

MEDIA STATEMENT

For Immediate Release

(Date)

TIA aligns innovation support to advance South Africa's water and energy infrastructure reform

The Technology Innovation Agency (TIA), an entity of the Department of Science, Technology and Innovation (DSTI), notes President Cyril Ramaphosa's commitment in the 2026 State of the Nation Address that "by 2030, more than 40% of our energy supply will come from cheap, clean and renewable energy sources," alongside confirmation of regulatory reforms to unlock renewable investment and accelerate infrastructure reform.

The President further emphasised structural reform of network industries, including electricity and water systems. These sectors are interdependent and central to economic recovery, municipal stability and long-term competitiveness.

As a public entity mandated to fund and commercialise innovation, TIA confirms that its portfolio includes deployable technologies that directly support both energy transition and water security objectives.

Strengthening municipal water security and reducing non-revenue water

Non-revenue water (NRW) remains one of the most significant contributors to water losses across South Africa. TIA has supported technologies designed to improve municipal capability and infrastructure performance.

The Municipal Operations App digitises municipal fault logging, maintenance tracking and field operations. The platform improves response times, accountability and operational oversight, providing municipalities with scalable tools to improve service delivery.

Interventions such as this, address systemic inefficiencies and support infrastructure recovery at local government level.

Expanding access to safe and reliable water

The *VulAmanz Microfiltration System provides a decentralised purification solution suitable for communities, schools, clinics and other sites without reliable treated municipal supply. Beyond point-of-use installations, the system includes community-scale deployments capable of supplying safe drinking water to entire settlements.

The technology has been validated across multiple provinces and offers a cost-effective, scalable pathway to expanding access to clean water in underserved and water-scarce areas.

Addressing acid mine drainage and unlocking water reuse

On the environmental front, TIA has supported the Mintek-led Acid Mine Drainage (AMD) biological treatment technology. The cloSURE™ process treats mine-impacted water to compliant standards using biological sulphate reduction, enabling reuse for agricultural irrigation and industrial applications.

This intervention addresses one of South Africa's most persistent environmental challenges, reduces mining-related liabilities and strengthens water security in affected regions.

Supporting energy security and decarbonisation

TIA's energy portfolio aligns with the national renewable energy target and decarbonisation objectives.

The locally developed New-Generation Electrolyser enables on-site hydrogen production and provides a cost-effective alternative to imported systems, supporting decentralised energy generation and hydrogen economy development.

Solzen Energy's ultracapacitor technology offers an efficient and durable energy storage and power support solution that complements conventional battery systems, improving energy reliability and extending system lifespan.

TIA also supports a portfolio of hydrogen and e-mobility technologies, including hydrogen fuel systems, MISER technologies, fuel cell forklifts and the uYilo e-Mobility Programme. These initiatives contribute to the transition toward a low-carbon transport and industrial ecosystem.

Enabling integrated infrastructure reform

South Africa's 2030 renewable energy commitment, together with ongoing water reform, requires coordinated implementation across policy, infrastructure and innovation systems.

The technologies supported by TIA demonstrate alignment with national priorities relating to:

- Water security and reduction of non-revenue water
- Municipal infrastructure recovery
- Environmental sustainability and resource reuse
- Energy resilience and storage capability
- Industrial decarbonisation and green economy development

The regulatory reforms announced in SONA create an enabling environment for accelerated infrastructure investment. Innovation plays a critical role in ensuring that new investment translates into long-term resilience, efficiency and competitiveness.

TIA's role is to de-risk early-stage technologies, support commercialisation pathways and facilitate partnerships that enable scalable deployment within municipalities, industry and national infrastructure programmes.

South Africa's 2030 renewable energy commitment and broader water reform agenda require coordinated implementation across policy, infrastructure and technology systems. TIA remains committed to supporting innovations that strengthen energy security, improve water resilience and advance inclusive economic growth.

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