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# Net-zero commitments in oil and gas

## June roundup

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Hello everyone!

Can you believe the first six months of the year have already passed? So much has happened in so little time!

One of the latest happenings is the IEA's annual World Energy Investment report. I'll start off by diving into that. It paints an interesting picture of an energy sector in flux.

And I have something great in store for any hydrogen fans out there - two blockbuster deals have been announced and I'll unpack them for you.

There's also, as always, a little section on offshore wind - it's not my obsession (honest), there's just always something interesting to write about. This time, there's a bit more focus on floating wind.

As ever, if you've been forwarded this email and would like to subscribe, the sign up link is just below. If you have comments or feedback, or would like to chat about the content of the newsletter, drop me a line. I'm always happy to hear from you.

Cheers,  
Micky

[michiel.vriens@gscnetwork.org](mailto:michiel.vriens@gscnetwork.org)

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Stat of the month:

**56 GW**

The amount of solar and wind capacity that the newly announced green hydrogen hubs will need to power their facilities. This is equivalent to all of Germany's installed onshore wind capacity in 2021, according to IRENA.



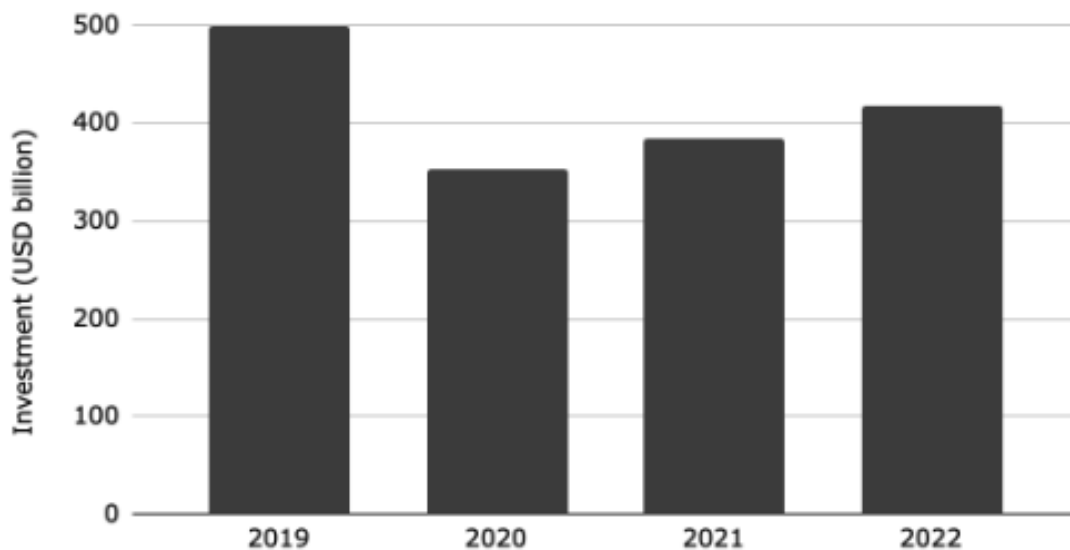
## Decarbonisation strategies

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**Despite a rebound, investments by the oil and gas sector remain lower than before the pandemic.** Investment into upstream oil and gas could reach USD 417 billion globally in 2022, according to [the IEA](#). This is still lower than the USD 500 billion in 2019, but the IEA does note that high energy prices are gradually drawing in more investment.

### Global upstream oil and gas investment

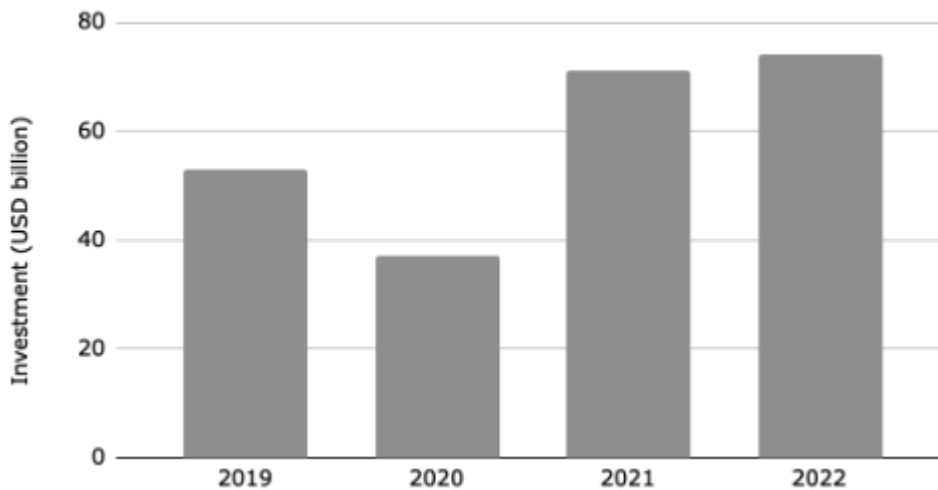
Source: IEA



This is particularly true for liquefied natural gas (LNG) - capital inflows have surged from USD 54 billion (2019) to USD 74 billion (2022).

## Global LNG investments

Source: IEA

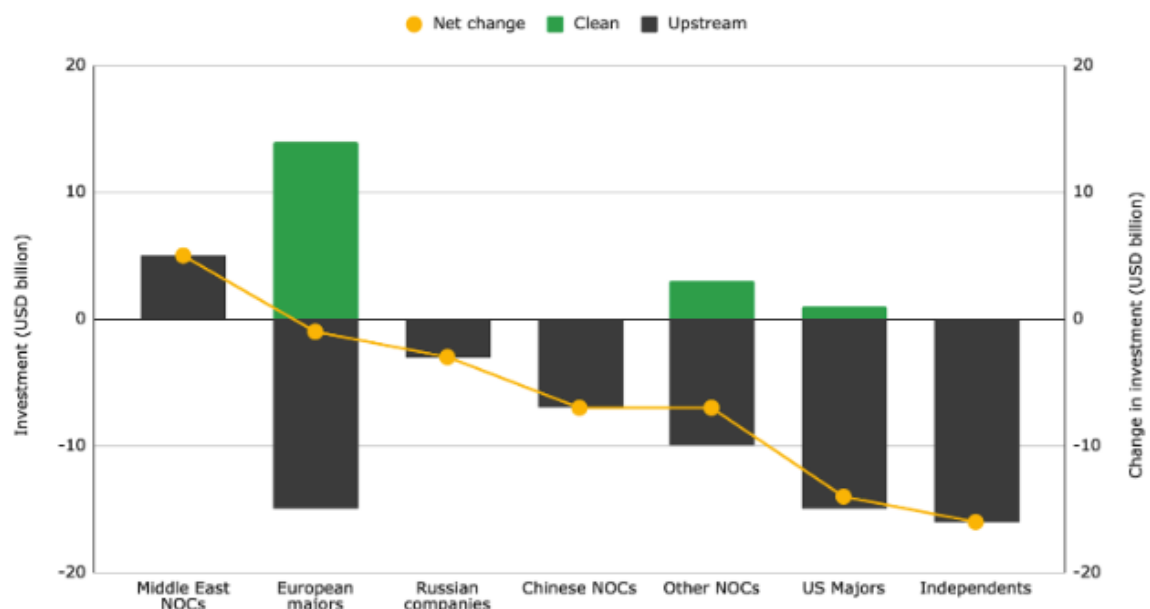


Why start with a breakdown of investment in the oil and gas sector, for this is not my usual fare? Well, it confirms a very tentative investment response to the current high-price environment. I've noted previously that the oil and gas majors aren't racing around trying to approve massive new projects because they don't know how long the good times - read high prices - will last. And that's now borne out by the data on investments between 2020 and 2022.

Overall, investments by companies have slumped, with the exception of the national oil companies in the Middle East. Despite raking in huge amounts of free cash flows, a lot of this money is going straight back to shareholders. But what the graph below highlights is that the European majors have significantly increased their spending on clean and low carbon energy - collectively they will invest USD 14 billion more in 2022 than in 2019, the IEA [projects](#). It must be noted that despite this increase, the clean energy investments of the European majors still account for just 20% of their annual investments, according to Bloomberg Intelligence.

## Evolving investment strategies of oil and gas companies

Source: IEA



*Note: This graph shows the change in investment, not the absolute investment*

Now let's have a closer look at what companies have been up to this month.

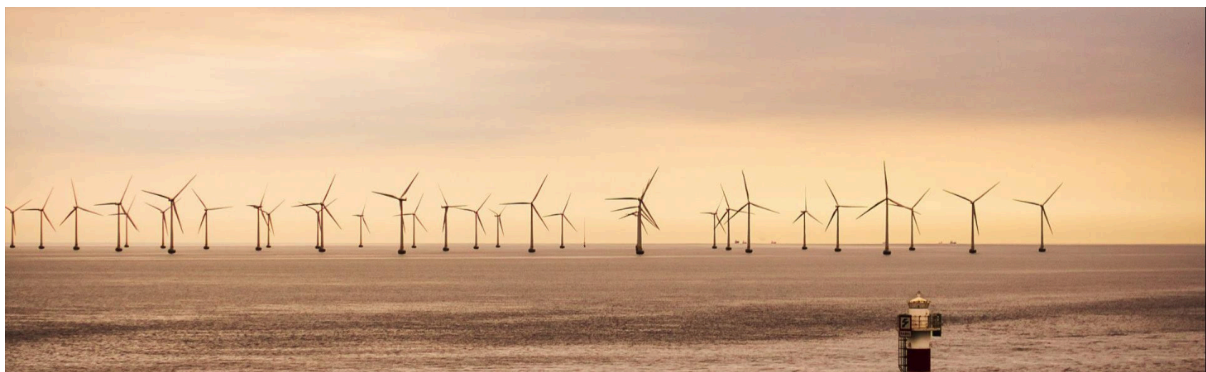
**A few closed deals free up capital for Repsol.** Spanish oil giant Repsol [is exploring](#) the possibility of selling up to a 25% stake in its upstream business to private equity firm EIG Global Energy Partners. The company has stressed that the potential proceeds from this sale will be diverted to expanding its clean energy capacity. Companies are often quick to say this, but that doesn't necessarily mean they actually follow through on it. As we've seen this year, the majors are awash with cash but much of it has gone to shareholders.

Additionally, Repsol [has approved](#) the sale of a 25% stake in its renewables business to the French insurance company Crédit Agricole Assurances and Swiss investor Energy Infrastructure Partners (EIP) for EUR 905 million. Its clean energy division has an operational portfolio of 1.6 GW across Spain, Portugal, the US and Chile. The deal values the Spanish oil major's clean energy division at EUR 4.38 billion.

**Market volatility gives Eni cold feet.** For months, Italian major Eni [has vocalised](#) its intention to float its clean energy arm, Plenitude, on the Milan (Italian) Stock Exchange. The rationale has always been that an initial public offering will give the company more visibility on how the market values its energy transition strategy, while still retaining control of the company as the majority shareholder. With 1.4 GW of operational capacity and a pipeline of over 10 GW, Plenitude has the potential to grow into a significant renewable energy player. Yet, towards the end of the month, Eni [decided to postpone](#) the listing, citing deteriorating market conditions.

**Shell brings part of its transition strategy to the heart of the oil and gas sector.** Shell [has announced](#) that it will be selling electricity generated from renewable energy to residents in Texas. This isn't a hugely surprising move - Shell's moved into electricity retail markets in other countries - but [it is symbolic](#) and highlights the growing rift between the US and European majors. The European majors have expanded more aggressively into low carbon energy, while those in the US have done comparatively little.

Interestingly, this might pit Shell against the likes of Tesla, Google and Apple, especially as new business models emerge as distributed rooftop solar generation upends traditional electricity tariffs in the US. And why Texas of all places? Well, US power markets are fragmented, and in Texas a single grid operator [serves](#) 26 million of Texas' 29 million residents. Shell thinks that will make it easier to break into the market.



## Clean energy investments

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**A massive floating wind farm takes shape off the coast of Norway.** Equinor is leading a consortium of oil companies, including Petoro, TotalEnergies, Shell and ConocoPhillips, in exploring the possibility of building a 1 GW floating wind farm close to Bergen. The Trollvind project will primarily be used to power offshore oil and gas installations, but the group is also looking into an

onshore connection, thus enabling it to supply electricity to Bergen as well. The floating wind farm will mainly be used to cut operational emissions, but expanding the scope to sell electricity to customers indicates higher ambitions. The partners hope to make a final investment decision by 2023 and have Trollvind online by 2027.

**Shell continues to throw its weight around.** The company [has signed](#) a letter of intent to participate in the VindØ consortium, including PensionDanmark, PFA, Andel and Copenhagen Infrastructure Partners in constructing what could be Denmark's first energy island. By doing so, Shell agrees to help develop and finance the project. The Danish Energy Agency is expected to name the winner of the auction in 2024.

In Poland, Amber Baltic Wind, a subsidiary of Shell, [has submitted](#) bids for new offshore wind sites in the Polish Baltic Sea. The country aims to install **11 GW** of offshore wind by 2040 and it can host an estimated 28 GW by 2050, WindEurope estimates. The British oil major [has also partnered](#) with German energy company EnBW for an upcoming floating wind auction off France's Mediterranean coast. The two will bid for two 250 MW projects.

**Eni is also positioning itself to become a bigger offshore wind player.** Eni and HitecVision [will expand](#) their Norwegian renewables company, Vargrønn, into a competitive offshore wind firm, targeting 5 GW of installed capacity by 2030. As a first step, Vargrønn [will acquire](#) Eni's existing 20% stake in the 3.6 GW Dogger Bank offshore wind project in the UK. Through Plenitude, Eni owns a 65% stake in Vargrønn.

**The US offshore wind market is ripe for scale and innovation.** Following their big wins in recent tender rounds in New York, BP and Equinor have jointly established an offshore wind innovation hub to facilitate work with startups and foster partnerships in this sector. They're also not the only European majors active in this space - TotalEnergies and Simply Blue Group, through their joint venture [Deep Blue Pacific Wind](#), have nominated three areas off the south coast of Oregon to construct floating wind projects. Each area will be able to host **1 GW** of floating turbines.



## Hydrogen

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**The world's largest green hydrogen project could be coming to India.** In April, TotalEnergies' CEO, Patrick Pouyanné, [hinted](#) at a big hydrogen announcement. Well here it is! The French oil major [will purchase](#) a 25% stake in India's Adani New Industries (ANIL) to help develop the world's largest green hydrogen project. It will source energy from 30 GW of renewables to produce a targeted 1 million metric tonnes of hydrogen each annum (mmtpa) by 2030. ANIL has committed to investing over USD 50 billion over the next decade to drive down the price of green hydrogen.

The first project [will consist](#) of a 2 GW electrolyser, powered by 4 GW of wind and solar. It will produce 1.3 mmtpa of Urea for India's domestic market to ease reliance on fertiliser imports, and will cost an estimated USD 5 billion.



**BP follows through on a big green hydrogen investment.** The company [will take](#) a 40.5% stake in the USD 36 billion Asian Renewable Energy Hub (AREH) in Australia. The project proposes to bring online 26 GW of renewables to power the production of green ammonia for export and shipping fuels, and green hydrogen for the Australian market. The project [was first](#) announced in 2014. BP will step into the project on 1 July. AREH will revolve around 14 GW of electrolyzers, which in turn will be powered by 16 GW of wind and 10 GW of solar. Construction is planned to commence in 2026 and the first exports will be shipped between 2027 and 2028.



***“Oil majors are in the business of molecules and that is exactly what green hydrogen is. They see a clear synergy”***

BP thus [becomes](#) the largest shareholder among other prominent energy investors: InterContinental Energy will own 26.4% of shares, Australia-based CWP Global 17.8% and Macquarie's Green Investment Group 15.3%.

**By comparison, Chevron deploys a paltry amount of capital.** The US giant has [announced](#) it will invest USD 2.5 billion in both green (produced using renewable electricity) and blue (using natural gas and carbon capture and storage) hydrogen by 2028. To date, it has done very little, beyond an investment in liquid-organic hydrogen carrier company Hydrogenious and the waste-to-hydrogen firm Raven SR. Chevron claims to have an agnostic stance towards hydrogen, favouring clearly defined rules and letting the market decide whether blue or green hydrogen emerges as the winner. It also produces about one million tonnes of grey (produced using fossil fuels but with no CCS) hydrogen a year.

Not long after it made the comments, Chevron [decided](#) to pull out of a green hydrogen project in which it took a stake in September 2021. The Advanced Clean Energy Storage Delta (ACES Delta) project is a 300 GWh energy storage facility, which will use electricity produced by solar and wind to produce hydrogen and store it in salt caverns. The oil company noted that the project no longer met their requirements, which is a very vague reason to give. Ostensibly, Chevron might not have the same risk appetite for supporting a new development like this, but I can only speculate.

**Equinor tries to secure public funding for its blue hydrogen projects in the UK.** The Norwegian oil major [has applied](#) for GBP 16 million in British government funding for a second blue hydrogen facility in the industrial region of Humber, along the east coast of England. It plans to take a final investment decision on the Hydrogen to Humber (H2H) production 2 project in 2025. Eventually, the oil major is aiming to construct a 1.2 GW blue hydrogen project.

As a way of supporting its blue hydrogen goals in the UK, Equinor [has procured](#) Triton Power Holding from Energy Capital Partners for USD 415 million. The deal includes Triton's three gas power plants, including the 1.2 GW Saltend Power Station in East Yorkshire. Equinor plans to use this power plant to help produce blue hydrogen.

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In order to help gauge how oil and gas companies are positioning themselves in the energy transition, this newsletter specifically focuses on how they are moving into renewables and clean energy. To offer up-to-date analysis, it uses insight from media sources and subscription-based databases, like BloombergNEF.

Feel free to forward this newsletter on to colleagues!

Contact me at [michiel.vriens@gscnetwork.org](mailto:michiel.vriens@gscnetwork.org).

**Mailing address**

Stichting European Climate Foundation  
Rue de la Science 23, 1000, Bruxelles, Belgium  
 to no longer receive this newsletter.