



ASSESSMENT OF REPSOL'S CLIMATE STRATEGY

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TABLE OF CONTENTS

Introduction	4
Key findings	6
1. Current energy production	8
2. Cash-flow allocation	9
3. Fossil fuel strategy	12
a. Upstream expansion plans	12
b. Upstream production	13
4. Diversification strategy	14
a. Sustainable energy	14
b. Unsustainable diversification	15
5. Emissions targets	16

INTRODUCTION

While a growing number of institutions are disengaging from the oil and gas sector, deeming it incapable of transformation, others believe that oil and gas companies are essential to the energy transition, and that their support is indispensable to the massive development of renewable energies. Considering this: What is the actual situation? To what extent does Repsol contribute to the development of sustainable solutions? Given that we can't limit global warming to 1.5°C without gradually reducing hydrocarbon production, has Repsol given up on developing new oil and gas projects?

To assess Repsol's climate strategy and provide our analysis, Reclaim Finance relied on the International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario (NZE).¹ The NZE is based on a 1.5°C trajectory and includes:

- A drop in oil and gas production of 21% and 18% respectively by 2030, compared with 2022 levels.
- A 67% increase in total annual investment in energy, with a 2.3-fold increase in annual investment in energy transition, covering clean energy supply, end-use and energy efficiency. This would mean investing ten dollars in the transition by 2030, six in energy supply – mainly electricity – for every dollar invested in fossil fuels, i.e. a 6:1 ratio.

In 2023, Repsol ranked as the 47th biggest oil and gas producer and the 34th biggest oil and gas exploration and production developer worldwide.²

As one of the top European integrated oil and gas companies and one of the largest greenhouse gas (GHG) emitters globally, Repsol is among the few companies in the world whose climate transition (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. In 2020, the company pledged to achieve carbon neutrality across its entire operations on an absolute basis by 2050 or sooner.³



“ 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. ”

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

KEY FINDINGS

1. The investment strategy of Repsol prioritizes the oil and gas sector and redistribution to shareholders, to the detriment of climate solutions

- Repsol invested in oil and gas rather than in renewable energy:⁴ For every euro invested in 2023 in its “Low-Carbon Generation” (LCG) business – including sustainable energy, hydropower and gas power – Repsol invested 2.0 euros in oil and gas.
- Repsol remunerates shareholders rather than investing in renewable energy: For every euro invested in 2023 in its LCG business, Repsol distributed 1.3 euros to its shareholders through dividends and share buybacks.

2. The energy strategy of Repsol will continue to rely on the development of new fossil fuel projects

- On the basis of Repsol’s oil and gas production from its currently producing fields and its short-term expansion plans, the company’s production in 2030 from its already committed expansion plans will be 41% higher than the level required to align with the NZE. In terms of short-term expansion, Repsol ranks as the 34th biggest oil and gas upstream developer.
- Yet, Repsol will have to develop additional discoveries or acquire fields beyond those already under expansion to meet its 2030 oil and gas production target. Its existing operating fields and short-term expansion plans will not be sufficient, despite a planned slight reduction in oil and gas production to within 550 and 600 thousand barrels of oil equivalent (kboe) per day by the end of the decade. With the company’s current strategy, its 2030 production will be 65% higher than the NZE.

3. Repsol’s diversification strategy remains marginal and partly relies on gas and unsustainable energies

- Oil and gas will still represent more than 70% of Repsol’s energy mix by 2030. The company will account for 0.5% of the worldwide oil and gas production in the NZE.
- Repsol’s green hydrogen capacity will reach 1.9 GW of electrical output (GWe) in 2030. Hydrogen will represent 4.6% of Repsol’s energy production mix in 2030.
- With 15-20 gigawatts (GW) of installed renewable power capacities in 2030, renewables will represent less than 19% of Repsol’s energy mix. The company will account for 0.2% of the worldwide renewable power production in the NZE.
- By 2030, Repsol will develop or remain active in unsustainable energies such as the use of combined cycle gas turbines (CCGT) and cogeneration plants. In 2030, gas power will represent 2.9% of the company’s energy production mix.



1. CURRENT ENERGY PRODUCTION

Repsol accounts for 0.4% of global oil and gas production.⁵ In 2023, Repsol extracted 76 million barrels of oil (mmbbl) and 130 million barrels of oil equivalent (mmbbl) of gas.⁶ Beyond exploration and production, Repsol is also active in other energy segments such as oil and gas transportation, oil refining, solar and wind generation, hydropower, and gas power generation and retail.

The company's power production is composed of gas power, hydropower, and sustainable energy – wind, solar and battery storage. In

2023, Repsol produced 4.8 terawatt-hours (TWh) of electricity through gas and 3.9 TWh through renewable energy. Installed renewable capacities reached 2.8 GW, including 2.1 GW of solar and wind power and 0.7 GW of hydropower, with a strategic focus on Spain, the United States and Chile.⁷

Repsol is also active in bioenergy, producing 1 million tonnes per annum (Mtpa) of biofuels despite the negative impacts on climate, biodiversity, and human rights.⁸ The companies did not produce biogas in 2023.

2. CASH-FLOW ALLOCATION

The future energy mix and GHG emissions of a company are determined by its current energy mix and its investment strategy.

From 2021 to 2023, Repsol invested US\$253 million per year in oil and gas exploration, making it the 40th largest investor in this area over those three years.⁹ The investments reveal the importance of oil and gas expansion in the company's long-term strategy, which includes the search for new fields that once discovered could come into production in decades.

Information in Repsol's 2023 annual report¹⁰ shows how the cash and cash flows generated from its operational activities were spent in 2023:

1. Repsol invested €1.9 billion in its LCG business, which includes solar and wind energy as well as gas power.
2. Repsol invested €4.2 billion in oil and gas, including €2.6 billion in oil and gas exploration and production, and €1.6 billion in other oil and gas activities, including refining and petrochemical



activities. **In total, for every euro invested in LCG, more than 2.0 euros were invested in oil and gas.**

3. Repsol provided its shareholders with €2.4 billion through dividend payments (€1.1 billion) and share buybacks (€1.3 billion). **In total, for every euro invested in LCG, 1.3 euros were distributed to shareholders.**

Total annual energy investment needs to increase by 67% by 2030 according to the NZE, which includes a shift from fossil fuels to clean alternatives. Investments in clean energy supply, end-use and efficiency are multiplied by 2.3 times by 2030 in the NZE, with 10 euros spent in these areas for each euro spent on fossil fuels, 6 euros of which are for sustainable power supply.¹¹ In its 2023 report, **the IEA established that oil and gas companies must allocate more than 50% of their capital expenditure (CAPEX) in clean energy by 2030.**¹²

REPSOL'S 2023 RENEWABLE INVESTMENT RATIOS

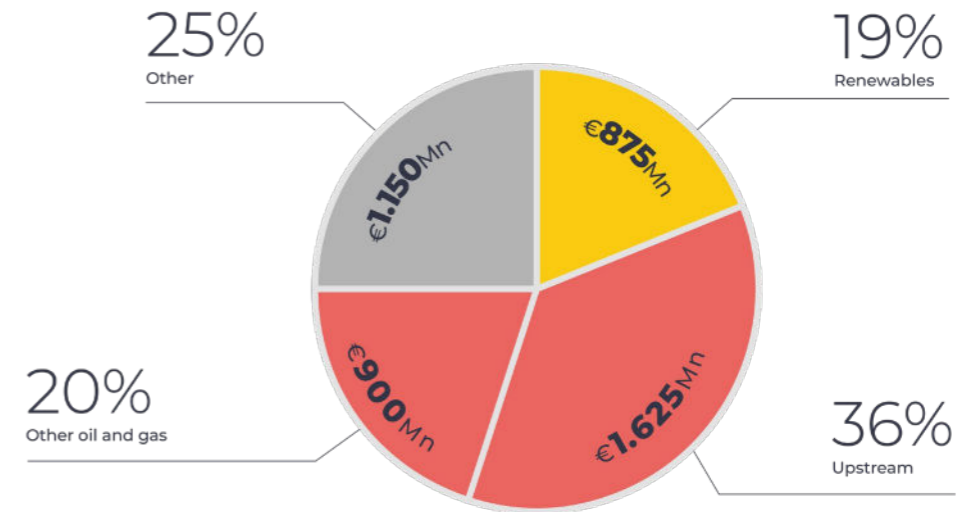


Source: Repsol, [2023 Annual Financial Report, 2024](#)

Repsol's net investment plan remains fossil-fuel driven. It plans to invest €4.6 billion per year on average from 2024 to 2027, including €2.5 billion in oil and gas¹³ and €1.6 billion

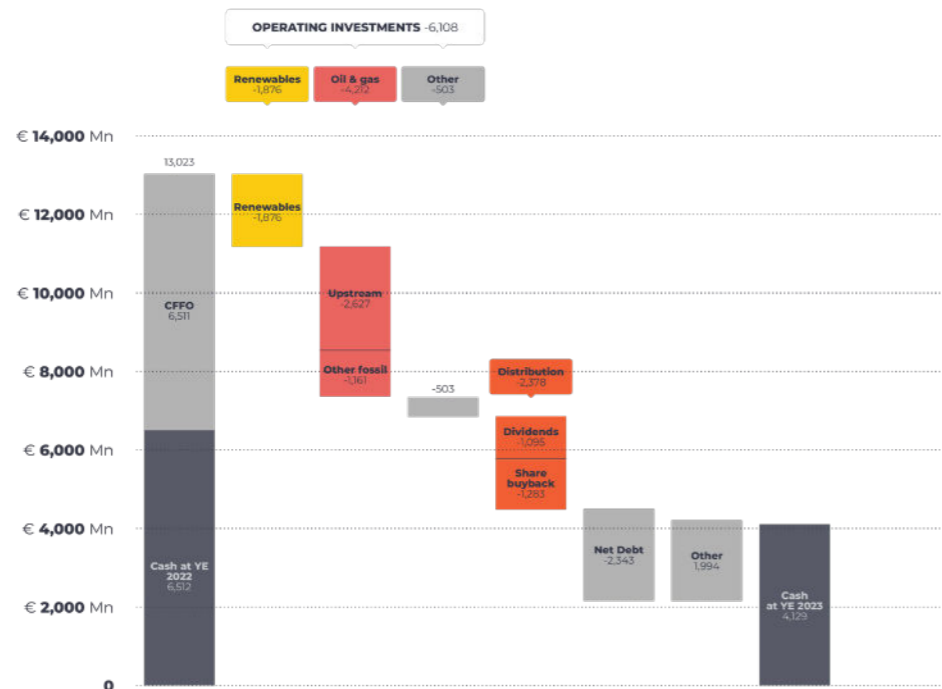
in its upstream segment, with €875 million per year dedicated to renewable energy. **Renewable energy will represent 20% of its coming operating investments.**¹⁴

REPSOL'S NET CAPEX PLAN TO 2027



Source: Repsol, [Strategic Update 2024-2027, 2024](#)

BREAKDOWN OF REPSOL'S 2023 CASH-FLOWS



Source: Repsol, [2023 Annual Financial Report, 2024](#)



3. FOSSIL FUEL STRATEGY

a. Upstream expansion plans

The IEA published the NZE in May 2021¹⁵ to provide a pathway to meet global energy needs while maintaining a 50% chance of keeping global temperature increases below 1.5°C. It was used as the reference scenario in the IEA's World Energy Outlook (WEO) 2021 and was updated in the WEO 2022¹⁶ and WEO 2023.¹⁷ The NZE projects a halt to the development of any new oil and gas fields for which a Final Investment Decision (FID) was not approved by January 1st, 2022.

The Intergovernmental Panel on Climate Change (IPCC) also highlights the risks associated with the development of any new fossil fuel projects. 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.

According to the 2023 Global Oil and Gas Exit List (GOGEL), **Repsol is the 34th top global oil and gas upstream developer.**

The company accounts for 0.6% of global short-term expansion plans, with 86.7% of its expansion plans not obtaining a FID before 2022 - therefore overshooting the NZE.

These plans would give Repsol significant additional resources even though it already has enough to extract oil and gas for several years. As of March 27th, 2024:

- Repsol has 1,790 mmbbl of resources under production, including 705 mmbbl of oil and 1,085 mmbbl of gas. This represents the equivalent of 8.7 years of production at 2023 levels.
- Repsol has 1,008 mmbbl of resources under development or field evaluation, including 663 mmbbl of oil and 344 mmbbl of gas. This represents 4.9 years of production at 2023 levels.
- Repsol owns 1,176 mmbbl of oil and fossil gas discoveries, including 849 mmbbl of oil and 327 mmbbl of gas. This represents 10.2 years of production at 2023 levels.

REPSOL'S OIL AND GAS RESOURCES

- Under production oil resources
- Under production gas resources
- Under development and evaluation oil resources
- Under development and evaluation gas resources
- Oil discoveries resources
- Gas discoveries resources



Source: Rystad Energy, accessed in April 2024

b. Upstream production

Oil and gas production should decrease by 20.9% and 17.9%, respectively, between 2022 and 2030 according to the NZE.¹⁸ In this scenario, the rate of oil and gas production declines due to a combination of the natural depletion of existing oil and gas fields and the absence of new fields to fill the gap, despite the reliance on negative emissions. Oil and gas production would need to decline much faster without this reliance. Negative emissions include the deployment of technologies unproven at scale, such as carbon capture, utilization, and storage (CCUS). 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),¹⁹ the net zero climate scenarios from the Network for Greening the Financial System (NGFS),²⁰ and the IPCC's 1.5°C with no or low overshoot scenarios filtered to limit to reasonable volumes the reliance on negative emissions (e.g. CCUS, nature-based solutions (NBS), etc.).²¹

The following chart compares Repsol's planned oil and gas production level by 2030 with:

- Repsol's production by 2030 if it aligns with the NZE (i.e. Repsol's production level from

its producing fields and its fields currently under development with a FID obtained before 2022).

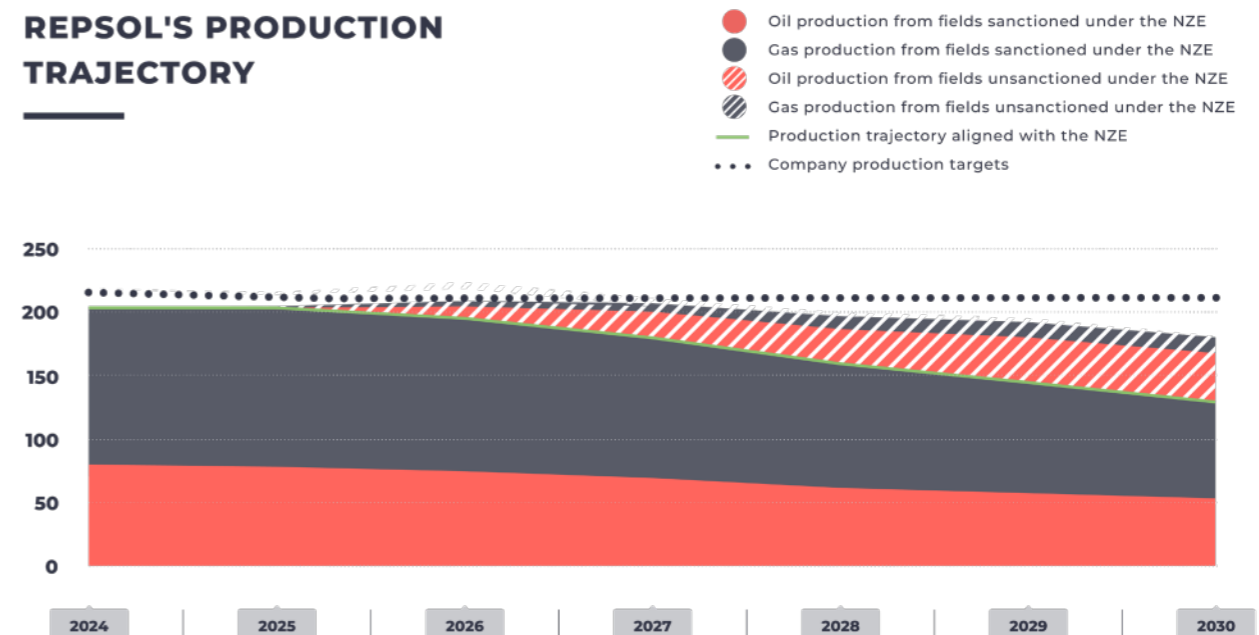
- Repsol's production by 2030 if it carries out its short-term expansion plans (i.e. Repsol's production from its fields currently under production, under development and under field evaluation).

In 2030, with oil and gas from currently producing fields, fields under development and under evaluation, Repsol's production level will be 41% higher than the NZE.

While Repsol targets a production range of 550-600 kboe per day until 2030 - which is slightly lower than its 599 kboe per day production in 2023²² - it still could not achieve this without developments beyond its current short-term expansion plans. In other words, to reach its production target, Repsol will have to develop part of its discoveries and/or acquire new fields. As such, **Repsol's 2030 production target for oil and gas will be 65% above NZE alignment.**

With its production target, Repsol's 2030 oil and gas production will represent 70% of its energy production mix and 0.5% of the global oil and gas production in 2030, according production level of the NZE.

REPSOL'S PRODUCTION TRAJECTORY



Source: Rystad Energy on oil and gas production and expansion, accessed in March 2024; Repsol's 2023 Integrated Management Report on company production targets.

4. DIVERSIFICATION STRATEGY

a. Sustainable energy

The NZE projects strong growth in renewable energy production, from 27 exajoules (EJ) in 2021 to 80 EJ by 2030, led by solar and wind capacity additions.

In 2023, Repsol generated 8.8 TWh of electricity. Less than one-third of its electricity production was based on renewable energy: 1.9 TWh was generated from sustainable sources (wind and solar), and 0.9 TWh from hydropower. Repsol's renewable energy installed capacities are composed of 45% solar energy and storage, 30% wind energy and 25% hydropower. It aims to develop its renewable energy resources, with a capacity increase from 2.8 GW today to 9-10 GW in 2027 and 15-20 GW by 2030.²³ If Repsol meets its targets, the **maximum renewable power energy share of the company's energy production mix in 2030 would remain under 19%, while oil and gas extraction will represent 70% of its energy production mix.**

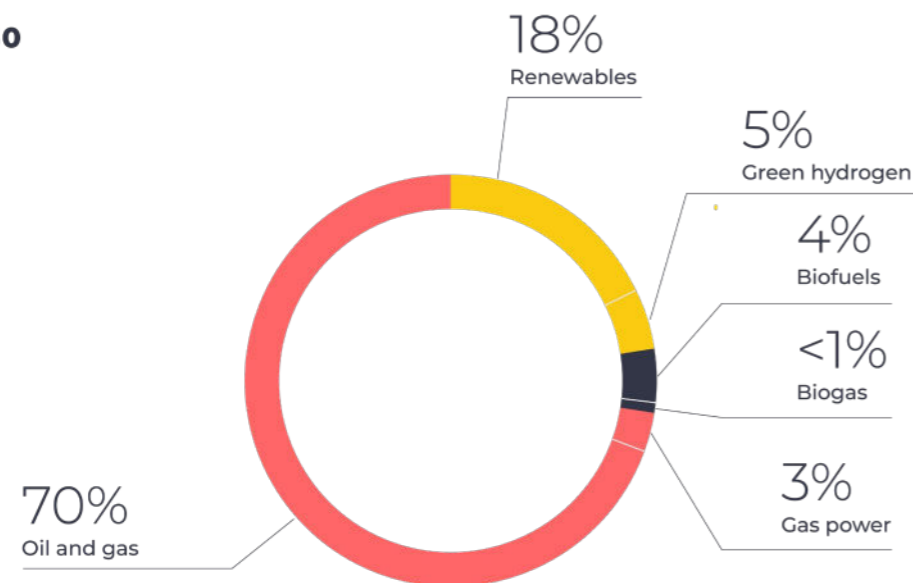
Overall, Repsol will represent less than 0.2% of global renewable energy production in 2030, according production level of the NZE.

The NZE also projects strong growth in hydrogen production, from 94 megatonnes (Mt) in 2021 to 180 Mt by 2030, led by "low-carbon hydrogen" capacity addition. Of this, one-third is produced from fossil fuels – therefore unsustainable – and two-thirds from water-based electrolysis.²⁴ To meet the NZE scenario's production targets, electrolytic hydrogen production capacity should reach 720 GW to 850 GW by 2030.²⁵

As yet, Repsol does not produce green hydrogen and only intends to reach a production capacity of 0.55 GWe by 2025 and 1.9 GWe by 2030.²⁶ Repsol would then account for 0.3% of the required global electrolytic hydrogen production capacity.

If Repsol meets its targets, **in 2030, hydrogen will represent 4.6% of its energy production mix.**

REPSOL'S 2030 ENERGY MIX



Source: Repsol, [Strategic Update 2024-2027](#), 2024



b. Unsustainable diversification

In 2023, more than two-thirds of Repsol's electricity production was fossil-based, with 5.95 TWh being generated using gas.²⁷ Gas combustion is one of the main contributors to carbon dioxide (CO₂) and methane emissions and should be replaced by sustainable solutions – i.e. gas power is unsustainable. By 2035, advanced economies should achieve a carbon neutral power sector, according to the NZE.²⁸ Nevertheless, even if Repsol is not currently developing new gas plants, the company has neither committed to stop developing gas plants nor committed to closing its gas plants. In the hypothesis that Repsol maintains its gas power production at current levels, **gas power will represent 2.3% of Repsol's energy production mix in 2030.**

The NZE projects strong growth in bioenergy production, with an increase of biofuel from 133 Mtpa in 2021 to 367 Mtpa by 2030 and of biomethane from 278 TWh to 1,944 TWh by 2030. In 2023, Repsol produced 1 Mt of biofuels and did not produce biomethane. By 2030, the company targets a biofuel production of 2.3 Mtpa and biomethane production of 2.2 TWh.²⁹ **Repsol's bioenergy production will represent 4.4% of its energy mix at the end of the decade.** Most biomethane is produced via methanization using feedstock such as plant crops, livestock effluents, food and catering effluents, and sewage sludge. Likewise, most biofuel production currently uses so-called conventional feedstocks, such as sugarcane, corn and soy. Due to feedstocks use, emissions from direct and indirect land-use change, increased fertilizer use and carbon emissions from energy-intensive refining, both biofuels and biomethane can have a higher emissions factor than fossil diesel.³⁰ In addition to the climate impacts of land-use change, biofuels can divert crops from food production to energy production, leading to higher food prices.³¹

5. EMISSIONS TARGETS

Repsol pledged mitigation targets for 2025 and 2030 using a 2016 baseline. These were measured in intensity terms on scopes 1, 2 and 3 for 2025, and in intensity and absolute terms on scopes 1, 2 and 3 for 2030. In 2023, Repsol's CO2e emissions were 75.6 MtCO2e, including 60.8 MtCO2e of scope 3 emissions. **Scope 3 emissions are by far the largest, representing 80% of the company's emissions. However, while scope**

3 represents the most significant part of the company's GHG emissions, Repsol's 2030 scope 3 mitigation targets are less ambitious (-30%) than its scopes 1 and 2 targets (-55%).

Using the IEA's energy supply data from the NZE in the WEO 2023, Reclaim Finance calculated Repsol's GHG emissions trajectory. By 2030, the company's targeted carbon intensity will be 21.9% higher than the NZE.

Base year	Target year	Reduction target	Emission scope	Emission Type
2016	2025	-15%	1 & 2	Intensity
2016	2030	-55%	1 & 2	Absolute
2016	2030	-30%	1 & 2 & 3	Absolute

Source: *2023 Integrated Management Report*



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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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