



Press Release

17 December 2020

Immediate Release

Improving the health and safety of mining communities through cool surfaces

This December has seen the government place a stronger emphasis on health and safety. While focus in 2020 has of course been on the mitigation of the Covid-19 pandemic, the Department of Mineral Resources and Energy (DMRE) is reminding the country of its efforts towards a Zero Harm minerals and energy sector, by partnering with the Mine Health and Safety Council (MHSC) for a month-long health and safety campaign. The campaign aims to create awareness, promote health and safety, and communicate safety tips. It has also created a platform for all stakeholders, government, business, labour and the public to engage on health and safety issues that will assist the minerals and energy sector to achieve the slogan of Zero Harm.

As an agency of the DMRE, the South African National Energy Development Institute (SANEDI) has taken this chance to explain how one of its initiatives works towards this Zero Harm goal. “In a country as warm as South Africa, heat is often a prominent safety threat. Add to that our emphasis on mining, where South Africa’s mining industry is the fifth largest globally in terms of GDP, and it can be said that we offer tough working conditions for many of our mining-based communities,” says Denise Lundall, Project Officer Energy Efficiency Cool at SANEDI.

Lundall explains that one way to improve the lives – and the safety – of these communities is through cool surfaces. “SANEDI has been actively rolling out cool surface ‘technology’ to help passively cool our communities. By painting a special substrate onto roofs and walls, the indoor temperature greatly decreases. This is especially helpful for those living in metal corrugated structures,” she says. While Lundall refers to this as ‘technology’, it is in fact the absence of electrical technology that makes this initiative so impactful. The substrate reflects heat and mitigates the need for fans or air-conditioners, making living conditions more comfortable while remaining energy-passive.

“Heat stroke and heat exhaustion are common in the peak of our summer months. When you consider that miners may also be working underground in extremely hot conditions, coming home to a significantly cooler home must be a massive relief. Additionally, heat can cause headaches, impair concentration and can be especially harmful to infants and the elderly. With a cool coating, all members of the household benefit.”

Another prominent threat in informal settlements is fire – a year-round problem as community members cook frequently on open flames. “As an added benefit, cool coatings have excellent fire retardation properties to prevent and mitigate the spread of fires,” says Lundall. In Makhado Local Municipality in Limpopo, an area dominated by the coal mining industry, SANEDI is rolling out 9500 m² of cool roofing. “We are glad to have gained momentum on our cool roofing roll outs this year, and look forward to continuing in 2021,” concludes Lundall.

Ends 471 words

Follow SANEDI on social media

Facebook: @senedi.gov

Twitter: @senedi.org

LinkedIn: @senedi.org

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.senedi.org.za.