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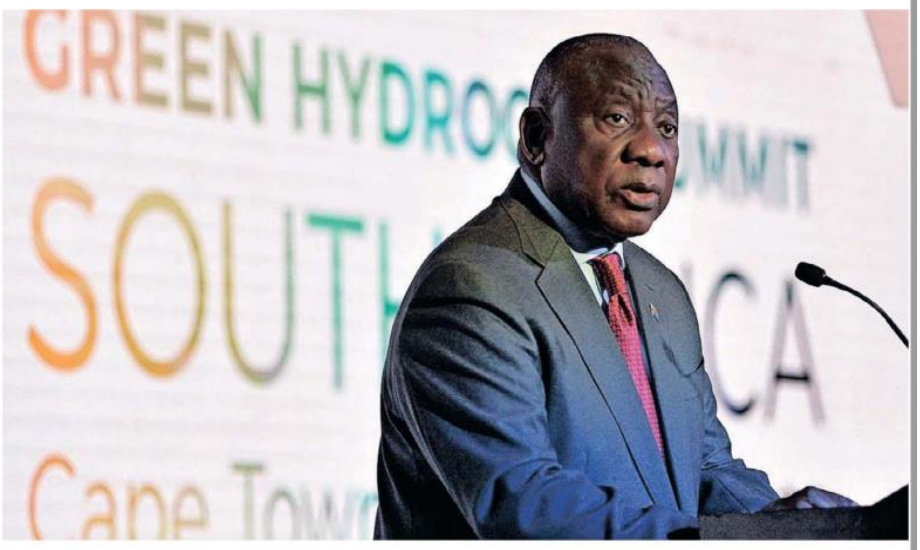

PRESIDENT Cyril Ramaphosa addresses delegates at the Green Hydrogen Summit at the Century City Conference Centre in Cape Town. | PHANDO JIKELO African News Agency (ANA)

ALTERNATIVE FUEL

SA is determined to become a world leader in green hydrogen

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WHILE rolling blackouts and increasing fuel costs continue to cripple South Africa, President Cyril Ramaphosa said at the first Green Hydrogen Summit in Cape Town yesterday it was time to move in a new direction, and hailed green hydrogen (GH2) as a game changer for economic development and energy security.

The summit was attended by a cohort of ministers and delegates all eager to see the country's potential as a large-scale, low-cost, green hydrogen production hub and investment destination.

Green hydrogen is created when water is split into oxygen and hydrogen using wind or solar energy, and could be used as an alternative fuel to power up industrial processes.

Kgosientsho Ramokgopa, head of Infrastructure and Investment in the Presidency, said South Africa was regarded as one of the main future suppliers of green hydrogen products to the world due to the "outstanding potential of renewable energy sources and existing hydrogen production facilities".

Kaashifah Beukes, CEO of the Freeport Saldanha Industrial Development Zone (also known as Saldanha Bay Industrial Development Zone or SBIDZ), which was establishing a green hydrogen hub in Saldanha, said green hydrogen could be used as a lever for electricity availability and the strengthening of the grid as the country tackled critical energy challenges.

GH2 has been forecast to play a significant role not only in South Africa, but global transitions to net-zero energy systems as well as decarbonisation in heavy industry, long haul freight, shipping and aviation. Demand for GH2 products, including ammonia and synthetic jet fuels, is rising significantly as the world focuses on achieving net-zero carbon emissions by 2050.

Beukes said: "We can use green hydrogen to leverage a more resilient electricity grid and availability. You need a lot of renewable energy in a production system in order to make green hydrogen, but the efficiencies of these systems are not 100%, so there is excess electricity that can be released on to our grid from these projects."

The Western Cape and Northern Cape provinces announced plans to build a green hydrogen corridor. Premier Alan Winde and Northern Cape Premier Zamani Saul signed a landmark Memorandum of Understanding as the two provinces were identified as potential green hydrogen hubs.

Ramaphosa delivered the keynote address at the summit, and said this presented a unique opportunity for South Africa to link its mineral endowment with its renewable energy endowment to drive industrialisation while creating jobs, attracting investment, bringing development to rural provinces and supporting a just transition from fossil fuels.

"South Africa has existing and future potential to produce green hydrogen. It is estimated that South Africa has the potential to produce six to 13 million tons of green hydrogen and derivatives a year by 2050. To do so would require between 140 and 300 gigawatts of renewable energy," Ramaphosa said.

As the summit took place soon after COP27, Ramaphosa highlighted these gatherings of world leaders were becoming ever more urgent given the devastation caused by the increasing frequency and intensity of extreme weather occurrences.

Ramaphosa recently released for public comment a Just Energy Transition Investment Plan as the basis for South Africa's pathway towards a low-carbon and climate-resilient society in which green hydrogen was identified as one of four "big frontiers".

Public Works and Infrastructure Minister Patricia de Lille said there were already a number of green hydrogen projects under way in the country.

"We cannot afford to wait for solutions to be delivered to us to address the dual challenges of the climate and the energy crisis, both of which continue to worsen. There must be a sense of urgency in this project given the seriousness of the challenges we are facing," De Lille said.

Ramokgopa said building a hydrogen economy could open up new export markets for South African companies as well as domestic use opportunities. It could also lead to significant economic development, reindustrialisation and job creation opportunities.