



Press release - FINAL

Young Artisans Being Trained to Help Rate Energy Efficiency in Buildings

Government's programme to make thousands of buildings in South Africa more energy efficient and able to contribute multiple economic and environmental benefits to the country is being stepped up.

The South African National Energy Development Institute (SANEDI) is leading an initiative in which 50 qualified, and mostly unemployed, young electricians will be trained to enable them to obtain the energy usage data required to issue Energy Performance Certificates (EPCs) which give buildings a rating based on the amount of energy consumed per square metre.

SANEDI is undertaking what is known as the EPC Practitioner Skills Programme in partnership with the Institute of Energy Professionals Africa (IEPA). The programme is supported by the Department of Minerals Resources and Energy (DMRE), the Energy Water Sector Education and Training Authority (EWSETA), GIZ Skills Development for a Green Economy programme, a German Technical Cooperation Programme implemented on behalf of the German Federal Ministry for Economic Cooperation and Development and the South African Department of Higher Education and Training (DHET).

Owners of buildings, in four categories, are required in terms of government regulations published in December 2020 to obtain and prominently display an EPC by 7 December this year. The regulations make provision for a fine of R5 million- or five-years imprisonment or both for failure to comply.

With buildings estimated to be responsible for between 30% and 40% of carbon emissions worldwide, the South African government has introduced the regulations primarily to encourage building owners to work towards making their buildings as energy efficient as possible. However, as SANEDI manager for renewable energy Dr Karen SurrIDGE explains, the regulations would deliver multiple benefits if correctly implemented.

The buildings covered by these regulations are office buildings, buildings accommodating entertainment facilities, educational institution buildings, and places of public assembly such as sporting facilities and community centres. An accurate figure of the number of buildings covered by the regulations is not available but SANEDI says estimates vary between 150,000 and

250,000. Public buildings with a net floor area of 1000m² or more and privately owned buildings of 2000m² or more of the above listed areas are expected to comply with this government regulation.

An EPC rates a building on a scale of A to G in a similar way to how appliances are rated for their energy efficiency. An A-rated building is the most energy efficient and typically will consume up to 115 kilowatt hours per sq. metre per annum. A D-rating is the benchmark rating which is in line with national building regulations. An EPC must be prominently displayed in the foyer of a building.

EPCs are issued by companies accredited by the South African National Accreditation System (SANAS) but many more energy companies employing many thousands of people with EPC skills will be required to obtain energy usage data on the tens of thousands of buildings covered by these regulations.

The 50 young, qualified electricians who will soon start the three-month EPC Practitioner Skills Programme are the first of what will hopefully become a growing cohort of artisans with special skills in energy efficiency. They will be trained to assemble all the critical energy usage data required by the SANAS accredited companies to rate buildings. The course combines theoretical and practical training in which mentors play a prominent role. Each trainee will receive a R15,000-00 stipend payment for the 3-month programme.

“The EPC Practitioner Skills Programme has the potential to create many thousands of jobs,” says SurrIDGE. A group for whom the programme is particularly welcome consists of qualified young electricians who are currently unable to find work. Accurate statistics on the number of unemployed are not available, but many young electricians and other artisans with qualifications in the energy sector are quick to provide anecdotal evidence.

Doctor Senamela, a highly qualified mechanical engineering technician who has also completed an energy management skills programme, says most of the people with whom he studied are unable to find work. “I lost my job last year when my employer decided not to renew my contract,” he says. “You then find yourself sending out applications for jobs and you seldom get a reply. You just end up sitting at home. It’s really tough.” Having completed an EPC practitioner course, he has been fortunate to find work with a company accredited to issue EPCs.

Lerato Sathekga says that she has never been able to find work since qualifying as an electrician in 2016. She is now working as an administrator for the EPC Practitioner Skills Programme.

Qualified electrician Naomi Shai recalls that of the 30 people with whom she did an Energy Auditing Skills Programme a few years ago, only about six have found work.

In addition to creating jobs in the new EPC sector, the experience gained by qualified EPC Practitioners will open opportunities for them to become involved in other aspects of energy efficiency of buildings, such as the planning and installation of energy efficient products, equipment and devices.

Electrical contracting and energy services companies that want to add to their range of services by undertaking EPC work could also open work opportunities for EPC Practitioners.

Two TVET (technical and vocational education and training) colleges, Ekurhuleni East TVET College and College of Cape Town will be able to offer the course after the EPC Practitioner Skills Programme has been completed. Other TVET colleges that join the programme will have the opportunity to have their lecturers trained to offer the EPC for Buildings short course and will receive marketing materials to advertise the availability of the short course at their institution.

Owners of buildings will also benefit by making their buildings more energy efficient, says SurrIDGE. “We have done a lot of energy usage assessments and have always been struck by how many building owners or operators there are who have very little idea of how much energy they use,” she explains. “The EPC process will help them to understand what they consume and will draw their attention to areas in which they could make improvements. By being more energy efficient, they will save money on electricity. Improving energy efficiency will also boost the value of a building.”

In addition to reducing carbon emissions and helping South Africa to meet its international commitments to combat climate change, energy efficiency will also reduce electricity demand on the national grid and possibly help towards reducing loadshedding.

For more information on the EPC Practitioner Skills Programme, contact the Institute for Energy Professionals Africa at <https://iepa.org.za/>

For more information on EPC regulations, go to https://www.sanedi.org.za/Energy_Performance_Certificates.html and Notice 700 of Gov Gazette 43972 of 8 December 2020 (1).pdf

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.

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