

NEW CHAPTER FOR CRABTREE SOUTH AFRICA

By Ilana Koegelenberg

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Representatives from Crabtree, Lesotho National Development Corporation, KDI Holdings, Dimako Holdings, and Siemens at the launch event in Lesotho.

South African electrical accessories manufacturer Crabtree has successfully transitioned to new ownership under Dimako Holdings, marking a significant milestone in the company's long-standing presence in the Southern African market.

On 1st April 2025, Siemens South Africa concluded the sale of Crabtree South Africa (PTY) Ltd and its subsidiary Crabtree (PTY) Ltd (Lesotho) to Dimako Holdings (PTY) Ltd, which operates under the KDI Holdings umbrella. KDI Holdings, led by the well-regarded Dlamini family, is a well-known South African-based industrial investor dedicated to fostering local economic development.

The acquisition brings Crabtree under the same ownership as Dimako Transformers, a Johannesburg-based manufacturing company, creating potential synergies between the sister companies. The regulatory approvals for the sale were satisfactorily concluded for all parties, ensuring a smooth transition process.

The transition was formally celebrated on 28 August with a high-profile event in Maseru, Lesotho, attended by senior government officials and key stakeholders. The ceremonial gathering underscored the significance of the ownership change for both the South African and Lesotho markets.

Positioned for future growth

According to Steve Richardson, Crabtree's CEO, the acquisition positions the company for substantial expansion. "The strong financial situation puts Crabtree in a good position to expand into new geographies and new product ranges," Richardson said.

The sale has left Crabtree in a robust financial position, more than capable of meeting its ongoing obligations whilst opening new avenues for growth. Richardson emphasised the company's commitment to continue supporting South African electrical

construction markets whilst opening up new geographies.

A key element of the transition strategy involves local manufacturing expansion. "New products will be locally manufactured," Richardson confirmed, highlighting the company's commitment to Southern African production capabilities.

CONTINUED ON PAGE 3

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No one left behind



When times are tough, we tend to focus inward, on ourselves. What do we need to survive? How is the news affecting our business? But humans have always existed as part of communities. That is one of my favourite things about South Africa – that sense of community. Ubuntu. I've lived in Europe; I've lived in South America. But you'll struggle to find a nation more welcoming and friendly than South Africans. That sense of community we have is hard to match. It's the thing I will always come home for.

It's something I'm scared we are losing though, as the economy struggles and the news cycle gets more depressing by the day. People are working longer hours for lesser rewards, and prices seem to only

ever go up. Who can blame you for not having the capacity to look beyond your circle to help others too?

Yet small actions make a difference. Even helping one person could make a massive difference in their life; you never know. And when companies get involved, the impact starts adding up. That's why it's encouraging to see businesses in our industry actively working to uplift communities and create opportunities for those who need them most.

Take RS Group, for instance. It has announced a new three-year partnership with international development charity SolarAid. Together, they aim to raise £1 million to deliver clean, safe solar lights to 150,000 people living in rural communities across Africa without access to electricity. It's a powerful reminder that our industry's core business can directly improve lives. (Turn to page 11 for the full story.)

Beyond access to basic services, there's also the question of who gets a seat at the table in our sector. The Southern African Solar Thermal Training and Demonstration Initiative Plus (SOLTRAIN+) is addressing gender imbalance in the region's renewable heating and cooling sector across five countries, including South Africa. The project focuses on empowering women in traditionally male-dominated technical roles (page 10.)

Creating pathways into the industry isn't only about formal training programmes. Sometimes it's about making technical knowledge more accessible. Through

its newly launched KwikTok digital series, Kwikot is blending entertainment and practical know-how to reach both consumers and the trade (page 4.)

These stories remind us that even when times are hard, we don't have to choose between business success and community uplift. In fact, the most sustainable businesses are often those that recognise their role in strengthening the communities around them. That's the Ubuntu spirit at work. And it's that spirit that makes me optimistic about our industry's future, even in challenging times.

This month's edition also explores Energy Efficiency, Standby & Emergency Power, and Lighting-themed stories. Our cover story focuses on Crabtree and delves deeper into its recent ownership transition, now under Dimako Holdings.

On page 7, CBI-electric: low voltage investigates the local compliance crisis, assessing the risk of the uncertified imports undermining the local electrical sector. We also spotlight the four new products Signify has introduced into the local market, highlighting the company's advances in solar and modular streetlighting as well as performance lighting for stadiums (page 15).

Also in the Lighting section, we look at BEKA Schröder's

smart LED floodlighting solution for the Outeniqua Park Rugby Stadium in George (page 13), the all-in-one advantage of Eurolux 3CCT fittings (page 14), and Aurora Lighting Africa solutions for lighting the future of local supermarkets (page 16).

So, whether you're looking for inspiration on community uplift or the latest product innovations, this issue has something for everyone. Happy reading!

For now, happy reading!

Ilana Koegelenberg

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CONTINUED FROM PAGE 1

NEW CHAPTER FOR CRABTREE SOUTH AFRICA

Continuity and stability

The acquisition has been structured to ensure business continuity, with the same management team and customer-facing personnel remaining in place. All employees associated with the South African wiring accessories business have remained with the company as part of the transaction, ensuring continuity in relationships and operational quality. The market response has been overwhelmingly positive, according to Richardson, with stakeholders expressing enthusiasm for the company's future prospects under its new ownership structure.

High-level support

The significance of the acquisition was highlighted by the calibre of attendees at the Maseru event. The Rt Hon. Samuel Ntsokoane Matekane, prime minister of Lesotho, attended alongside the Advocate Molise Ramaili, interim CEO of the Lesotho National Development Corporation (LNDC), Kuseni Dlamini, chairman of KDI Holdings and Sabine Dall'Omo, CEO for Sub-Saharan Africa (Siemens).

Other notable attendees included Hon. Mokhethi Shelile, Minister of Trade, Industry and Small Business; Constance Seoposengwe, High Commissioner of South Africa to Lesotho; Mamohale Matsoso, Labour Commissioner; and members of the Dimako Group, including Tony Sidnell, group managing director;



From left: Kuseni Dlamini (chairman, KDI Holdings), Samuel Ntsokoane Matekane (prime minister of Lesotho), and Sabine Dall'Omo (Siemens CEO for sub-Saharan Africa).

Riaan Venter, financial director; and Heinrich Jordt, Dimako Transformers CEO.

Company evolution

Crabtree's business concept centres on developing and supplying innovative branded products to installers and users of low-voltage electrical infrastructure in Southern Africa, creating convenient, reliable, and safe electrical environments inside living spaces.

The company's ownership journey reflects the evolution of South Africa's industrial landscape. The company has built a substantial presence in the Southern African electrical construction market, known for its quality and locally manufactured products. Crabtree began operations in South Africa in 1947 and has

operated in Lesotho since 2007.

Looking forward

Under its new ownership, Crabtree continues to operate as before and will maintain its active role in the South African wiring accessory sector. The acquisition is being positioned as the beginning of a bright new future, forming a new chapter in Crabtree's long-standing history within South Africa and Lesotho.

The combination of financial stability, continuity in operations, and the backing of a committed industrial investor suggests that Crabtree is well-positioned to capitalise on growth opportunities in both existing and new markets.

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Kwikot reframes trade education

For more than a century, Kwikot has been synonymous with reliability in water heating. Now, the brand is reframing how technical product education is delivered, taking what was once confined to brochures, spec sheets and trade counters and turning it into a shareable, digital-first content ecosystem.

Through its newly launched KwikTok series, Kwikot is blending entertainment, everyday relatability and detailed product knowledge to reach both consumers and the trade. Hosted by fictional duo KK, a licensed plumber and electrician, and Chantelle, a witty consumer champion, the nine-part digital series delivers practical know-how while putting Kwikot's product ecosystem firmly in the spotlight.

Making technical know-how accessible

For plumbers, retailers and insurers, water heating is a highly technical category, bound by compliance and installation standards. Yet for homeowners, it's often confusing and intimidating. KwikTok bridges that gap, translating geyser specifications, maintenance tips and energy-saving insights into content that is entertaining

enough to watch and memorable enough to act on.

By weaving buyer's guides, compliance reminders and product demonstrations into storytelling, the series doubles as education for consumers and a reinforcement tool for trade audiences.

Product range in the spotlight

Kwikot Superline electric geysers: South Africa's most trusted geyser, designed for durability and efficiency, available in 50 L to 250 L models with 400 and 600 kPa pressure options, and fully SANS compliant.

Prisma Point of Use (POU) water heaters: Compact under- or over-counter units that eliminate cold water wastage at sinks, perfect for homes, offices and commercial spaces.

Kwikpump heat pumps: Cut water heating costs by up to 67%, with inland and coastal models designed for South Africa's climates, and seamless integration with Superline geysers.

Kwiksol solar geysers: Harnessing over 2,500 hours of sunshine annually, Kwiksol systems are available in direct and indirect models, offering households reliable and sustainable hot water.

Why this matters for the trade

Education at scale: The series explains maintenance cycles, pressure valve testing, and SANS compliance in consumer-friendly language.

Pull-through demand: By clarifying product categories, Kwikot empowers consumers to request the right solutions – driving sales for plumbers and retailers.

Trust reinforcement: Every episode underlines why SANS-approved and South African-built geysers are critical in an industry challenged by cheap imports and non-compliant installs.

Turning everyday reliability into entertainment

"Reliability has always been at the heart of our brand," says Murray Crow, managing director, Kwikot Powered by Haier.

"With KwikTok, we're reframing product education for a new era. It's a consumer engagement tool, but it's also a trade resource that helps plumbers and retailers build confidence with their customers."

Watch the series

The KwikTok series is live now on YouTube and supported by blogs, product guides and practical resources on Kwikot's website.



Enquiries: www.youtube.com/@Kwikot_SA



Data centres face a cooling crisis as AI demand surges

By: Dean Wolson, general manager, Africa, at Lenovo Infrastructure

Artificial intelligence (AI) is advancing not only industries but also the physical infrastructure that powers the digital economy. According to the International Energy Agency (IEA), inside a modern data centre, electricity is consumed across four main areas: storage systems (5%), networking equipment (5%), uninterruptible power supplies and backup generation (minimal, but critical for reliability), and cooling systems. It's that last category that stands out. Depending on efficiency, cooling alone can consume anywhere from 7% in advanced hyperscale sites to over 30% in smaller or less-optimised enterprise facilities.

As AI workloads drive unprecedented power densities, with racks drawing 20–100 kW or more, cooling shifts from a supporting role to a frontline constraint. For South Africa and much of Africa, this is magnified by high ambient temperatures, a historically unstable grid, and rapid growth in cloud and AI infrastructure. While the continent's per-capita data centre electricity use remains below 1 kWh per person today, it is projected to double by the end of the decade, with South Africa leading the surge in demand as the hub for hyperscalers and sovereign AI projects.

This is the thermal tipping point: air cooling, once good enough, can no longer scale to handle the energy intensity of AI's future, particularly in Africa's climate and grid context.

Air cooling has reached its limit

Air cooling has been the industry default for decades because it's simple and cheap at low power densities. But when rack power draw jumps into the tens or hundreds of kilowatts, as AI-optimised racks do, air becomes inefficient: the temperature delta required gets larger, fans and Computer Room Air Conditioning (CRAC) units consume more power, and thermal

throttling risks increase. Research and market analysis across 2023–2025 show an industry pivot toward liquid cooling, direct-to-chip or immersion, because liquid moves heat far more efficiently than air and reduces total facility power usage effectiveness (PUE).

Air-cooled systems can support up to approximately 70 kW per rack in the data centre, but hit a physical limit when it comes to removing heat, known as 'specific heat capacity'. Beyond this, operators need to look at alternative cooling methods. Adding to the complexity is the rise in demand for AI workloads across every industry, requiring five times the amount of power. The industry is now seeing a shift from chips operating at 120 W to 600 W or more.

Africa and South Africa: A smaller footprint today, but fast growth ahead. Per-capita data centre electricity consumption in Africa remains low today, the IEA notes. Africa had less than 1 kWh per person of data centre electricity consumption in 2024, but is expected to roughly double toward the end of the decade as cloud adoption, hyperscaler investments, and sovereign AI projects scale up. Market research firms place Africa data centre power and cooling markets as high-growth segments in 2024–2025, signalling rapid investment but also rising on-site power demand.

South Africa is the regional leader in capacity and the obvious hub for hyperscaler and local large-scale deployments. Yet its grid has long operational constraints: coal still supplies the majority of electricity, and historically unstable supply (loadshedding) and rising peak demand have been persistent issues, though there were signals of improvement in 2024–2025; the structural challenges remain. This combination of rising local demand from data centres, heat-intensified cooling loads, and a constrained, carbon-intensive grid is why the cooling question is particularly acute in South Africa.

Hotter ambient temperatures reduce air cooling effectiveness

Higher ambient temperatures mean air cooling must work harder. In warm climates common across much of sub-Saharan Africa, the capacity margin available to dissipate high-density AI heat loads using air is much smaller than in temperate zones. That raises two problems. Higher operational costs mean more fan and compressor energy, increasing the probability of hitting physical thermal limits that force performance throttling or prevent deployments altogether. Ember's 2024–2025 electricity reviews show heatwaves already boosting residential air-conditioning demand, meaning data centre cooling will compete more directly with other priority electricity uses.

What scalable alternatives and mitigations look like

To avoid hitting the thermal tipping point, Africa's data centre industry will need a mix of innovations and policy support. The first is liquid cooling adoption, whether direct-to-chip or immersion, which has been proven to reduce cooling energy and enable far higher rack densities, essential for AI-heavy facilities. Second, operators must embrace on-site generation and co-located renewables, especially solar plus battery systems, which can ease peak grid loads and provide resilience against outages, a strategy that aligns with Africa's accelerating solar boom.

A third opportunity is waste-heat reuse and district heating, which captures and exports server heat to improve overall efficiency, though practical deployment depends on local infrastructure. Fourth, governments should prioritise regulatory and power-market reforms: predictable tariffs, streamlined permits for on-site generation, and demand-response mechanisms can lower risk and unlock investment, as highlighted in OECD policy reviews.

Finally, Africa may need a hybrid edge

vs. centralised model, distributing smaller edge sites for latency-sensitive services while building a few high-capacity, liquid-cooled hubs in locations with abundant low-carbon power, stronger grid capacity, or naturally cooler climates.

Risks if nothing changes

If the industry continues to rely on air cooling while AI workloads densify, three outcomes are likely to occur. Data centre PUEs will rise sharply in hot regions, making Africa a higher-cost location; projects may face repeated curtailments or throttling during heatwaves and peak grid stress; and lastly, the continent may miss economic opportunities tied to AI infrastructure. Think cloud revenue, developer ecosystems, and skills development. Research warns that while Africa's absolute consumption is small today, its growth rate is what will stress local systems over the next three to seven years.

Practical next steps for South Africa and African stakeholders

For South Africa and the wider continent, the practical next steps are clear. Policymakers and industry should incentivise pilot liquid-cooled AI hubs through grants or targeted tax measures to de-risk early adopters, while also accelerating approvals for hybrid power-plus-storage systems so data centres can integrate dedicated solar and battery solutions. Building partnerships between data centres and utilities will be key to securing firm capacity agreements and co-investing in grid reinforcement around strategic hubs.

At the same time, regulators should publish transparent energy and water benchmarks for data centre projects, enabling evidence-based planning and accountability. Taken together, these actions will help ensure that the "thermal tipping point" does not become a ceiling on Africa's digital ambitions.

Enquiries: <https://www.lenovo.com/za/en>



Avoiding costly EC&I construction delays



Anton Beyl, sales manager of WEG EC&I Construction.

equipment and wiring. Limited experience can cause damage to installed equipment. Lacking appreciation for specific client requirements can instigate unnecessary costs and delays.

"EC&I construction covers everything from the overhead lines to the plug where you insert your phone charger. We're responsible for electricity reaching where it's needed, and because we handle the last mile, it's really important we provide reliable service based on experience. An EC&I company that can't deliver sufficiently will cause delays quite late into a project, when there is much less space and time to make adjustments," says Anton Beyl, sales manager of WEG EC&I Construction.

When EC&I construction can go wrong

Construction sites require a delicate balance between affordable costs and professional delivery. While it's prudent to select affordable EC&I construction services, the lowest price mustn't be the only criterion. There is too much at stake.

Selecting the wrong EC&I contractor can negatively impact construction in several ways. These include misunderstanding material and technical requirements specific to the site's purpose and budget, neglecting quality management, or failing to coordinate with different construction managers and team leaders.

One example is an inability to work with products sourced from multiple vendors. Another is site crews lacking appropriate technical qualifications or sufficient site safety training. Among the most crucial is to align with the project's objectives and timelines – EC&I contractors often can't get site access until other contractors have reached their goals. Yet, they shouldn't just wait until they are summoned, says Beyl.

"If we waited for the site to call us before we started procuring materials and readying our teams, it would lead to big delays. The EC&I project managers must be present and involved from early on and communicate with other contractors and stakeholders to look for the EC&I windows."

However, he warns not to bring the entire EC&I team in too soon: "Never bring the EC&I contractor on site too early, only when there's sufficient access for them to start work. It varies from project to project, and a competent EC&I team can work amongst the civil and mechanical contractors. But if you start slow, it's very hard to pick up the pace. Effective EC&I construction is about timing and collaboration."

Criteria to select EC&I contractors

Judge an EC&I contractor by their reputation. An established and widely regarded EC&I company will meet the following criteria:

- Look for a proven track record with similar projects and industries, including

strong client testimonials and repeat business.

- Require certifications, as well as industry-specific accreditations, not to mention skilled, qualified, and responsible technical staff.
- Pay attention to the EC&I construction contractor who asks questions to grasp any specific project and site requirements, such as appropriate materials and different vendor components.
- Ensure they demonstrate commitment to safety and compliance, as well as their experience with those requirements.
- Expect transparency, reliable communication, and excellent project management, including early involvement from key managers to understand timelines and choreograph the timely deployments of their teams.

Yet, no matter how experienced they are, the best EC&I construction company always has one important characteristic, says Beyl. "They must treat every job like it's their first and last. You want to see a startup attitude that shows that they are only as good as their last job. No matter how big and experienced they are, the best EC&I teams treat their current project like their most important, and they pay attention to keep things moving and close that last mile of the construction project."

Enquiries: www.weg.net

Construction is time-sensitive and tightly managed. No project is perfect. Delays or other problems are inevitable, so construction managers and their teams must be flexible and inventive. They cannot afford serious mistakes because of their inexperience and failure to keep pace with their timelines.

This caution applies to Electrical, Control & Instrumentation (EC&I) construction teams that handle the final stages, including designing, installing, and testing the electrical systems that provide power across the site. A lack of diligence can create life-threatening hazards such as faulty electrical

Growatt crowned top PV brand for eighth consecutive year

Growatt has been awarded the prestigious EUPD Research Top Brand PV Award 2025, marking eight consecutive years of recognition. In 2025, it received accolades for its inverter brand strength, while also earning recognition for its energy storage solutions.

This consistent achievement reinforces Growatt's position as one of the most trusted solar inverter and battery storage providers worldwide, a brand that millions of households and businesses rely on for their clean energy needs.

A global clean energy partner

With installations in over 180 countries, Growatt has built a reputation as a trusted energy partner delivering advanced residential solar inverters, commercial and industrial PV solutions, hybrid inverters, battery energy storage systems, EV chargers, and smart energy management platforms. From residential rooftop solar systems to large-scale

industrial solar power plants, Growatt empowers users to generate, store, and optimise renewable energy while lowering energy costs and increasing energy independence.

"Our long-standing recognition by EUPD Research across multiple continents is a testament to our unwavering commitment to innovation, reliability, and customer-centric solar energy solutions," said Lisa Zhang, vice president of Growatt. "We are honoured to be trusted by millions of customers and industry professionals worldwide, and we remain dedicated to driving the transition toward a cleaner, smarter, and more sustainable future."

Achieving top honours

The EUPD Top Brand PV Award is based on extensive surveys conducted with installers and distributors worldwide, evaluating brand awareness, satisfaction, customer preference, and market recommendation levels.

These awards highlight Growatt's ability to deliver localised solar and storage solutions that meet the unique needs of diverse regions, from sun-rich residential solar rooftops in Latin America to advanced distributed energy storage solutions in Australia and Europe.

Beyond regional awards, Growatt also achieved top positions in the 2024 global PV inverter rankings by S&P Global Commodity Insights, ranked as the No. 1 Residential PV Inverter Supplier, Top 3 Hybrid Inverter Supplier, and Top 5 Commercial PV Inverter Supplier worldwide.

Leading innovation in solar inverters and energy storage

Growatt's award-winning portfolio includes a wide range of grid-tied solar inverters, hybrid inverters for PV, and energy storage solutions designed to maximise solar power utilisation. The company also offers smart energy monitoring/management platforms that enable homeowners and businesses to monitor, control, and optimise their energy usage in real-time.

By combining solar PV inverters, battery



storage systems, and EV charging solutions, Growatt is shaping the future of distributed energy ecosystems and supporting the rapid adoption of decentralised renewable energy systems. These technologies enable users to reduce reliance on fossil fuels, cut electricity costs, and ensure backup power supply during outages, addressing some of the most pressing challenges of today's energy landscape.

Enquiries: <https://en.growatt.com/>

SafeQuip issues certification update notice

SafeQuip proudly confirms that the Lith-Ex range of fire extinguishers is the only certified lithium-ion battery fire extinguisher range in South Africa. With the widespread use of lithium-ion batteries in domestic, commercial and industrial settings, the presence of a fully certified extinguisher is critical.

The Lith-Ex range holds full SANS 1910-2022 approval, together with NTA 8133:2021 (KIWA/P00055865) certification. In addition, the 9 L, 6 L, 2 L and 1 L models are Kitemark approved, ensuring compliance

with rigorous international standards for performance and safety.

SafeQuip's Lith-Ex range now stands alone in the South African market, offering assurance that it meets the highest levels of independent verification required to address the unique risks of lithium-ion battery fires. SafeQuip is committed to providing and maintaining long-term fire safety solutions that meet all regulations.

Enquiries: www.safequip.co.za



Powering South Africa's future with standby solutions and energy-smart thinking

In a country where power instability is an everyday concern, the demand for reliable standby and emergency power has become non-negotiable. Yet at the same time, soaring energy costs and environmental concerns are pushing businesses and households alike to rethink how they consume electricity. The good news? These two priorities, energy resilience and energy efficiency, can work hand in hand.

The role of standby and emergency power

Power outages can strike without warning, halting operations, damaging sensitive equipment, and disrupting daily life. For businesses, even a few minutes of downtime can mean lost revenue and reputational damage. That's why having a standby or emergency power solution is no longer just a backup plan; it's a business-critical decision.

Voltex offers a range of standby

solutions, including inverter systems, uninterruptible power supplies (UPS), tailored for both commercial and residential needs. These systems kick in instantly when the grid fails, providing seamless, uninterrupted power to critical systems – from servers and security systems to refrigeration and power conversion systems (PCS).

Energy efficiency: the long game

While having backup power is vital, using energy more efficiently reduces reliance on backup systems and cuts overall costs. It also aligns with global sustainability goals, a growing concern for many businesses and eco-conscious consumers.

Voltex supports this shift through a comprehensive portfolio of energy-efficient technologies, from LED lighting and motion sensors to smart metering and power factor correction systems. These tools not only lower electricity consumption but also extend equipment life and reduce

maintenance costs.

Combining efficiency upgrades with standby systems creates a robust power strategy: one that prepares you for disruptions while keeping day-to-day consumption in check.

A smart investment for a smarter future

"Whether you're preparing for the next power outage, reduction or planning long-term sustainability goals, Voltex is here to support your energy journey," said a company spokesperson. "Our experts can help you assess your current setup, recommend energy-saving upgrades, and design a tailored standby power solution to match your needs."

"At Voltex, we believe that staying powered and staying efficient should go hand in hand because resilience today leads to reliability tomorrow."

Enquiries: www.voltex.co.za



Introducing Midtronic's ground-breaking MVT battery tester

Midtronics, a global leader in battery management technology, represented locally by Comtest, offers the proven MVT handheld battery tester. This revolutionary tool, powered by MDX-AI, is set to redefine the standards of battery diagnostics and testing in the automotive industry.

The MVT battery tester is designed to deliver unparalleled accuracy and efficiency in battery diagnostics, making it an essential tool for automotive technicians and quick-service centres. This innovative product introduces a new era in handheld battery testing, showcasing capabilities previously thought to be unattainable.

Key features of the MVT battery tester include:

- Accurate diagnosis of discharged batteries in-vehicle, eliminating the need for charging.
- Instant test results with no user input required in most quick lane testing scenarios.
- Accurate battery diagnosis when the Cold Cranking Amps (CCA) rating is not visible.
- Reliable battery diagnosis in the presence of vehicle system noise interruptions.

Powered by MDX-AI, the MVT delivers lightning-fast battery testing while maintaining professional accuracy, ensuring that automotive professionals can efficiently

diagnose and address battery issues with confidence and precision.

In addition to its ground-breaking diagnostic capabilities, the MVT features a range of user-friendly attributes, including:

- An intuitive user interface for straightforward operation.
- Over-the-air data transmission and updateability for continuous improvement.
- Email test results for seamless communication and record-keeping.
- An optional integrated printer for convenient hard copy results.

Will Sampson, president of Midtronics, said, "The MVT enables automotive industry technicians and service centres to accurately diagnose batteries faster than ever before, improving customer satisfaction and streamlining operations. The MVT powered by MDX-AI is truly unique!"

Enquiries: www.comtest.co.za



The rising importance of BESS

Battery Energy Storage Systems (BESS) are a foundation for sustainable and reliable energy, filling the gaps in baseload power by storing excess energy. The local adoption of BESS reflects the maturity of the South African energy market, says John Taylor, head of M&A and large C&I at Yellow Door Energy (YDE) South Africa.

"The growing significance of renewable energy is reshaping how communities generate and manage energy. Traditional methods to generate energy are wasteful when there is excess and expensive when demand outstrips supply. Battery energy storage systems are scalable enhancements that significantly reduce pressure on the national grid and energy economy," says Taylor.

Enhancing traditional energy

BESS complements and strengthens the established energy market. The South African Government supports BESS as a strategic part of its energy plans, managed through the Battery Energy Storage IPP Procurement Programme.

In 2023, Eskom opened the Hex BESS site at Worcester in the Western Cape. With a capacity of 100 MWh of energy, it has enough to power a town such as Mossel Bay or Howick for about five hours, according to the national utility.

There are several reasons why BESS enjoys this much momentum:

- Traditional energy generation, where a large station continuously generates energy for market consumption, lacks efficiency. There are innovative ways to store energy, such as pumped storage hydropower. However, traditional generation overwhelmingly relies on expensive peaking power stations to meet sudden demand or implement controlled power shortages such as load shedding. BESS sites store excess energy with relative ease, at lower costs, and with a flexible scale.
- Load spikes on grids can result in infrastructure damage. The stored energy at BESS sites can be discharged during high-demand periods to soften those spikes, referred to as "peak shaving". They also reduce costs, a significant benefit for large energy consumers that support major economic activities, as they can store energy generated during low-demand periods when prices are lower.
- BESS aligns naturally with renewable energy generation. A standard critique of wind and

solar systems is that they only generate electricity during specific windows. But they often generate excess energy during their operations. BESS sites store that excess energy, supporting lower costs and peak demand availability, and increasing the economic appeal of renewable generation.

- Often overlooked is how BESS democratises energy access. These systems can be deployed at different scales, from supporting large grid networks to small communities and even business sites. BESS enables communities and companies to store large amounts of energy for their needs and gain control over their energy consumption and costs.
- Energy arbitrage is one of the most powerful applications of BESS. By storing energy when demand (and, therefore, prices) are low, and discharging it during periods of peak demand when electricity is more expensive, businesses and utilities can significantly reduce costs while improving system efficiency.

When coupled with solar through a Power Purchase Agreement (PPA), the benefits become even greater: excess solar energy generated during the day can be stored in BESS and used later, ensuring a reliable, low-cost power supply even after the sun sets. This model not only protects customers from rising grid tariffs and volatility but also strengthens the economic case for renewable energy adoption, creating long-term stability, predictable pricing, and enhanced sustainability.

BESS does have some challenges, such as high upfront investment costs, supply chain risks, compliance complexity, and a shortage of trained technicians. This is where a robust and integrated energy market plays a crucial role, according to Taylor.

"BESS is important and enormously beneficial. It enhances grid stability and reliability, reduces energy costs, provides backup power, and enables sustainable, flexible energy systems," explains Taylor. "Deploying, operating, and supporting BESS infrastructure is in the interest of all energy stakeholders, which is why companies like YDE work closely with parties on all sides – regulators, clients, suppliers, and training institutions. BESS is becoming a significant part of the energy foundation and an opportunity to develop a strong energy sector."

Enquiries: www.yellowdoorenergy.com

Compliance crisis: uncertified imports undermine local electrical sector

Recent raids by the South African Police Service's Anti-Counterfeit and Illicit Trade Unit and the National Regulator for Compulsory Specifications (NRCS) uncovered thousands of Rands worth of non-compliant electrical goods. But this represents only a fraction of the broader threat facing the sector, with a Tax Justice South Africa survey showing 78% of industry leaders are concerned about the surge in these products being sold.

When cheap imports have catastrophic consequences

"Non-compliant versions of products designed to safeguard electrical installations are increasingly being sold through established South African e-commerce sites and international platforms," explains Khensani Ndobe, international export sales executive at CBI-electric: low voltage. "These include circuit breakers that fail, earth leakage devices that don't trip when they should, and safety switches that provide no safety at all."

She cautions that while installers might be tempted to save money by buying from these platforms, the hidden costs can be catastrophic. "All electrical products connected to mains electricity must meet national safety standards and have a valid Letter of Authority (LoA) from the NRCS, issued to the manufacturer, importer, or distributor. Unfortunately, however, many products sold online bypass this essential compliance requirement, creating installations that aren't protected and putting

users at risk of burns, electrical shocks, fires, and even fatalities."

Adding to the concern, many of these non-compliant products lack genuine certification marks, such as South African Bureau of Standards (SABS), Underwriters Laboratories (UL), *Verband der Elektrotechnik* (VDE), and China Compulsory Certificate (CCC). "These marks indicate that a product has undergone rigorous independent safety testing," says Ndobe. "Without genuine certification, there's no assurance of safety or reliability."

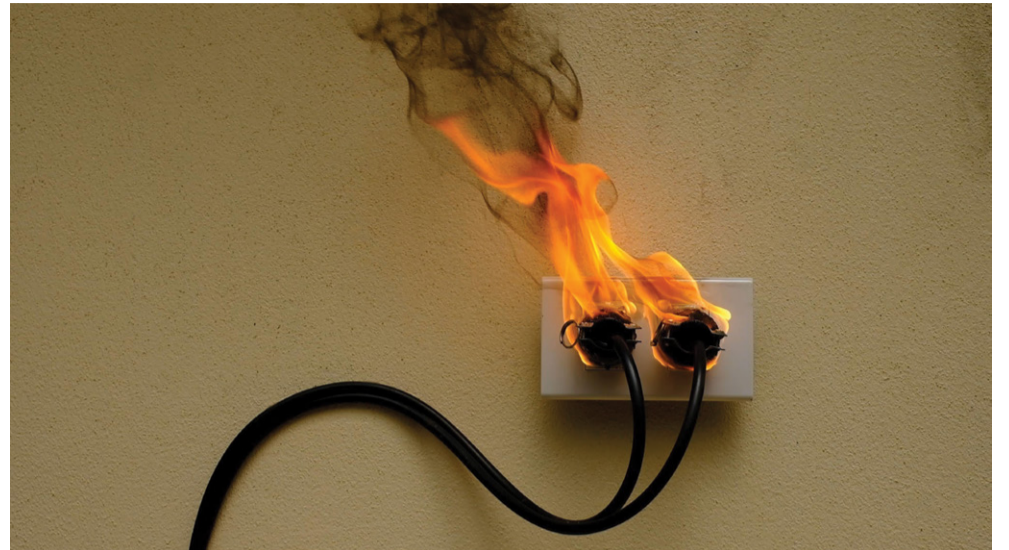
The high cost of non-compliant products

Beyond their safety implications, Ndobe warns that installing non-compliant electrical goods carries serious consequences. "Those who use uncertified components risk costly lawsuits, fines, or even jail time, not to mention the potential loss of their professional reputation."

She adds that these products also threaten South Africa's local manufacturing industry, draining revenue from legitimate companies, eroding consumer trust, and forcing reputable businesses to reduce operations or cut jobs.

A global problem with local repercussions

"This issue isn't unique to South Africa," notes Ndobe. "The global counterfeit electrical goods market is estimated at \$250 billion (R4.5 trillion) annually, with online commerce creating channels that



deliver unsafe products to end-users without proper safety checks."

A UK investigation found that all plug-in devices tested from popular online marketplaces failed basic safety standards. The tested devices not only failed to perform as advertised but also presented serious safety hazards, including poor soldering, excessive lead levels, and general non-compliance with safety regulations. "These products pose direct risks of fire and electrocution – the very dangers now entering South African homes and businesses through similar channels," cautions Ndobe.

"Online platforms often remove dangerous products once identified and reported," she points out. "Unfortunately, this means that by the time listings are removed, these items

have already reached unsuspecting users."

To protect themselves and their clients, Ndobe advises installers to source products only from reputable local suppliers who stock certified, standards-compliant, and locally manufactured goods. "By sourcing compliant electrical products, installers avoid legal penalties and most importantly, fulfil their duty of care to the people they serve."

"Every non-compliant product installed is a potential disaster waiting to happen. So, we're not just asking installers to choose compliant products – we're asking them to choose safety over savings, reputation over risk, lives and livelihoods," she concludes.

Enquiries: <https://cbi-lowvoltage.co.za>

R54 billion error underscores the need for reliable backup power

South African households are once again footing the bill for Eskom's missteps. Following revelations that Eskom's recent electricity pricing application contained a data input error, the utility claimed a R107 billion revenue shortfall. After assessment, the National Energy Regulator of South Africa (NERSA) reduced this to R54 billion and opted not to oppose Eskom's judicial review, effectively greenlighting higher tariffs for years to come.

This comes on the back of a staggering 11.32% increase in bulk electricity supply to municipalities earlier this year, with consumers now facing compounded hikes amid unreliable service and rolling blackouts.

"It's not just about the price anymore – it's about dignity," says Lance Dickerson, managing director of REV0V, a leading supplier of lithium iron phosphate batteries assembled in South Africa. "South Africans are being asked to pay more for less. We're seeing families pushed to the brink. That's why energy independence is no longer a luxury, it's a necessity."

Over the past two decades, electricity prices have surged by over 1,000%, far outpacing inflation. Yet, many suburbs still endure weekly outages, leaving households in the dark despite ballooning bills. The recent NERSA-Eskom settlement on the Multi-Year Price Determination (MYPD6) confirms that consumers will continue to bear the brunt of systemic failures.

REV0V is calling on South Africans to take back control by investing in high-quality solar and battery backup systems. Unlike imported batteries that often lack local support, REV0V's products are

assembled and quality-checked in South Africa, backed by nationwide technical teams and robust warranties.

"People are frustrated. They're tired of load shedding schedules and broken promises," Dickerson adds. "But there's hope. With the right inverter and storage batteries, households can dramatically reduce their reliance on Eskom and protect themselves from future price shocks."

REV0V urges consumers to work with certified installers who understand how to build resilient, cost-effective systems that deliver real return on investment. Done properly, these installations can pay for themselves faster than ever before, while restoring peace of mind.

The R54 billion error isn't just a technical oversight, it's a wake-up call. It signals a system so broken that even its numbers can't be trusted, yet ordinary South Africans are expected to carry the cost. As Eskom's tariffs climb and reliability declines, the case for decentralised energy has never been clearer.

What keeps customers up at night

For low-voltage (LV) customers (ordinary households and small businesses), the decision to invest in backup power isn't just about beating load shedding. It's about making sense of technical choices and long-term risks. Beyond the upfront cost, four key concerns often weigh heavily:

- **Compatibility:** Will the inverter and battery setup work with future upgrades or municipal changes? Many consumers worry about being locked into systems that aren't flexible or scalable.
- **Service:** When something goes wrong,

who shows up? Imported products often lack local support, leaving customers stranded when they need help most.

- **Upgrade paths:** As energy needs grow, can the system grow with them? LV customers want assurance that today's investment won't become tomorrow's limitation.
- **Warranty claims:** Fine print matters. South Africans are increasingly wary of warranties that look solid on paper but fall apart in practice, especially when suppliers are based offshore.

What can consumers do?

- While full solar and battery installations remain a significant investment, there are viable steps households can take to start reclaiming control:
- **Start small, scale smart:** Begin with a modest setup to cover essentials like lighting, Wi-Fi, and refrigeration. Many systems are modular and can be expanded over time.
- **Tap into financing options:** Several banks and solar providers now offer tailored financing, rent-to-own models, or green loans that make installations more

accessible. Some municipalities are also exploring rebate schemes.

- **Use certified installers:** A well-designed system pays off faster. Work with professionals who understand load profiles, peak usage, and how to optimise for cost savings. Work with installers who use components that are backed by robust local support.
- **Consider hybrid models:** Even partial grid independence, such as charging batteries during off-peak hours, can reduce bills and improve reliability.
- **Stay informed:** Follow NERSA's tariff updates and Eskom's pricing decisions via NERSA's official portal to anticipate future hikes and plan accordingly.

Dickerson said REV0V, which has withstood the volatility in the sector, has been designed to address shared South African pain points head-on, offering locally assembled solutions with full technical support, scalable architecture, and transparent warranties backed by South African teams on the ground across the country.

Enquiries: <https://revov.co.za/>



"South Africans are being asked to pay more for less. We're seeing families pushed to the brink. That's why energy independence is no longer a luxury, it's a necessity."

–REV0V

ABB at a glance

ABB is a global technology leader in electrification and automation, enabling a more sustainable and resource-efficient future.

ABB Purpose



Creating success



Addressing world's energy challenges



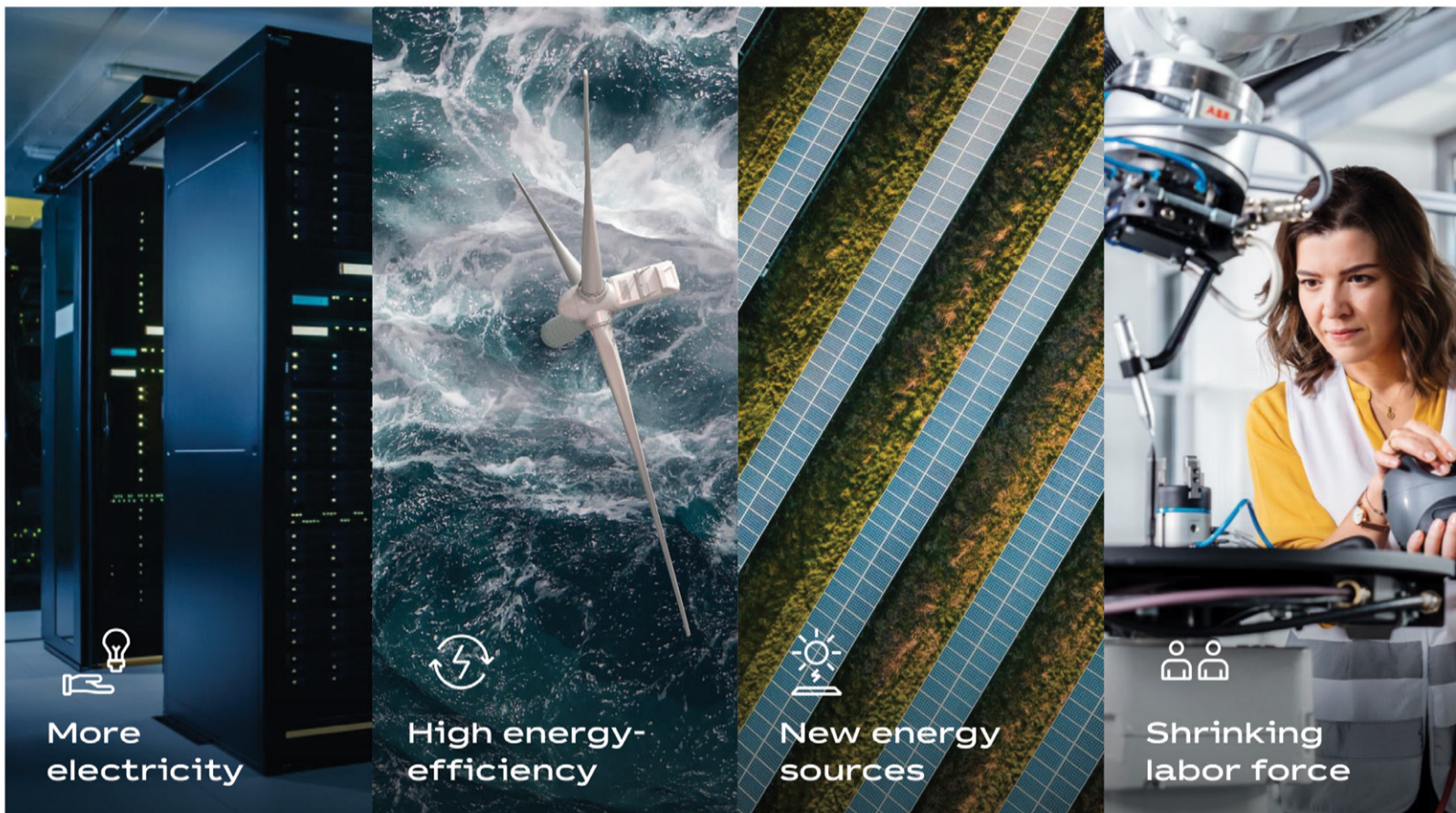
Transforming industries



Embedding sustainability



Leading with technology



OUR OFFERING

Supports customers to:

- Reduce waste and increase circularity
- Reduce carbon intensity
- Increase labor productivity
- Increase energy efficiency
- Increase flexibility
- Reduce footprint
- Reduce downtime
- Increase safety and improve working environment

ENGINEERED TO OUTRUN

Industries are the beating heart of the modern world. From energy, power and mining to building, transport, manufacturing, and more – they need to meet the global demand, be more sustainable, efficient, and manage transitions. To them, “running” is no longer enough – they need to outperform.

With our leading technologies in electrification and automation, we help all industries run at high performance and become more productive, efficient and sustainable to outperform.

At ABB, we call this ‘Engineered to Outrun’.



ABB South Africa in Numbers

Proudly BBBEE Contributor (Level 2)



~650
Local Employees
+500 Contractors



R 3.9 BN
Revenues
Approx. 4



4 Offices
in SA

Gauteng

- Longmeadow (Head Office)

KwaZulu Natal

- Durban

Easten Cape

- Port Elizabeth

Cape Town

- Northpoint Industrial Park

117+

years history in SA

Our business areas



ELECTRIFICATION



MOTION



PROCESS
AUTOMATION

- Distribution Solutions
- Smart Power
- Smart Buildings
- Installation Products
- Service
- E-Mobility

- Drive Products
- Motion High Power
- Motion Services
- NEMA Motors
- IEC LV Motors
- Traction

- Drive Products
- Energy Industries
- Process Industries
- Marine & Ports
- Measurement & Analytics

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SOLTRAIN+ drives female participation in renewable sector

A major regional initiative is working to address the gender imbalance in Southern Africa's renewable heating and cooling sector through targeted programmes aimed at empowering women in traditionally male-dominated technical roles.

The Southern African Solar Thermal Training and Demonstration Initiative Plus (SOLTRAIN+), funded by the Austrian Development Agency, is expanding renewable heating and cooling efforts across five countries: Botswana, Lesotho, Namibia, South Africa, and Zimbabwe. The project has established a dedicated gender and diversity work stream led by a team comprising 90% women, including three core members and seven Gender Managers.

The initiative comes as the Southern African Development Community region, despite enjoying some of the world's highest solar irradiation levels, remains heavily dependent on fossil fuels for energy needs. Currently, energy contributes over 50% of carbon emissions in the region, with electricity, cooking, heating and cooling systems predominantly relying on non-renewable sources.

Comprehensive implementation strategy

The SOLTRAIN+ gender and diversity component has developed a strategic action plan targeting 80 multipliers and hundreds of beneficiaries by the end of 2026. The programme integrates gender considerations across all project phases, from capacity building and energy audits to demonstration systems, research activities, and bursary support.

Each gender manager will develop a strategic network spanning NGOs, policymakers, private sector actors, government bodies, donor agencies, and educational and financial institutions to strengthen gender mainstreaming efforts across the renewable heating and cooling sector. The initiative includes mentorship programmes, peer learning sessions, and hands-on engagement opportunities designed to create what organisers describe as "a safe and dynamic space where women and young talents can grow, experiment, and lead change –together."

Enquiries: www.soltrain.org



Efficient appliances are climate action

Efficient appliances turn energy into opportunity for people around the world. They also use less electricity, thus reducing climate emissions and supporting communities in adapting to increasingly unpredictable weather patterns, explains international nonprofit organisation CLASP.

In the lead up to the United Nations Framework Convention on Climate Change Conference of the Parties (COP30), taking place 10 to 21 November this year in Belém, Brazil, CLASP is highlighting this often-overlooked fact: efficient appliances are climate action.

Appliances: a climate problem and solution

Appliances, lighting and industrial equipment like motors are the backbone of our economies; they also provide critical services people need to survive and thrive, like cooling and lighting. CLASP's research shows that these products account for nearly 40% of global energy-related emissions.

To take action against the climate crisis, leaders must leverage the significant emission reductions that energy-efficient appliances can achieve. New CLASP analysis shows that improving appliance efficiency

could deliver approximately 20% of the total reduction in energy demand required in 2030, making net zero emissions possible.

Many governments are already putting this into practice, with early signs indicating that a majority of this year's national climate commitments submitted to the United Nations (UN), known as nationally determined contributions (NDC 3.0), have incorporated appliance efficiency.

A climate adaptation and resilience solution

As the planet warms, more people need support to cope with extreme

heat, rising food insecurity, and other climate shocks. Efficient appliances are a powerful but often overlooked solution for strengthening climate resilience as they can reduce heat risk, improve food security, and support more secure livelihoods, explains CLASP.

"If we're going to prevent the worst consequences of climate change, we don't have time to waste. Every swing of the bat has to matter, and appliance efficiency policy is one hell of a swing," said Christine Egan, CLASP CEO.

Enquiries: www.clasp.ngo

Investigating local EV charging tariffs

As electric vehicle (EV) adoption continues to grow in South Africa, EV drivers often ask: "How much does it cost to charge an EV?" and "Why do charging prices vary between public charging stations?" Rubicon explores this topic further.

Public EV charging prices in South Africa

"There are several types of tariff structures that can be used to charge customers for public EV charging, including flat rates, time-of-use tariffs, and dynamic pricing," explains Hilton Musk, Rubicon's head of E-mobility. "Currently in South Africa, we only use flat rate tariffs."

As of August 2025, standard public EV charging tariffs are:

- R7.00 per kWh for Rubicon eMSP customers on both Rubicon and GridCars DC charging stations.
- R7.35 per kWh for GridCars eMSP customers on both GridCars and Rubicon DC charging stations.
- R5.88 per kWh for both Rubicon and GridCars eMSP customers on AC charging stations.
- These rates apply nationally and exclude any OEM-specific tariffs that may apply at branded charging stations.

Hilton adds, "It's important to note that these

tariffs are typically set through agreements between the charge point operator (CPO) and the e-mobility service provider (eMSP), which means they can vary in some cases. For example, at AIDC-EC charging stations, Rubicon eMSP customers pay R7.00 per kWh while GridCars eMSP customers pay R8.24 per kWh."

This highlights a key difference for EV drivers: Rubicon eMSP customers currently benefit from lower DC charging rates than GridCars eMSP customers on both Rubicon and GridCars charging networks.

How EV charging tariffs are calculated

Two main entities influence what you pay at a public EV charging station in South Africa:

- CPO: The CPO operates and manages the physical charging infrastructure.
 - eMSP: The eMSP handles the customer-facing side of the charger, such as payments via cards or digital wallets.
- The CPO offers a wholesale tariff to the eMSP. This amount includes:
- The cost of electricity from a utility provider (like Eskom), and
 - Infrastructure and operational costs
- The eMSP then adds a markup to cover its services. The final retail tariff (what you pay) is the eMSP's price, plus VAT.

In some cases, the CPO and eMSP are the same provider – for example, Rubicon plays

both roles at many of its stations. In others, Rubicon may act as the CPO, with another company (like GridCars) acting as the eMSP. In this case, Rubicon sets the wholesale tariff, and GridCars adds its margin – usually 15% – on top of that.

"Think of it like the fibre internet model," explains Musk. "The fibre network providers – like Openserve or Vumatel – sell bandwidth to internet service providers such as Afrihost or MWeb, who then add their margin before offering it to customers. Public EV charging works in much the same way."

Why is DC charging more expensive than AC charging?

There are a few key reasons why it costs more to use a DC fast charger:

- **Speed and convenience:** DC chargers deliver much faster charging, which is often worth a premium for EV drivers.
- **Higher infrastructure costs:** The upfront installation and equipment costs for DC chargers are significantly higher than for AC chargers.

To recover these costs and remain financially viable, CPOs apply a higher tariff for DC charging.

Understanding EV charging tariffs helps you charge smarter

Public EV charging in South Africa is still

evolving, but understanding how tariffs work can help you make informed decisions about where to charge.

Enquiries: rubicon.tech



RS and SolarAid's partnership for safe solar lighting in Africa

RS Group, a high-service global product and service solutions provider for industrial customers, has announced a new three-year partnership with international development charity SolarAid. Together, RS Group and SolarAid aim to raise £1 million to deliver clean, safe solar lights to 150,000 people living in rural communities across Africa without access to electricity.

The partnership forms a central part of RS Group's 2030 ESG action plan and champions the shared ambition to "make amazing happen for a brighter world." By combining corporate donations, matched funding, RS PRO product contributions, employee fundraising, and gifts in kind, RS Group will help accelerate SolarAid's mission to create thriving solar businesses that tackle poverty and climate change.

Just one solar light benefits every member of the household leading to a 90% reduction in kerosene, candles, or torches, with a 95% saving on their energy spend and enabling a child to study safely for the first time after sunset. It also reduces carbon emissions in the transition to renewable energy. A paraffin candle emits three times its weight in CO₂, and a kerosene lamp emits over a tonne of carbon over three years.

Employee engagement at the heart of the partnership

RS and SolarAid are closely aligned as providers of products and solutions that support the low-carbon transition with a focus on renewables. As a leader in industrial maintenance, repair, and operations (MRO) services, the RS team's expertise will directly support SolarAid's global and local repair programmes, helping build a circular solar economy

in off-grid communities. RS employees worldwide will be encouraged to get involved through skills-based volunteering, fundraising challenges, and awareness-raising activities. Planned initiatives include:

- **Skills-based volunteering:** RS experts will seek to support SolarAid projects, such as improving its Repair App, which helps communities extend the life of solar lights and reduce waste through simple repairs.
- **On-the-ground engagement:** Opportunities to visit SolarAid-supported communities in Malawi and Zambia, as well as welcoming SolarAid representatives to RS markets for live demonstrations.
- **Active for change:** A global fundraising challenge where employees raise money by logging physical activity in teams.
- RS employees are entitled to two annual volunteering days, and the company aims to inspire 50% of colleagues to use this time to support their communities and the SolarAid partnership.

Bridging ambition with proven impact

SolarAid's recent remarkable achievement in Kasakula, Malawi underscores the partnership's potential. On 26 August 2025, 100% of households, all local schools, and the health clinic in Kasakula gained solar access through the Light a Village initiative, highlighting what's possible when communities, charities, and partners align around a bold, shared goal.

A brighter future through collaboration

Andrea Barrett, chief sustainability officer at RS Group, said, "We are proud to partner



with SolarAid on this important mission. Access to clean, safe solar light is a powerful catalyst for education, safety, and opportunity. By combining the passion of our people with the innovation of our customers and suppliers, we can make amazing happen for communities that need it most. The success in Kasakula is a living proof point: achieving 100% access in one of the world's poorest and most remote regions shows that universal energy access is not just achievable, but scalable."

John Keane, CEO of SolarAid, said, "We are delighted to be working in partnership with RS Group. From the very start, our shared purpose and alignment have been clear. Like RS Group, we strive to innovate the best solutions for our customers, so that we can deliver sustainable energy access. We are incredibly excited by the huge opportunity we have together, to

progress our mission and bring clean, safe light and power to those living in the most remote, hardest to reach communities. Together, we really will make amazing happen for a brighter world".

Driving long-term impact

The partnership builds on RS Group's track record of impactful collaborations, including raising nearly £1 million for The Washing Machine Project since 2020. By focusing on engagement opportunities for employees, customers, and suppliers, RS Group and SolarAid aim to create a movement of shared purpose and innovation. To amplify the collective impact, RS Group will match donations and funds raised by employees, further reinforcing its commitment to empowering communities.

Enquiries: <https://za.rs-online.com/>

Solar power and battery storage are changing the energy landscape

Rapidly evolving battery electric storage systems (BESS) have added another dimension to the energy mix, enhancing the value of renewable sources like solar and allowing businesses to be even more creative in developing power solutions that suit their specific conditions and budgets.

"The falling cost of solar energy infrastructure in South Africa has helped to make renewables an essential part of local businesses' response to loadshedding and the steep rise in electricity costs," said Andrew van Zyl, managing director of SRK Consulting (South Africa). "BESS now adds another valuable dimension to the flexibility of hybrid energy solutions being developed."

He pointed out that a growing number of businesses today are employing a combination of energy generation sources, including grid power, diesel generators and photovoltaic systems. Battery storage now adds the possibility of fine-tuning a hybrid solution to use less of the more expensive or carbon-intensive modes of

energy generation.

"Taking into account their respective needs for baseload energy, businesses can now tweak their hybrid systems to better suit their applications," he explained. "In many cases, a user can employ BESS to start overcoming the intermittency of renewable sources like solar, while retaining other baseload sources in the energy mix."

BESS uptake in the US between 2020 and 2024 has been over 1,000%, rising from 2.4 GW in 2020 to 27 GW in 2024. Projections from S&P Capital IQ suggest that the installed capacity of BESS in the US is expected to exceed 170 GW by 2030.

There are similar trends in Europe, driven by the growing use of wind and solar power in countries like the Netherlands, Germany, and the United Kingdom. Here, the proportion of intermittent renewable electricity sources in the installed capacity mix has increased from 25-40% in 2015 to 50-60% in 2024 and is expected to reach up to 80% by 2030.

"A key advantage of solar and battery solutions is that they can be added incrementally as a company's budget allows," said Van Zyl. "This makes them highly accessible technologies that progressively build up a business's energy resilience, cost-efficiency, and sustainability."

According to Philippa Burmeister, partner and principal environmental scientist at SRK Consulting (SA), businesses' proactive embrace of solar energy has, over just five years, been the equivalent of gifting the country another power station.

"Rooftop photovoltaic installations around the country have added about 5,5 GW of energy-generating capacity over the past

five years or so," said Burmeister. "This solar capacity is equivalent to one new coal-fired power station; it was added in about one third of the time it would have taken to complete such a power station – and at no cost to Eskom or the government, beyond the tax incentives offered in 2023."

She noted that this demonstrates the potential of solar and BESS, highlighting that as BESS becomes steadily more affordable, the growing levels of solar energy being generated can be more usefully employed across the production cycle in many industrial sectors at even lower costs.

Enquiries: www.srk.co.za



"The falling cost of solar energy infrastructure in South Africa has helped to make renewables an essential part of local businesses' response to loadshedding and the steep rise in electricity costs."

- SRK

Net Zero in the built environment: from buzzword to action

By: Martin Smith, design director and expertise leader – Building Services, Zutari

'Net zero' has become one of the defining terms of our time, but in the built environment, it represents a challenge that is far more complex than it appears. In South Africa, buildings can now be certified as net zero through the Green Building Council of South Africa (GBCSA). Yet, certification does not mean that a building has no environmental impact.

Initial levels of net zero certification are focused mainly on operational performance and often rely on offsets to compensate for shortfalls. This is progress, but only the first step. To genuinely reduce impact, we must look at the full lifecycle from material extraction and construction through to operation, renovation, and eventual deconstruction. Although new frameworks are improving our ability to measure whole life carbon, data gaps and scenario uncertainty remain significant challenges.

As a global society, we are on a journey to reduce and ultimately reverse the environmental impact of our activities. This transformation cannot happen overnight. It demands collaboration across borders,

industries, and communities. With the built environment responsible for nearly 40% of global carbon emissions, our sector has a critical role to play. One area of immediate focus in South Africa is the mandatory implementation of Energy Performance Certificates (EPCs), which come into effect at the end of the year. These will shine a spotlight on the energy efficiency of thousands of buildings and create a new baseline for accountability. Globally, the evidence is clear that buildings with poor energy performance lose tenants and market value rapidly. Owners and operators who fail to act decisively risk obsolescence; those who act now can futureproof their assets.

To achieve this, we need a shift in mindset from capital expenditure to lifecycle value. Too often, development decisions are driven purely by upfront costs. Yet, the majority of a building's financial and environmental footprint occurs during its operational life. In new developments, strategic planning such as optimal orientation and passive design interventions can significantly enhance performance, often at no additional

cost. When feasibility studies are based on lifecycle value, performance strategies emerge not as expensive add-ons, but as financially attractive investments.

Designing for performance, however, is only the beginning. A well-designed building can still underperform if it is not managed effectively. Real outcomes depend on how occupants and facility managers operate the space. Smart building systems that monitor and manage resource consumption in real time are therefore essential. They enable facility managers to track actual performance against benchmarks, ensuring that sustainability targets move from aspiration to action. As the saying goes, you cannot manage what you do not measure.

Zutari is working with clients to retrofit existing assets with smart systems and improved building services that reduce both energy consumption and water usage. In a resource-constrained environment, these dual benefits are invaluable. By integrating performance data with broader business applications, organisations can align sustainability goals with operational strategy, strengthening both resilience and continuity. With power and water

interruptions now a recurring challenge, sustainability interventions are no longer just about environmental responsibility but are about safeguarding business performance in the face of risk.

The urgency to act cannot be overstated. Climate risks are intensifying, regulatory frameworks are tightening, and the financial and reputational costs of inaction are mounting. Every intervention counts, whether through innovative design, smart retrofits, or data-driven operations. Progress will require architects, engineers, developers, and facility managers to work together in ways that transcend traditional silos.

The path to net zero is not linear, and it is not easy. But it is possible. Achieving it demands a collective shift from short-term cost to long-term value, from isolated interventions to integrated systems, and from passive compliance to proactive leadership. The built environment can be a powerful force for change. The time to act is now, and it starts with a choice: to design, operate, and manage our buildings not only for today, but for the generations that will inherit them.

Enquiries: <https://www.zutari.com>

Introducing Action Instrument's PV multi-function meter

The Sonel MPI-540-PV photovoltaic multi-function meter from Action Instruments was created for measuring the parameters of PV installations. Using only this single device, users can conduct a comprehensive range of tests on both the DC and AC sides, in accordance with the guidelines

of the EN 62446 standard.

Additionally, it can be used to carry out all measurements necessary to determine the safety condition of both domestic and industrial electrical installations. This device features advanced capabilities, specifically designed for specialists in the installation and electrical industry.

One of its key features is the automatic recalculation of measured parameters to Standard Test Conditions (STC). It can also verify inverter efficiency by measuring voltages, currents, and power. After transferring data from the meter's memory to the Sonel Reports PLUS program, users can generate detailed reports of the PV installation parameters.

To automate measurements, the Sonel MPI-540-PV features an Auto mode for testing residual current devices (RCDs). The instrument also includes pre-programmed measurement sequences (autotests) that can be customised with a user's own sequences if needed.

The device is designed to work with mains at nominal frequencies of 50/60 Hz and a wide range of nominal voltages: 64/110 V, 110/190 V, 115/200 V, 127/220 V, 220/380 V,

230/400 V, 240/415 V, 254/440 V, and 290/500 V, as well as DC networks.

It supports various systems, including:

- Single-phase
- Split-phase with common N
- Three-phase – WYE with and without N conductor
- Three-phase – Delta

The MPI-540-PV combines the measuring capabilities of several devices while maintaining exceptional accuracy. It can measure photovoltaic installations in accordance with the EN 62446 standard, including:

- Continuity of protective and equipotential bondings
- Earth resistance
- Insulation resistance on the DC side
- Open circuit voltage UOC
- Short circuit current ISC
- Working currents and powers on both DC and AC sides
- Inverter efficiency

Additionally, the MPI-540-PV can record 50/60 Hz power quality parameters in accordance with Class S of EN 61000-4-30. It can also be used for all measurements required for the commissioning of electrical installations in accordance with applicable regulations.

Its automatic installation safety test allows for easy safety control of residential, commercial, and industrial electrical installations.

The MPI-540-PV also features a three-phase power quality recorder with a live mode view, allowing real-time registration and graphical presentation of electrical network parameters, such as voltage, current, power, harmonics, and THD.

Enquiries: <https://www.aisa.co.za/>

INOSYS LBS Series

High-Performance Switches for Superior Safety

The INOSYS LBS Series offers advanced load break switches specifically designed for demanding DC applications, including renewable energy systems like

photovoltaic (PV) and energy storage (ESS). These switches ensure reliable and safe disconnection of electrical circuits in high-voltage environments. Capable of handling up to 1500 VDC in just 2 poles, the INOSYS LBS stands out with its robust design, performing reliably even in extreme conditions. Ideal for critical power applications, and suited for the DC-PV2 utilisation.



For a future that will be more

⚡ **Electric**, more 🌱 **Sustainable**
and more focused on 📡 **DC**

- ⚡ High performance switching
- 🛡️ Focus on Safety
- 🏗️ Application tested design
- 👍 Easy integration & modular solution



socomec
Innovative Power Solutions



Powered by
EM



SPS launches buyout model to unlock 100% of solar investment

Sustainable Power Solutions (SPS), a pan-African funder, developer and operator of solar PV and battery storage plants in the Commercial & Industrial (C&I) market, has introduced a new buyout model that converts existing solar and battery systems into immediate capital for South African businesses.

Over the past decade, many companies invested heavily in renewable energy to reduce electricity costs and mitigate the impact of loadshedding. While these systems continue to deliver savings, the capital tied up in them has often limited business growth and reinvestment opportunities. SPS's new buyout model enables businesses to recover up to 100% of their original investment and, in some cases, related costs such as roof strengthening or facility upgrades, while still benefiting from renewable energy savings and long-term system reliability.

Unlocking capital while securing savings

Through the buyout model, SPS purchases clients' existing solar and battery systems and reimburses them for the full installation cost. In return, businesses enter into a 10- to 20-year Power Purchase Agreement (PPA) with fixed tariffs,

providing predictable electricity costs.

"This creates immediate capital relief for businesses, allowing funds to be reinvested into their core operations," explains Anja Visagie, chief growth and marketing officer at SPS. "At the same time, enterprises continue to benefit from renewable energy savings and operational resilience, without carrying the operational, compliance, and maintenance burdens themselves."

Taking the hassle out of operations and maintenance

Many businesses underestimated the long-term demands of managing solar and battery systems. Effective Operations and Maintenance (O&M) require ongoing technical expertise, regular cleaning, and strict compliance with evolving regulations. Systems that are poorly maintained or non-compliant can underperform, lose potential savings, and even become uninsurable.

SPS removes this burden by taking full responsibility for compliance, insurance, and performance management. Clients can rest assured that their systems are optimised, running efficiently, and protected against technical or regulatory issues.

"For most clients, the greatest relief is knowing they no longer have to manage these assets day-to-day," says Visagie.

"They can be confident their systems are delivering maximum value."

Predictability, flexibility, and risk reduction

The buyout model offers fixed PPA tariffs, providing clarity and security over future energy costs. It also includes flexibility, allowing clients to buy back their systems in the future if they wish to re-own the asset.

SPS's financial backing, supported by British International Investment and other institutional shareholders, ensures systems remain compliant, insurable, and reliable throughout the contract period. "Our clients can focus on growing their businesses, while we ensure their energy systems meet all technical and regulatory standards," adds Visagie.

Transforming energy into capital and opportunity

By helping businesses reclaim capital tied up in renewable energy assets, SPS provides financial flexibility, operational certainty, and sustained energy savings. Strong interest in South Africa has prompted plans to expand this model across the continent, enabling industries to grow while optimising their energy systems.

"Energy has become a constraint instead of an enabler for too many businesses. By reducing risk, freeing up capital, and providing predictable costs, this model aims to make energy a practical enabler for growth," concludes Visagie.

Enquiries: <https://sps.africa/>



Solar growth sparks safety concerns over fire risks

With solar power now firmly established as a mainstream energy choice for South Africans, ASP Fire, a leading fire risk consulting company, has cautioned that poorly designed or badly installed systems are increasingly giving rise to dangerous fire incidents.

CEO Michael van Niekerk notes that the rapid expansion of the solar market, coupled with the influx of new suppliers and installers, has heightened the risk of unsafe practices. A major insurance company recently reported a notable increase in property damage linked to defective workmanship and substandard solar equipment.

"Lithium battery fires are among the most challenging to contain because they are self-sustaining," says Van Niekerk. "Once a battery goes into thermal runaway, the fire can escalate rapidly, and it becomes very difficult

to extinguish." He stresses that only systems signed off by qualified engineers and equipped with robust battery management systems can provide adequate protection.

While solar energy continues to offer households and businesses greater independence and long-term savings, Van Niekerk warns that cutting corners on installation or relying on low-quality components can have catastrophic consequences. Issues such as arc faults in DC circuits, inadequate surge protection, or faulty wiring are among the leading causes of solar-related fires.

ASP Fire highlights the importance of preventative measures such as choosing certified installers, ensuring that a Certificate of Compliance (CoC) is issued, and insisting on quality components from reputable suppliers. Regular maintenance and inspections also play a vital role in safeguarding system integrity, while monitoring tools can help detect anomalies before they develop into major hazards.

"Solar energy is here to stay, but safety cannot be an afterthought," concludes Van Niekerk. "By prioritising quality, compliance, and proper oversight, South Africans can harness renewable power with confidence while reducing the risk of fire."

ASP Fire continues to provide specialised risk assessments, consulting services, and fire safety training, supporting both homeowners and businesses in making solar power a safe and sustainable investment.

Enquiries: www.aspfire.co.za



Efficiency first: the reimagined building of today and tomorrow

By: Thabang Byl, Buildings segment lead at Schneider Electric

Philosopher Plato wisely said, "There is no harm in repeating a good thing." While this sentiment translates into many aspects of life, it certainly holds true for the continued emphasis and subsequent impact of retrofitting buildings.

Enough cannot be said about the importance of transforming our existing buildings. Indeed, retrofitting is a truly practical way of achieving energy efficiency, compliance and long-term competitiveness. It makes the most of buildings.

For decades, buildings were designed without energy savings in mind; electricity was abundant and inexpensive. Also, conservation wasn't very high on the list either. Today, we don't have the luxury of electricity (in abundance), and conservation is non-negotiable.

Unfortunately, retrofits are often dismissed as costly or complicated. Many organisations still believe that retrofitting older buildings is unrealistic or prohibitively expensive. And whilst this perception is being consistently debunked, it remains a hurdle.

The benefits are tangible

The reality is that retrofits deliver significant return on investment: reducing operating costs, improving sustainability performance, and enhancing comfort for tenants.

In fact, according to the World Economic Forum (WEF), retrofitting older buildings will be key to unlocking the full energy-saving potential of the buildings sector. As the report states, "75% of the buildings that will be standing in 2050 already exist".

As a practical example, Schneider Electric's English-speaking Africa headquarters, situated in Midrand, Gauteng, feature important sustainability gains such as:

- 37% lower energy consumption per month.
 - 34% less water usage per month.
 - 32 tonnes of CO₂ emissions reduced monthly.
- Further boosting our environmental

performance, our building also features a 200 kWp rooftop solar installation, contributing to 15 tonnes of CO₂ reduction monthly.

Efficiency first

Retrofitting is not only about lowering electricity bills. It also introduces Building Management Systems (BMS), advanced metering, and smart controls, giving facility managers real-time visibility of consumption and enabling proactive decisions.

It addresses efficiency first; buildings can therefore reduce energy from the get-go before integrating renewables, thus saving on a smaller, more cost-efficient system.

That said, a lot of businesses still equate sustainability with installing solar panels alone. The reality is that without first optimising efficiency, renewable systems are often oversized and more expensive than necessary. By shifting the mindset towards "efficiency first", companies can achieve considerable sustainability outcomes at a fraction of the cost.

Leaders in retail and commercial property are already leading by example. Some major retail groups have worked closely with technology partners to improve operational efficiency. In one instance, retrofits initially solved everyday energy management challenges but later also revealed opportunities to introduce additional smart controls, ensuring lights and systems are switched off after overnight stock-taking, further mitigating unnecessary usage. These incremental improvements highlight the evolving, long-term value of retrofitting.

The good news is that by reimagining existing buildings through efficiency-first retrofits, South Africa can preserve its architectural landmarks, reduce environmental impact, and create modern spaces that meet the demands of the future.

Enquiries: www.se.com/za/



Smart lighting for Outeniqua Park Rugby Stadium

BEKA Schröder has supplied the smart LED floodlighting solution for the Outeniqua Park Rugby Stadium in George, Western Cape.

Outeniqua Park, located in the picturesque city of George, nestled at the foot of the majestic Outeniqua Mountains, is a 10,000-seat stadium and home to local rugby clubs, including the South Western Districts (SWD) Rugby Union and the SWD Eagles rugby team. As the largest stadium in the region, Outeniqua Park is renowned as one of the most scenic rugby venues in the world. Beyond rugby, it also hosts community events, making it a key hub for sport and culture in the Garden Route.

The stadium's floodlighting was recently upgraded from traditional High-Intensity Discharge (HID) systems to state-of-the-art LED technology using OMNIBLAST-E MIDI floodlights. The lighting is effortlessly controlled via the Schröder ITERRA wireless management system.

Smart rugby field lighting

BEKA Schröder's LED floodlight, the OMNIBLAST-2-E MIDI, illuminates the Outeniqua Park Rugby Stadium. Integrated with the Schröder ITERRA lighting control system, users are able to control the lighting, enabling them to entertain their supporters with a spectacular light show whilst supporting their team.

The OMNIBLAST-E floodlight, available in MIDI and MAXI versions, is perfectly suited for sports venues and large-area applications that demand maximum efficiency and adaptability. This versatile range supports a wide variety of lighting needs, from general area lighting and recreational sports to the high standards of professional broadcasting.

Schröder ITERRA is a comprehensive, wireless control system designed for sports lighting, offering an intuitive and user-friendly experience for both installers



and site managers. It provides a reliable, cost-effective, and futureproof platform that allows seamless adaptation of lighting to suit any event or scenario, maximising energy efficiency while enhancing the experience for players, fans and the neighbourhood. A mobile app-based

system, Schröder ITERRA, is very easy to operate. It comes with an intuitive visual interface that users can quickly personalise to the layout and settings of their lighting installation.

Enquiries: www.beka-schreder.co.za

Local BHA School of Lighting awarded academic accreditation by EAHEA

BHA School of Lighting (SoL) has been awarded institutional academic accreditation by the European Association for Higher Education Advancement (EAHEA) as an online learning institution.

This means that BHA SoL has satisfactorily met all the educational standards set by the EAHEA regarding administrative responsibility, institutional integrity, and academic quality.

The EAHEA is a non-governmental, independent, and globally recognised quality assurance body based in Europe. It provides international accreditation to universities, colleges, institutions, online learning

centres, and corporations across more than 170 countries.

"Being accredited by EAHEA affirms our commitment to global education excellence. For BHA School of Lighting, it means recognition as a world-class institution. For our educators, it's a mark of quality. More importantly, for our students, it's a promise of learning that meets international learning standards," said Philip Hammond, BHA School of Lighting founder and principal.

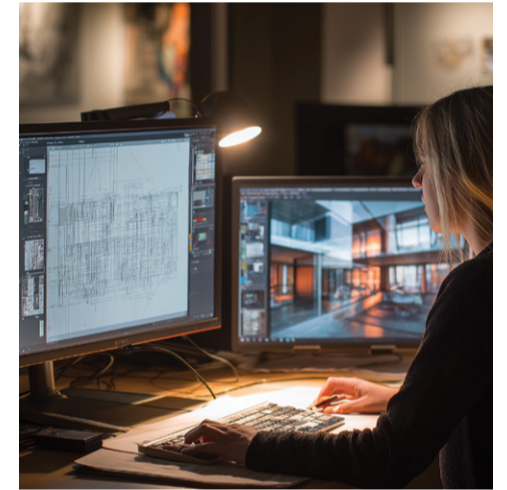
Lighting industry recognition

In addition to BHA SoL's EAHEA academic accreditation, the lighting design industry

has also recognised BHA SoL as an education provider through the International Association of Lighting Designers (IALD) Education Trust and its Learn2Light project.

The Learn2Light project was created in 2005 by the late Phil Gabriel, an award-winning Canadian lighting designer who served as president of both the IALD and the IALD Education Trust. The Learn2Light project provides an overview of schools offering diverse educational programs in design, engineering, and science, with a focus on architectural lighting design.

Enquiries: www.bhaschooloflighting.co.za



From warm to daylight: the all-in-one advantage of Eurolux 3CCT fittings

When choosing lighting today, flexibility is everything. Whether you're fitting out a home, office, or retail space, lighting needs to adapt to the task, the time of day, and even personal preference. That's where 3CCT technology comes in.

3CCT, short for Three Correlated Colour Temperatures, gives one light fitting the ability to produce three distinct tones of white light:

- 3000 K (warm white): soft and inviting
- 4000 K (cool white): bright and balanced
- 6000 K (daylight): crisp and energising

With a simple built-in switch, you can choose the colour temperature during or after installation, tailoring the light to suit the mood or purpose of the room. No need to stock multiple variants or replace fittings when tastes or needs change; one product does it all.

In a market that values efficiency, adaptability, and simplicity, 3CCT fittings are fast becoming the professional's choice – and Eurolux offers some of the best in class.

Practical advantages: one fitting, multiple applications

From compact bathrooms to open-plan kitchens, Eurolux 3CCT fittings let you customise the mood and function of every space:

- 3000 K (warm white): Perfect for lounges, living areas, and hospitality zones.
- 4000 K (cool white): Ideal for task lighting in kitchens, sculleries, and offices.

- 6000 K (daylight): Bright and crisp for garages, workshops, and workstations.

The Eurolux 3CCT range: function meets form

Batten ceiling lights, models C755 to C757
Minimalist, durable, and practical, the C755-C757 batten ceiling lights bring clarity and efficiency to everyday spaces. Available in both white and black, they deliver balanced illumination that complements functional interiors such as kitchens, sculleries, garages, and offices.

Features:

- Slim linear design with integrated LED technology
- Easy ceiling mount for a clean, professional look
- Excellent light uniformity for task and workspace applications
- 3CCT colour selection for precise lighting control

These battens are engineered for reliability and effortless installation, making them ideal for retrofit projects or new builds where practicality meets design.

Premium ceiling lights, models C751 to C754 (IP44-rated)

For areas where moisture or humidity is a concern, such as bathrooms or enclosed balconies, the C751-C754 premium ceiling lights offer peace of mind with an IP44 rating. Their sleek, round design and black or white finishes blend seamlessly into contemporary interiors while delivering

robust performance.

Features:

- IP44 protection: safe for damp or humid environments
- High efficiency and stable driver performance
- 3CCT switchable output for adaptable ambience
- Clean, low-profile design ideal for both residential and light commercial use

True-to-life colour, every time

Across all three CCT options, Eurolux maintains a CRI of ≥ 80 , ensuring colours appear natural and accurate, a key advantage in spaces that blend natural and artificial light, such as kitchens, showrooms, or workspaces.

Installation made easy

Designed with contractors and installers in mind, Eurolux fittings include:

- Clearly marked 3CCT selection switches
- Tool-free access for fast connection and mounting
- Compact housings suited to both retrofit and new installations

This ease of use reduces on-site time and simplifies stock management, as a single



fitting can meet multiple lighting needs.

Conclusion: a future-proof fit

As lighting design continues to demand more flexibility, efficiency, and control, the Eurolux 3CCT ceiling and batten ranges deliver on all fronts. Whether illuminating a bathroom, kitchen, garage, or office, these fittings provide the perfect balance between form, function, and future-ready performance.

One fitting. Three colour temperatures. Countless applications.

Enquiries: www.eurolux.co.za



Signify strengthens professional lighting portfolio with new modular, connected solar street lighting and advanced sports lighting products

Signify has introduced four new products – the Signify SunStay Pro gen2, SunStay Pro gen2 mini, Signify GreenVision Xceed Pro, and Signify ActiStar – highlighting the company's advances in solar and modular street lighting as well as performance lighting for stadiums.

The new introductions reflect Signify's commitment to high-quality sustainable products, connected systems, and services engineered for optimal performance. With more professional lighting products to be introduced under the Signify brand in the coming year, the launch also underscores the Signify brand's growing role in its portfolio of high-performance, energy-efficient, and circular lighting solutions, elevating the role of the Signify brand within its Professional lighting portfolio alongside established global brands such as Philips and Color Kinetics.

The Signify SunStay Pro gen2 and SunStay Pro gen2 mini will provide customers with an integrated, connected

solar street light that is suitable for different applications, from bike paths to campuses and pedestrian areas. The compact model, the Signify SunStay Pro gen2 mini, has been designed for circularity, with its all-in-one aluminium die-cast housing made from 80% recycled material. It has a motion-sensing multi-sensor with light on-demand and forward-triggering features that allow adjustment of brightness according to the level of surrounding activity. For instance, its hybrid charger enables the luminaire to work off-grid on sunny days and to draw partial power from the grid on cloudy days. and its optional top-up vertical panels help capture more solar energy in the winter months.

The Signify GreenVision Xceed Pro is a flexible road and street lighting solution that can adapt to different rural and urban applications. Its durable, modular design makes it easy to maintain and upgrade over time, while delivering excellent energy savings. With its high efficiency and

thoughtfully engineered light distribution, it helps cities meet functional lighting needs while meeting energy conservation standards. Additionally, this range also considers environmentally sensitive road and street lighting areas and offers options for low blue-spectrum colour temperatures.

The Signify ActiStar, an advanced LED floodlight designed for outdoor areas and sports facilities, combines powerful performance with precise light projection control technology. Its unique adjustable module design reduces lighting pollution and allows for flexible lighting designs, allowing better visibility for both players and spectators. With options to suit projects of different sizes – from recreational facilities to large stadiums – it ensures reliable, high-quality lighting wherever it's installed.

The Signify GreenVision Xceed Pro and the Signify ActiStar have been available in Asia, Australia, Africa, and South America

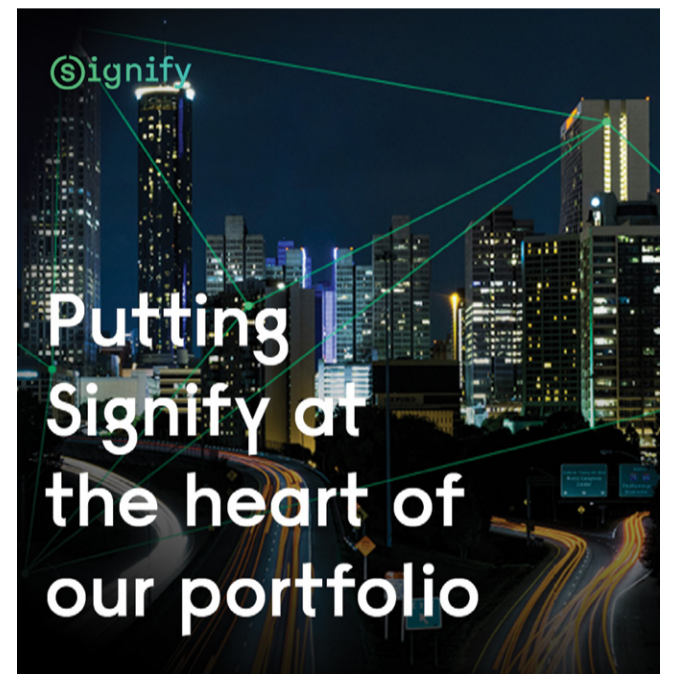
since September.

Harsh Chitale, CEO of the Professional Business, Signify, said: "At Signify, we are proud to build on our leadership in innovation, performance, and sustainability, with a suite of intelligent, connected lighting products, systems and services under a portfolio of trusted brands.

"The launch of these new premium outdoor lights under the Signify brand is an important step forward, placing the brand at the heart of our professional lighting portfolio."

As part of this launch, Signify has upgraded its website, www.signify.com, to be an information hub for its professional offerings, including luminaires, lamps, connected lighting software, and services. Earlier this year, the company also integrated Signify MyCreation and Signify Interact under the Signify brand, marking the first move towards this change.

Enquiries: www.signify.com



IESA explains photometry

Whether you're a designer, engineer, consultant, or policymaker, understanding the fundamentals of photometry is essential to your role in shaping better-lit environments. The Illumination Engineering Society of South Africa (IESA) takes a closer look at photometry, what it is, how it works, and the questions professionals often ask about it.

What is photometry?

Photometry is the measurement of the brightness of light as perceived by the human eye, measured in lumen. Unlike radiometry, which measures all optical radiation (including ultraviolet and infrared), photometry focuses solely on visible light – how bright a light source appears to people.

This makes photometry a human-centric science, essential for applications such as architectural lighting design, street lighting, interior lighting planning, and compliance with lighting standards.

Why photometry matters in lighting design

In a world increasingly driven by energy efficiency, environmental consciousness, and human-centric design, photometry is not just a technical concept; it's a

foundational tool for creating meaningful lighting solutions. Whether you're designing public infrastructure, commercial spaces, or residential environments, photometry plays a crucial role in guiding decisions.

Here's how a strong understanding of photometry benefits lighting professionals.

- **Design lighting systems that meet both regulatory standards and human comfort needs:** Lighting design is more than just installing luminaires; it's about ensuring compliance with national and international standards while also enhancing the experience of the people who use the space. Photometry helps designers assess illuminance levels, glare, and uniformity to meet regulatory guidelines, such as SANS or EN standards. At the same time, it ensures that lighting fosters visual comfort, safety, and productivity, adapting to human needs in workplaces, on roads, in schools, and in public spaces.
- **Evaluate the performance of different lighting products accurately:** Two products may consume the same wattage but deliver vastly different levels of visible brightness. Photometric data, such as luminous flux (lumens), luminous intensity (candela), and

illuminance (lux), helps professionals compare lighting products objectively. This ensures that specifications are based on visual performance, not just electrical consumption, allowing for smarter procurement and system design.

- **Balance energy efficiency with human perception:** Optimising for energy efficiency is vital, but it shouldn't come at the cost of visual clarity or ambience. Photometry helps strike this balance by allowing professionals to design lighting that feels bright and clear to the eye, even at lower power levels. This is particularly important in LED design, where optical control and human response must be finely tuned for both comfort and efficiency.
- **Inform intelligent lighting design and smart controls:** As lighting systems evolve to become more responsive and adaptive, photometry supports innovations like dynamic lighting, daylight harvesting, and human-centric lighting. By understanding how light is perceived at different times of day and in different settings, designers can craft environments that are biologically attuned to human rhythms, improving

wellbeing, sleep, and concentration.

- **Support sustainability goals:** Accurate photometric planning prevents over-lighting and reduces unnecessary energy consumption. It ensures that every lumen counts, helping cities, buildings, and homes reduce their carbon footprint while still delivering high-quality lighting experiences.

Whether you're specifying luminaires, writing tenders, evaluating products, or influencing urban lighting policy, photometry gives you the insight to make data-driven, human-centred decisions.

Enquiries: www.iesa.org.za





When performance matters more than promises

Some floodlights make bold claims. Radiant Lighting would rather let the performance speak for itself. The new Radiant Floodlight Range, models RFS59 through RFS64, has been designed for professionals who understand that true quality isn't about marketing noise; it's about measurable results.

Built strong, tested tough, and backed with a five-year warranty, these fittings redefine what dependable lighting looks like.

Engineered for the real world

From 10 W to 200 W, every RFS floodlight is crafted from high-grade aluminium and fitted with a tempered glass lens. This construction combination ensures superior heat dissipation, corrosion resistance, and optical clarity.

This isn't just designing for display. It's designing for endurance.

Whether installed on building facades, factory yards, or coastal driveways, each fitting is built to handle South Africa's unpredictable weather, sealed to IP66, meaning fully dust-tight and protected against heavy rain and water jets.

In short: wherever the light goes, it stays on.

Powerful light, smarter efficiency

Behind the solid exterior lies Radiant's refined LED technology, delivering

exceptional lumen efficacy that maximises brightness while keeping energy use low.

Engineered in a crisp 6000 K daylight tone, this floodlight series provides clear, high-definition illumination that enhances visibility and security in every environment.

From construction sites to warehouses and outdoor spaces, this pure daylight output ensures maximum performance where clarity counts most.

One purpose. Maximum impact. Zero compromise.

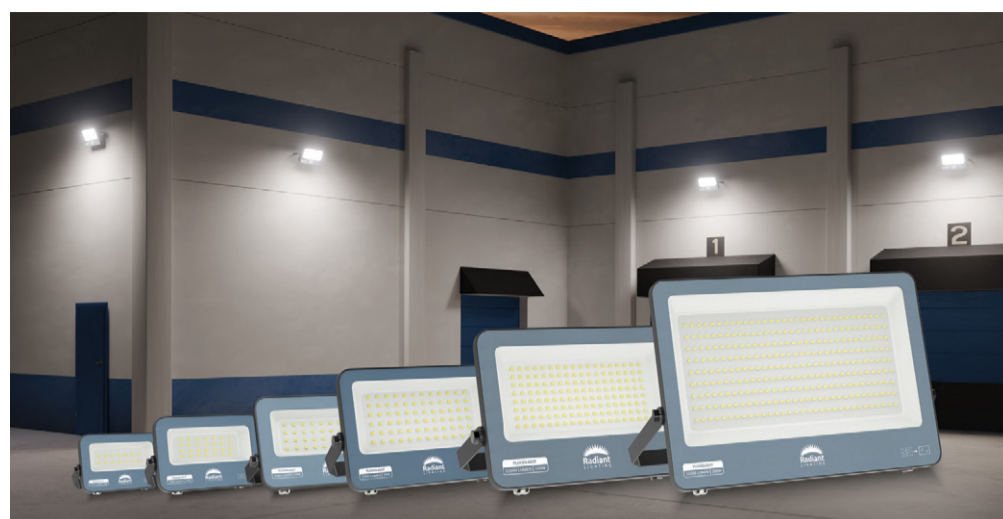
That consistency makes the range ideal for contractors, installers, and distributors alike – simplifying specification while guaranteeing brilliant, reliable light for every job.

Protection that's built in, not sold separately

Fluctuating voltage is a fact of life in South Africa, and the RFS range is engineered to handle it.

Each model is equipped with integrated surge protection matched to its performance class, from 2.5 kV on the compact models to 4 kV on the RFS62, and an impressive 6 kV on the heavy-duty RFS63 and RFS64.

This layered defence shields the internal driver and LED chips from damaging power spikes, helping prevent premature failure



Feature:	RFS59-RFS64
Power options:	10 W · 20 W · 30 W · 50 W · 100 W · 200 W
Lumens output:	1,100 lm · 2,200 lm · 3,300 lm · 5,500 lm · 11,000 lm · 22,000 lm
Colour temperature:	6000 K
Construction:	Aluminium housing with tempered glass lens
Ingress protection:	IP66 – full outdoor protection
Surge protection:	2.5–6 kV
Warranty:	5 years

and ensuring long-term reliability.

Protection you can trust, even when the grid can't be.

Lighting that lasts longer than the claims. In a market full of promises, Radiant delivers proof.

This project-ready floodlight range

combines strength, efficiency, and endurance in one intelligent design – a range built for professionals who value real-world reliability over marketing gloss.

Enquiries: www.radiant.co.za

Lighting the future of South African supermarkets with Aurora Lighting Africa

In today's fast-paced retail environment, supermarkets are no longer simply places to shop. They are immersive experiences designed to encourage customers to linger, explore, and enjoy. One of the most important elements in shaping this environment is lighting. The right solution not only ensures energy efficiency and compliance with sustainability goals but also enhances product presentation, drives customer engagement, and reduces operational costs.

Aurora Lighting Africa, a trusted supplier of cutting-edge LED technology, is leading this transformation in the food retail sector across South Africa. With a dedicated focus on high-efficiency, versatile lighting solutions, Aurora empowers supermarkets to create brighter, safer, and more inviting shopping spaces. Their innovative portfolio delivers unparalleled performance while ensuring adaptability for the unique demands of retail environments.

Lumi-Line: sleek and seamless illumination

For areas where precision and uniformity matter, the Lumi-Line is an ideal choice. This narrow polycarbonate linear luminaire delivers up to 170 lm/W, ensuring both efficiency and

visual comfort. Supplied with easy mounting clips and an external 1.5 kV driver with surge protection, Lumi-Line offers supermarkets an elegant yet practical solution that reduces glare while highlighting products effectively.

Linium+: the power of flexibility

Supermarkets demand versatility in lighting, particularly for long aisles and product displays. The Linium+ system, delivering up to 180 lm/W, is engineered with wattage-selectable functionality and a modular trunking design that allows continuous runs of up to 70 m that can be suspended for stores with open roofs or ceilings. With multiple lens options, integrated circuit selectors, and compatibility with daylight and motion sensors, Linium+ is built for efficiency and control. Whether creating general ambient lighting or targeted illumination for promotional areas, Linium+ adapts effortlessly to evolving retail layouts.

LinearPac+: rugged reliability meets efficiency

Back-of-house areas, cold storage, and environments exposed to dust, moisture, or impacts require robust lighting. This vapour-proof luminaire with its IP66 and

IK10 ratings, offers exactly that. Delivering up to 160 lm/W, the LinearPac+ is wattage selectable, 1,200 mm (20 W/24 W/30 W/60 W), 1,500 mm (32 W/38 W/48 W/58 W), and colour selectable (3000 K, 4000 K, and 6500 K). The fitting comes with stainless steel anti-tamper clips, and an adjustable microwave sensor with hold times up to 15 minutes. This makes LinearPac+ the ultimate solution for durable, low-maintenance lighting that thrives in demanding supermarket conditions.

Options available on request include EM and/or microwave sensor.

Arcus+: spotlighting freshness and colour

When it comes to fresh produce, meat, and bakery displays, colour rendering is critical. The Arcus+ track lighting system, offering CRI 90 for outstanding colour accuracy, is designed to bring all your product display areas to life. It ensures that merchandise looks appealing and enhances customer perception, which boosts sales. With 355° rotation with 90° tilt, Arcus+ combines flexibility with performance and is perfect for highlighting in-store signage.

Lumi-Fit+: the perfect retrofit solution

Supermarkets undergoing refurbishments or upgrades benefit from the Lumi-Fit+ recessed downlight. Wattage selectable and delivering up to 140 lm/W, its low-profile design makes it perfect for ceilings with limited voids. With plug-and-play external drivers, opal diffusers for glare reduction, and up to 100° beam angles, Lumi-Fit+ provides efficient, evenly distributed light that enhances shopper comfort while lowering energy costs.

Lighting design

Aurora can also assist you with in-store lighting design and 3D renders.

Lighting the way forward

"Aurora Lighting Africa's mission is to support South African supermarkets with lighting solutions that go beyond illumination," says Scylagh Clunnie, managing director of Aurora

Lighting Africa. "Our products are designed to save energy, reduce maintenance, and most importantly, create retail environments that inspire confidence and loyalty among customers. By combining efficiency with aesthetics, we're helping retailers thrive in a highly competitive market."

Enquiries: info@aurora-africa.com

DECEMBER 2025 FEATURES

- DBs, switches, sockets and protection
- Tools of the trade
- Lighting

JANUARY 2026 FEATURES

- Earthing, Lighting, and Surge Protection
- Cables and Cable Accessories
- Lighting

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