



Sasol's 2021 Climate Change Report: analysis and voting recommendation

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JUST SHARE



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Sasol Limited's 2021 Climate Change Report: analysis and voting recommendation

1. Introduction

In this briefing, Just Share provides an analysis of the main elements of fossil fuel company Sasol Limited's 2021 Climate Change Report (CCR 2021). We also make a recommendation to shareholders in relation to the resolution proposed in Sasol's 2019 [Notice of AGM](#), which asks shareholders to endorse, on a non-binding advisory basis, Sasol's climate change ambition, strategy and actions as set out in the CCR 2021.

2. Key new emission reduction targets

On 22 September, at Sasol's "[Capital Markets Day](#)", the company published its suite of annual reports, including its Climate Change Report which sets out the "Future Sasol strategy". In these reports, Sasol has set itself the following targets:

Short-term (up to 2025)

- **by 2025**, to integrate 600 MW of renewable energy (Sasol's share of this is 200 MW; Air Liquide's 400 MW);

Medium-term (2026-2030)

- **by 2026:**
 - 100% purchased renewable energy for European and American operations and 40% renewable energy for its Energy Business;¹
 - a 5% reduction (off a 2017 baseline) in scope 1² and 2³ greenhouse gas (GHG) emissions from its Energy Business (excluding Natref) and a 20% reduction from its International Chemicals Business;⁴
- **by 2030:**
 - a 30% reduction (off a 2017 baseline) in scope 1 and 2 GHG emissions from its Energy Business (excluding Natref) and its International Chemicals Business;
 - a 20% reduction (off a 2019 baseline) in scope 3⁵ emissions from the use of energy products (category 11 – sold energy products) in its Energy Business;
 - to reduce coal intake to 31 megatonnes (Mt);

¹ This includes Sasol's integrated value chains with feedstock sourced from its Mining and Gas operating segments and processed at its Secunda and Sasolburg Operations and Natref. Sasol also has associated assets outside South Africa; including the Pande-Temane Petroleum Production Agreement in Mozambique and ORYX GTL (gas to liquids) in Qatar: <https://www.sasol.com/sites/default/files/content/files/Sasol%20Business%20Overview%20Document.pdf>

² Direct GHG emissions from sources that are owned or controlled by the company.

³ GHG emissions from the generation of purchased electricity consumed by the company.

⁴ This is organised into three customer-focused regional operating segments – Africa, America and Eurasia – supporting four divisions comprising Advanced Materials, Base Chemicals, Essential Care Chemicals and Performance Solutions: <https://www.sasol.com/sites/default/files/content/files/Sasol%20Business%20Overview%20Document.pdf>

⁵ Emissions that are a consequence of the activities of the company, but occur from sources not owned or controlled by the company, e.g. use of sold products. These are all other indirect emissions that occur in a company's value chain.



- to procure 1200 MW of renewable energy for Secunda (with 800 MW allocated to Sasol, and the other 400 MW to Air Liquide);
- 80%⁶ renewable energy for the Energy Business;

Long-term (2030-2050)

- **by 2050:**

- 100% renewable energy for the Energy Business; and
- net zero⁷ emissions (scopes 1 and 2 only for its International Chemicals Business).

3. Main elements of Sasol's plans to meet new targets

Sasol aims to meet its 2030 scope 1 and 2 commitments largely through **significantly increased use of fossil gas** (by replacing coal as a feedstock with gas at its Secunda coal-to-liquids plant, which is the world's largest single-point source of GHG emissions),⁸ **and through the use of renewable energy to replace electricity currently supplied by Eskom**. It will also focus on "asset optimisation" and scale down coal exports. Sasol also hopes, in the long-term, to transition to the production of sustainable fuels. Scope 3 reductions will require "product-type changes and curtailment of existing production volumes".⁹

Sasol's "preferred pathway" to reach its 2050 net zero ambition is large-scale green hydrogen production and renewables. Sasol takes the view that its Fischer-Tropsch technology, which is currently used to produce liquid fuel from coal, will "play an important role in delivering a sustainable future", and in the "green hydrogen economy".¹⁰

Sasol has identified various "levers" for this 2050 ambition, which, it says, are not yet at the required scale or sufficiently commercialised to be viable. These include: green hydrogen and sustainable carbon feedstocks, new product streams and value pools, electrification and renewables, coal reduction, additional gas and "asset optimisation", carbon dioxide removal (CDR) options, and "technology and nature-based solutions".¹¹ The CCR 2021 states that Sasol sees opportunity in the transition to a low-carbon economy and is progressing its climate change response as a "top priority".¹²

There is a concerning lack of detail in the CCR 2021 about several crucial elements of Sasol's ambitions and actions, which makes it extremely difficult to assess their feasibility and credibility. This is exacerbated by the fact that Sasol's technology is proprietary, and its agreements with various key partners and suppliers confidential.

In this briefing, Just Share analyses Sasol's commitments and strategy from the perspective of whether or not these provide the necessary detail and adequate accountability mechanisms to convince shareholders that the company has a feasible, measurable plan to achieve its 2030 emission reduction

⁶ Excluding load factor and relates to the full Secunda site.

⁷ Sasol will "significantly reduce emissions to the point where only hard-to-abate emissions remain or are zero. Any residual emissions will be neutralized using Carbon Dioxide Removal offsets": CCR 2021 page 1.

⁸ Sasol Sustainability Report 2020: https://www.sasol.com/sites/default/files/financial_reports/2020%20Sasol%20Sustainability%20Report%20-%2028%20August%202020%2010h30.pdf page 8.

⁹ CCR 2021 page 14.

¹⁰ CCR 2021 page 7.

¹¹ Biological carbon sequestration, e.g. forestry projects, geological carbon capture and storage and direct air capture: CCR 2021 page 15.

¹² Page 44.



targets. There is insufficient detail provided in relation to its 2050 targets to allow for meaningful analysis, and so this briefing focuses on the 2030 plan.

For the reasons set out below, Just Share recommends that shareholders do **not** endorse Sasol's plans via the November vote.

4. Key questions that Sasol should be able to answer before shareholders endorse its climate plan

In deciding whether or not to support Sasol's non-binding advisory vote, investors should seek clear, detailed answers to at least the 15 questions set out below.

In addition, we recommend that shareholders and other stakeholders pay close attention to Sasol's [Form 20-F](#) filed with the United States (US) Securities and Exchange Commission on Sasol's Capital Markets Day. Due to more stringent disclosure requirements in the US, this document provides far more detail than Sasol's South African reports about the risks associated with its plans.

1. Despite the urgency to reduce GHG emissions to limit the worst impacts of the climate crisis, **Sasol's emissions have increased** in both of the years (2020 and 2021) since it set its first emission reduction target in 2019. As Sasol has set no measurable emission reduction target until 2025, can the company confirm that there will be no further emission increases between now and then?
2. Why has Sasol **not set any short-term decarbonisation milestones until 2026**, other than its plans to procure 200 MW of renewable energy as part of its 600 MW project with Air Liquide?
3. Why has Sasol **not set any decarbonisation milestones** for the period between 2030 and 2050?
4. When will Sasol provide its shareholders with full details of how its **capital expenditure plans** will support the delivery of its decarbonisation targets?
5. Sasol regards the carbon price for developing countries used by the International Energy Agency (IEA) in its Sustainable Development Scenario (SDS) as "unrealistic for the current national context". Given how integral a meaningful, robust carbon tax is to reducing emissions, **does Sasol intend to continue to lobby** – either directly or through industry associations - against an effective carbon tax, favouring what it describes as a gradual, "tailored carbon price ... for the South African context"?¹³
6. It appears that **Sasol expects the South African government to fund the development of the new pipeline capacity and fossil gas infrastructure required to support its 2030 ambition**.¹⁴ What are the estimated costs of such capacity and infrastructure; how will they be financed; and what impact will this have on South Africa's achievement of the lower range of its updated Nationally Determined Contribution?

¹³ CCR 2021 pages 25 and 43.

¹⁴ At its Capital Markets Day, Priscillah Mabelane, Executive Vice-President of Sasol's Energy Business indicated that "Sasol is not intending to take any investment in terms of any of our infrastructure going forward": <https://www.youtube.com/watch?v=FQgORVCofD8&t=4063s> at 20 minutes 42 seconds.



7. Given that Sasol's emission reduction strategy relies heavily on its access to affordable and adequate supplies of fossil gas (as yet unavailable), what plans (plus timelines) has Sasol made to cater for the **eventuality that it does not secure the fossil gas supplies** necessary for its emission reductions?
8. How does the **unrest and insurgency in Mozambique** impact Sasol's plans to secure significant additional supplies of fossil gas?
9. Why does Sasol **not disclose methane emissions** from its Mozambique operations and when will it do so?
10. Why has Sasol **not set a methane reduction target** and when will it do so?
11. When will **Natref's emissions** be included in Sasol's emission reduction targets?
12. Through which contractual means is Sasol seeking to acquire electricity from **independent renewable energy producers**, over which period, what will this cost, and how will this be financed?
13. What are Sasol's plans and relevant timelines to overcome the **grid capacity challenges** in relation to its renewable energy ambitions?
14. Were **affected workers and communities consulted** in the design of the company's decarbonisation roadmap? If so, how were they consulted? If not, when and how will they be consulted?
15. Given the **many uncertainties inherent in every element of Sasol's plans**, at what stage will the company decide whether or not each of its emission reduction plans and targets is on track or is no longer feasible, and what action will it take as a result?

Ultimately, and this is confirmed in Sasol's Form 20-F, the company's climate ambitions and emission reduction plans are reliant on external factors which are highly uncertain, including the availability, affordability and acceptability of fossil gas, and the commercial viability of green hydrogen. In addition, the delivery of even Sasol's short-term plans has been scheduled in such a way that there is little prospect of accountability for Sasol's current management team, should the targets not be met.

Finally, even if all of Sasol's ambitions are feasible and adequately resourced within a reasonable timeframe, shareholders and other stakeholders should consider whether it is cost-effective and socially just to focus a huge proportion of South Africa's climate action efforts and resources on ensuring that a single company, which is currently and historically one of the world's biggest polluters, maintains profitability throughout the transition.



5. Sasol's previous climate plans and emission reduction targets

In 2019, Sasol set an emission reduction target for the first time: to reduce - by 2030 - the absolute GHG emissions from its South African operations by at least 10%, off a 2017 baseline. Also in 2019, Sasol set an energy efficiency improvement target of 30% by 2030 off a 2005 baseline.

In 2020, [Just Share analysed](#) Sasol's 2020 Climate Change Report (CCR 2020). Sasol's emission reduction ambitions relied heavily then, as they do now, on the assumption that significant fossil gas resources and infrastructure would become available by 2030. Sasol did not provide any information about the likelihood of this being the case, nor the associated costs. It ignored the fact that it is far from settled that fossil gas, also a fossil fuel, is a necessary or appropriate "transition fuel" in the shift to a low-carbon economy.

In 2020, Sasol indicated that **Natref was excluded** from its 10%-by-2030 GHG target. It indicated that "target setting is undertaken in consultation with Natref's joint venture partners and a separate target may be explored for the future".¹⁵ Natref accounts for about 2% of Sasol's total scope 1 and 2 emissions. The CCR 2020 reflected Sasol's 2017 South African scope 1 and 2 emissions, excluding Natref, as 63 925 kilotonnes (kt) CO_{2e}.¹⁶ This would mean that the 2019 and 2020 10% targeted reduction would result in South African scope 1 and 2 emissions of about 57,5 Mt by 2030.

The CCR 2021 indicates that Sasol's 2020 emissions were 3% lower than in 2017, but in 2021, **emissions amounted to only a 1% reduction relative to 2017**.

The explanation given for the 2021 emissions increase is that there were more operating days, higher production and no shutdowns at Secunda in 2021. By contrast, two shutdowns were undertaken in 2020, which meant that no maintenance shutdown was required in 2021. The CCR 2021 states that "the impact of the shutdowns played a key role in our emissions profile in 2020 and 2021".¹⁷ It is concerning that the reduction in Sasol's GHG emissions in 2020 was therefore attributable largely to maintenance shutdowns – and that this explanation for the 3% emission reduction was not provided in the CCR 2020.

The CCR 2021 indicates that the increased scope 3 emissions in 2021 are due to additional categories being reported.

Sasol reported an increased overall energy efficiency improvement of 22,8% for Group operations, moving closer to its Energy Productivity (EP100) target, set in 2019, of a 30% global energy efficiency improvement by 2030 off a 2005 baseline. The 2021 improvement was 8,5%, due to "an increase in net production volumes and using energy more efficiently".¹⁸

¹⁵ CCR 2020 page 3.

¹⁶ This will be "rebaselined" in 2022, due to the sale of the Air Separation Units (ASUs) in Secunda. CCR 2021 page 5.

¹⁷ CCR 2021 page 5.

¹⁸ CCR 2021 page 4.



6. Sasol's current emission reduction ambition

Sasol affirms its support for the Paris Agreement and acknowledges that climate change is “a defining challenge of our time”,¹⁹ which is “at the centre of Sasol’s strategy and is a top risk”.²⁰

According to Sasol, its “strategy focuses on decarbonising while preserving and growing value, and minimising social and economic impacts”. Whilst its “carbon-intensive operations are the focus of our decarbonisation drive”, Sasol states that these are “also necessary to fund our efforts and contribute to national imperatives. As such, a multitude of factors were considered in shaping our targets and roadmap development, while addressing complex and often conflicting stakeholder expectations and requirements”.²¹

As a “last resort”, Sasol considered the “closure of unviable value chains (turndown)”, but unsurprisingly takes the view that the “negative socio-economic impacts [of a turndown] far [outweigh] the reduction benefit achieved by reaching net zero this way”.²²

The CCR 2021 sets out Sasol’s 2050 net zero emissions ambition and “Future Sasol strategy”.²³

Future Sasol “is premised on producing sustainable fuels and chemicals, using our proprietary technology and expertise, while contributing to a thriving planet, society and enterprise. This will see Sasol transform and decarbonise, in particular, our Secunda and Sasolburg Operations as outlined in our roadmaps”.²⁴

Sasol has tripled its **scope 1 and 2 GHG emission reduction target for its Energy Business (excluding Natref)**, from 10% (set in 2019 and confirmed in 2020) to **30% (off a 2017 baseline) by 2030**. This would amount to 2030 targeted emissions of about 44 747,5 Kt CO₂e.

In Sasol’s Capital Markets Day presentation, in response to a question regarding the determination of the baseline years for emission reductions, Sasol’s CEO Fleetwood Grobler indicated that Sasol had selected 2017 as the baseline year, as it was the year that “Sasol had a very good run-rate of our facilities in South Africa. We, that year, produced about 7.8 million tonnes, and because of that high output, and with the **associated high emission footprint**, we used that as the base year, because that is giving us then a **very appropriate base-year** to say we worked from, as it was one of our higher ones.”²⁵ (our emphasis)

In other words, Sasol gives itself as much leeway as possible, by selecting to measure its emission reductions from the highest possible base.

The CCR 2021 states that the Energy Business's most material scope 3 emissions are from the combustion of Sasol’s energy products by customers, once sold (Category 11). These products include

¹⁹ CCR 2021 page 3.

²⁰ CCR 2021 page 6.

²¹ CCR 2021 page 8.

²² CCR 2021 page 16.

²³ CCR 2021 page 6.

²⁴ CCR 2021 page 3.

²⁵ <https://www.youtube.com/watch?v=FQgORVCofD8&t=4063s> at 5 minutes, 46 seconds.



export coal, oil, gas and liquid fuels. Sasol set a **20% (off a 2019 baseline) scope 3 absolute reduction target to be achieved by 2030 in its Energy Business, relating to its sold energy products**. This target, if achieved, would result in category 11 scope 3 emissions of **28,5 Mt in 2030**, compared to 35,6 Mt in 2019.

According to Sasol, its **2030** targets are **aligned** with the Paris Agreement's goal of limiting temperature rise to **well below 2 degrees Celsius**, compared to pre-industrial levels, but are **not aligned with limiting global average temperature rise to 1,5 degrees Celsius**. Its **net zero-by-2050 ambition is aligned** with the goal of **limiting global warming to 1,5 degrees Celsius**.

For the 30%-by-2030 emissions reduction target for scope 1 and 2 emissions, Sasol indicates that it already has “concrete plans” to achieve direct reductions of 25% through “available technologies”. “With additional improvements in technology, efficiencies in our processes and the introduction of lower-carbon feedstocks, we are confident that more reductions are possible”.²⁶ Sasol's aim is to achieve a **5% emission reduction by 2026** and it indicates that it has “prioritised projects that deliver higher emission reductions to restore our downward emissions trajectory”.²⁷

As part of Sasol's evaluation of the “integration of cleaner alternative feedstocks”, it has committed to no investments in new coal mines. This, however, appears to be a disingenuous “ambition”: Sasol Mining operates six coal mines that supply approximately 40t Mt per annum of thermal coal feedstock to Sasol's operations in Secunda and Sasolburg and to the export market.

Sasol Mining's R15 billion coal mine replacement programme, has “replaced 60% of its operations and this will ensure uninterrupted coal supply to Sasol Synfuels Operations. These mine replacement projects support Sasol's strategy to operate its Southern African facilities until 2050”.²⁸ **In other words, it would not be necessary for Sasol to invest in new coal mines – it already has adequate sources of coal for another 30 years.**

Sasol also does not indicate the date by which it will phase out coal, the single biggest contributor to climate change.

7. Missing details and unanswered questions

There are multiple gaps in Sasol's current emission reduction plans, illustrated by the unanswered questions listed in section 4 above.

Sasol has not set short-term emission reduction targets, nor has it committed to ensuring that its emissions do not increase in the next four years. In fact, due to changes in Sasol's scope 3 emissions accounting methods, **its targets imply a 7% increase in absolute emissions by 2026**.²⁹

The Intergovernmental Panel on Climate Change (IPCC)'s [Special Report on the Impacts of Global Warming of 1.5°C](#) calculates that a 1.5°C global warming trajectory will require a global GHG emission

²⁶ CCR 2021 page 3.

²⁷ CCR 2021 page 5.

²⁸ <https://www.sasol.com/about-sasol/operating-business-units/mining/operations-locations>

²⁹ Global Climate Insights, (2021) Sasol in pursuit of a lifeline for Secunda: <https://www.accr.org.au/research/sasol-in-pursuit-of-a-lifeline-for-secunda/> page 1



reduction of 45% by 2030 (relative to a 2010 baseline). Sasol is not planning to decarbonise in line with climate science, and it appears to be highly unlikely that it can achieve a 25% emission reduction in four years, between 2026 and 2030.

Sasol has also failed to specify emission reduction targets between 2030 and 2050 and does not include targets for: Natref; methane emission reduction; or scope 3 emissions for its International Chemicals Business.

Although Sasol does not address many of the risks associated with its plans in any detail in its CCR 2021 or integrated report, the disclosure in its Form 20-F sets out the extent to which Sasol's plans are **risky, expensive, and potentially unfeasible**.

The company states in its Form 20-F that “the primary risks associated with achieving the 2030 GHG reduction targets are the **unavailability and unaffordability of gas** as feedstock or as a source of energy and the **potential prohibitive costs of green hydrogen**, electrolyzers and the lack of enabling legal frameworks”. In addition, the “replacement of coal with natural gas, sustainably verified biomass and green hydrogen as sustainable feedstocks for our operations in Secunda are likely to increase the cost of production and **reduce our profitability significantly**”³⁰ (our emphasis).

Other risks set out in the 20-F include:

- Sasol's ability to attract, develop and retain sufficiently diverse, skilled and experienced employees, including critical or scarce skills;³¹
- climate change-related laws and regulations which could “threaten our licence to operate and substantially increase the cost of doing business because of the imposition of higher carbon taxes or similar taxes”,³² and
- litigation, regulatory proceedings, the imposition of fines and penalties and “the need to obtain or implement costly pollution-control technology”.³³

8. Sasol's approach to the just transition

Sasol recognises that “fossil fuel-dominated economies are particularly exposed to climate change transition impacts and the cost of inaction is likely to be more severe than responding to climate change”. The CCR 2021 states that “an effective just transition should be supported by national financing and policy frameworks”.³⁴

Sasol mentions that it has recently constituted a Just Transition Office, but the CCR 2021 provides no further information about this. No information is provided as to whether workers and affected communities have been consulted in the development of the plan for “Future Sasol”, and if so, how those consultations informed Sasol's plans. Although the CCR states that Sasol plans engagements to “begin to co-develop targeted transition programmes” with communities, it does not provide more information³⁵ in this regard.

³⁰ Page 21.

³¹ Page 12.

³² Pages 20 and 21.

³³ Pages 22, 30-31.

³⁴ Page 26.

³⁵ Page 26.



9. Gas as a “transition” fuel

As with its previous emission reduction ambition, Sasol’s current plans rely heavily on it having access to sufficient affordable gas and the requisite infrastructure to deliver it to its operations (including pipelines and import terminals). The source of this gas, its cost and the cost of the associated infrastructure, and the timelines for its procurement are not addressed in any detail. Nor does Sasol address the potential impact of the Mozambique insurgency on its plans.

Sasol operates the Pande and Temane gas fields in Mozambique. This gas is sold to its operations in Secunda and Sasolburg as well as to external customers in Mozambique and South Africa. Gas is produced from a portfolio of wells, and then processed through a Central Processing Facility at Temane and transported through an 865km Republic of Mozambique Pipeline Investments Company (ROMPCO) pipeline to Sasol’s Secunda plant. From Secunda, Sasol transmits the gas to Sasolburg and to other industrial users in Gauteng.

The available reserves in the Pande-Temane gasfields are declining. The CCR 2021 identifies two major new sources of gas available to Sasol: liquefied natural gas (LNG) and alternative pipeline gas from Mozambique. In Sasol’s assessment: “pipeline gas has a lower lifecycle footprint but could create stranded assets, resulting in lock-in, particularly if the hydrogen economy plays out faster. LNG could have a high lifecycle footprint depending on its source but offers flexibility and less risk of stranded assets”.

Sasol takes the view that “greater use of gas is indeed a critical step in the transition away from coal”.³⁶ It has signed a memorandum of understanding with the Central Energy Fund “to collaborate on accelerating the development of gas solutions in South Africa”.³⁷

The extent to which fossil gas is required as a transition fuel is a complex and contested concept. This includes how much gas is required, of what type, by whom, when, and for how long. The IEA’s [Net Zero by 2050 scenario](#) states that there must be no new oil and gas production (beyond projects already committed in 2021).

Building new gas infrastructure risks “locking in” emissions and crowding out the policy and financing space for the mass construction of least-cost renewable energy. Sasol does not adequately address this risk, nor the real stranded asset risk of fossil gas investments.

By contrast, Sasol’s 20-F recognises “country-specific risks relating to the countries in which we operate that could adversely affect our business, operating results, cash flows and financial condition”, and states that “in Mozambique, uncertainties around the duration and intensity of the impact of COVID-19, high levels of public sector debt, political conflict, severe insurgency risks, lack of essential services, the need to further strengthen institutions, insufficient fiscal sustainability and extreme weather events are expected to remain significant risks to the sovereign credit and operational outlook for the foreseeable future”.³⁸

³⁶ Page 7.

³⁷ <https://www.sasol.com/media-centre/media-releases/sasol-and-central-energy-fund-sign-strategic-mou-accelerate-gas>

³⁸ Page 33.



The CCR 2021 states that gas infrastructure can also be re-purposed for green hydrogen transport. Even assuming that all of the necessary modifications and replacements can be affordably and timeously completed, Sasol does not address the respects in which this repurposing would be complicated by the location and flow direction of gas pipelines.

In short, Sasol fails to demonstrate that a pivot to gas is feasible or affordable, or that it is a credible decarbonisation pathway. It has also not disclosed what plans (plus timelines) it has made to cater for the eventuality that it does not secure the fossil gas supplies necessary for its emission reductions.

By contrast, and in addition to what has been set out above regarding fossil gas in Sasol's 20-F, in that document Sasol makes other important concessions; including that:

- “we may be unable to access, discover, appraise and develop new coal, synthetic oil, natural oil and natural gas resources at a rate and price that is adequate to sustain our business and/or enable growth”,³⁹ and
- “our natural gas reserves in Mozambique are of particular importance as feedstock for our plants in South Africa, as well as for sales of gas into the market in South Africa. There is currently a lack of alternative sources of natural gas in southern Mozambique with similar volumes and at affordable development and production costs. Although alternative sources of gas supply in southern Africa are being considered, there is a risk that these resources may not be secured at a price adequate to sustain our business and/or enable growth”.⁴⁰

10. Methane risks unaddressed

Sasol's analysis of potential new gas reserves found that sourcing gas from reservoirs low in CO₂ and where methane leakage is monitored and minimised, is critical to reducing value chain emissions. It is also confident that “globally significant strides have been made to improve operations and reduce methane leakage”. The CCR 2021 states that pipeline gas supply, given its simpler value chain, has a lower overall GHG footprint than LNG.⁴¹

The fact that Sasol does not disclose its methane emissions from Mozambique, despite its involvement in Mozambique for over two decades, is concerning, and renders these assurances of Sasol's determination to reduce methane leakage unconvincing.

Fossil gas is made up of 95% methane, which is a significantly more potent GHG than CO₂ (with 84-87 times more global warming potential over 20 years, and 28-36 times over 100 years). In addition to the effects of burning fossil gas for power, there are also significant climate impacts from the release of methane into the atmosphere — both accidental and deliberate — during oil and gas extraction and transport. Even small amounts of leaks associated with the extraction, transport and processing of fossil gas can have a significant impact on emissions.

The IPCC, in its 2021 [Physical Science Basis report](#), has emphasised the importance and urgency of significant reductions in methane emissions.

³⁹ Page 12.

⁴⁰ Page 39.

⁴¹ Page 17.



11. Renewable energy

The CCR 2021 points out that large-scale renewable energy is required to enable Sasol's climate ambitions. In partnership with Air Liquide, Sasol aims to **integrate 600 MW of renewable energy (of which Sasol is allocated 200 MW) by 2025**, and the remaining **600 MW (to make up the 1200 MW, of which Sasol is allocated 800 MW) by 2030**. Sasol states that this would allow it "to significantly decarbonise our utility scope 1 and 2 emissions by replacing electricity imports and own generation".⁴²

Sasol expects to have two **10 MW solar photovoltaic farms – for its Sasolburg and Secunda Operations – operational by 2023**, following the likely conclusion of power purchase agreements by the end of 2021.

Sasol does not disclose which contractual arrangements it will use to acquire electricity from independent renewable energy producers, what this will cost, and how this will be financed, nor does it address the significant grid capacity challenges that are likely to impact its renewable energy ambitions.

12. Carbon capture, utilisation and storage

The CCR 2021 describes carbon capture, utilisation and storage (CCUS) as "a collective term referring to a number of technologies not yet developed at scale". It states that carbon capture and storage and direct air capture are "currently prohibitively expensive and not proven in South Africa. However, across the world costs of these technologies are decreasing due to enabling policy frameworks and incentives".⁴³

Sasol issued a Request for Information (RFI) in 2021, "with the intention of unlocking breakthrough technologies to catalyse cost reductions and utilise our concentrated CO₂ streams." The company then goes on to state that: "**unfortunately, no breakthrough technologies or process configurations have been identified to date**".⁴⁴

The CCR 2021 confirms that "CCS is in its infancy in South Africa". Although Sasol's process CO₂ is already captured, it states that the viability of storage is unproven. "The distance of storage sites from our facilities plays a significant role in influencing the cost and viability of CCS as an option for us".

Sasol is collaborating with the Council of Geosciences (CGS) and South African Centre for Carbon Capture and Storage "which is focused on long-term storage of CO₂ in geological formations". The CGS and the Department of Mineral Resources and Energy are working on the implementation of a Pilot Capture and Storage Project, which is investigating the technical feasibility of inland CCS at a demonstration site in Evander, Mpumalanga by 2025. Sasol is supporting this pilot by providing "technical data and process CO₂ to enable assessment of sequestration potential at this site".⁴⁵

According to the Global CCS Institute, there are currently just over 20 carbon capture projects in construction or operation around the world. However, the technology is still not commercially viable, and there have been a number of high-profile failures of these projects. For instance, Gorgon, the world's

⁴² Page 17.

⁴³ Page 17.

⁴⁴ CCR 2021 page 17.

⁴⁵ CCR 2021 page 17.



largest CCS project – operated by Chevron Australia on behalf of partners including Shell and ExxonMobil – has failed to meet a single one of its targets.⁴⁶

Whilst carbon capture may be technically feasible, and there may be some decreases in prices of some types of CCUS (mostly due to technology learning), there are several unresolved problems with CCS, including uncertainty around long-term leakage, its high capital costs, and the long lead-time - possibly decades - before the technology could potentially be proven at the required scale. In addition, the carbon capture process has a significant negative impact on efficiency.

13. Capex to support Sasol's ambition

By **2030, Sasol's capex target is 10-15%**, which it indicates equates to **R25-R35 billion cumulative total capital**, "inclusive of gas feedstock and the Energy Business roadmap costs (Transform capital)". This is expected to fund 30% of Sasol's GHG reduction target, with 65% expected to be spent from 2026.⁴⁷

Without significantly more detail as to the particular costs and timeframes involved, and how it will actually be deployed, it is very difficult to assess whether this capex requirement is sufficient to support Sasol's plans and how much effort is being made by Sasol to decarbonise its future capital expenditures. This calls into question whether its plans are credible and feasible.

Sasol does not quantify the impact of carbon border taxes, and it uses a low rate for carbon pricing. Whilst this is based on the South African government rate from 2022 escalated in real terms to 2030, it is questionable whether this price is adequate to make a meaningful impact on capex allocations.

Sasol regards the carbon price for developing countries used by the IEA in its SDS as "unrealistic for the current national context as it shocked a fragile economy and did not support the much needed just transition". Given how integral a meaningful, robust carbon tax is to reducing emissions, Sasol's preference for a gradual, "tailored carbon price ... for the South African context"⁴⁸ is problematic and self-serving. Shareholders should be concerned both by Sasol's lobbying against an effective carbon tax in South Africa, and by the potentially severe implications for Sasol's profitability should an effective carbon tax take effect.

14. Remuneration

According to Sasol, since 2018 "we have strengthened our governance of climate change matters" and "targets have been implemented to which management will be held to account by the Board". Muriel Dube, chair of the Safety, Social and Ethics Committee, says that "we have strengthened our oversight through robust governance and are implementing remuneration measures as part of a deepening commitment to combat climate change".⁴⁹

⁴⁶ <https://ieefa.org/chevron-admits-failure-of-3-billion-ccs-facility-in-western-australia/>

⁴⁷ <https://www.accr.org.au/research/sasol-in-pursuit-of-a-lifeline-for-secunda/> page 6.

⁴⁸ CCR 2021 pages 25 and 43.

⁴⁹ CCR 2021 page 6.



However, in FY21 **25% of Sasol's long-term incentives were tied to increases in production**, which creates perverse incentives for reducing GHG emissions.⁵⁰

Prior to 2021, Sasol did not have any remuneration targets that specifically included the delivery of GHG emission reductions. The CCR 2021 states that:

“In 2020, we included environmental matters in our STI and LTI plans. This was done to incentivise key emission reduction technologies and enablers. Incentivising in this way is used when complexity and age of the operations do not lend itself to year-on-year percentage reductions. Sasol's emission reduction roadmaps, with the exclusion of energy and process efficiency, are dependent on capital intensive interventions. Particularly in South Africa, some of our assets are more than 50 years old, which requires detailed process understanding, time and floor space to implement renewables, hydrogen and gas-enabling technologies”.⁵¹

In 2021, the portion of executive remuneration directly linked to the achievement of actual emission reductions is small. 25% of Sasol's long-term incentive (LTI) plan is allocated to a “holistic focus on ESG”, which comprises three targets. Only one of these requires actual emission reductions: “achieve a 3.8% reduction (equating to 2.36mtpa CO₂e) in scope 1 and scope 2 emissions off a 2017 baseline by end FY24 for the Energy Business”.⁵² It is not clear what proportion of the 25% weighting will be attributable to this reduction.

It is also worth pointing out that the 2022 LTI on renewables only applies to Sasol's International Chemical business, in circumstances where it is the South African operations, and primarily Secunda, which are responsible for by far the bulk of emissions.

For 2022, the Remuneration Committee approved the retention of global energy efficiency improvement targets, and to support the 2030 targets and Net Zero, with prioritisation of renewable energy and hydrogen. The delivery of 200 MW (Sasol's share of the 600 MW) of renewable energy to the Secunda site was added, as well as progressive inclusion of renewable electricity for the International Chemicals Business. “Setting up a new sustainable business venture, establishment of global PtX partnerships and completion of two feasibility studies shows our commitment to decarbonising for sustainability”.

Sasol states that it engaged “shareholders and interested stakeholders” to provide feedback on the Remuneration Policy, which led to the “metrics being further developed to include emission reductions related to each intervention and the addition of a percentage reduction milestone for our Energy Business”. The CCR 2021 states that Sasol subsequently received support for its “transparency and disclosure”, and for these targets from its “large institutional investors”.⁵³

⁵⁰ <https://www.accr.org.au/research/sasol-in-pursuit-of-a-lifeline-for-secunda/> page 8.

⁵¹ CCR 2021 page 37.

⁵² Sasol Integrated Report 2021 page 40.

⁵³ CCR 2021 page 37.



15. Sasol's non-binding advisory vote on its climate plans

Ahead of its 19 November AGM, Sasol has, in its [Notice of AGM](#), proposed a resolution, asking its shareholders to endorse, on a non-binding advisory basis, Sasol's climate change ambition, strategy and its actions, as set out in its CCR 2021.

In its [Notice of AGM](#), Sasol presents its self-proposed "non-binding advisory resolution number 3" as one of the resolutions on which its shareholders will vote on 19 November. The resolution reads:

"To endorse, on a non-binding advisory basis, the Company's 2021 Climate Change Report which sets out Sasol's climate change ambition, strategy and its actions, and which:

- demonstrates the Company's support for the goals of Articles 2.1(a) and 4.1 of the Paris Agreement, as set out in its 2030 and 2050 emission reduction roadmap, in particular, its just transition plans towards a low carbon future "holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1,5°C above pre-industrial levels";
- sets out its short-, medium- and long-term quantitative greenhouse gas reduction targets (scope 1 and 2) in support of the goals of Articles 2.1(a) and 4.1 of the Paris Agreement for its operations in Eurasia, the United States and South Africa; and
- sets out its medium- and long-term quantitative greenhouse gas reduction targets (scope 3: category 11⁵⁴) and commitment to continue work to set out its scope 3 greenhouse gas emissions' baseline and other targets".

Given the multiple concerns regarding Sasol's climate ambitions set out above, and the lack of detailed information to back up their credibility, we recommend that shareholders vote against this non-binding advisory vote at the 19 November 2021 AGM.

End

⁵⁴ Relates to the use of the company's sold products and represents two-thirds of its total scope 3 emissions.