POSITION PAPER

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AGENDA: Climate Change Adaptation

Adaptation seeks to reduce the risks posed by climate change, and to benefit from any associated opportunities where possible. Beyond doing everything we can to cut emissions and slow the pace of global warming, we must adapt to climate change consequences so we can protect ourselves and our communities.

Since 2009, the South African Centre for Carbon Capture and Storage (SACCCS) has been investigating the technical feasibility of carbon capture and storage (CCS) in South Africa. The 2010 Atlas on geological storage of CO2 in South Africa identified Kwa-Zulu Natal and the Eastern Cape as the regions with the most potential for safe and secure CO2 storage. When the CO2 propesctivity of 3 basins, namely, Zululand, Algoa and Durban were assessed, geological evolution and depositional architecture of the basins identified potential reservoir-seal pairs that may be suitable for CO2 storage in the deep subsurface. South Africa's Council for Geoscience has begun mapping a storage site for the country's first carbon capture and storage scheme, which is due to begin operating in 2023.

South Africa plans on exporting green hydrogen and derivative products to meet global demand for clean energy. In October 2021, President Cyril Ramaphosa announced a Green Hydrogen Export Economic Zone near the country's deep water port of Boegoebaai, which will serve as a future export hub. The country is aiming for the European emerging market and recently signed a Memorandum of Agreement with the Port of Rotterdam (PoR), with PoR to act as a "demand aggregator for green hydrogen in Europe." Local industries such as ammonia and steel could switch to hydrogen feedstocks, unlocking new value and ensuring that exports can remain cost-competitive in a low-carbon world economy.

Building a reliable and integrated public transport system in its with a focus on e-mobility could help in developing more sustainable and accessible urban mobility systems and also benefit the people living. The Green Transport Strategy is a critical national strategy document that the Government of South Africa has developed which aims to minimise the adverse impact of transport on the

environment, while addressing current and future transport demands. The strategy promotes green mobility to ensure that the transport sector supports the achievement of green economic growth targets and the protection of the environment.

The need to adapt to a dramatically changing world is ever-growing. In order to achieve sustainability and reduce the climatic damage, the strategies put forth by South Africa need to be implemented further, and the collaboration of various other countries would benefit positively.