South Africa's energy sector remains one of the most coal-dependent and largest per capita polluters in the G20 despite being at greater risk of climate-related impacts. This is according to the latest report from Climate Transparency International that cautions G20 countries against quick-fix COVID-19 stimulus packages that favour fossil fuel industries.

The Climate Transparency Report is the world's most comprehensive annual review of climate action by G20 countries. The report draws on the latest emissions data from 2019 and covers 100 indicators on decarbonisation, climate policies, finance and vulnerability to the impacts of climate change.

According to the report, fossil fuels still account for 92% of South Africa's total energy mix, with more than 85% of electricity coming from coal. As a result, the report found that South Africa's per capita green house gas (GHG) emissions are some of the highest among the G20 nations. By comparison renewable energy only accounts for 6% of SA's electricity mix compared to the G20 average of 27%.

"Right now we have an opportunity to make decisions about our energy mix that will benefit us both in the short term and in the long term," says lead author of the report, Bryce McCall of the University of Cape Town's Energy Systems Research Group. "The impacts of climate change are already being felt in SA yet we have made little progress in addressing domestic emissions intensity or our contribution to global green house gases. If the government is serious about economic recovery we need to invest in technology that will provide affordable and sustainable energy solutions," says McCall.

Despite SA being at greater risk of climate-related impacts than other G20 countries - and being one of its biggest emitters - the South African government has yet to make a firm commitment to phase out coal power by 2050. In order to reduce the risk of severe climate-related impacts the report showed that the share of fossil fuels in the global primary energy mix needs to fall by 67% by 2030 and to 33% by 2050.

McCall says that although SA is a signatory to the Paris Agreement to limit global average temperatures to below 2°C above pre-industrial levels, the government's decision to continue to build additional coal power plants means that South Africa will not reach that target. In addition to almost 6,000MW of coal capacity that is still to be added to the grid, the 2019 Integrated Resource Plan includes investment in a further 1,500MW of new coal plants before 2030.

"It makes no sense that SA has approved a low emissions development strategy to achieve net-zero emissions by 2050 but at the same has not yet committed to phasing out coal power by 2050," says McCall "We hope to see increased commitment to limiting emissions in SA's next Nationally Determined Contributions submission before the COP26 meetings next year.