



Press release - FINAL

10 Ways SANEDI's work is making South Africa more sustainable and energy efficient

The South African National Energy Development Institute (SANEDI) is celebrating a decade of commitment to development, innovation, efficiency and sustainability in energy consumption. In light of this milestone, SANEDI has reflected on the ten unique ways that the organisation's work has excelled at its mandate through multiple groundbreaking initiatives. SANEDI was founded ten years ago on 19 July.

“SANEDI launched at a time when many of the proposed solutions and innovative ideas to enhance sustainable development, energy efficiency and reduce carbon emissions were in an infancy stage in emerging economies. Today we have made notable strides in planning and testing solutions to develop South Africa's future energy systems while transforming how we consume energy from household to industry level,” said interim CEO Lethabo Manamela.

- 1). The 12L tax incentive offers tax reductions for energy efficiency in a bid to transform the way South Africa consumes energy by incentivising the uptake of efficiency technologies across all industries. It is an opportunity for businesses to increase profits through reduced energy costs and encourage capital expenditure in energy efficiency. By doing this we can significantly reduce our carbon footprint and take demand off the national grid. SANEDI is implementing the incentive certification process which is boosting diverse human resource capacity in the energy efficiency assessment space.
- 2). It is common knowledge that South Africa has bountiful wind resource capacity. Through the Wind Atlas of South Africa programme we now have a quantitative assessment of the country's wind capability that will serve as a blueprint in the planning of large scale wind power. It includes dedicated wind resource assessment and siting tools for planning purposes that can be used for feasibility studies in support of projects; as well as a high resolution wind resource map launched in 2019. The atlas is freely available.
- 3). Over 420 solar thermal demonstration projects have been built and 3000+ persons have been trained through the SOLTRAIN collaborative project –saving 3000 megawatt hours of electricity and avoiding over 500 tons of CO₂ emissions since 2009.
- 4) SANEDI places exceptionally strong emphasis on gender equality in its corporate strategy. To this end women have benefitted from SANEDI's bursaries for human capacity building in the

energy sector. (2010 to 2020). We continue to support and partner with various empowerment initiatives across the sector.

5). In 2015, South Africa hosted the first ever International Renewable Energy Conference on the African continent with over 3,600 registered delegates from 82 countries. Under the theme “RE-Energising Africa”, discussions included the renewable energy value chain, the needed regulatory frameworks for a transition to renewables including how to improve energy access and more.

6). Our Cool Surfaces Projects started as a nearly unfunded experiment but has grown into an important contribution to the suite of South African energy efficiency solutions. In 2019 SANEDI became one of ten global teams awarded a portion of \$1-million in grant funding as part of the Cool Roofs Challenge to paint no less than 25 000 m² of roof area in collaboration with municipalities. Cool roofing is an excellent offset measure and cancels 500 medium- sized coal power plants’ worth of greenhouse gas emissions globally. SANEDI’s Cool Surfaces Project is a response to South Africa’s need for an energy passive, low cost, low maintenance cooling technology for buildings. Cool roofs allow less heat into the building, making un-air conditioned homes, warehouses and other buildings between 2°C and 4°C cooler.

7). Our Cleaner Mobility program contributed towards the development of the first Green Transport Strategy and Electric Vehicle (EV) technology standards for South Africa. To promote the use of EVs, a number of electrical vehicle charging stations have been installed in Gauteng and the Western Cape. The programme included a macro economic study for transitioning from fossil fuels to cleaner mobility and the mineral beneficiation study for local manufacturing of EV batteries in South Africa.

8). SANEDI has implemented 12,200 smart metres across 10 municipalities to enhance revenue, advance metering infrastructure and implement active network and asset management. In realising the 2017 vision document for the adoption of smart grids across the three spheres of the electricity supply industry, SANEDI established a smart grids laboratory, provided bursaries to 47 engineering students, developed 12 training curriculums for municipal officials, produced 21 technical publications and presented 12 conference papers.

9). SANEDI’s Geological CO₂ storage atlas was published to characterise and identify potential storage reservoirs, develop the necessary skills and technology base and to consult with the public. This Atlas is a key component of the programme that is intended to develop a full-scale Carbon Capture and Storage (CCS) deployment plan beyond 2025. The Atlas identifies approximately 150 Gt of potential storage in the three storage types (deep saline formations, unmineable coal seams and depleted oil and gas reservoirs) of which about 98% is offshore.

10). SANEDI has contributed to the development of standards and guidelines to ensure energy efficiency across industries including plumbing, manufacturing and buildings. We have developed guidelines to provide insight into government’s Energy Performance Certificate (EPC) regulations, standards and easy-to-implement processes so that accounting officers/building owners can obtain mandatory compliance. In the plumbing sector SANEDI’s

research shows South Africa's tap labelling programme can greatly improve water and energy efficiency use by harmonising product and installation standards.

Ends.

About SANEDI:

The South African National Energy Development Institute (SANEDI), established by the Government, directs, monitors, and conducts applied energy research to develop innovative, integrated solutions to catalyse growth and prosperity in the green economy. It drives scientific evidence-driven ventures that contribute to youth empowerment, gender equity, environmental sustainability, and the 4th Industrial Revolution, within the National Development Plan (NDP), through consultative, sustainable energy projects. For more information, go to www.sanedi.org.za.

Issued on behalf of SANEDI by One Union:

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