ACCR

Investor Bulletin: Shell losing ground on climate

19th December 2023 | LON: SHEL

The pillars of Shell's decarbonisation strategy are built on weak foundations and require a major rethink if the company intends to play a meaningful role in the energy transition.

Under new management in 2023, Shell took backward steps on its climate strategy. The company's Net Carbon Intensity (NCI) targets already lack credibility, as they fail to guarantee the reductions in absolute emissions required to meet the goals of the Paris Agreement. Now it looks likely that without a significant shift in strategy, Shell will fail to reach its 2030 NCI target.

Shell is due to update its Energy Transition Strategy ahead of its 2024 Annual General Meeting, where shareholders will have an opportunity to vote on the new transition plan. Before this is finalised, it is important investors advocate for the improvements they expect from the company.

This Bulletin examines Shell's climate strategy and the viability of the 2030 NCI target. It also proposes a range of tangible actions the company can take to develop a credible, Paris-aligned strategy.

Key points

- Shell is unlikely to meet its NCI 2030 target of a 20% reduction in carbon emissions intensity.
- Shell's NCI targets do not ensure reductions in absolute emissions because they allow Shell to maintain or increase fossil fuel supply, which it intends to do, even as it lowers its scope 3 intensity. Such an increase exposes the company to falling commodity prices as demand drops through the energy transition, creating a risk of stranded value.
- At the 2023 Capital Markets Day, Shell said it had achieved a reduction in hydrocarbon production (of 1% per year to 2030) and would be roughly holding current production levels flat to 2030. However, these reductions have mainly been achieved through divestments.
- Shell says it has achieved a NCI reduction of 3.8% over FY 2016-2022. However, when we modelled changes to oil and gas production, accounting for divestments - as per the GHG Protocol's Corporate Accounting and Reporting Standard (GHG Protocol) - we estimate Shell's NCI has increased by 5% over this period.
- We forecast that Shell's 2030 oil and gas production will be 12% lower than its reported production in 2016. However, when accounting for divestments, as per the GHG Protocol, production actually increases by 26% relative to the updated 2016 baseline.
- Shell's new CEO says the company is aiming for "discipline" in capital expenditure, however this is predominantly impacting the company's renewables and energy solutions business, with Q3 2023 capex for this segment down 39% from Q3 2022. At the same time, Shell is decreasing its hurdle rates for fossil fuel projects, contradicting claims of capital expenditure discipline. This lowering of hurdle rates is a bet against an orderly energy transition, which requires very limited investment into fossil fuels and a rapid increase in investment in clean energy, particularly in emerging markets.

- Shell's climate strategy is predicated on working with customers to support their decarbonisation. Divesting its retail electricity assets across Europe works against this by reducing its customer base, whilst also removing opportunities to increase returns through vertical integration.

Key stewardship considerations for investors

Investors should be focused on ensuring Shell has a strategy that promotes real world greenhouse gas emissions reductions and is consistent with the goals of the Paris Agreement. Shell's current strategy does not achieve this, with its real world emissions increases driven by an increase in fossil fuel supply, including growing LNG production and sales by 20-30% by 2030.

This raises major concerns for investors who understand the magnitude of the climate-related risks Shell is exposed to under low carbon scenarios and who are looking to reduce emissions within their own portfolios. Of particular concern for investors is that:

- Shell is not living up to its claims that it complies with the industry standard GHG Protocol. By ignoring a key element of this standard, Shell is able to claim its NCI has reduced, when proper accounting appears to show it has increased.
- Shell is making claims of capital discipline, but has lowered its fossil fuel investment hurdles, which is a gamble, given the International Energy Agency sees all fossil fuels entering decline by 2030.

Contents

Key points 1
Key stewardship considerations for investors 2
ACCR view on Shell's climate strategy and NCI targets 4
Examination of existing NCI 2030 target 4
Hydrocarbon sales 5
The NCI target should account for divested production 6
Increased LNG will increase emissions, whilst reducing the NCI 7
Ceasing fossil fuel expansion would reduce emissions, whilst reducing the NCI 7
Electricity and low carbon fuel sales 8
Carbon credits 9
Carbon Capture and Storage 9
Capex 11
Building blocks for a better strategy 14
Questions for future investor engagement 15
Appendix 1 - Shell's oil and gas production assuming it retained divested assets 16
Disclaimer 17

About ACCR

The Australasian Centre for Corporate Responsibility (ACCR) is a not-for-profit, philanthropically-funded shareholder advocacy and research organisation that engages with listed companies and investors globally, enabling and facilitating active stewardship. Our research team undertakes company-focused research into the climate transition plans of listed companies, offering analysis, research and insights to assist global institutional capital understand investment risks and opportunities during the energy transition. For more information, follow ACCR on LinkedIn.

ACCR view on Shell's climate strategy and NCI targets

A company's climate strategy should align with the goals of the Paris Agreement, which requires real world emissions to fall by 43% by 2030, according to the Intergovernmental Panel on Climate Change (IPCC). Shell's NCI target and climate strategy does not achieve this, because Shell:

- plans to develop 500,000 barrels per day of new oil and gas production
- relies on divestments to reduce the company's fossil fuel production without reducing global production
- uses an intensity target that does not necessarily ensure reductions in absolute emissions
- relies on offsets that do not, in many cases, represent real abatement
- relies on Carbon Capture and Storage (CCS), which has a poor track record, and is often used as a means to justify additional fossil fuel development, rather than complement rapid emission reductions.

Shell's NCI targets (for 2025, 2030, 2035, and 2050) allow it to maintain or increase fossil fuel supply, as it intends to do, while lowering its scope 3 intensity through the increase in sales of low carbon energy. This increase in fossil fuel supply exposes the company to falling commodity prices as demand drops throughout the energy transition, and increases the portfolio-wide systemic risks for investors of increased levels of GHGs in the atmosphere.

It is also unclear how supportive Shell's lobbying activities are of its climate strategy. Shell does not provide a global account of its climate lobbying, with its reporting focusing heavily on western, developed countries. This is despite the fact that emerging markets – as the driver of future energy demand – are critical to both Shell's decarbonisation and the achievement of the Paris goals.

Given the pivotal role of a board in managing climate risk, investors will raise questions about governance if Shell's climate strategy doesn't sufficiently progress towards addressing the above considerations.

Examination of existing NCI 2030 target

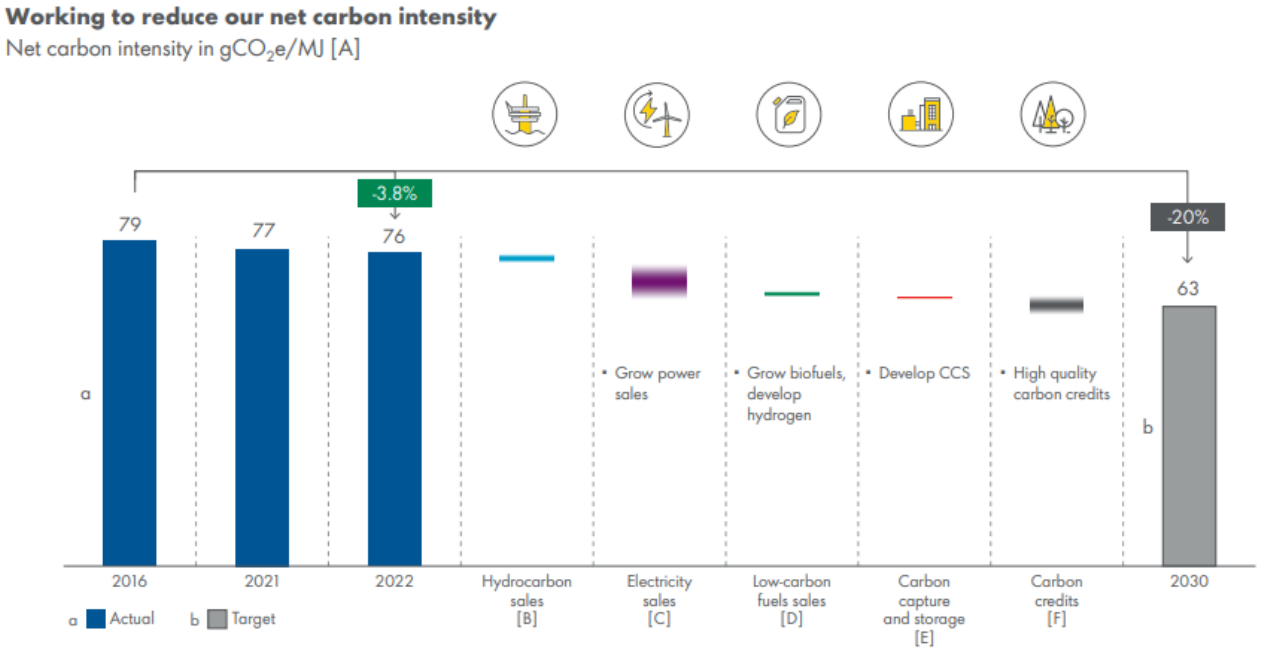
Under its current direction of travel, Shell looks unlikely to meet its NCI target of a 20% reduction by 2030.

To date, FY2016-22, Shell says it's achieved a 3.8% reduction - leaving it with another 16.2% over the next six years. Our view is that:

- the target itself is unlikely to be reached
- the decarbonisation drivers Shell is using to reduce its net carbon intensity do not appear to credibly contribute to an absolute reduction in emissions.

Shell's Figure 1 shows the five pillars of its proposed decarbonisation pathway.

Figure 1: Shell's NCI Target and proposed decarbonisation pathway



[A] Grams of carbon dioxide equivalent per megajoule.
[B] Hydrocarbon sales reflect the effect of lower sales of oil products, and higher sales of natural gas. Emissions associated with gas are lower than those of oil products.
[C] Electricity sales show the expected growth of our integrated power business and increasing sales of renewable electricity.
[D] Sales of low-carbon fuels reflect higher sales of biofuels and hydrogen, which are low- and zero-carbon products.
[E] Carbon capture and storage (CCS) reduces carbon emissions by capturing them at source.
[F] Carbon credits such as nature-based solutions can be used to offset remaining carbon emissions, particularly in hard-to-abate sectors such as aviation and industries including cement and steel.

Hydrocarbon sales

Oil and gas production makes up around one third of Shell's hydrocarbon sales. We've modelled the impact of changes to oil and gas production and found they have a material impact on Shell's ability to meet its 2030 NCI target.

Production from divested assets FY 2016-2022. If Shell accounted for divestments in its oil and gas portfolio, in line with the GHG Protocol, it would currently be showing an *increase* in NCI of 5% - not a reduction of 3.8%.

Forecast changes to production FY 2022-2030. We found that:

- based on Rystad's production forecast,[1] the NCI increases by 2% (from the 2016 baseline)
- based on Shell's ambition to increase LNG production and sales by 20-30%, we have modelled a 0.5% reduction in NCI (from the 2016 baseline) and a 40 $MtCO_2e$ increase in absolute scope 3 emissions

Therefore, we estimate that forecast changes to production over FY 2022-2030 result in a 1.5-2% increase in NCI from the 2016 baseline.[2]

[1] Rystad includes some oil production that Shell does not include in its disclosures, including due to accounting conventions associated with the Russian divestments and GtL production. Relative to 2022 production, Rystad models a 6% increase in oil production to 2030, which is at the upper bound of Shell's guidance to remain 'stable' within 1.3 - 1.5 MMbbl/d.
[2] The variability is use to uncertainty around how much of the increased LNG production is already captured in Rystad's forecast

Other changes, including further acquisitions or divestments, are likely to have a material impact on Shell's ability to meet its 2030 NCI target. There is insufficient information to model the impact of changes in future sales, however given that non-produced sales are around twice the size of produced oil and gas, this is also likely to be material.

The NCI target should account for divested production

We estimate that Shell's non-compliance with the GHG Protocol is reducing its 2030 NCI by 6.7 gCO_2e/MJ - or around 8.5% (from the 2016 baseline).

The GHG Protocol requires that where divestments (or acquisitions, or other structural changes) impact a company's progress towards its climate target, the baseline should be recalculated to reflect the current portfolio.

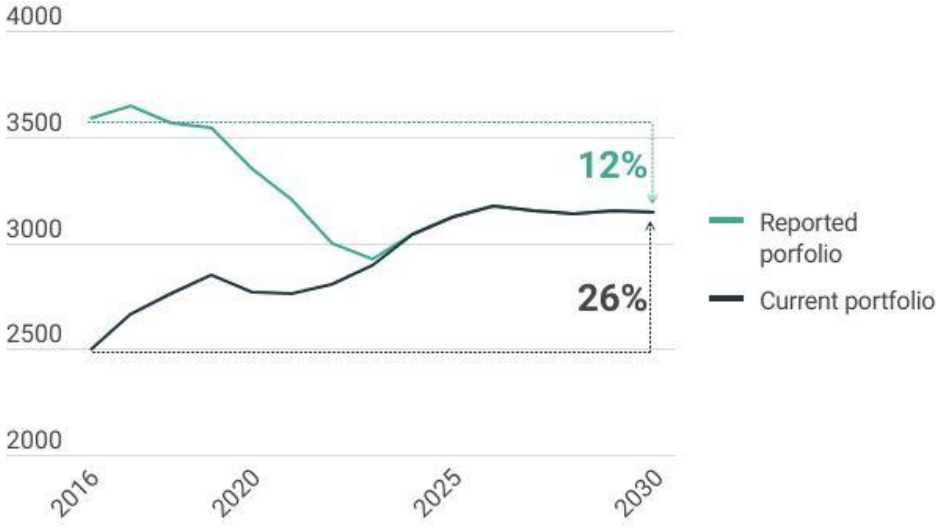
We disagree with Shell's assertion that it has 'followed' the GHG Protocol.[3] Despite acknowledging that 'acquisitions and divestments could have a material impact on meeting the targets', it has not accounted for these as required by the GHG Protocol.[4] This is a sector-wide problem, not unique to Shell. BP, for example, also fails to follow the GHG Protocol.

Shell has provided guidance that oil and gas production will be 'stable' to 2030, whilst LNG production and sales will increase by 20-30%. Shell is developing more than 500,000 boe/d of new production that will come online by 2025.[5] Since oil production is expected to remain stable, this new production will presumably offset field decline and divestments.

We forecast, using Rystad data, that Shell's 2030 production will be 12% lower than its reported production in 2016. However, when accounting for divestment as per the GHG Protocol, our modelling suggests production actually *increases* by 26% relative to the adjusted 2016 baseline.

Figure 2 uses Rystad data to model Shell's oil and gas production. The dark blue line is consistent with the GHG Protocol, reflecting the assets in Shell's current portfolio - irrespective of who owned each asset in prior years. The green line shows Shell's production based on the assets it historically owned in each year.

Figure 2: Shell's fossil fuel production to 2030 adjusted as per the GHG protocol (kboe/d)



[3] Shell, Annual Report and Accounts 2022, pp 82 & 102
[4] Shell, Annual Report and Accounts 2022, p97
[5] Shell, Capital Markets Day 2023, slides 22-24

Source: Rystad data, ACCR analysis

Using a simplified analogue of the NCI, we estimate that:

- reporting based on the assets Shell owned each year (the green line in Figure 2) reduces Shell's NCI by 4.5 gCO_2e/MJ between FY 2016 - 2022.
- reporting in accordance with the GHG Protocol (dark blue line) increases Shell's NCI by 2.2 gCO_2e/MJ over the same period.

This suggests Shell's non-compliance with the GHG Protocol is reducing its 2030 NCI by 6.7 gCO_2e/MJ - or around 8.5% of the 2016 baseline. This is almost half of the reduction Shell is targeting by 2030.

(Although not aligned with the GHG Protocol, some investors may be interested in Shell's production profile had it not divested oil and gas producing assets. This analysis is in Appendix 1.)

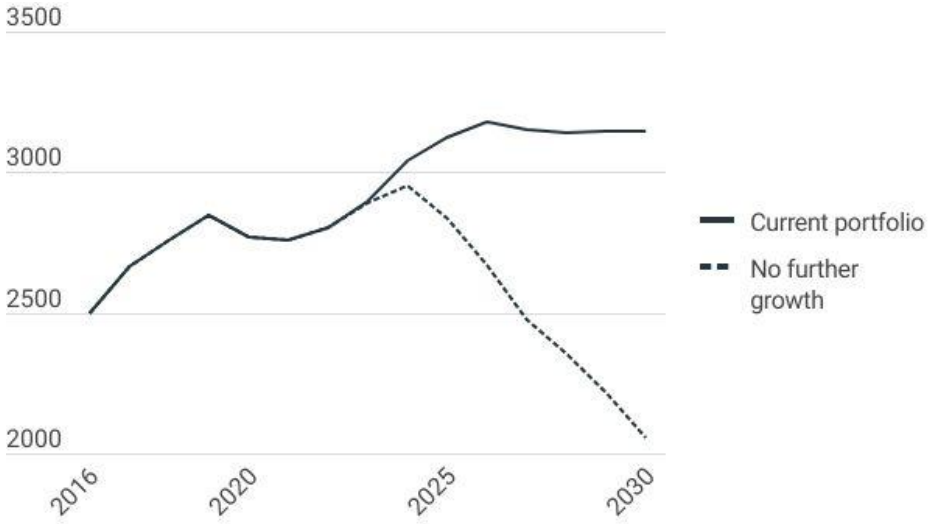
Increased LNG will increase emissions, whilst reducing the NCI

Shell has provided guidance that LNG production and sales will increase by 20-30% by 2030. We model that a 25% increase (the mid point of the guidance) would increase actual emissions by 40 $MtCO_2e$, whilst reducing NCI by about 0.4 gCO2e/MJ, or 0.5% of the 2016 baseline.

Ceasing fossil fuel expansion would reduce emissions, whilst reducing the NCI

Although divestment does not reduce real world emissions, the dashed lines in Figure 3 shows that if Shell stopped developing new fossil fuel projects, its production would decrease, in turn reducing its scope 3 emissions.

Figure 3: Shell's fossil fuel production to 2030 without new projects (kboe/d)



Source: Rystad data, ACCR analysis

We estimate ceasing all future fossil fuel expansion would reduce Shell's NCI by about 4.3 gCO_2e/MJ between FY 2022 - 2030, or about 5% of the 2016 baseline.

This shows that constraining fossil fuel developments is a more credible pathway for Shell to meet its 2030 NCI target.

Electricity and low carbon fuel sales

Growth in power sales is expected to account for the largest source of reduction in the company's emissions intensity from FY 2022-2030 (see Figure 1). However, using power sales to drive a reduction in scope 3 emissions intensity highlights the drawbacks of using a carbon intensity methodology:

- capturing a larger share of the retail energy market, which increases Shell's reported power sales, has no bearing on the actual *supply* of low carbon electricity, and therefore no bearing on real world greenhouse gas emissions
- it permits a scenario where it can rapidly reduce its own carbon intensity, thus meeting its NCI targets, but with no impact on absolute emissions.

Setting absolute scope 3 targets or targets to increase low carbon energy production would be a far more credible approach for Shell.

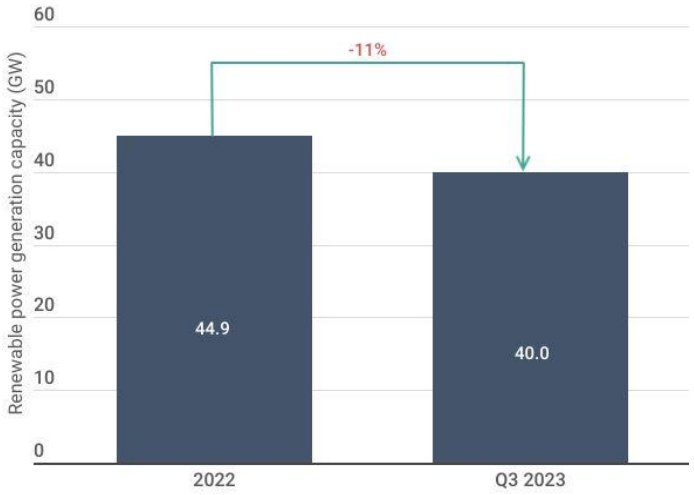
Shell's divestment of its retail energy business in Europe. The sale of Shell's retail assets in the UK and Germany will impact its ability to work with its customers to decarbonise, and provide one less avenue for the company to sell green energy from its downstream business.

Shell says it wants to work with its customers to reduce their emissions by taking positions along the value chain to support the delivery of green electrons. By integrating projects across the value chain, Shell can optimise the returns associated with its renewables projects and decide whether it wants to sell energy to the grid or supply it into its own assets.

However, recent divestments - and a review underway in Europe to consider more divestments related to its downstream business - would limit the options for electricity sales.

The reduction in outlets for electricity sales correlates to changes in the company's renewable energy generation capacity. Figure 4 shows how Shell has reduced the project pipeline over the past year by 11%.

Figure 4: Change in Shell's Pipeline for Renewable Energy Generation Capacity



Source: Shell Q3 2023 Databook

Scaling-up low carbon electricity generation, to feed into its own operations or sell to customers, is one of the most effective ways for Shell to contribute positively to the energy transition and be a significant and credible part of the 2050 energy mix. This would also be consistent with the recent outcome from COP 28 to triple renewables by 2030.

Carbon credits

Shell's current NCI strategy is heavily reliant on carbon offsets that do not, in many cases, represent real abatement.

It is important to note Shell's target is based on *net* carbon intensity, which measures emissions associated with sold products, *after* taking into account CCS and nature-based offsets.[6]

We see a range of risks in Shell's reliance on nature-based offsets, because:

- most offset methodologies determine how many credits to issue based on the comparison of an actual outcome against a 'counterfactual', i.e. a model of what would have happened without some sort of specific intervention. For example, calculating how many trees would have been cut down if the project developer had not committed to cease land clearing. These counterfactuals are open to gaming, or in some cases outright fraud, by project proponents who generally have an information advantage over regulators and certifiers.
- nature-based offsets relate to biological carbon, which is subject to risks associated with a changing climate. For example, trees that weren't cleared, subsequently burning in a wildfire. This means it is difficult to guarantee that the carbon is permanently sequestered.
- offsets are often used as an alternative to reducing fossil fuel emissions. The timeframe that fossil fuel emissions reside in the atmosphere is much longer than the timeframe that nature-based offsets can store carbon.

Recognising these problems, the Science Based Targets Initiative now recommends that carbon credits - that is, carbon offset credits - are only used to offset the last 10% of an entity's footprint. The use of carbon credits before this is encouraged where there are co-benefits. But the carbon sequestration should not be treated as a reduction against the entity's absolute emissions, until at least 90% has been reduced.[7] We support this view.

It's been widely reported over recent months that Shell is retreating from its embrace of carbon offset projects, including abandoning a commitment to spend up to US$100 million a year building a pipeline of carbon credits for sale to third parties.[8] This is a major retreat and almost certainly a response to increasing global recognition that carbon offsets are a poor substitute for a credible decarbonisation strategy.

However, we remain concerned that Shell is still maintaining it is "committed to carbon offsetting, including from nature-based solutions, and [that] it would continue to be a valuable tool in helping the company decarbonise."[9]

Carbon Capture and Storage

CCS avoids some of the issues associated with nature-based offsets, particularly around permanence. It can store carbon for geological time frames and the sequestration can be readily measured using

[6] Shell, Net Carbon Footprint: Methodology, p7
[7] Dowdall, Science-Based Net-Zero Targets: 'Less Net, more Zero', Science Based Targets
[8] Marsh & Mathis, Europe's biggest oil company quietly shelves a radical plan to shrink its carbon footprint, Bloomberg News, Aug 2023
[9] Marsh & Mathis, Europe's biggest oil company quietly shelves a radical plan to shrink its carbon footprint, Bloomberg News, Aug 2023

mature engineering equipment. However, it regularly underperforms on both commercial and technical grounds, remains unproven at scale, and is often used to justify additional fossil fuel development rather than to sequester hard-to-abate emissions.

Although it plans to develop more CCS projects, Shell currently has stakes in two operating (and one test) CCS facilities.

- The Gorgon LNG CCS project (25% owned by Shell) is the world's largest dedicated storage project, but has become emblematic of the problems with CCS. The project came online late, has required expensive re-work, and is still only operating at about 30% of its design rate.[10] Even if it worked as intended, the 4 Mt pa of sequestered CO_2 is dwarfed by the ~50 $MtCO_2e$ pa from combusting Gorgon's production (100% share)[11].
- The Quest CCS project commenced operation in 2015. This project sequesters emissions associated with the Scotford Oil Sands Upgrader, attached to the Athabasca Oil Sands Project. It was designed to capture 1.2 $MtCO_2$ pa, or to 35% of facilities emissions[12]. In the 8 years to 2022, it had captured 7.5 $MtCO_2$[13], equivalent to 78% of its design capacity.

In 2022, Shell sequestered 0.4 $MtCO_2$[14], equivalent to 0.03% of its emissions.

Shell also licences technology to the Boundary Dam CCS project. This is designed to capture and store about 1 $MtCO_2$ pa from a Canadian coal generator, however for the first six years of operation it averaged less than two thirds of this rate.[15] It has recently been operating at higher capture rates, including about 80% for the nine months to September 2023.[16] However, even at these improved levels, the facility emits about 0.4 $MtCO_2e$/MWh - more than double the emissions intensity of the UK electricity grid,[17] suggesting that CCS may have limited application in the electricity sector.

In April 2023, Shell pulled out of the Northern Endurance Partnership (NEP).[18] The NEP is a consortium that aims to sequester CO_2 from industrial hubs in the UK.[19] Shell pulled out to focus on the Acorn CCS project (Scotland), for which it is technical developer. This project will transport CO_2 from industry and sequester it offshore, using existing oil and gas infrastructure.[20] Shell owns a 33% share in a similar project in Norway, Northern Lights, that aims to transport and store emissions from a variety of sources, including cement and fertilisers.[21]

We see value in a role for CCS that helps deliver heavy industrial hubs emission reductions. However, we are concerned about the project scope and amount of government funding these projects rely on. The project scope tends to focus on the development of CCS projects that capture CO_2 of new industries (e.g. new gas power, new hydrogen, new fertilisers) rather than hubs that also capture CO_2

[10] Mercer, World's biggest carbon capture plant running at one third capacity, Chevron Australia reveals, May 2023, ABC
[11] Assumes 160 MMboe per year of natural gas, +4% condensate and Australian regulatory emission factors.
[12] IEAGHG, The Shell Quest carbon capture and storage project, p23
[13] Shell, Annual Report and Accounts 2022, p190
[14] Shell, Annual Report and Accounts 2022, p86
[15] Schlissel, Boundary Dam 3 Coal Plant Achieves Goal of Capturing 4 Million Metric Tons of CO2 But Reaches the Goal Two Years Late, IEEFA, p3
[16] SaskPower, BD3 Status Update: Q3 2023.
[17] UK government, Greenhouse gas reporting: conversion factors 2022
[18] Reuters, 2023, Shell pulls out of large carbon capture project in northern England
[19] Northern Endurance Partnership, 2023, The Northern Endurance Partnership enabling Net Zero Teesside and the East Coast Cluster
[20] Acorn project, 2023, https://www.theacornproject.uk/projects
[21] Northern Lights, How to store CO2, with Northern Lights

from existing industries. Both the Northern Lights and Acorn projects rely on government and EU funding.[22,23]

Capex

Shell's new CEO has stated that Shell is aiming 'to be disciplined in allocating our capital',[24] with annual capex at the lower end of guidance for the year. However, these reductions are predominantly impacting the company's renewable business with:

- upstream and integrated gas capital expenditure meeting expectations
- capex into renewables, marketing and chemicals being lower than expected, with Renewables and Energy Solutions capex at $659m, down 39% from Q3 2022.[25] Annual capex for renewables and energy solutions is expected to be at the lower end of the $2-4bn range that was given at the beginning of the year.

Shell has also emphasised a preference for share buybacks over organic, low carbon capex, with:

- 33% of capital expenditure (YTD) allocated to clean energy, which is expected to fall to 26% by 2025[26]
- shareholder distributions increasing, with a new buyback of $3.5bn announced at the Q3 earnings call, to take total annual shareholder distributions to $23bn.

This raises doubts around the willingness of Shell to play a role in enabling the energy transition. The International Energy Agency (IEA) recently stated that 50% of capital expenditure from the sector should be going into clean energy by 2030.[27]

Shell's more 'disciplined approach' to capex is contradicted by its move to lower the hurdle rates for fossil fuel projects.[28] Shell now has the lowest hurdle rate of those disclosed by the oil majors.

Figure 5: Comparison of Oil and Gas Major Investment Hurdle Rates and Oil Prices

Company	Investment hurdles	Company assumed 2028 oil price (nominal $/bbl)
Shell	IRR 15% (oil), IRR 11% (gas)	$73
Equinor	IRR 30%	$79
Eni	IRR 25%	$70
BP	IRR 15-20%	$66
Total	Capex+Opex < $20/boe or After-tax breakeven < $30/bbl	$79
Exxon	ROCE 17%	$68
Chevron	ROCE 12%	$61
ConocoPhillips	ROCE 15%	$74

[22] Northern Lights, How to store CO2, with Northern Lights
[23] Norwegian government, The Government launches 'Longship' for carbon capture and storage in Norway, 2020
[24] Shell, Annual Report and Accounts 2022, p5
[25] Accela, 3Q 2023 Results: Shell, p2
[26] Accela, 3Q 2023 Results: Shell, p1
[27] IEA, Oil and Gas Industry in Net Zero Transitions, p16
[28] ACCR, Investor Bulletin: Analysis of Shell plc Capital Markets Day 2023, p7

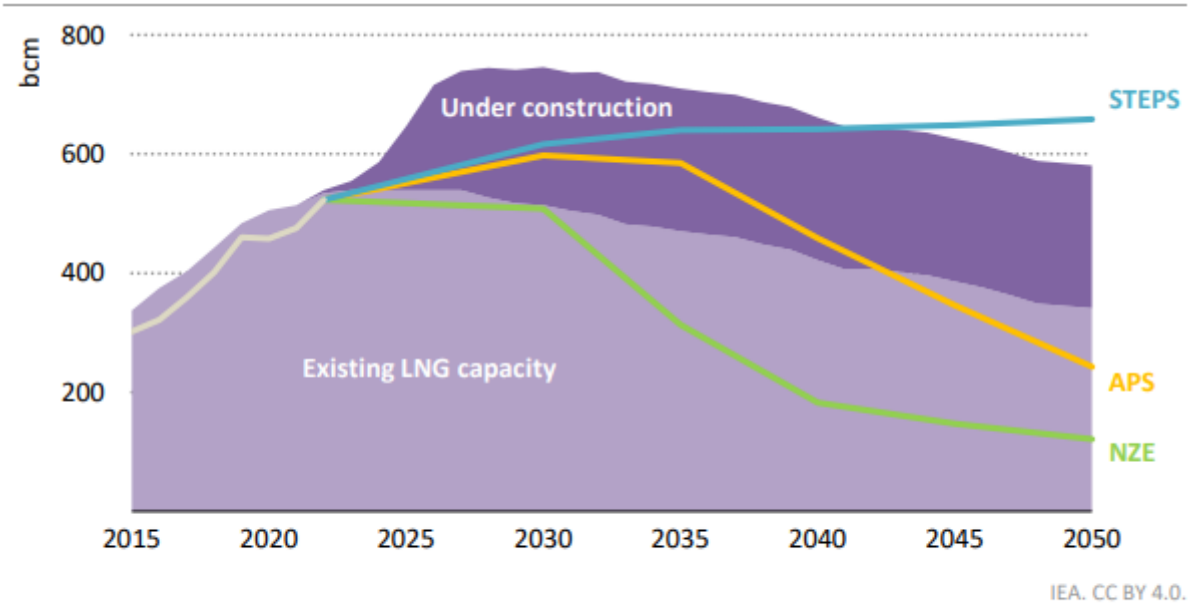
The lower hurdle rates for integrated gas and upstream projects makes little sense in the context of plateauing and declining demand for these projects. This is a bet against the energy transition, which requires limited investment into fossil fuels and a rapid increase in clean energy investment, particularly in emerging markets.

Figure 6[29] shows the IEA's projections of an LNG 'glut' by the end of the decade. Shell's plan to increase sales of LNG by 20-30% by 2030 is banking against this outcome.

By targeting growth and lowering hurdle rates for LNG, Shell could also be making a costly mistake for investors, with the IEA also projecting that LNG export utilisation rates in 2030 will fall to between 59% (NZE) and 70% (STEPS).

Both figures are well below the 78% utilisation rate of 2020, which resulted in Asian and European LNG spot prices dropping below $3/MMBtu.

Figure 6: Existing and under-construction LNG liquefaction capacity and LNG trade by scenario



In the NZE Scenario, LNG projects currently under construction are not necessary. In the APS, trade peaks by 2030 and the capacity utilisation of plants would drop significantly.

Shell has maintained its hurdle rates for renewables and energy solutions (excluding power). Its intention is still to invest $10-15bn in low carbon energy solutions from FY 2023-2025, however, it is not clear how much of this is expected to be organic versus inorganic capex.

The 10% hurdle rate for renewables and low carbon energy solutions raises a number of problems for Shell, because:

- it may limit the company's investments in many renewable technologies, which are inherently lower risk and lower return businesses.
- it limits the company from fulfilling its commitment to work with customers to support their decarbonisation, thus reducing Shell's scope 3 emissions.

[29] IEA, Oil and Gas Industry in Net Zero Transitions, Figure 1.18

- by limiting itself to solutions which meet its investment criteria, Shell risks either promoting sub-optimal solutions for its customers, or losing market share as customers go to other suppliers for the energy they will inevitably need.

We suspect that Shell prefers allocating capital to oil and gas due to perceptions the sector can deliver high returns and smooth volatility over the longer-term. This model is often not considered to be compatible with a predominantly renewables business model, which has a lower return profile, due to the relatively lower risks. However, our own assessment of Shell's annualised equity returns (white line) have averaged 2.86% over the last 15 years, compared to the S&P (orange line), which has had annualised returns of 8.79% over the same period.

Figure 7: Total shareholder returns for Shell and the S&P

Similarly, the IEA found the average return on capital employed (ROCE) for oil and gas from 2010 - 2022 is 6-9%, whilst the ROCE for clean energy was 6%.[30] Declining demand for fossil fuels and the subsequent impact on prices, even in more volatile market conditions, will push this ROCE to the lower end. Under these conditions, the more stable returns offered by clean energy may prove to be a more attractive business model for investors.

[30] IEA, Oil and Gas Industry in Net Zero Transitions, pp 88-89

Building blocks for a better strategy

1. Apply a disciplined approach to fossil fuel capex by:

a. adopting commodity price[31] assumptions compatible with limiting warming to 1.5°C
b. raising fossil fuel hurdle rates to better align with peers and reflect the real risks associated with these investments.

The IEA recommends that each oil and gas investment decision should be justified as follows:

> *"Producers looking to undertake new resource developments need to explain how their plans are viable within a global pathway to net zero emissions by 2050 and be transparent about how they plan to avoid pushing this goal out of reach".*[32]

2. Halting greenfield exploration. The IEA has stated that "no new long lead time oil and gas projects are needed" under the Net Zero Emissions scenario[33]. Even under the Announced Pledges Scenario (APS), there is "no need for further oil and gas exploration".[34] Since greenfield exploration will not lead to production until the late 2020s at the earliest, it is unlikely these projects will be viable under low carbon scenarios.

Shell's exploration expenses were $1.7bn in 2022, a 20% increase from 2021[35] - a material expense for investors. This expenditure is unlikely to be in the interests of shareholders due to the limited scope for long-term returns associated with these projects.

3. Setting absolute scope 3 targets consistent with the goals of the Paris Agreement. Targets should be set on a three-year rolling basis to ensure that the company has a clear strategy for real-world emissions reductions in the short- and medium-term.

Shell should include more information on how it is working with consumers to reduce their scope 3 emissions. Sector-level decarbonisation pathways would demonstrate how Shell is playing an active role in its customers' transitions.

4. Report on emission targets in accordance with the GHG Protocol by recalculating the NCI baseline to account for divestments. Targets should be based on reducing real world greenhouse gas emissions, and not include any avoided emissions or emissions offsets in the target setting methodology. To incentivise the increase in investments in low carbon technologies, the company should set capex or generation targets for each relevant technology.

5. Shell should boost its reporting to provide a global account of its material lobbying on climate and energy policy, both by the company directly and through third parties. This would enable better assessment of how supportive Shell's lobbying is of the Paris goals and its own decarbonisation strategy.

Shell's disclosure and review of its lobbying focuses heavily on western, developed markets. It has not reviewed industry associations or similar organisations headquartered in emerging markets. Its reporting on direct lobbying in these markets is also very limited, and Shell does not make clear what industry associations and direct lobbying activities are excluded from the scope of its review.

[31] Refer to Figure 5 for a comparison of commodity price assumptions across international oil companies
[32] IEA, Oil and Gas Industry in Net Zero Transitions, p59
[33] IEA, The path to limiting global warming to 1.5°C has narrowed, but clean energy growth is keeping it open, Sep 2023
[34] IEA, Oil and Gas Industry in Net Zero Transitions, p19
[35] Shell, Annual Report and Accounts 2022, p29

This does not reflect the global nature of Shell's operations, and makes it difficult for investors to assess how well-aligned Shell's lobbying is with its decarbonisation strategy. Visibility into lobbying in emerging markets is critical because:

- Shell has a large presence in these markets, and much of the growth in future energy demand will come from them
- Lobbying that entrenches fossil fuel demand or that limits the development of more mature, Paris-aligned policies could undermine Shell's ability to meet its targets and increase system-wide risks for investors.

Additionally, if Shell were to align with the Global Standard on Responsible Climate Lobbying, this would enable better governance and assessment of how its lobbying activity aligns with the Paris Goals.

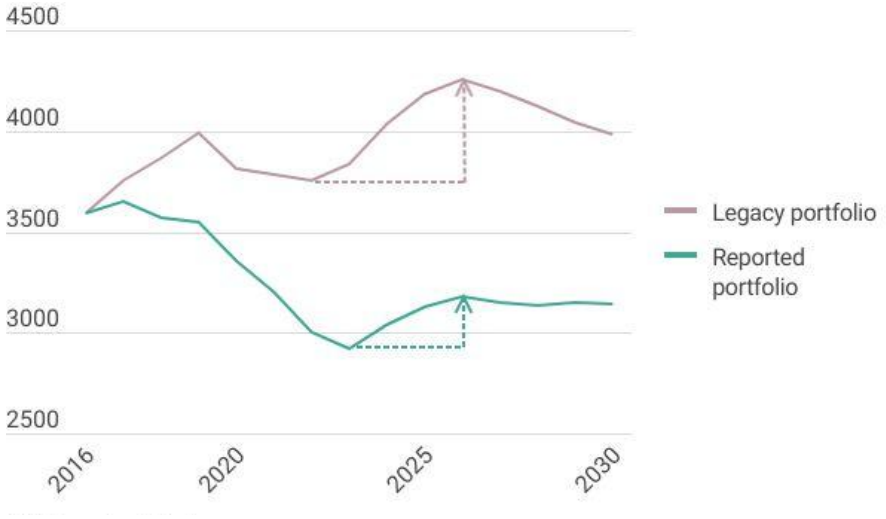
Questions for future investor engagement

- Does Shell plan to put forward a strategy which ensures reductions in absolute emissions which are consistent with the goals of the Paris Agreement?
- How is Shell working with customers to support their decarbonisation? Does Shell have a good view of the energy transition's impact on its products and would the company disclose more granular details around these impacts?
- If Shell follows the GHG Protocol, why does it not rebase its emissions related to its divestments?
- How does Shell justify the quantum of its exploration capex? Would the company commit to aligning all of its capital expenditure to a 1.5 degree scenario, including halting all greenfield exploration capex?
- What are the barriers for Shell to invest more in renewables in emerging markets?
- As a global company, is there an opportunity for Shell to provide a fuller global insight into its climate lobbying activities and include more insight into emerging markets? How is Shell ensuring its lobbying in emerging markets supports the Paris goals and a Just Transition?

Appendix 1 - Shell's oil and gas production assuming it retained divested assets

To remove any doubt that divestment does not reduce emissions, we looked at what has happened to Shell's assets after they were divested. The blue line in Figure 8 shows that if Shell hadn't divested assets, its production would increase by an estimated 11% between 2016 and 2030.

Figure 8: Shell's fossil fuel production to 2030 retaining divested assets (kboe/d)



Source: Rystad data, ACCR analysis

Not only do the divested assets appear to be increasing production, they appear to be increasing production more aggressively than Shell's current portfolio. Shell's legacy portfolio is forecast to increase production by 220 kboe/d, whilst Shell's current portfolio is forecast to increase production by 130 kboe/d. Although this analysis cannot determine causality it does raise the question about whether divesting assets increases production.

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