

ENERGY INTELLIGENCE FINANCE[®]

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OUR TAKE

Wildcatters Discover New Business Model

The planned merger of Africa-focused Tullow Oil and Capricorn Energy marks a coming together of two independents whose celebrated wildcat drilling stories have run their course. Billing their combination as a “merger of equals,” Tullow and Capricorn will focus on developing their existing resource base — some 1 billion barrels of oil equivalent — and returning money to shareholders. Energy Intelligence sees the merger as further evidence that independents globally are shifting away from prospecting and toward production as they navigate dimming outlooks for frontier exploration and the need to attract a new investor base.

- With a base annual dividend of \$60 million and target of net-zero Scope 1 and 2 emissions by 2030, the new company will likely appeal to investors eyeing steady returns and sustainability, rather than the speculative investors of old hungry for the one-off payday a major find and farm-in bring. Tullow, best known for its Jubilee and Ten projects in Ghana, will be under pressure to pay down net debt — which stood at \$2.1 billion at end-2021 — and reward shareholders rather than open up new frontiers. Indeed, Capricorn CFO James Smith, who will have the same role in the merged entity, says it will “only invest inorganically if it’s more compelling to do that than return value to shareholders or to reinvest in existing programs.”
- We believe this prudent approach underscores a change in mindset among independents, which previously cared little for financial discipline and were expected to burn cash until they sold out. As well as generating around \$5.7 billion per year in operating cash flow — at \$100 oil — and achieving annual savings of \$50 million through cost synergies, the merger will see Tullow and Capricorn benefit from diversification, according to Tullow CEO Rahul Dhir. Having assets across Ghana, Egypt, Gabon, Kenya and Cote d’Ivoire can release the two London-listed companies from the financing constraints of individual country ratings and achieve a lower cost of capital, he argues.
- Independents are no longer taking the lead on frontier exploration. Both companies made their names as explorers but we note neither has notched a significant discovery for several years — the last of note made by Capricorn, then known as Cairn Energy, offshore Senegal in 2014. Their new focus will be raising production from 96,000 barrels of oil equivalent per day in 2021 to around 120,000 boe/d by 2025. While unlikely to take their combined market capitalization of some £1.45 billion (\$1.82 billion) back to the dizzying heights of the early 2010s, when the wildcat model was in vogue, they must hope that’s enough to win over investors.
- Western oil majors have taken on the Africa exploration baton, farming into acreage with one another or bringing in national oil company partners rather than buying into discoveries by independents. Shell and TotalEnergies, for example, partner QatarEnergy on their respective Namibian Graff-1 and South African Brulpadda discoveries.

EIF INDEX



INDUSTRY TREND

North America Takes the Lead on CCS

- North America is set to play an outsized role in carbon capture and storage (CCS) due to ample suitable geology and infrastructure close to industrial hubs.
- Exxon Mobil and Occidental Petroleum are leading the way on project development while a number of smaller players also see chances to capitalize.
- Chevron is hoping to move on from its costly CCS foray at Gorgon LNG with new ventures in North America that can help it hit its ambitious capture targets.

The Issue

The latest climate warnings give a clear message: carbon-removal technologies will be indispensable in the global fight to

rein in emissions. The potentially multitrillion-dollar market has opened new opportunities for companies of all stripes. CCS – which involves capturing carbon dioxide emissions and storing them underground – and variations of it now figure squarely within the medium- and long-term strategies of most of the world’s biggest oil companies. The US alone could store some 205 billion tons of CO₂ in its depleted oil and gas fields — far more than any other country, according to the Global CCS Institute. No wonder, then, that companies like Exxon, Chevron and Oxy have turned to their own backyards as they build their future businesses.

Exxon’s Early Moves

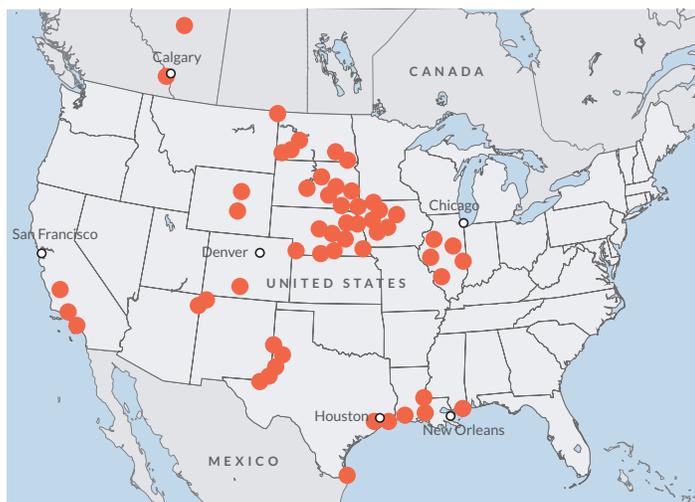
Exxon has leveraged its legacy land position in the US to become the early leader in North America’s CCS journey. With the LaBarge enhanced oil recovery (EOR) project in Wyoming, Exxon already owns a facility that it claims has captured and stored more CO₂ than any other in the world. Earlier this year, it sanctioned a \$400 million expansion of LaBarge, enough to increase the plant’s capture capacity by 1.2 million tons of CO₂ per year on top of the current 6 million–7 million tons/yr. The planned expansion, due for

CARBON CAPTURE: SELECT LIST OF PROPOSED PROJECTS IN NORTH AMERICA

Company Name	Project Name	Category	Planned Storage Capacity (million tons/yr)	Expected Start-Up	Country	Partners
BP	Texas CCS Project	CCS	15.0	2026	US	Linde
Chevron	Carbon Negative Power Plant – California*	Bioenergy with carbon capture and sequestration (BECCS)	0.3	NA	US	Schlumberger, Microsoft, Clean Energy Systems
Chevron	San Joaquin Valley CCS	CCS	NA	NA	US	–
Exxon	Houston CCS Innovation Zone	CCS	100.0	Mid-decade (Phase 1)	US	Air Liquide; BASF; Shell; Calpine; Chevron; Dow; Ineos; Linde; LyondellBasell; Marathon Petroleum; NRG Energy; Phillips 66; Valero
Exxon	LaBarge Carbon Capture Project	EOR	1.2	2025	US	–
Oxy	Direct Air Capture-Synthetic Fuel Project	DAC-to-fuels	NA	2026	Canada	Huron Clean Energy
Oxy	Rio Grande LNG CCS*	CCS	5.0	NA	US	Next Decade; Mitsubishi Heavy Industries
Oxy	LH CO ₂ MENT Colorado Project*	Low-carbon cement	2.0	NA	US	TotalEnergies; Svante; LafargeHolcim; Kiewit Engineering Group
Oxy	DAC-1 (Permian Basin)	Direct air capture (DAC)	0.5	2024	US	Rusheen Capital Management; Carbon Engineering
Shell	Polaris CCS and Atlas Carbon Sequestration Hub	CCS	0.8	Mid-decade	Canada	Suncor, Atco
Talos	Bayou Bend CCS	CCS	5.0-15.0	Late 2025	US	Chevron, Carbonvert
Talos	Freeport LNG	CCS	0.5-1.5	Late 2024	US	Storegga
Talos	River Bend CCS	CCS	5.0-15.0	2026	US	Storegga, EnLink Midstream
Talos	Coastal Bend CCS	CCS	1.0-1.5	Late 2026	US	Howard Energy
Total	Hackberry Carbon Sequestration (HCS) – Cameron LNG	CCS	2.0	NA	US	Sempra Infrastructure, Mitsui, Mitsubishi Corp.
Total	Hackberry Carbon Sequestration (HCS) – Cameron LNG	CCS	2.0	NA	US	Sempra Infrastructure, Mitsui, Mitsubishi Corp.
Talos	Freeport LNG	CCS	1.0	–	US	Storegga
Talos	River Bend CCS	CCS	10.0	–	US	Storegga, EnLink Midstream
Talos	Coastal Bend CCS	CCS	1.3	–	US	Howard Energy

*Feasibility study/early stage. Source: Low-Carbon Investment Tracker, Energy Intelligence, Company reports

COMMERCIAL CCS DEVELOPMENTS IN NORTH AMERICA



Source: Global CCS Institute

completion in 2025, also has the distinction of being the largest CCS project in the world currently under construction.

But Exxon is looking to go even bigger. The company’s phased Houston CCS Innovation Zone could capture and store as much as 100 million tons/yr of CO₂ by 2040 — larger than any planned or existing facility today. It won’t come cheap — somewhere around \$100 billion, according to Exxon, which also admits it can’t move forward without government support. For all the planning, however, Exxon has yet to state a definitive target for how much CO₂ it intends to capture, even though CCS is a key plank of its broader decarbonization strategy.

Oxy’s Moxie

Oxy is also taking advantage of its legacy assets for its push into the brave new world of carbon capture. The company has long used CO₂ for EOR, and will continue to do so. But it has also started exploring technologies to produce synthetic drop-in fuels using the CO₂ it pulls from the atmosphere through direct air capture (DAC), another nascent technology playing a major role in Oxy’s energy transition planning.

Oxy’s DAC ambitions set it apart from its peers. Through its partnership with Canada-based Carbon Engineering, Oxy aims to build the world’s largest commercial DAC plant, which will supply CO₂ for EOR in the Permian. Its DAC-to-fuels scheme in British Columbia is considerably smaller but could push the envelope for what’s possible for carbon removal and utilization in the decades to come. Oxy has said it could install as many as 70 DAC hubs around the world by 2035.

Chevron Learns Lessons

Chevron was one of the world’s early developers of a large-scale CCS project at Gorgon LNG in Australia. Major cost overruns and technical problems there showed just how difficult a CCS meg-

aproject can be, and may have forced the California-based major to take a step back. But Chevron also has one of the industry’s most ambitious capture targets, aiming to pull some 25 million tons/yr of CO₂ from the air by 2030 in what is the sector’s most compressed timeline. It recently began announcing a trickle of new projects, some of which would focus on its heavy oil assets in California.

Most notably, Chevron has taken a 50% stake in the Talos Energy-led Bayou Bend CCS project in state waters offshore Texas. Chevron has lent its name, expertise and financial clout to give the project a new aura of credibility as the partners solicit anchor tenants for the 5 million-15 million ton/yr injection project.

For its part, Talos is one of several smaller firms looking to be nimble first-movers in the emerging CCS sector. Talos has teamed with CCS innovators like Storegga and Carbonvert to spearhead as many as four projects along the US Gulf Coast, home to much of the nation’s heavy industry. In a similar vein, independent players Denbury Resources and California Resources are looking to leverage their expertise and thousands of miles of existing CO₂ pipelines to evolve into CCS players.

European Entries

The European majors have been less active in staking their CCS claims in North America, but that is starting to change. Shell already operates the Quest CCS plant attached to the heavy-oil upgrader at its Scotford refinery in Alberta. It insists the project has been a success despite reports it has produced more CO₂ than it has captured over its lifetime. Shell has another facility, dubbed Polaris CCS, planned at the same site with a final investment decision expected next year.

Fellow UK major BP is a relative newcomer to the CCS game with no notable assets in North America. However, it announced last month that it has teamed up with gas and engineering firm Linde to advance a major CCS hub at a Linde facility near Houston to enable the production of low-carbon hydrogen.

Luke Johnson, Houston

CORPORATE STRATEGY

New-Look Woodside Pressured To Plot Transition Path

- Australia’s Woodside Energy has become a super-independent and LNG powerhouse after acquiring BHP’s petroleum portfolio.
- Woodside will bolster its energy transition strategy amid growing pressure from shareholders who want the company to have a clearer decarbonization pathway.

- Carbon capture and storage (CCS) is set to play an important role in Woodside’s decarbonization strategy, especially in Western Australia.

The Issue

Woodside completed its acquisition of BHP’s petroleum business for A\$27.2 billion (US\$19.6 billion) on Jun. 1, taking the Australian independent to a whole new level. The company’s oil and gas production has doubled to approximately 528,000 barrels of oil equivalent per day and it is now among the top 10 LNG producers globally. But an enlarged Woodside also faces a tougher task to rein in absolute emissions, as it comes under increasing pressure to accelerate development of low-carbon fuels and quell growing unrest from shareholders who see climate change as a risk the company must address in a much clearer way.

Bridging the Gulf

Thanks to the BHP additions, Woodside now operates a larger lineup of low-cost oil and gas projects across the Gulf of Mexico, Trinidad and Tobago, West Africa and Australia. Its newly acquired gas-heavy portfolio, which comes with an average unit production cost of about \$8 per barrel of oil equivalent, will generate strong revenues amid high energy prices and growing global energy security concerns following Russia’s invasion of Ukraine. These revenues will play a significant role in funding Woodside’s transition to low-carbon fuels.

In the US Gulf of Mexico, key projects inherited from BHP include the Trion oil development, which is set to be sanctioned this year. Trion is expected to deliver Woodside, through its 60% stake, 275 million boe over 40 years from 2026 via a floating production unit with nameplate capacity of 100,000 barrels of oil per day. Meanwhile, Mad Dog Phase 2 is slated to start production mid-year with a capacity of 140,000 gross b/d, while first oil is expected in 2024 for Shenzi North.

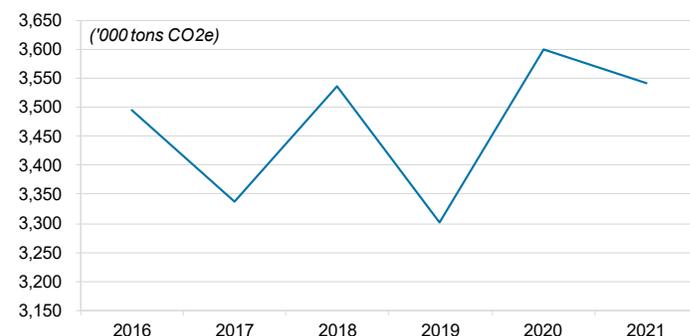
The 8 million ton per year Scarborough-Pluto Train 2 LNG project in Australia also holds a prominent place in Woodside’s strategy. It was sanctioned last year and is expected to deliver its first cargo in 2026. Woodside is seeking to sell down its 100% stake after becoming the sole owner by taking over BHP’s 26.5% shareholding. Woodside CEO Meg O’Neill said there is strong interest in Scarborough as well as in the Sangomar field offshore Senegal amid the conflict in Ukraine. Woodside owns 82% of the venture developing Sangomar, which is slated to produce first oil next year, and wants to reduce that holding to 40%-50%. Current geopolitical tensions are also providing Woodside with a good opportunity to revive its long-delayed Browse and Sunrise projects in Western Australia and the Timor Sea, respectively.

Scoping Out Targets

Expect Woodside to provide more detail on its energy transition plans. That’s after 49% of shareholders urged the company to act faster by voting against a nonbinding resolution on its energy transition strategy following a recommendation to do so by two proxy advisers. The merger with BHP nonetheless won almost 99% approval from shareholders. Woodside is currently aiming to achieve net-zero emissions by 2050. It is also targeting a 15% reduction in net equity operational emissions — Scope 1 and 2 — by 2025 and a 30% cut by 2030.

“We will develop targets past 2030,” Woodside’s Chairman Richard Goyder said at the company’s annual general meeting last month, addressing the sizable shareholder dissatisfaction. But Woodside is not likely to go as far as to set Scope 3 emission reduction targets — for end-use emissions from products. “Woodside’s Scope 3 are our customers’ Scope 1, and our customers are in countries like Japan, Korea [and] China. All of those countries have net-zero mid-century ambitions,” O’Neill said, adding “in many ways, for us to have a Scope 3 target, it’s a bit of a double-count.”

WOODSIDE’S SCOPE 1 AND 2 EQUITY EMISSIONS



Source: Woodside

MAIN PRODUCING ASSETS WOODSIDE HAS ACQUIRED FROM BHP

Project	Location	% Stake	FY'21 Production (million boe)	End of Field Life
Shenzi (operator)	US Gulf of Mexico	72.0%	8.1	2030s
Atlantis	US Gulf of Mexico	44.0	12.1	2040s
Mad Dog	US Gulf of Mexico	23.9	4.8	2040s
Gippsland Basin Joint Venture	Australia	50.0	28.5*	2030s
Kipper Unit Joint Venture	Australia	32.5	28.5*	2030s
Pyrenees (operator)	Australia	WA-42-L permit: 71.4; WA-43-L permit: 40.0	3.0	2030s
Macedon (operator)	Australia	71.4	8.4	2030s
Ruby (operator)	Trinidad and Tobago	68.5	9.3†	2030s
Angostura (operator)	Trinidad and Tobago	45.0%	9.3†	2030s

*Combined figure for Gippsland and Kipper. †Combined figure for Ruby and Angostura. Source: Woodside

On Scope 3 emissions, Woodside plans to invest US\$5 billion by 2030 in new energy products and lower-carbon services. The shift from LNG to hydrogen and ammonia is expected to support reductions in customer and supplier emissions. Woodside has a number of hydrogen projects in the pipeline with H2Perth and H2TAS in Australia and the proposed H2OK in Oklahoma in the US. Combined, these would produce 343,000 tons per year of blue and green hydrogen/ammonia. H2OK and H2TAS are expected to be sanctioned in 2022 and 2023, respectively. Woodside is aiming for its green energy projects to yield an internal rate of return greater than 10% and pay-back within 10 years.

Reservoir Risks

CCS, international and domestic nature-based offsets as well as biosequestration will play an important role in Woodside's decarbonization strategy. The company is currently studying creation of a CCS hub in Western Australia to decarbonize its operations and, like compatriot Santos, generate new revenues by offering CCS as a service to third parties in Australia and abroad. Japan, for example, is considered a potential client as the country does not have geological rights for CCS.

Woodside has identified about 3.4 gigatons of carbon dioxide equivalent storage potential across Scarborough (0.55 gigatons), Pluto (0.4 gigatons), North West Shelf (1.7 gigatons) and the Browse Basin (0.7 gigatons). However, the project could prove to be technically and economically challenging. The reservoirs are offshore Western Australia and far from sources of CO₂ like the Karratha gas facilities or industries further south in Perth. This will increase the price tag of the project as transporting CO₂ is expensive. Offshore projects are also capital-intensive in nature, meaning Woodside would probably need partners to share the costs and risks.

"In the near term, it will take several years to have a CCS that is ready for start-up," a source with knowledge of Woodside's plans told Energy Intelligence. "Even if you are redeveloping a depleted oil and gas field with infrastructure in place you might need to change some to handle CCS." Woodside is targeting a fall in its CCS unit costs from around \$80 per ton of CO₂e to about \$50/ton of CO₂e.

To this end, nature-based offsets will be used to balance out CCS interruption, fuel consumption, fugitive emissions and supply chain emissions. Woodside has secured about 10,000 hectares of land for planting trees and has a long relationship with landscape restoration company Greening Australia to develop projects at scale. Overall, existing and planned Australian land-based projects are expected to deliver around 2.5 million tons of offsets of CO₂e by 2040. Woodside is aiming to keep the cost of offsets below \$20/ton.

Marc Roussot, Singapore

Q & A

Follow This Sees Energy Crisis Driving Investor Shift

Activist investor group Follow This has pushed for stronger emissions reduction targets at global oil majors since 2016 and found significant success over the last two years. But at the recent round of 2022 annual general meetings (AGMs), the Dutch group saw poll support for its shareholder resolutions — which broadly asked companies to halve their total emissions by 2030 — falter amid growing concern over energy prices and supply. Energy Intelligence caught up with Follow This founder Mark van Baal to discuss what the voting results say about investor attitudes toward balancing climate concerns with energy inflation and how they might influence the group's strategy.

Q: What exactly was Follow This asking the oil majors to do in its latest round of shareholder resolutions?

A: Since 2016 we consistently ask all majors to set emissions reduction targets that are in line with the goal of the Paris climate agreements.

Q: How do you define alignment with Paris and does it differ with the way companies are thinking about this?

A: In our shareholder resolutions we try to be as agnostic as possible — business model agnostic but also strategy agnostic and technology agnostic.

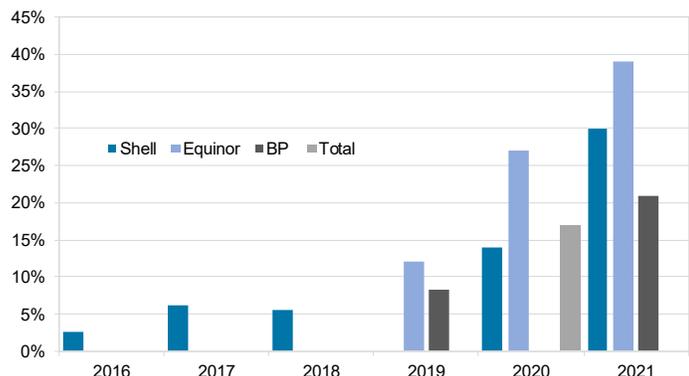
So when we were debating our resolutions, we thought we have to file a resolution that's not too prescriptive but also not too vague. Therefore we came up with a resolution that simply asks for emissions reduction targets that are aligned with the Paris climate agreement covering all emissions: Scope 1, 2 and 3, of course — the emissions of the products.

How companies are going to achieve that — that's entirely up to the company. We have deliberately formulated it in that way to get more investor support. Investors don't want to sit in the driver seat. They don't want to take a seat at the board table. So we just ask them to decrease emissions in line with Paris, which means approximately halving emissions by 2030 and being at net zero in 2050.

It's up to the company how to achieve that. Having said that, we think it should be achieved by investing massively in renewables.

Q: Last year, you were quite successful, winning major support at US firms like ConocoPhillips and Chevron. This year, you saw support decline. How are you interpreting those results?

CLIMATE RESOLUTIONS GAINED MOMENTUM HEADING INTO 2021



Note: Shareholder support for climate resolutions demanding Paris-aligned targets for Scope 1-3 emissions. Source: Follow This

A: We saw indeed support decline this year after exponential growth for a couple of years. Our first resolution was filed at Shell in 2016 where we got a mere 2.7% of the votes. That increased to 6%, 14% in 2020 and even 30% in 2021 — a true shareholder rebellion as we called it. And this year it declined to 20%.

We are still studying the results, but our provisional conclusion is that basically investors have given in to the narrative of Big Oil — that the current energy crisis caused by the Ukraine war overwrites the climate crisis, so investors should cut them some slack and give them some opportunity to still invest in fossil fuels. So that's the narrative — we have an energy crisis and that needs to be solved and the climate crisis can wait for a while.

Of course, the windfall profits, which will be returned to shareholders, have helped in convincing shareholders. BlackRock is the best example. They voted for most climate resolutions last year. This year they said the calculus has changed. We can only guess what [BlackRock CEO] Larry Fink means when he says the calculus has changed, but I think it's the short-term profits.

Q: Could it be that investors are actually happy with the changes these companies have made so far? Perhaps they think these companies are on the right path and simply need time to execute?

A: That's also one of the explanations we have, but I have to say that's a less likely explanation. I think every investor knows that no oil major is Paris-aligned. They've all read the Climate Action 100+ benchmark. They can all see that there's no oil major [that] seriously wants to decrease emissions this decade. So they all know they're not Paris-aligned.

Q: It had seemed that investors in Europe and the US were aligning their views toward more climate action from companies. Are we seeing that Atlantic divide widen once again?

A: It looks like that. Last year, a lot of US investors voted for our climate resolutions, for example BlackRock. They're back to short-term money is my provisional conclusion. That's also what BlackRock told the *Financial Times* the calculus is. It looks like that's the old American tradition to look at what's best for the short-term future of the company over the long-term future, not only of the company but also of the planet and the world economy and all the other assets.

Q: Have your conversations with management teams at oil majors changed in the past year and has that changed your thinking around engagement at all?

A: Engagement with an oil major is quite tough. You're talking to individuals — once in a while the CEO, but most of the time investor relations. Their marching orders are to convince Follow This to withdraw the resolution.

Q: Is that real engagement?

A: They try to explain [to] us that our resolution is unreasonable. Then they say it's unnecessary — we're already doing enough. We have to convince them to look at what's needed to achieve the Paris goal, and that's halving emissions this decade. What's your contribution to that? And basically they all say our contribution is that our carbon intensity will go down.

Most of them are able to admit that emissions have to half, but they say we will be in the other half because we are the most responsible. They all say that they all want to be the last man standing and continue with their fantastic business model. I can say these are quite tiring conversations.

They're trying to convince us to withdraw the resolution; we're trying to convince them that they really have to do more. There's no single oil major who wants to decrease emissions. They all want to grow or maybe keep it stable, but nobody is serious about decreasing emissions and that's what needs to be done in the next decade.

Q: What is the future for these carbon-intensive but "greening" companies if you don't think they're moving fast enough?

A: Follow This is based on the conviction that we need Big Oil — that Big Oil can make or break the Paris climate agreement; that they won't that won't change on their own accord. Their business model is far too attractive, so the investors need to force them because the investors see the big picture, see all other investments being threatened by climate change.

That's the reason we file resolutions and we try to convince investors that they have to support oil majors and if needed compel them or even force them. Because if we leave them alone, they will continue investing in fossil fuels. At the end of the day, they will go bankrupt, but it will take

another 20 years and so they will go bankrupt in a world that heats up maybe 4°.

We can only avoid that if we make sure that they shift their investments and they put their brains and billions behind renewables.

Q: We've seen some of the Climate Action 100+ members shift their focus and pressure to the demand side to make sure that the demand for fossil fuels comes down. Would Follow This ever shift its focus to large oil consumers?

A: That's what has surprised me. They've first backed the oil majors not to act on climate. Now basically they accept the narrative of the oil majors. They're telling us all the time as well: "Mark, you're at the wrong address. You need to go to governments or you need to go to consumers."

I think we're at the eleventh hour. Everybody knows that we just have a very small window of opportunity to make sure we meet the Paris climate agreement and our children and grandchildren will not end up in a terrible world.

So everything needs to be done. Follow This has chosen to support the oil majors to shift their investments. Others are focusing on the demand side. Others are focusing on governments,

policies, consumers. Sometimes I hear: "You're barking up the wrong tree." We should bark up every tree at the moment to make sure we meet the Paris climate agreement.

Follow This chooses to address a crucial part of the equation — that's the supply side. That's Big Oil. They are the energy suppliers of the world. They need to make sure we have other energy. Of course the demand side has to change as well but I think the demand side is changing quite fast.

Q: How is your strategy evolving? Should we expect another round of resolutions at oil majors next year?

A: At the moment we're digesting the previous AGM season. Preliminary provisional conclusions are that we were not able to convince investors what's at stake. Still, around an average of one-third of investors voted for our resolutions. So Chevron with 33% is really the average of our resolutions. The lowest was 15% at BP. The highest was 42% at Valero. So still, one-third of the shareholders want these companies to change. And we have to work with them to convince the others. These companies will only change when their shareholders are demanding it. That's the conclusion I've drawn after seven years.

Noah Brenner, London

ENERGY AND EQUITY MARKET DATA

For the week ended Jun 3, 2022

EIF GLOBAL INDEX COMPONENTS*

	Close Jun 3	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Ecopetrol (bvc)	0.88	+0.11	+14.72	+35.84	+32.43
Reliance Industries (bse)	35.82	+2.63	+7.94	+18.43	+12.64
ONGC (bse)	1.95	+0.10	+5.43	+16.31	+2.17
Exxon Mobil (nyse)	99.09	+1.50	+1.54	+61.96	+61.94
Suncor (tse)	40.83	+0.23	+0.56	+63.25	+62.99
PetroChina-H (sehk)	0.53	+0.00	+0.54	+22.15	+18.85
CNOOC-H (sehk)	1.53	+0.01	+0.38	+39.26	+49.00
Eni (mise)	15.28	+0.06	+0.38	+20.73	+10.01
Sinopec-S (sehk)	0.50	+0.00	+0.27	-14.67	-24.29
Chevron (nyse)	177.60	-0.68	-0.38	+65.07	+51.34
TotalEnergies (par)	58.39	-0.48	-0.81	+20.81	+15.09
Petrobras-3 (spse)	7.07	-0.06	-0.86	+48.89	+53.52
BP (lse)	5.38	-0.05	-0.89	+17.81	+20.43
Equinor (osl)	36.93	-0.38	-1.01	+62.16	+37.85
Saudi Aramco (sse)	10.72	-0.13	-1.22	+13.70	+23.62
Shell (lse)	29.48	-0.55	-1.83	+49.17	+34.35
Petrobras-4 (spse)	6.34	-0.13	-1.96	+31.76	+50.90
Lukoil (mos)	65.40	-1.63	-2.43	-26.46	-25.77
Rosneft (mos)	6.00	-0.27	-4.28	-21.84	-25.37
Sinopec-H (sehk)	0.48	-0.05	-9.64	-13.41	+2.11
EIF Global Index	365.84	+0.20	+0.05	+29.25	+25.57

*Converted US\$/share.

SHARE PRICES IN LOCAL CURRENCY†

	Close Jun 3	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
NOCs					
CNOOC-S (sehk)	18.00	-0.50	-2.70	NA	NA
CNOOC-H (sehk)	12.04	+0.04	+0.33	+40.82	+49.94
PetroChina-S (sehk)	5.47	-0.08	-1.44	+15.16	+11.41
PTTEP (set)	166.50	+1.00	+0.60	+38.17	+41.10
PetroChina-H (sehk)	4.15	+0.02	+0.48	+23.51	+19.60
Sinopec-H (sehk)	3.73	-0.40	-9.69	-12.44	+2.75
Sinopec-S (sehk)	3.31	-0.01	-0.30	-11.26	-20.62
Ecopetrol (bvc)	3,300.00	+301.00	+10.04	+39.83	+22.68
Gazprom (micex)	297.00	+2.50	+0.85	+9.35	-13.48
Petrobras-3 (spse)	33.76	+0.02	+0.06	+39.97	+31.55
Petrobras-4 (spse)	30.28	-0.32	-1.05	+23.86	+29.31
Saudi Aramco (sse)	40.20	-0.50	-1.23	+13.72	+23.52
Equinor (osl)	347.95	-4.80	-1.36	+82.40	+47.50
Rosneft (mos)	365.45	-36.05	-8.98	-34.78	-39.08
Majors					
BP (lse)	431.30	+0.65	+0.15	+33.08	+30.50
Shell (lse)	2,361.00	-19.00	-0.80	+68.50	+45.58
Exxon Mobil (nyse)	99.09	+1.50	+1.54	+61.96	+61.94
Chevron (nyse)	177.60	-0.68	-0.38	+65.07	+51.34
TotalEnergies (par)	54.48	-0.40	-0.73	+36.66	+22.07
Regional Integrated					
OMV (vse)	54.50	+0.64	+1.19	+8.01	+9.11
Repsol (bme)	15.16	+0.17	+1.13	+33.10	+45.27
Eni (mise)	14.26	+0.07	+0.47	+36.57	+16.68
Lukoil (mos)	3,980.50	-309.50	-7.21	-38.64	-39.41
Global Independents					
Woodside Petroleum (asx)	31.80	+1.66	+5.51	+33.33	+45.01
Kosmos Energy (nyse)	8.40	+0.42	+5.26	+148.52	+142.77
EOG Resources (nyse)	142.48	+5.63	+4.11	+70.08	+61.78
Hess (nyse)	127.89	+4.61	+3.74	+46.16	+72.75
ConocoPhillips (nyse)	118.12	+3.52	+3.07	+98.62	+63.65
APA (nyse)	48.30	+0.68	+1.43	+107.65	+79.62
Occidental (nyse)	70.29	-0.57	-0.80	+140.06	+142.46
Refiners					
PBF Energy (nyse)	38.54	+5.60	+17.00	+117.00	+197.15
Reliance Industries (bse)	2,779.50	+204.30	+7.93	+26.27	+17.37
HollyFrontier (nyse)	52.84	+2.99	+6.00	+50.97	+61.20
Eneos (tyo)	536.00	+20.00	+3.88	+14.78	+24.56
Marathon Petroleum (nyse)	105.62	+3.52	+3.45	+66.96	+65.06
Valero (nyse)	135.42	+3.61	+2.74	+62.53	+80.30
Phillips66 (nyse)	104.46	+2.73	+2.68	+17.09	+44.16
Oil-Field Services, EPC					
Wood Group (lse)	223.40	-26.90	-10.75	-12.80	+16.90
Petrofac (lse)	141.90	-5.90	-3.99	+6.67	+23.07
Worley (asx)	15.44	+0.48	+3.21	+28.13	+45.25
Baker Hughes (nyse)	37.82	+0.62	+1.67	+46.25	+57.26
Halliburton (nyse)	41.95	+0.59	+1.43	+69.84	+83.43
Fluor (nyse)	28.27	+0.30	+1.07	+42.85	+14.13
Transocean (nyse)	4.21	+0.03	+0.72	-6.86	+52.54
Schlumberger (nyse)	47.47	-0.74	-1.53	+29.98	+58.50
TechnipFMC (nyse)	8.15	-0.41	-4.79	-20.95	+37.67
Saipem (mise)	5.17	-0.45	-7.98	+135.55	-41.18
Midstream					
Plains All-American (nyse)	11.86	+0.38	+3.31	+4.96	+26.98
Enterprise Products (nyse)	28.10	+0.50	+1.81	+16.07	+27.96
TC Energy (tsx)	73.87	+0.74	+1.01	+17.89	+25.57
Enbridge (tsx)	58.93	+0.15	+0.26	+26.11	+19.27
Williams (nyse)	37.51	+0.05	+0.13	+35.81	+44.05
Kinder Morgan (nyse)	19.93	-0.01	-0.05	+6.18	+25.66

Oil-Field Services, EPC

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Oil-Field Services, EPC

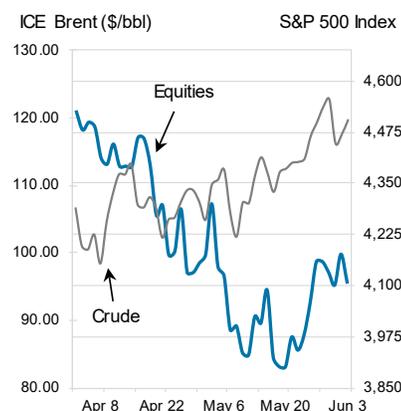
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Midstream

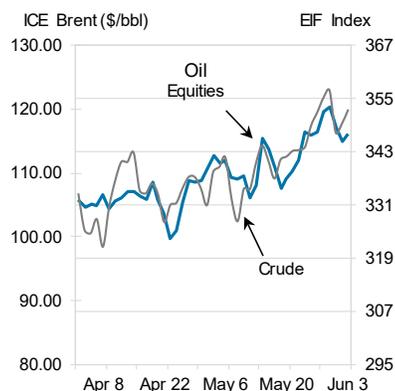
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*set=Bangkok; bme=Madrid; sehk=Hong Kong; osl=Oslo; bvc=Bogota; micex=Moscow; bse=Mumbai; par=Paris; nyse=New York; lse=London; mise=Milan; tyo=Tokyo; tsx=Toronto; asx=Sydney; spse=Sao Paulo; sse=Riyadh

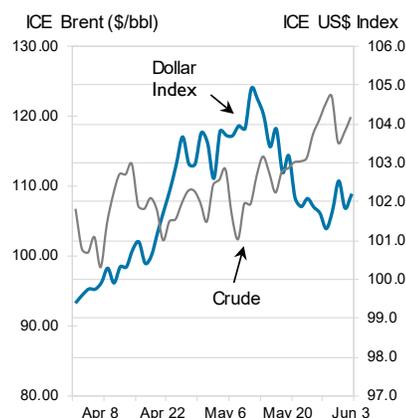
CRUDE VS. EQUITIES



CRUDE VS. OIL EQUITIES



CRUDE VS. CURRENCY



EIF Index based on share prices of the 22 equities listed under EIF components, adjusted for US\$ market capitalization. All equities listed are ordered by percentage change over the previous week. Local share prices are shown in local currency. Crude prices in \$/bbl; Nymex oil products prices in \$/gallon; ICE gas oil in \$/ton; Henry Hub natural gas prices in \$/MMBtu; UK NBP natural gas prices in pence/therm.