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Page: 10

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NEWS ANALYSIS

Secunda is the problem in Sasol's bid to cut emissions

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Smoking up the sky: A man walks past petrochemical company Sasol's synthetic fuel plant in Secunda, north of Johannesburg. The coal-to-liquids plant accounts for 83.7% of the group's scope 1 and 2 emissions. /Reuters

Energy and chemicals major Sasol's tough juggling act of reducing and ultimately eliminating its significant emissions while staying profitable and delivering superior returns for shareholders, will largely depend on what it does with its Secunda operations over the next few years.

Long Sasol's cash cow, Secunda coal-to-liquids (CTL) is increasingly becoming a regulatory and responsible investing headache for the group. As an organisation with a significant greenhouse gas emissions profile, stakeholders are breathing down Sasol's neck to come up with a credible pathway to be carbon neutral by 2050.

"We are placing considerable efforts on reducing our emissions and transitioning to a sustainable Future Sasol ... stakeholders with competing mandates continued to advocate for science-based approaches, accelerated climate action, as well as a just and equitable transition," Sasol says in its latest annual report, released ahead of its AGM scheduled for Friday.

"We expect continued pressure from stakeholders to decarbonise in a responsible, swift manner while remaining cognisant of national circumstances."

One such stakeholder is Old Mutual, which has criticised publicly the lack of clarity from Sasol on its strategy to reduce its carbon emissions, which are second only to Eskom's. A Sasol shareholder, Old Mutual has indicated it will vote against the firm's climate report on Friday, and is lobbying other institutional shareholders to do the same.

The Public Investment Corporation is Sasol's biggest shareholder, followed by the Industrial Development Corporation, the Vanguard Group and Allan Gray.

Sasol's decarbonation targets include reducing emissions 30% in the next seven years and reaching net zero emissions by 2050.

The breakdown of the plan is to reduce absolute scope 1 and 2 emissions 30% by 2030 and absolute scope 3 emissions 20% in the same period. The group has a net-zero ambition for absolute scope 1, 2 and 3 emissions by 2050.

The Johannesburg based company has committed R15bn-R25bn cumulative capital expenditure to 2030 for the emission-reduction road map. "In addition, to our sustainability capital allocation, we have made a clear commitment to no investments in new coal reserves and a sustainability capex target of 10%-15% by 2030."

Achieving these targets and its Future Sasol strategy largely depends on shifting away from its unsustainable coal value chain. The bulk of the group's Southern African operations remain dependent on coal as a primary feedstock.

Most roads lead to Secunda CTL in this regard. According to Sasol's data, the plant accounts for 83.7% of its scope 1 and 2 emissions, followed by Sasolburg with 8.4%.

Unique to SA, synthetic fuel production from coal is the single major contributor to scope 1 greenhouse gas emissions in the liquid fuel supply industry.

The wealth created from this activity has not come without its environmental blowbacks. Sasol's two Sasol CTL plants in Sasolburg and Secunda encompass the single largest point source emission of carbon dioxide in the world, according to the International Institute for Sustainable Development.

THE BULK OF THE GROUP'S SOUTHERN AFRICAN OPERATIONS REMAIN DEPENDENT ON COAL AS A PRIMARY FEEDSTOCK

The Secunda facility converts about 40-million tonnes of coal a year into 150,000 barrels of crude oil a day of liquid synthetic fuels.

Sasol in its annual report highlights the mammoth challenge that lies ahead in reducing emissions at Secunda.

"Built in the 1970s near large coalfields, Secunda's CTL processes limit the plant's ability to significantly reduce GHG [greenhouse gas] emissions — unless we change the feedstock or find solutions to capture and use concentrated carbon dioxide," the company says.

"Because of these limitations, further significant improvements to Secunda's GHG emissions profile will require us to introduce low- and lower-carbon energy sources (for example green hydrogen and gas, respectively). A substantial part of our integrated GHG reduction road map focuses on emissions from the utility block."

The company also warned that with production levels expected to increase in 2024, this is likely to result in a higher emissions profile for Secunda.

The company is also making moves to reduce emissions at its Sasolburg plant.

"We are working to decarbonise and repurpose Sasolburg complex's grey assets to produce green hydrogen and derivatives. This entails producing first-to-market green hydrogen at scale to stimulate local demand and catalyse local industry value chains (including fuel cells)," it said.

"We produced the first green hydrogen from our Sasolburg assets in June 2023 by converting an existing chlor-alkali electrolyser, powered by greenfield renewable energy, to produce green hydrogen."

Makwe Masilela, CIO of Makwe Fund Managers, said it will not be possible for Sasol to reduce emissions at the required pace and remain profitable as the targets are too ambitious.

"And I guess it's a very delicate and necessary balancing act to make sure that you continue to deliver profits in a responsible way. Unfortunately when most business models were initiated carbon emission was not an issue, so to try to make sure that your business model now complies, it's going to be a big struggle," said Masilela.

The financial health of Sasol is crucial to SA's economy. The group has paid more than R100bn in taxes in the past two years. Sasol contributed about 5% to SA's total gross GDP in 2021 with multiple value chain linkages across the economy.

The company has recognised energy transition acceleration as an emerging risk facing the business. "Unpredictability and change of pace in the transition of the energy landscape to deliver our net zero ambition with failure potentially eroding shareholder value and delivery on ESG [environment, social and governance] aspirations."

Some of the progress Sasol has made in the 2023 financial year to reduce its coal dependence was in procuring 600MW of renewable energy against a 2030 target of 1.2GW. It has also undertaken biodiversity footprint assessments at Secunda and Sasolburg.

Abdul Davids, head of research at Camissa Asset Management, said some oil and gas peers have scaled back their oil output reduction targets.

"Sasol says it remains committed to their targeted 30% reduction in GHG by 2030 and appears to be progressing well on some metrics (for example, sourcing renewable energy). Management has stated that they are open to 'optimising' the calibration of the timelines and budgets/affordability of reaching the targets," said Davids.

"In contrast, Sasol's R35bn impairment of its Secunda Synfuel assets is an admission that it will not be able to procure sufficient gas resources to substantially reduce or completely eliminate its thermal coal feedstock.

"Sasol has 12-billion tonnes of recoverable coal reserves — in an unconstrained world the company is not short of coal but rather Sasol will now look to reduce its dependency on coal through alternative technology/feedstock solutions. Unfortunately, these are now either unavailable, unproven or economically unviable."

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