

# MEPS: the opportunity and impact

A media roundtable event held at WEG Africa earlier this year brought together energy efficiency specialists to highlight the impact and opportunities associated with South Africa's Minimum Energy Performance Standards (MEPS) for electric motors, which took effect on June 4, 2025.

Following international trends, IE3 premium efficiency motors are now the minimum allowable import standard for three-phase, low-voltage electric motors with rated power outputs ranging from 0.75 kW to 375 kW. The new South African regulation, the Minimum Energy Performance Standards (MEPS), now prevents South African suppliers from importing lower-efficiency IE1 and IE2 motors. This switch brings efficiency and cost benefits to businesses, suppliers and original equipment manufacturers (OEMs).

Leading industrial and energy component manufacturer WEG Africa hosted a media briefing on June 5, 2025, at its training centre in Longlake, Johannesburg, to discuss the motivations, benefits, and requirements for MEPS.

WEG Africa invited three speakers to address the media at the roundtable event: Harvest-Time Obadire, the Power and Energy Transition analyst for Fitch Solutions Company, BMI; Zadok Olinga, an energy measurement and verification consultant focused on energy-related tax incentives and grants; and Fanie Steyn, LV and HV Executive for the Electric Motor division at WEG Africa.

## Meeting the demand deficit: Harvest-Time Obadire

Obadire opened with a chart showing expectations for global growth in energy consumption, which BMI predicts will continue to increase over the next decade. Markets are targeting a net-zero energy transition, and the IEA's net-zero-based emissions forecast expects an 8% decline in energy use by 2050. "But we are expecting energy consumption to increase by over 10% by 2030, which means that the energy consumption in the near term will still be significantly more than what is needed to meet net zero targets by 2050," he says.

Obadire points out that, while Africa consumes only 2% of global energy, South Africa accounts for over 60% of that consumption. "In South Africa, we play a significant role in terms of energy consumption, compared to both Africa and globally," he says.

In the past and to date, he says, South Africa has been a net energy producer, but by the end of the decade, BMI expects our energy market to enter a deficit. "Production of energy is not going to be able to meet the



For IE3 motors, WEG Africa has opened a local assembly facility.

demand we expect, and this is where improved electrification and energy efficiency are recommended," he predicts.

In the industrial sector, particularly in manufacturing, a significant portion of South Africa's energy is consumed by electric motors, so the efficiency of these motors plays a crucial role in helping to reduce the country's energy deficit. Across the board, he says energy prices are increasing at rates above inflation, placing significant pressure on consumers and industries. Energy-efficient measures will therefore become increasingly important.

## Energy-efficiency incentives: Zadok Olinga

Opening his presentation, Zadok Olinga of the energy-efficiency consultancy Ölinga, says that energy efficiency is seen by the International Energy Agency (IEA) as the 'first fuel of the energy transition'.

In South Africa, he says, we have established a culture of energy efficiency through various policies such as Eskom's Demand Side Management (DSM) programme, where the government subsidised companies to implement measures to lower their demand and improve their energy efficiency. "This is a positive story for South Africa, and from this, other programmes have been established.

Most companies implement energy efficiency to improve their productivity, lower their energy costs, and reduce their carbon emissions, he says. Because of the environmental crisis, South Africa has now implemented the 12L tax incentive for industrial consumers. This tax incentive offers energy

users direct rewards of 95 cents per kWh of energy saved across all types of energy used within a company, including electricity, coal, heavy fuel oil, and others, Olinga advises.

The incentive applies to all energy-equivalent savings, "so if you implement process improvements, and those process improvements lead to a reduction in compressed-air usage, for example, that qualifies," he advises.

Administered through SANEDI, the South African National Energy Development Institute, and paid out from the National Treasury based on the company's SARS tax return, the incentive is available for any technological changes, upgrades to processes and existing equipment, retrofits, Greenfield projects, and energy recovery initiatives such as waste heat recycling.

"It is the only tax incentive that is retrospectively payable, going back to 2013," he says, adding that claimants must be willing to open up their tax returns and go through a measurement and verification process to quantify savings and validate each claim.

In addition, Eskom is offering an energy rebate programme that can be worth more than the R12 000 tax incentive. This rebate is 41 cents per kWh of electricity saved between 6:00 am and 8:00 pm. Investment in upgrading the efficiency of electric motors, by replacing IE1 and IE2 motors with IE3 or IE4 motors, can therefore be further subsidised using these two government-backed initiatives.

## ESG, jobs and local content: Fanie Steyn

MEPS, begins Steyn, is a massive milestone for our country. "In terms of the energy efficiency

level of electric motors, MEPS will dictate the type of motor that we can bring into our country or sell into our industries," he says.

During Eskom's DSM programme, IE2 high-efficiency motors were on everyone's lips as a replacement for IE1 standard efficiency motors. Nowadays, we have premium-efficiency IE3 motors, and super-premium efficiency IE4 motors, which offer even higher levels of energy efficiency.

Motors, he says, use a high percentage of the energy consumed by industry in our energy-hungry country. "We continue to experience an energy crisis and energy poverty. So we must either build more power stations or buy more power from elsewhere. Solar or wind farms are an option, but these projects involve a significant capital outlay, and it takes a long time to secure the investment and complete the installations before they can contribute.

"The quickest and easiest way to alleviate power shortages is to increase the efficiency of the industrial processes and equipment that consume the energy," he notes.

"South Africa has done a phenomenal job over the years, with energy-efficient TVs and washing machines, and compact fluorescent and LED lighting, for example, but now we are including the big energy users, the electric motors. Just by increasing the efficiency from IE1 level to IE3, typical savings of between 4% and 10% can be achieved, depending on the motor size. Since electric motors consume approximately 60% of the electricity in industry, imagine if all the motors we use were replaced with IE3 motors, we would be using between 2.4% and 6.0% less energy.

"That would make our net-zero curve look much better over the next few years," Steyn suggests.

The new IE3 efficiency standard, officially

known as the Compulsory Specification VC 9113, became mandatory on June 4, 2025. The specification applies to a broad range of three-phase, low-voltage electric motors, specifically those with two, four, six, or eight poles, and a rated power output ranging from 0.75 kW to 375 kW.

This includes motors with non-standard mechanical dimensions and geared motors. Excluded are specific special categories, such as single-speed motors with ten or more poles, multi-speed motors, motors that use mechanical commutators, and submersible motors designed to operate entirely while immersed in a liquid. Businesses are permitted to continue operating IE1 and IE2 motors, replacing them upon failure with IE3 equivalents.

In most cases, OEMs and equipment suppliers must obtain approval to supply their motors. End-user businesses should request to see a supplier's Letter of Authority for the motors, issued by the National Regulator for Compulsory Specifications (NRCS).

## Investment returns

Some electric motors can consume the energy equivalent of their acquisition costs in the first few weeks of operation, making switching a quick-win decision. When comparing cumulative running costs, IE3 savings typically return investments within one to five years, and well-chosen premium IE3 motors that run continuously can recoup their costs from energy savings within months.

The use of IE3 motors also radically improves a company's environmental impact and market competitiveness, as well as offsetting rising energy costs.

In maximising the benefits, Steyn suggests systematic preparation:

- Conduct a thorough electric motor inventory audit to accurately identify all

motors that fall within the scope of the MEPS regulations.

- Talk to equipment suppliers to understand the impact on equipment used in operations and how the supplier will address MEPS requirements.
- Develop a comprehensive, long-term strategy for replacing older motors, prioritising those that operate for extended periods to maximise potential energy savings.
- Update procurement policies and technical specifications to explicitly mandate that all applicable new electric motor purchases must meet the IE3 efficiency standard.
- Train relevant staff members – including procurement, maintenance, and operations teams – on the new MEPS regulations and compliance.
- Undertake a cost-benefit analysis for replacing older, less efficient motors even before they fail, taking into account the potential for significant energy savings and the projected increases in the cost of electricity.

Equipment suppliers and end-user businesses can also engage with WEG Africa to learn more about the new regulation.

"The new MEPS standard will bring considerable savings to customers and relief for the national grid, and we at WEG Africa are fully behind the government with this initiative. We already bring IE4 motors into South Africa, and for IE3 motors, we have opened a local assembly facility.

"For us, motor efficiency is not just part of our ESG initiative; it also creates jobs and increases local content, empowering our country to move forward in several positive ways," concludes Fanie Steyn.

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