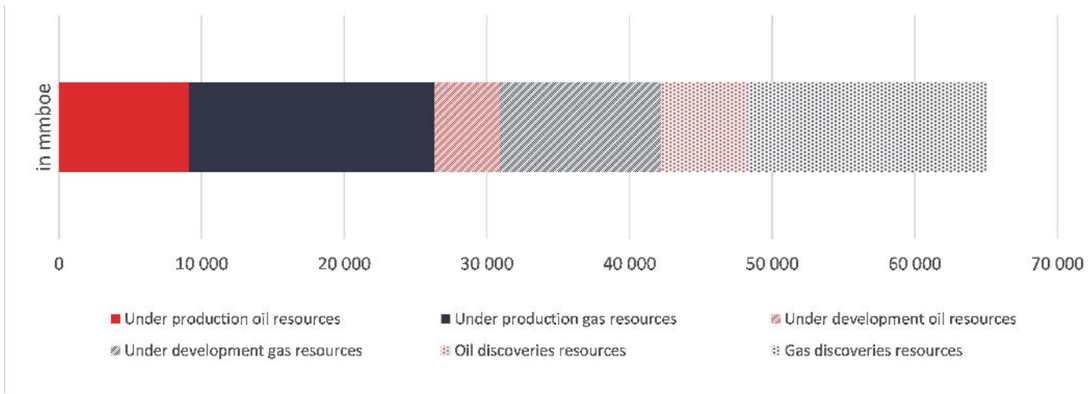
QatarEnergy accounts for 1.8% of global oil and gas production and 7.2% of upstream short-term expansion plans.[2] Considering expansion overshooting the IEA pathway,[3] the NOC has the third highest absolute overshoot of any oil and gas company in the world with 6,901 mmboe of resources from fields under development or under evaluation with a FID beyond 2021.

As of August 1, 2023:[4]

- QatarEnergy had 26,347 mmboe of resources under production, including 9,115 mmbbl of oil and 17,231 mmboe of fossil gas. This represents the equivalent of 30.3 years of production at 2022 levels.
- QatarEnergy had 15,835 mmboe of resources under development or field evaluation, including 4,579 mmbbl of oil and 11,256 mmboe of fossil gas. This represents 18.2 years of production at 2022 levels.
- QatarEnergy hold 22,873 mmboe of oil and fossil gas discoveries, including 6,188 mmbbl of oil and 16,685 mmboe of fossil gas. This represents 26.3 years of production at 2022 levels.

In 2022, QatarEnergy extracted 343 mmbbl of oil and 525 mmboe of fossil gas. Beyond exploration and production, QatarEnergy is also active in other segments such as LNG, midstream and downstream and plans to develop renewable and hydrogen activities.

QatarEnergy 's oil and gas resources
(based on current ressources in million barrels of oil equivalent)



Source: Rystad Energy, accessed in August 2023

2. TRANSPARENCY OF QATARENERGY'S CLIMATE PLAN

The adoption and publication of sufficiently detailed targets and indicators are a prerequisite for assessing how a company's climate strategy aligns with a 1.5°C trajectory.

QatarEnergy publishes a climate plan and indicators with detailed climate targets.

However, while QatarEnergy provides 2030 scope 1 and scope 2 decarbonization targets,[5] QatarEnergy does not disclose either closer decarbonization targets nor scope 3 decarbonization targets. The information given does not allow investors to understand the company's trajectory for GHG emissions and its production model through to 2030, or the risks associated with financial exposure to the company.

For example, QatarEnergy does not communicate on its future oil and gas production. Moreover, the NOC does not report nor projects its investments specifically dedicated to sustainable energy. This type of information is key to identifying the company's planned strategy, and therefore the credibility of its emissions reduction goals.

The table below summarizes the level of disclosure by QatarEnergy on a few key indicators. It does not provide a comprehensive assessment of the transparency and completeness of QatarEnergy's climate strategy, but rather focuses on the basic indicators that should be the foundation of any oil and gas major's plan.

Assessment of the transparency of QatarEnergy's climate plan

Does QatarEnergy publish detailed information about the following indicators up to 2030?	Yes - No Partially	Comment
Absolute and relative GHG emissions reduction targets covering scope 1, 2 and 3.	No	• QatarEnergy publishes 2030 carbon intensity targets on scope 1 and 2 only.
Contribution to emissions reduction targets of carbon capture and storage (CCS) along the company's value chain.	Yes	• QatarEnergy publishes 2030 CCS targets.
Contribution to emissions reduction targets of offsets, and offsetting approaches.[6]	No	
CAPEX breakdown by activity, and by production maintenance and growth.	No	
2030 targeted energy mix and production volumes.	No	• QatarEnergy does not report its 2030 oil and gas production
Reference scenario used to define climate targets.[7]	No	

Source: QatarEnergy's 2022 and 2023 presentations, Sustainability Report, company website

3. QUALITY OF QATARENERGY'S CLIMATE PLAN

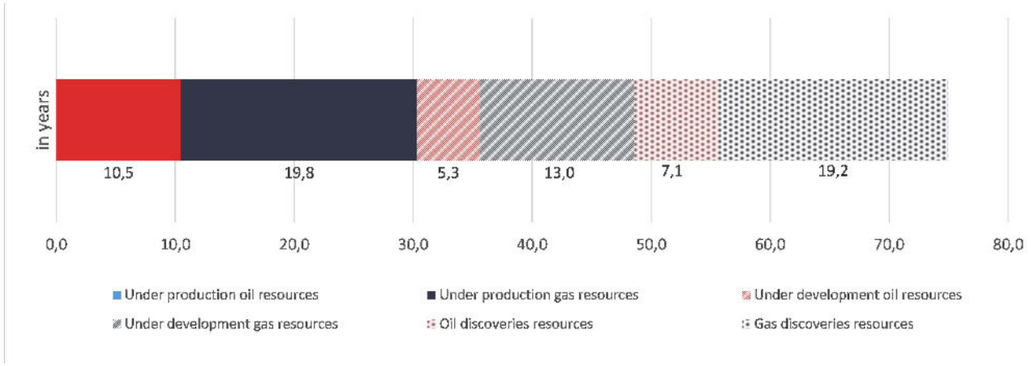
a. Oil and gas trajectory

In May 2021, the IEA published its Net Zero Emissions by 2050 Scenario (NZE) which provides a pathway to meet global energy needs while having a 50% chance of keeping global temperature increases below 1.5°C.[8] It was used as the reference scenario in the World Energy Outlook (WEO) 2021 and was updated in the WEO 2023 published in October 2023.[9] It projects a reduction in oil and gas production by 2030 compared to 2022 levels of 20.9% and 17.9%, respectively,[10] and an end to the development of new oil and gas production projects and LNG terminals.

According to the Global Oil and Gas Exit List (GOGEL),[11] QatarEnergy is the second largest global oil and gas upstream developer. 41.8% of its expansion plans did not obtain their FID before 2022 and are therefore overshooting the IEA's NZE. QatarEnergy is the company with the third highest absolute volume of resources from fields under development or under evaluation that are not aligned with the IEA NZE scenario. QatarEnergy is focusing its expansion plans on gas production and LNG: the NOC plans to increase its LNG gross capacity by more than 20% between 2022 and 2024 and by more than 50% between 2022 and 2030.

Despite the disrupted energy environment caused by the invasion of Ukraine, the need to halt oil and gas expansion as soon as possible remains a key feature of the NZE. The May

QatarEnergy's oil and gas resources
(based on current ressources and 2022 level of production)

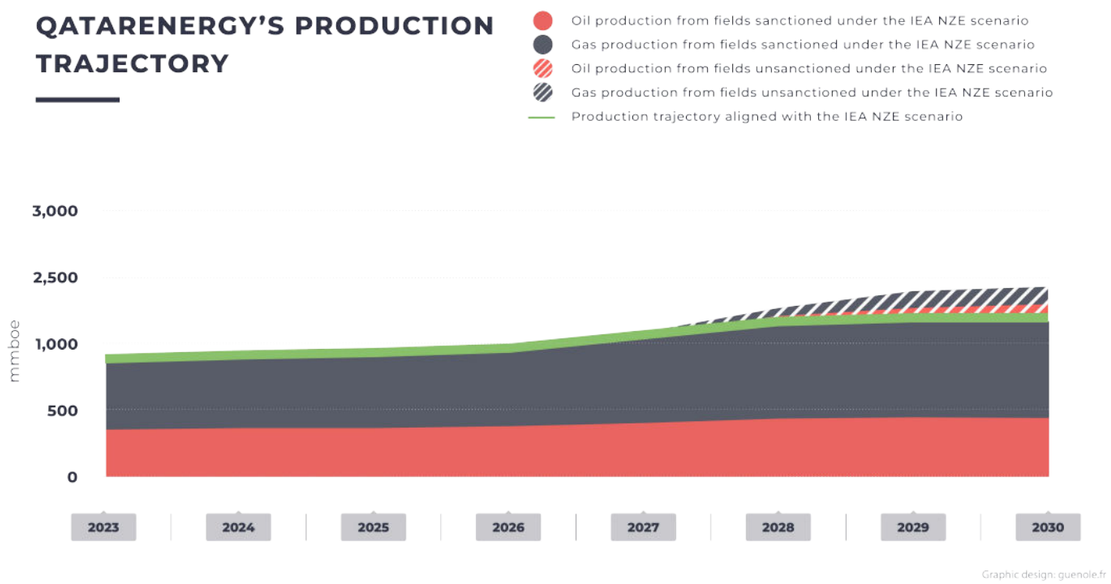


Source: Rystad Energy, accessed in August 2023

"I am also calling on CEOs of all oil and gas companies to be part of the solution. They should present credible, comprehensive and detailed transition plans in line with the recommendations of my High-Level Expert Group on net-zero pledges.

These plans must clearly detail actual emission cuts for 2025 and 2030, and efforts to change business models to phase out fossil fuels and scale up renewable energy."

Antonio Guterres,
Secretary-General of the United Nations,
March 2023



Source: Rystad Energy on oil and gas production and expansion, accessed in August 2023

2021 NZE projected a halt to the development of new oil and gas fields for which FID was not approved by January 1st, 2022. The updated WEO 2023 version of the NZE also highlights the need to end the development of new LNG terminals beyond those approved by January 1st, 2023.

The completion of some projects that can swiftly enter production and operate for a limited time only – mainly shale oil and gas projects – is not expressly forbidden in the WEO version of the NZE. However, the IEA notably stresses that the invasion of Ukraine cannot justify a "new wave of oil and gas infrastructure", and that any new oil and gas fields will make it "even more challenging" to meet carbon neutrality targets and "creates the clear risk that [the 1.5°C] target moves out of reach". Concretely, any such project will require even greater reduction efforts in other sectors and activities.

The IPCC also highlights the risks associated with the development of any new fossil fuel projects.[12] This concurs with a large and growing body of scientific evidence showing the need to immediately end fossil fuel development and a growing consensus on this in net-zero policy discussions.[13]

Oil and gas production should decrease by 20.9% and 17.9%, respectively,[14] during this decade according to the NZE. However, without developing any new oil and gas fields and by only extracting resources that are already under production, QatarEnergy has enough resources to produce the equivalent of 30.3 years of oil and gas production at its elevated 2022 level. QatarEnergy's resources under development and field evaluation will provide the equivalent of another 18.2 years of production at its 2022 production level. Additionally, if the company exploits all its oil and gas discoveries, it will have enough resources to produce the equivalent of a further 26.3 years of production at its 2022 level.

In the IEA's NZE, the rate of oil and gas production declines due to the combination of the natural depletion of existing oil and gas fields and the absence of new fields to fill the gap. This decline happens even though the NZE relies on material levels of negative emissions, including through the deployment of technologies unproven at scale, and would be much faster without such a reliance. Other prominent 1.5°C scenarios with no or low overshoot also show oil and gas production declining by 2030. These include the One Earth Climate Model (OECM),[15] the Network for Greening the Financial System's (NGFS) net zero climate scenarios,[16] and the IPCC 1.5°C with no or low overshoot scenarios filtered to limit to reasonable volumes the reliance on negative emissions (CCS, NBS, etc.).[17]

The following chart compares QatarEnergy's oil and gas production level from fields under production as well as those under development and under field evaluation in 2030 with NZE alignment, which is an aggregate of both its producing fields and its fields under development with FID obtained before 2022.[18]

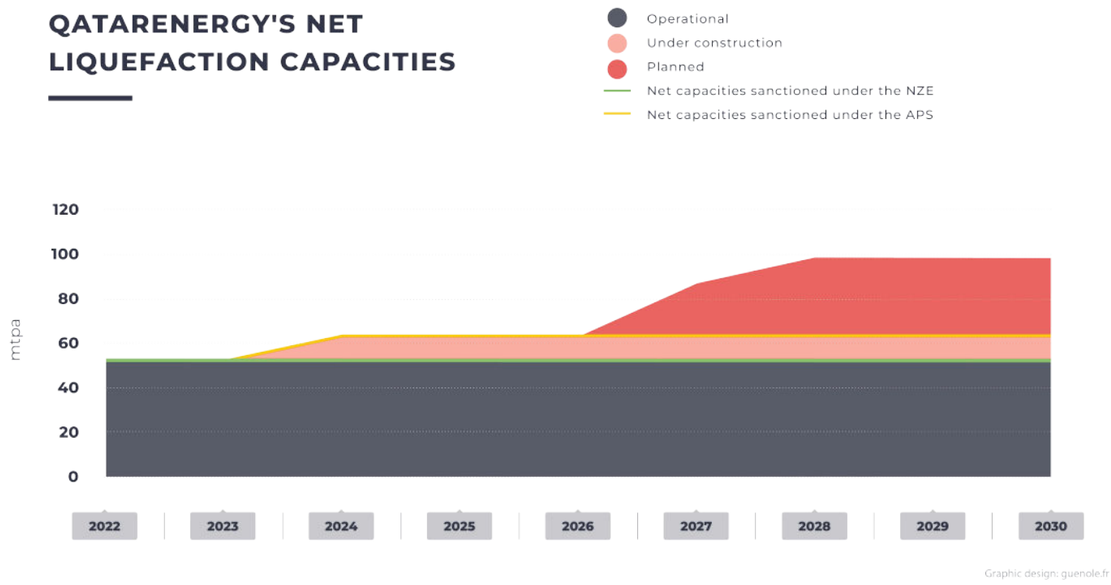
QatarEnergy owns 22,873 mmboe of discovered hydrocarbon resources that have not yet entered the field evaluation or development stage that could be developed in a near future.

In 2030, with oil and gas from currently producing fields, plus fields under development and under evaluation, QatarEnergy's production level will be 20% higher than the NZE.

QatarEnergy has not committed to stop developing new oil and gas projects beyond those already in development and could review its production targets either up or down. Consequently, the level of upstream production indicated in the chart could be conservative and higher than QatarEnergy's short term expansion figures.

b. LNG expansion plans

LNG activities are a key element of QatarEnergy's energy strategy. QatarEnergy is mostly a gas player, and intends to increase its LNG business. Gas represents 65.4% of its resources under production, 71.1% of its resources under development and under evaluation, and 72.9% of its resources from discovered assets.

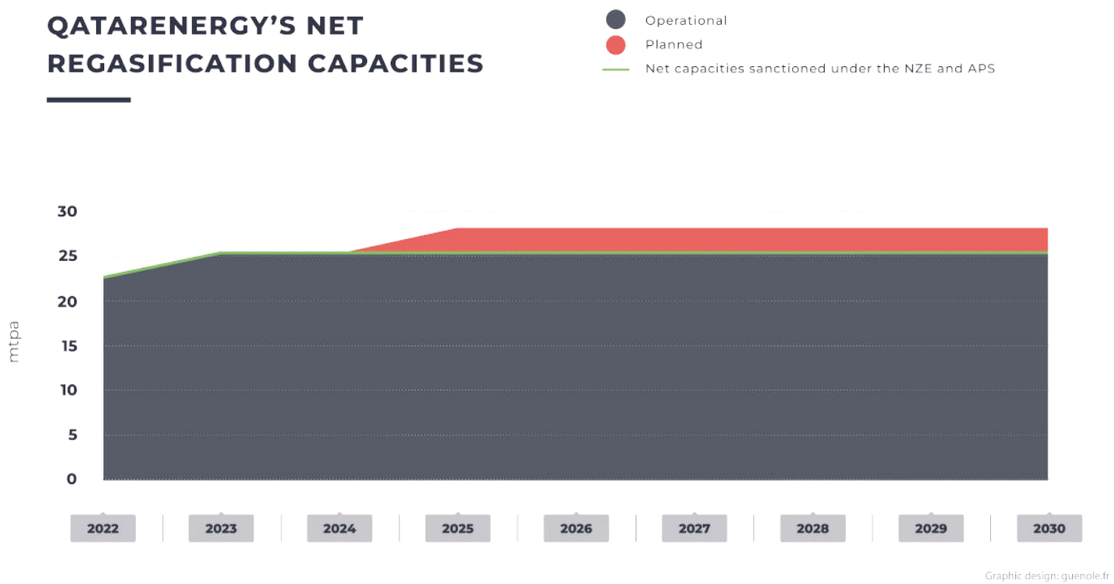


Source: Enerdata LNG database accessed in July 2023 for operational terminals and Global Oil and Gas Exit List 2023 for under construction and planned terminals

QatarEnergy's gas strategy relies on LNG, primarily on export terminals, and is involved in import terminals. QatarEnergy owns LNG export and import terminals as well as construction plans of new LNG export and import terminals.

1. QatarEnergy is already the main shareholder of the Qatari export terminals QatarGas I to IV and Ras Laffan I to III that represents for QatarEnergy 53 million tons per annum (Mtpa) net liquefaction capacity. QatarEnergy is also the main shareholder of both import terminals: South Hook LNG I and II in the United Kingdom and Golden Pass Sabine I and II in the United States. With its stake in Adriatic LNG in Italy, those import terminals represent for QatarEnergy 23 million tons per annum (Mtpa) net regasification capacity.
2. QatarEnergy is constructing new liquefaction capacities with Golden Pass export I to III in the United States and the North Field East I to IV in Qatar. The NOC plans to construct the North Field V and VI liquefaction terminals. That would add net liquefaction capacities of 46.5 Mtpa to QatarEnergy portfolio.
3. QatarEnergy is involved in Energas FSRU import terminal in Port Qasim in Pakistan. That would add net regasification capacities of 2,82 Mtpa to QatarEnergy portfolio. The proposed import terminal has not confirmed any commissioning date yet.
4. Consequently, with its current LNG plans, 47% of QatarEnergy's 2030 total net liquefaction capacity and 10% of QatarEnergy's 2030 total net regasifaction capacity will exceed the NZE.

Under the NZE, gas demand by 2050 is met with all existing LNG terminals. Under the APS, gas demand is met with operational and under construction facilities. In either case, no new LNG terminal plans are necessary to meet the demand. With its current plans, none of QatarEnergy's LNG expansion plans are aligned with the NZE, while only the infrastructure already under construction are aligned with the APS.



Source: Enerdata LNG database accessed in July 2023 for operational terminals and terminals commissioned in 2023, and Global Oil and Gas Exit List 2023 for under construction and planned terminals

c. Cash flow allocation

The future energy mix of a company is determined by its current investment strategy. In the NZE, total energy investment needs to more than double by 2030, with a shift from high-carbon energy to clean alternatives. Investment in clean energy, end-use and efficiency more than triple in the NZE, and ten dollars must be spent on clean energy, end-use and efficiency for each dollar spent on fossil fuels by 2030.[19]

Among its US$82.5 billion 2021-2025 CAPEX plan, QatarEnergy does not report investments dedicated to sustainable power generation.

The company does not communicate details on its 2030 energy mix, however it communicates on the renewable installed capacities. QatarEnergy plans a renewable capacity of 2 to 4 GW by 2030.[20]

With QatarEnergy's 2030 oil and gas production from its operating, under development and under evaluation fields, and its renewable capacity targets, the maximum renewables share of QatarEnergy's energy supply mix in 2030 would remain under 1%.

Regarding low carbon molecules, QatarEnergy does not communicate on green hydrogen. QatarEnergy pledged mitigation targets for 2030 compared to its 2013 level, measured in intensity terms, and including scope 1 and 2 only.[21] QatarEnergy does not disclose its energy supply evolution, while it plans to increase its LNG production by 2030. Moreover, QatarEnergy does not disclose report scope 3 emissions and does not indicate any scope 3 target. Therefore, it is not possible to project QatarEnergy's emission trajectory.

d. Decarbonization targets and emissions trajectory

QatarEnergy relies on CCS and will capture 8 Mtpa in 2030. As highlighted by the IPCC, however, CCS in the energy sector still has limitations to overcome before it can be scaled up, which means it comes with limited potential and prohibitive costs. Too high reliance on these types of mitigation approaches represents a material risk factor for QatarEnergy's ability to reach its decarbonization targets.

QatarEnergy's pledged mitigation targets

Base year	Target year	Reduction target	Net target	Geographical scope	Emission scope	Emission Type
2013	2030	-15%	Yes	World	1 & 2	Intensity

Source: QatarEnergy 2023 Sustainability report

References

1. Using the Urgewald 2023 Global Oil & Gas Exit List. This list was constructed based on September 2023 Rystad data.
2. Using the Urgewald 2023 Global Oil & Gas Exit List. The list was constructed based on September 2023 Rystad data.
3. Based on the original scenario as published in 2021 and updated in 2022, which states that in a 1.5°C world, approval of new oil and gas fields is not needed after 2021.
4. Calculations made using Rystad Energy Ucube with data from August 2023.
5. QatarEnergy, *Sustainability report 2022*, 2023
6. The IPCC estimates between 500 and 3,600 million metric tons of CO_2 could be removed annually through planting new forests by 2050. Greenpeace, Net Expectations: Assessing the role of carbon dioxide removal in companies' climate plans, 2021.
7. To meet this criterion, the company must disclose the publicly available 1.5°C pathway with no or low overshoot that it uses to set its targets. While all oil and gas companies somewhat rely on 1.5°C pathways to conduct analysis and inform their decision-making, this does not mean that the targets they set are coherent with these pathways.
8. IEA, Net Zero Emissions by 2050 Scenario (NZE), 2021.
9. IEA, World Energy Outlook 2023, 2023.
10. Reclaim Finance calculation using IEA's WEO 2023 dataset with oil and natural gas world energy supply.
11. Urgewald, Global Oil and Gas Exit List, 2023
12. IPCC, Climate Change 2022: Mitigation of Climate Change, 2022.
13. For example, the UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions, November 2022; Race to Zero Expert Peer Review Group, Interpretation Guide. Version 2.0, June 2022, para 5b; Net-Zero Asset Owner Alliance (NZAOA), Position on the Oil and Gas Sector, March 2023.
14. Reclaim Finance calculation using IEA's WEO 2023 dataset with oil and natural gas world energy supply.
15. OECM, Limit global warming to 1.5°C, 2022
16. NGFS, Climate scenarios
17. The International Institute for Sustainable Development (IISD) filtered the various 1.5°C scenarios provided by the IPCC to ensure they do not rely on volumes of negative emission that are not coherent with the IPCC's own realistic potentials. These "limited negative emissions" pathways are analyzed in the report Lighting the Path.
18. To model the IEA's NZE production trajectory and replicate it by company, we did not integrate merger and acquisition operations as these could increase the production rate because of field acquisitions with a FID obtained before 2022.
19. The IEA 10 for 1 ratio includes renewable energy, efficiency and end-use but also biomass and other activities (like CCS) that could lead to some environmental harm and/or raise sustainability questions. Relying on a different scope of clean energy investment, BloombergNEF estimates that $4 must be spent on clean energy for every dollar spent on fossil fuels by 2030, based on energy supply only.
20. QatarEnergy, *Sustainability report 2022*, 2023
21. QatarEnergy, *Sustainability report 2022*, 2023

Useful links

Methodology - Glossary

Credits

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ASSESSMENT OF QATARENERGY'S CLIMATE STRATEGY

Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

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