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## REPLACING LESS ENVIRONMENTALLY FRIENDLY MV PAPER CABLE WITH IMPROVED DESIGN MV XLPE CABLES, AN INNOVATIVE SOLUTION FOR COASTAL AREAS AND OTHER WETLANDS

By: Donemore Torerwa, GM: Product Development and Applications, Aberdare Cables



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**X**LPE (cross-linked polyethene) medium voltage (MV) cables have proven to offer superior electrical performance, allowing for improved power loading compared to MV paper-insulated lead cables (PILC). However, PILCs are still very common in many coastal areas and wetlands in South Africa.

The PILC product has been preferred for years due to its special features of lead sheathing, which allows for improved radial water blocking protection against moisture and water ingress, thereby significantly extending the life of a cable. Some cables have been in use for over 40 years in these networks.

Though PILC cables have proven to be resilient, there are many challenges to their continued use. PILCs are made using paper impregnated with oil as their insulation, and lead extrusion under sheathing. PILCs may pose negative environmental issues related to oil contamination when there is a cable fault at high temperatures or during cable disposal when burning. The lead or lead alloy in the PILC must be disposed of in controlled environments, which may pose challenges to many users of this product. Many countries across the world have discontinued the production of PILCs due to their negative environmental impact, and South Africa is one of the few countries, if not the only one in the world, that is still manufacturing PILC cables for new installations because of its demand in the coastal and wetlands, and in a few mining applications.

Aberdare Cables, through its research and development initiatives, has developed an innovative solution that improves the mechanical performance of the XLPE cables to allow for their use in the coastal areas and wetlands in South Africa. This has been successful through engagements with the users of the PILCs to understand their justification for the reluctance to move to the MV XLPE cables, which have already proved to have better electrical performance in terms of current rating for the same cable size. This new innovative solution of MV XLPE cables, now

produced locally by Aberdare Cables at its Stanford Road factory in Gqeberha (formerly Port Elizabeth), consists of a radial water blocking feature making use of aluminium laminate technology, addressing the drawbacks to change from PILC to more environmentally friendly MV XLPE cables and allowing for improved life in MV XLPE cables. This product is available throughout Africa and globally as well.

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## Where does the knowledge go?



wonder: where does all that accumulated knowledge go when the seasoned professionals eventually step down?

It's not just people ageing out of the industry, but those leaving the country or switching sectors entirely. The brain drain is real, and it's not just about numbers; it's about decades of hard-won expertise walking out the door. Rarely do departing professionals have the time, opportunity, or structured process to transfer their knowledge to those left behind properly. Much of it simply evaporates.

Now pair this reality with the much-highlighted challenge around training and finding skilled workers, and you're left with a problem that will only compound if nothing changes. We're not just losing people; we're losing institutional memory, industry wisdom, and practical know-how that can't be googled or found in a textbook.

The good news is that some organisations are rising to meet this challenge head-on. The IESSA conference didn't just talk about knowledge transfer; it actively demonstrated it in action. It was particularly encouraging to see how engaged the audience remained throughout both days, even during those traditionally drowsy afternoon sessions.

The topic of knowledge transfer came up multiple times whilst I attended the August IESSA annual conference – not only in the formal presentations, but during the teatime chats too. Are we losing out?

Usually at these kinds of events, the first thing one notices is that there are virtually no women in the room (a topic for another day). Secondly, that the mean age of the audience is on the older side. As much as it was encouraging to see more younger faces at the IESSA event, one can't help but

People were genuinely eager to learn from the experts on stage, who in turn generously shared their hard-won expertise and patiently fielded questions from the floor.

This kind of open knowledge exchange is exactly what the industry needs more of. It's a reminder that sometimes the most valuable learning happens not in the scheduled sessions, but in those teatime conversations where someone mentions, almost in passing, the trick that saved them from disaster on a project five years ago.

Read more about what happened at this year's IESSA annual conference on page 15.

Be sure to check out BEKA Schröder's new energy-efficient lighting solution for the Cape Flats managed aquifer recharge plant on page 14. Also on page 14, Eurolux Lighting breaks down 3CCT and why it matters, while Aurora Lighting Africa shares its latest panel innovations on page 16.

Our cover story this month is by Aberdare Cables, which looks at replacing less environmentally friendly MV paper cable with improved design MV XLPE cables. While on the topic of cables, check out Pratley's article on page 6 that deals with the advantages of using an adjustable cable gland.

Feature themes this month include Distribution Boards, Switches, Sockets and Protection; and Industry 4.0 and Automation. Did you know South Ocean Electric Wire has completed a solar installation that marks a global first: a seamless switch from grid to backup power in zero seconds? See page 7.

If you're one of those generous souls who takes the time to share your knowledge by writing articles for this magazine or contributing to industry discussions, thank you. For those who haven't yet contributed, consider this an open invitation – we'd love to help you share your knowledge with the broader industry.

For now, happy springtime, everyone.

*Ilana Koegelenberg*

sparks@crowns.co.za

## Workforce flexibility key to powering SA's renewable future

South Africa's renewable energy sector is entering a new chapter. After years of growth focused on building solar farms and wind projects, the spotlight is shifting, and the new priority is making sure these sites operate efficiently and reliably for the long term. This is where Temporary Employment Services (TES) providers like Quyn International Outsourcing are stepping in.

### Long-term performance

In the early days, renewable energy projects were all about construction. While the construction phase sees the most action, it's once a project has been commissioned that the real work begins – with these sites needing maintenance to ensure they produce energy as expected and remain financially viable.

Ongoing maintenance is essential for sustained success. Sites need regular inspections, fault detection, cleaning, and servicing to stay productive. Without proper maintenance, even the best solar or wind farm can underperform. Maintenance ensures these projects continue delivering power, return on investment, and energy security over their full 20-year lifespan.

### A smart, flexible workforce model

TES providers are uniquely positioned to support this phase, explains Pierre Bekker, director at Quyn International Outsourcing. Unlike large construction workforces, maintenance relies on smaller, specialised teams that need flexibility and responsiveness. TES providers offer a staffing model that allows companies to adjust their workforce according to site needs, without the complexity of hiring permanent employees.

Beyond staffing, one of TES providers' most powerful contributions is uplifting rural communities. In towns where there were once no qualified artisans, renewable energy projects have opened real career opportunities. Locals who started as general workers during construction have become qualified electricians and technicians.

"The right TES partner does more than just fill vacancies," Bekker explains. "They help build the local infrastructure needed to support long-term operations." Operating across multiple projects, they establish shared resources benefiting several companies and communities while handling HR, payroll, industrial relations, and compliance.



This approach allows them to serve multiple sites with shared resources, enabling efficient operations, even in remote rural areas, without the need for full internal teams. With strong supplier networks and on-the-ground presence, they keep projects running smoothly.

In a sector where safety, compliance and transformation are non-negotiable, an experienced TES partner actively contributes by investing in people, offering training opportunities, and building long careers in renewable energy. These aren't just jobs; they are pathways to better livelihoods in communities that were once overlooked.

Enquiries: info@quyn.co.za

CONTINUED FROM PAGE 1

## REPLACING LESS ENVIRONMENTALLY FRIENDLY MV PAPER CABLE WITH IMPROVED DESIGN MV XLPE CABLES, AN INNOVATIVE SOLUTION FOR COASTAL AREAS AND OTHER WETLANDS

The new solutions are already covered in the local standards SANS 1339 of 2020. SANS 1339 is a compulsory standard in South Africa covering cables with voltages rated from 6.6 kV–33 kV (MV cables). This standard specifies longitudinal and radial water blocking for MV cables when required by the user of the cable. Longitudinal water blocking is the most commonly deployed water blocking method as applied by many cable manufacturers in the local market, mainly because it is relatively easy to implement. Longitudinal water blocking alone, however, may not be enough to offer lasting water blocking capabilities of a

cable in some environments, especially in areas that have high water levels in the ground. Offering radial water blocking becomes key for cables to ensure enhanced water blocking capability of MV XLPE cables at the design and manufacturing level.

Radial water blocked cables are not very common in South Africa for MV cables. They are common for high voltage (HV) cables for 44 kV–132 kV-rated cables, making use of Corrugated Seamless Aluminium (CSA).

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## Growatt crowned 2024's top global residential PV inverter supplier

Growatt, a world-leading provider of distributed solar and energy storage solutions (ESS), has secured top positions in the 2024 global PV inverter rankings, solidifying its leadership in the solar energy sector and demonstrating its strong performance across key market segments. According to the latest report, Growatt is ranked the:

- Global No.1 Residential PV Inverter Supplier
- Global Top 3 Hybrid Inverter Supplier
- Global Top 5 Commercial PV Inverter Supplier

The rankings are based on the newly released 2024 PV Inverter Market Tracker by S&P Global Commodity Insights, a leading authority in global solar market intelligence. The latest results mark a step up from Growatt's 2023 performance, where it was named the Top 2 Residential PV Inverter Supplier and Top 5 Overall PV Inverter Supplier worldwide.

"Being recognised by S&P Global as the top solar inverter brand in 2024 – especially as the No.1 global residential PV inverter supplier – is a true honour," said Lisa Zhang, vice president of Growatt. "This achievement is a testament to the strong partnerships, user trust, and tireless dedication of our global team."

### Empowering millions

Growatt offers a comprehensive portfolio of solar energy solutions, including hybrid inverters, residential and commercial solar inverter systems, and smart energy storage solutions. Growatt provides smart energy solutions to customers in over 180 countries worldwide, powering millions of homes and businesses globally and empowering them to adopt clean, independent, and cost-effective energy.

In the residential solar segment, Growatt's inverters are known for their reliability, high efficiency, and advanced monitoring features, making them a top choice for homeowners worldwide.

As the top hybrid solar inverter supplier, Growatt offers systems that seamlessly integrate solar generation with energy storage, giving users greater control, backup capability, and energy resilience.

For the commercial and industrial (C&I) market, Growatt continues to expand its reach with reliable solar inverter solutions for businesses, helping companies lower



energy costs and accelerate their carbon neutrality goals.

Designed for residential and commercial use, Growatt's ESS solutions pair seamlessly with solar inverters to provide grid independence and adaptable energy solutions for any scenario.

"This milestone belongs to our global network," said David Ding, CEO of Growatt. "Together, we are shaping a more sustainable and energy-resilient future."

### Commitment to innovation, service, and sustainability

Growatt continues to lead through strong R&D investment, allocating 4.5% of its annual revenue to research and development. The company operates four major R&D centres globally and boasts a team of over 1,100 experienced R&D engineers specialising in photovoltaic and energy storage technologies. This solid foundation keeps Growatt ahead of the curve, with deep expertise in the core technologies driving solar energy generation and storage solutions.

The company has also launched a wide range of AI-powered tools, energy storage systems with hybrid inverters, smart energy assistants, and intelligent monitoring platforms to optimise system performance and deliver seamless energy management for users worldwide.

To further support global partners, Growatt has built an extensive network of training centres, after-sales support teams, and technical service hubs. This localised approach ensures that global users receive prompt and professional assistance.

As a top solar company with a global presence, Growatt remains committed to developing tailored solutions for emerging markets and strengthening its mission to be the most reliable solar inverter company in the clean energy transition.

Enquiries: [www.growatt.com](http://www.growatt.com)

## How smarter lifting is energising South Africa's solar industry



Innovation isn't just about panels or batteries, it's about the tools that help make clean energy accessible and viable at scale.

—Alistair Bennett, SkyJacks

The GEDA Solarlift is a lifting solution designed specifically for the solar industry. With its modular, compact design and a lifting height of up to 19 m, the Solarlift provides an efficient, safe, and cost-effective way to transport photovoltaic panels onto a rooftop, whether in urban centres or remote agricultural settings.

### Lifting the lid on installation challenges

"Transporting and installing solar panels presents a unique set of logistical challenges," says Alistair Bennett, managing director at SkyJacks. "These panels are not only bulky and fragile but getting them safely onto rooftops using traditional lifting methods can be time-consuming, risky, and expensive."

Large-scale solar panels, often used in commercial and industrial projects, are delicate by nature and susceptible to damage from mishandling. Rooftops can be difficult to access, and using the wrong equipment can lead to costly breakages and long project delays, issues that weigh heavily on contractors who operate on tight budgets and timelines.

Breakages don't just increase hardware costs; they ripple through the entire project lifecycle. "When panels are damaged during lifting or installation, it's not just about replacing the equipment," explains Bennett. "There are lead times for new panels, and in some cases, entire teams are idled while waiting. It impacts the bottom line and the contractor's reputation."

### GEDA Solarlift: A smarter, safer way to install solar

"The GEDA Solarlift was developed with the realities of solar projects in mind," says Bennett. "It's lightweight and easy to set up, even on uneven ground or in tight construction sites. The adjustable platform holds solar panels securely during the lift, reducing manual handling and lowering the risk of both damage and injury."



This makes the system particularly valuable for rooftop installations in industrial parks, warehouses, and commercial farms, where rooftop access and project scale can vary significantly. For installers working in remote regions, such as those popular for utility-scale solar in the Northern Cape, the Solarlift's portability and quick setup offer added advantages.

### Flexible rental model for contractors

SkyJacks, the local supplier of the GEDA Solarlift, has introduced a "pay-as-you-use" rental model that reduces the barrier to entry for contractors and renewable energy developers. "Our rental model is designed to be as flexible and supportive as possible," says Bennett. "There's no need for a big upfront investment, which helps ease cash flow constraints. And all equipment is fully serviced and tested before each use, so contractors know they're getting equipment that's safe, reliable, and ready to go."

This model allows small and mid-sized contractors to compete on larger projects without committing capital to own specialised equipment. It also helps solar providers scale their operations more easily, renting additional lifts as needed without incurring permanent overheads.

### Hands-on support makes the difference

SkyJacks' offering extends beyond equipment. The company provides end-to-end support, including site assessments, technical advice, and on-site setup assistance. This comprehensive support ensures that even less experienced contractors can safely and efficiently operate the Solarlift, helping them meet deadlines and reduce costly mistakes.

### Powering the future of solar in South Africa

As solar uptake accelerates in South Africa, driven not just by the promise of energy security but also by long-term financial savings, solutions like the GEDA Solarlift are helping streamline the installation process. This doesn't just save time and money, it improves workplace safety, reduces waste through minimised breakages, and boosts the overall reliability of solar project rollouts.

"Innovation isn't just about panels or batteries, it's about the tools that help make clean energy accessible and viable at scale," says Bennett. "The GEDA Solarlift is a practical solution to a very real problem in the industry, and we believe it's going to play a big role in how South Africa builds its solar future."

Enquiries: [www.skyjacks.co.za](http://www.skyjacks.co.za)



## Sungrow's commitment to women leading the renewable energy revolution

As South Africa accelerates its renewable energy transition, one thing remains clear: the sector's success will rely not only on innovation but on inclusion. That's why Sungrow, a global leader in clean energy solutions, is spotlighting the vital role of women in engineering and the need to ensure they are empowered to lead the charge.

Lona Kula, a service engineer at Sungrow, is one of the women shaping this transition. Her career began in 2014 as a protection and control technician, where she worked on substation automation and electrical system safety. Over the years, she steadily advanced into more senior roles, refining her technical expertise in electrical engineering, control systems, and power infrastructure. In 2021, she made the shift into renewable energy, driven by both personal conviction and the global urgency to find sustainable energy solutions.

Kula joined Sungrow in 2022, where her role involves supporting the commissioning, operation, and optimisation of clean power systems, including residential hybrid solutions, commercial battery storage, and grid-tied solar installations. She works across diverse sites, often in remote or challenging locations, ensuring that complex solar infrastructure is not only operational but optimised for long-term efficiency. Reflecting on one of her most memorable contributions, Kula highlights the commissioning of a hybrid energy system for a rural community that had long experienced unstable electricity.

"Seeing the system go live and bringing reliable power to homes, clinics, and schools was a powerful reminder of why I chose this path," explains Kula. "When you see the impact of your work in real time, particularly in places that have gone without reliable power for years, it's incredibly motivating."

Kula recognises the importance of representation and mentorship, adding that while South Africa has made progress in encouraging girls into science, technology, engineering, and mathematics (STEM) fields, there is a growing need for stronger mentorship, more inclusive workplaces, and early education outreach to shift the landscape.

"Companies have a key role to play by providing career pathways, amplifying the voices of women in leadership, and creating environments where technical excellence is nurtured across all backgrounds," she says. "At Sungrow, the company prioritises this, and has built a culture that values learning, teamwork, and diversity."

Eric Song, managing director for Sungrow Sub-Saharan Africa, echoes this sentiment, adding that the representation of women in the industry is not just important, but essential for a stronger, more resilient energy future.

"Diverse teams deliver better solutions. At Sungrow, we actively invest in mentorship, inclusive hiring, and career development initiatives that support women across the energy value chain."

Industry-wide progress depends on sustained effort and shared accountability. While strides have been made, many women in technical roles still encounter challenges, from unconscious bias to gaps in mentorship and leadership visibility. Addressing these issues requires not only awareness but collaborative action.

"As South Africa looks ahead, women should play a central role in shaping the future – not only as participants, but as leaders and innovators. The clean energy transition isn't just about technology. It's about building an inclusive industry that truly reflects the communities we serve," concludes Song.

Enquiries: <https://sa.sungrowpower.com/>



Companies have a key role to play by providing career pathways, amplifying the voices of women in leadership, and creating environments where technical excellence is nurtured across all backgrounds.

- Lona Kula, Sungrow

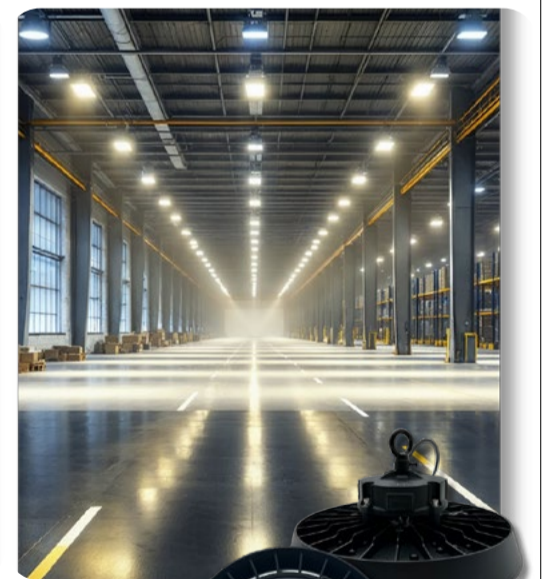
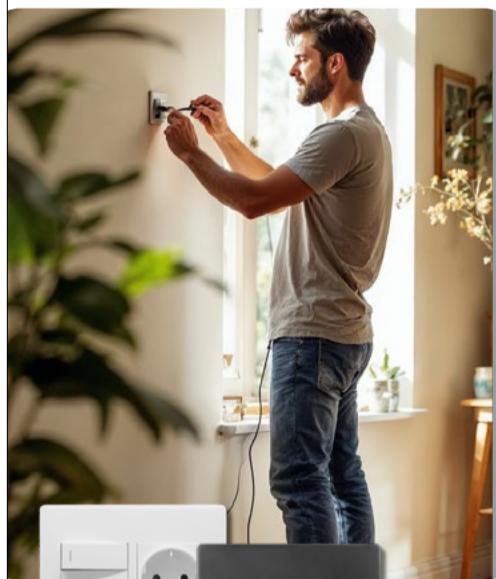


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## The advantages of using an adjustable cable gland

South African manufacturer Pratley continues to demonstrate its engineering leadership with its innovative adjustable cable gland, designed to significantly reduce maintenance and labour costs across a wide range of industrial applications.

"Our adjustable cable gland offers exceptional cost savings, versatility, durability and efficiency," highlights Tristan Blades, technical projects manager. Its adjustability allows it to accommodate everything from paper-thin braid armouring to thick steel wire armour. The interchangeable nipple design also allows for extended-length nipples, making it ideal for applications involving thicker gland plates, which is where conventional glands typically fall short.

A key cost-saving feature is the gland's design, which includes a built-in spigot. This allows a smaller gland to fit securely into a larger knockout hole, such as an M20 gland into an M25 knockout, minimising the need

for different gland types and streamlining inventory requirements. "It is a solution that makes installations quicker and more flexible," adds Blades.

In addition to design innovation, Pratley's 95% stock availability policy and commitment to customer service mean that replacement parts are readily accessible. This ensures minimal operational downtime and quicker turnaround times for repairs.

"A manufacturer offering near-total stock availability on the shelf can make an enormous difference," notes Blades. "It eliminates delays related to manufacturing lead times and helps maintenance teams keep operations running smoothly."

Durability is another standout feature. Unlike ordinary cable glands, the adjustable cable gland's loose cone bush allows it to be manufactured from a different material. It is made from a special high-tensile brass to prevent distortion under tightening or mechanical stress. In addition, the loose cone bush also allows it to automatically

self-centre under the armouring, thus ensuring the very best grip possible on each armour wire.

The gland's immense clamping ability is also achieved by incorporating a differential nut which features two slightly different coarse-pitch threads, which achieve the mechanical advantage of an ultra-fine-pitched thread. "It is like having the clamping advantage of a virtual thread, or like having a built-in gearbox in the gland," comments Blades.

Feedback from the field highlights the positive impact of these innovations. "Many of our customers have reported significantly lower maintenance costs thanks to the adjustable cable gland. It is such an easy gland to install. The ability to use one gland across multiple armoured cable applications not only simplifies the installation process but also delivers long-term savings," highlights Blades.

Pratley has a policy of producing products that outperform all others on the world



market. "It is something we live and breathe by, and our adjustable cable gland achieves just that," concludes Blades.

Enquiries: [www.pratleyelectrical.com](http://www.pratleyelectrical.com)

## Keep it simple, Sparkie

By: Josh Berman of Distribution Boards SA

What I've learnt in the past decade of manufacturing distribution boards (DB) is this: if you ask too many questions, you get too many answers.

As a manufacturer, if I ask a customer, "When do you need your DB board?" they'll answer, "Yesterday". And if I ask what colour they want, they will respond: "Dusty blue-grey with a hint of green." (Apparently, Eskom used this colour between Jan '94 and Feb '95, and now we need to match the shade to the transformer - which, by the way, is missing all its windings. Because, well... Eskom.)

"The Paradox of Choice" is a psychological principle coined by Barry Schwartz, which states that offering a customer too many options runs the risk of decision paralysis, anxiety, and ultimately dissatisfaction. And with anxiety and dissatisfaction at an all-time high, maybe there's something we're missing.

We tend to overcomplicate things. Like those site meetings that could have been an email. Or a site visit that could have been a WhatsApp. Or a site office that could have been a porta-potty.

Don't get me wrong, there's nothing I love more than being called to a site to fix someone else's mess. And I use the words "love" and "fix" very loosely - much like the South African cricket team.

But maybe we need to rein it in. Simplify the choices. For example, if you have six colour options, offer three. If you have four steel types, offer two.

The easiest choices we make in life are the ones that aren't really choices at all. Coffee or tea? Still or sparkling? Neat or on the rocks? The attendant has already



decided we're drinking; we're just "choosing" how we'd like it presented.

So, if this concept is so ingrained in our subconscious, then why are we still offering such complex solutions?

Welcome to the world of electrical, where everything is made up and the points don't matter.

Granted, the electrical industry is remarkably dynamic and often the problem itself is complicated. But make the solution too complicated, and you risk making the customer disappear faster than a "tenderpreneur" who's just received his third budget quote.

So, what's your answer to overcomplicating, Josh? That's a good question, and I'm glad you asked.

At DBSA, we're offering a range of standard enclosures. Set sizes, set colours, set stock. You don't have to make the decision. The panels fit a range of breakers in a range of configurations. Just buy the DB box. It will work - even if you need it yesterday.

Enquiries: [www.electricalboards.co.za](http://www.electricalboards.co.za)

## The high cost of using unverified home maintenance artisans



There can be no doubt that, considering the soaring costs of living, higher interest rates, and rising electricity prices, South African consumers are facing enormous financial pressure.

With that in mind, when those unforeseen - and often pricey - household repairs hit, it's tempting to go with the cheapest contractor available, who may be unregistered, undocumented, and unverified. Which leaves the unsuspecting homeowner vulnerable and open to exploitation.

As a case in point, employing the services of "pirate" electricians presents far more dire consequences than just the obvious cost implications. Where electrical work is undertaken by an unqualified or unregistered supplier, the installation may be unsafe, possibly even deadly. Additionally, due to the latent nature of certain electrical faults, the hazards may not be immediately noticeable, which is not a chance you want to take.

Furthermore, using an unregistered electrician may nullify your insurance cover, and in the unfortunate event of an electrical fire, your insurer may repudiate any claims if the Certificate of Compliance for the property was fraudulently issued by a pirate contractor.

Enter the GoodApp, the seamless, go-to platform for South African homeowners looking for trusted, accredited service providers such as plumbers, electricians, home cleaners, hairdressers and even beauty therapists. Better yet, their approximate two-hour turnaround time

means you get a verified supplier that fits your budget, and in record time.

Shaheen Price, co-founder and CEO of GoodApp, reiterates, "It is imperative for us as a business to ensure that we follow the most rigorous screenings and verification of all our suppliers. Since the inception of GoodApp, we have used the KYC screening methodology employed by most financial institutions which includes credit and criminal checks. However, we go one step further, and all potential suppliers are required to submit original, certified copies of their ID documents, banking details and statements as well as proof of address so our customers' safety is never compromised."

In addition, specialised suppliers such as electricians and plumbers are required by law to be registered with relevant industry bodies such as the Electrical Conformance Board of South Africa and the Plumbing Industry Registration Board. Potential suppliers are compelled to submit their certifications before they are registered as a GoodApp-approved contractor.

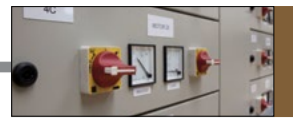
"Our suppliers are required to send us 'before and after' images to ensure the assigned job was completed, that it was done correctly, according to our meticulous standards. Of course, there will always be a few exceptions; however, it is our organisation-wide ethos to provide exceptional workmanship and outstanding service at a reasonable cost. Good for you, good for your pocket," concludes Price.

Enquiries: [www.goodapp.co.za](http://www.goodapp.co.za)



Maybe we need to rein it in. Simplify the choices. For example, if you have six colour options, offer three. If you have four steel types, offer two.

- Josh Berman, Distribution Boards SA



## World-first zero-second switch from grid to back-up solar power

JSE-listed cable manufacturer, South Ocean Electric Wire (SOEW), has completed a solar installation it says marks a global first: a seamless switch from grid to backup power in zero seconds.

Developed in partnership with GreenSun, a renewable energy supplier, the system enhances SOEW's operational resilience amid South Africa's loadshedding challenges. The installation, completed at SOEW's Alrode, Johannesburg facility, leverages advanced AI-driven inverter technology and a custom-designed battery storage system to provide uninterrupted power for critical manufacturing processes. "It optimises energy use based on time-of-use tariffs, weather patterns and kVA demand changes," noted Tertius Ness, chief operating officer of SOEW.

"The benefits of this installation are transformative," said Ness. "The zero-second switch eliminates downtime, previously costing SOEW an estimated R2-million annually due to loadshedding interruptions. By maintaining continuous power to production lines, the system safeguards product quality and delivery schedules,

critical for SOEW's clients in construction and infrastructure."

"Additionally, the installation reduces energy costs by 30%, leveraging solar power during peak sunlight hours and storing excess for nighttime use. This translates to annual savings of approximately R1.5-million. Environmentally, the shift cuts CO<sub>2</sub> emissions by 600 tons yearly, reinforcing SOEW's commitment to carbon neutrality by 2030," Ness added.

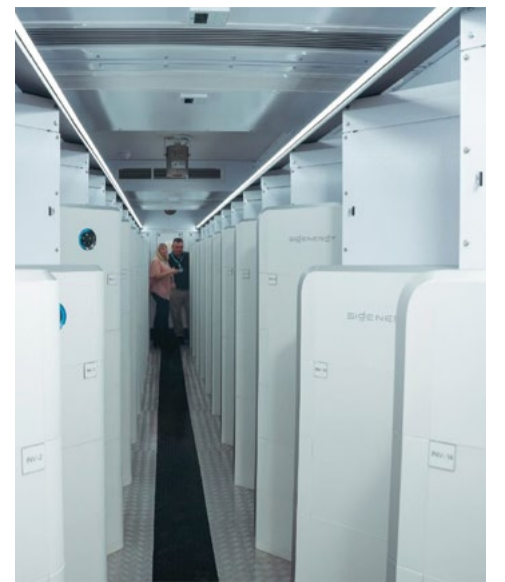
He noted that the system's technical prowess lies in its hybrid inverter, which synchronises grid and battery power, enabling an instantaneous transition without the typical 10-20 second delay seen in conventional setups.

GreenSun's engineers customised the configuration to handle SOEW's peak load of 450 kW, ensuring scalability for future expansion. The installation also includes real-time monitoring, allowing SOEW to optimise energy usage and respond proactively to grid instability. This data-driven approach has already improved energy efficiency by 15% since commissioning in June 2025.

"We believe the achievement positions SOEW as a pioneer in sustainable industrial energy solutions, which sets a new benchmark for the global manufacturing sector. The decision to partner with GreenSun stemmed from the supplier's proven expertise in delivering tailored, high-efficiency solar solutions and its strong track record in the South African market," said Ness.

GreenSun's solution integrates cutting-edge technology with SOEW's specific energy needs, supporting a 500 kW solar array and 1 MWh battery storage. "Their innovative approach and deep understanding of our operational demands were key factors in this collaboration. The solution not only meets our immediate energy challenges but also aligns with our long-term sustainability goals," Ness said.

Ness noted that the implementation underscores SOEW's leadership in the cable manufacturing industry, where reliable power is paramount: "SOEW, known for producing high-quality electrical cables for local and export markets, has now set a precedent for industrial energy resilience."



"This milestone is a testament to our team's innovation and GreenSun's expertise. It's a game-changer that not only secures our operations but also offers a replicable model for other manufacturers facing similar challenges," he concluded.

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

## Vertiv expands power portfolio with enhanced static transfer switch for critical applications in EMEA

Vertiv, a global provider of critical digital infrastructure, has announced the launch of the Vertiv PowerSwitch 7000, a next-generation static transfer switch that strengthens Vertiv's position as a complete power solutions provider. The system further expands the end-to-end portfolio of Vertiv solutions that enable the critical digital world to continuously accelerate and perform.

Designed to support uninterrupted operations across vital sectors, including data centres, financial services, and manufacturing technology, Vertiv PowerSwitch 7000 addresses the growing demand for power reliability in an increasingly digital world. Available now in Europe, the Middle East, and Africa (EMEA) markets, this solution supports continuity in power supply to help prevent costly disruptions.

Vertiv PowerSwitch 7000 operates downstream from redundant uninterruptible power supply (UPS) systems in reserve bus and dual-bus power architectures for facilities that cannot tolerate power interruptions, including colocation and enterprise data centres. The system delivers seamless, automatic transfers between independent power sources, providing critical redundancy for both single-corded loads and additional protection for dual-corded equipment. An internally redundant architecture further eliminates potential single points of failure.

"Power protection and reliability are increasingly critical concerns for data centre operators, especially when planning for computing growth," said Greg Hoge, product management global director at Vertiv. "By combining reliable switching, operational flexibility, maintenance simplicity, and intelligent diagnostics, Vertiv PowerSwitch 7000 sets a high standard for operational excellence in power switching technology for even the most demanding data centre applications."

The upgraded system offers innovative serviceability features that include a compartmentalised design that separates high-voltage sections from maintenance areas, enhancing operator safety while




improving overall serviceability. The front-access design allows maintenance without service interruption, reducing repair time while maintaining continuous power to critical loads. Flexible installation options, including top and bottom cable entry, make it ideal for both raised and non-raised floor environments. Modular Silicon Controlled Rectifiers (SCRs), hot-swappable fan assemblies, and tool-free air filters support quick servicing and consistent performance.

The on-unit 9-inch colour touchscreen control panel provides advanced waveform capture capability, allowing the platform to function as a diagnostic tool, by capturing power measurements at a high sampling rate during transfer events to support comprehensive root cause analysis. This intelligent monitoring system provides facility managers with easy access to system data, helping them quickly identify and respond to power disturbances. Remote monitoring is available through the Vertiv Intellislot RDU120 communication card, which is UL2900-1 cybersecurity certified, delivering secure, remote access to system


status and diagnostics.

Vertiv's PowerSwitch 7000 integrates seamlessly with Vertiv's comprehensive portfolio of power management systems, including UPS systems and power distribution units, creating a complete power protection ecosystem. The solution is supported by Vertiv Global Services, a network of trained experts worldwide, offering a comprehensive portfolio of project, lifecycle, and digital services to maximise reliability and minimise downtime.

Enquiries: [www.vertiv.com](http://www.vertiv.com)



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# ...from humble beginnings to a Local Manufacturing Power House!



**Willem Ackerman - Managing Director & Kevin Gray - Operations Director**

The Company was first established in 1942 as J Stone & Co (Africa) (Pty) Ltd and was renamed Stone-Stamcor (Pty) Ltd in 1965.

Our Head Office is located in Sebenza, Edenvale, Gauteng with 4000m<sup>2</sup> of factory and administration facilities. We are nationally supported by regional sales branches in Durban and Cape Town. Stone-Stamcor has a wide product range supplying the electrical and mechanical Industries.

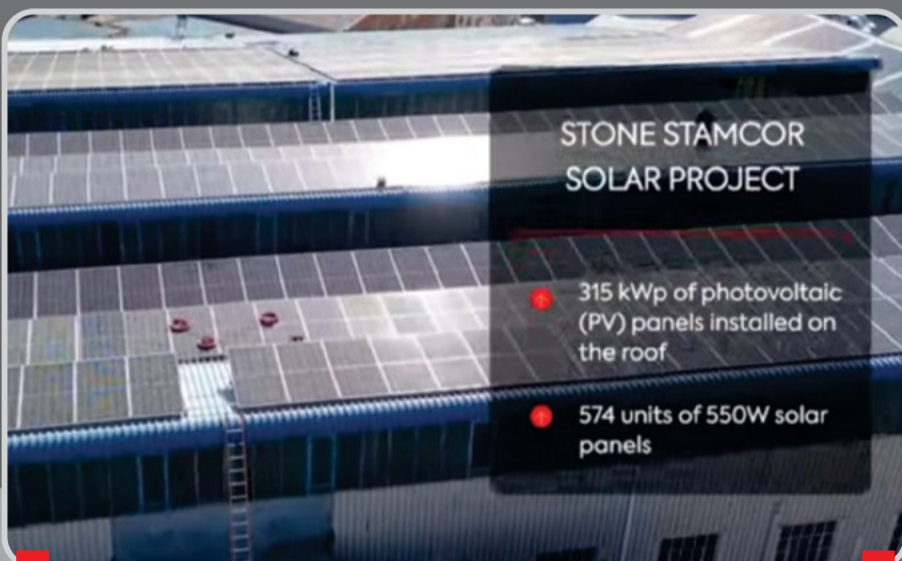
The core business of the Electrical Division is the manufacture of a comprehensive range of Copper and Aluminium Compression Cable Connectors (Lugs and Ferrules) for fitment to cable conductors. These products are supplemented with other types of connectors for earthing and customer specific solutions for special applications. Stone Stamcor also supply a full range of compression crimping and cable cutting tools.

The Mechanical Division represents a number of renowned international companies & quality brands and can supply a range of industrial gearboxes, motors, linear motion control products, converting industry products and rotating unions to name a few.

Stone Stamcor is an ISO 9001-2015 certified company – certified by the BSI Group.



**The Sales Staff at Stone Stamcor JHB, DBN & CPT are always available to discuss your requirements and Provide the Service we are renowned for...**

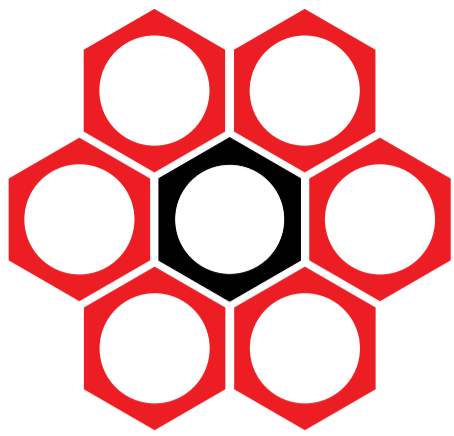


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18V Battery  
Crimping Tools



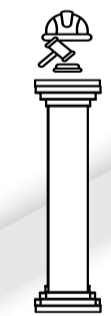
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## The smart spark: How intelligent electrical products are enabling the future

Industry 4.0 is transforming the way businesses manage power, automate processes, and drive efficiency. As systems become more connected, the demand for smart electrical products is growing – ushering in a new era of control, insight, and operational intelligence.

### Smart control at your fingertips

From programmable switches to connected sockets, the ability to remotely monitor and manage electrical functions is now essential. Smart switching devices enable users to schedule operations, monitor performance, and manage loads from anywhere – improving safety, enhancing efficiency, and reducing energy consumption.

### Intelligent protection for critical systems

Modern facilities require more than basic protection. Intelligent circuit breakers and surge protection devices now offer real-time alerts, fault diagnostics, and system integration capabilities. These smart solutions help detect anomalies before they cause downtime, providing greater peace of mind and operational resilience.

### Simplified energy management

Granular visibility into energy consumption is key to improving efficiency. Smart electrical products provide detailed insights into usage patterns by time, circuit, or load. With automated scheduling and real-time



monitoring, businesses can reduce waste, lower operational costs, and support sustainability goals.

### Built for the demands of industry 4.0

Across manufacturing, commercial, residential buildings, and infrastructure projects, the shift toward connected systems is accelerating. Smart electrical technologies are making it easier to monitor, control, and optimise power usage – laying the groundwork for automated, data-driven environments that can adapt to changing demands.

### Enabling the future, one smart product at a time

The future of industry is smarter, more efficient, and more connected. With the right smart electrical products in place, businesses and households can build resilient, responsive systems that support long-term growth and innovation.

Enquiries: [www.voltex.co.za](http://www.voltex.co.za)

## Fire compliance: What you need to know about fire extinguishers

When was the last time you gave the fire extinguishers in your building more than a passing glance? While having a fire extinguisher on the wall looks like you have fire safety covered, if it's a cheap imitation or hasn't been properly maintained, it's little more than decoration.

### Why compliance matters

South Africa has clear fire safety regulations, and for good reason. Lives depend on it. According to SANS 10400-T, all fire extinguishers installed in buildings must meet the requirements set out in SANS 1910. The Pressure Equipment Regulations also make it illegal to use extinguishers that haven't been manufactured or filled according to these standards.

### The rise of illegal fire extinguishers

Not every extinguisher out there is the real deal. Some suppliers cut corners to save costs. They might use inferior powder, skip safety components or slap a fake approval label on a cylinder that hasn't been appropriately certified. And from the outside, you wouldn't necessarily know. That's what makes it so risky.

So, how do you know if your extinguisher is actually compliant? There are a few key things you should always check:

- **Certification marks:** Only SABS, BSI (Kite Mark), or SACAS can certify extinguishers under SANS 1910. If the label doesn't show one of these, don't trust it.
- **Powder quality:** The extinguisher must contain SANS 1522-certified dry chemical powder. Anything less is a risk.
- **Cylinder stamps:** Every extinguisher must be permanently marked with the standard, manufacturer's name, date, test pressure, and serial number.
- **Label details:** Look for the manufacturer's info, working pressure, weight, fire rating, and hydrostatic test pressure. If anything's missing, it's not compliant.
- **Valve check:** The valve must include a safety

pressure relief device and CE marking. Ask for the module certificate.

### Servicing and reconditioning

It's not just about what you buy – it's also about who services it. Extinguishers must be serviced to original specs by SANS 1475-certified companies using South African Qualification & Certification Committee (SAQCC)-registered technicians. Beware of fake labels of companies replacing the original manufacturer's instruction label – the unit isn't compliant if the company's name isn't on the manufacturer's certification schedule.

### Choose a reputable company

It's easy to assume that a fire extinguisher is a fire extinguisher. But when lives, livelihoods, and legal liability are on the line, the details matter. So, the next time you walk past that red canister on the wall, ask yourself: Is it really up to standard? Because if it's not, it might not be there when you need it most.

SafeQuip has you covered with a full range of SABS-certified fire extinguishers, whether you're protecting a home, workshop, factory floor, or even a boat. Their stored pressure dry chemical powder (DCP) extinguishers are built to handle Class A, B, and C fires. And because not all fire risks are the same, they offer different powder grades to match the level of hazard you're dealing with.

The SANS 1910:2022-approved Lith-Ex fire extinguisher range, from SafeQuip, carries NTA 8133:2021 (KIWA/POO055865) test approval, which proves its lithium-ion battery fire extinguishing capability. SafeQuip also supplies high-performance CO<sub>2</sub> extinguishers for electrical and flammable liquid fires, plus specialised units like wet chemical and foam extinguishers. All products are built for easy maintenance to SANS 1475 standards by SAQCC-qualified technicians. A full range of accessories and spares ensures complete fire protection from installation to servicing.

Enquiries: [www.safequip.co.za](http://www.safequip.co.za)

## Portable power quality analysis

The Sonel PQM-707 Power Quality Analyser from Action Instruments addresses a critical need in modern electrical maintenance: the ability to conduct comprehensive power quality diagnostics directly on-site. This autonomous device combines professional-grade measurement capabilities with the mobility that maintenance teams require for effective field operations.

### Professional precision in a portable package

Central to the PQM-707's appeal is its adherence to Class S specifications according to the IEC 61000-4-30 standard, ensuring measurement accuracy that meets professional requirements. The built-in lithium-ion battery provides genuine autonomy, eliminating dependency on external power sources during critical measurements. This independence proves invaluable when diagnosing supply network problems in locations where mains power may be unreliable or inaccessible.

The device's 7-inch colour touchscreen offers an 800 x 480 pixel resolution that ensures excellent readability even in challenging field conditions. The intuitive interface, complete with an included stylus for use with dielectric gloves, demonstrates thoughtful design for electrical work environments where safety protocols are paramount.

### Built for demanding environments

The PQM-707's robust construction reflects its field-oriented design. The casing provides easy access to all measurement and communication sockets whilst incorporating a protective folding lid for the display. With IP51 protection rating, the device withstands dust and water splashes common in industrial environments, ensuring reliable operation across diverse working conditions.

### Comprehensive measurement capabilities

The analyser captures an extensive range of parameters through five voltage inputs (L1, L2, L3, N, PE), handling up to 760 V, and four current inputs supporting up to 6 kA depending on the current clamp used. Beyond basic electrical measurements, the device provides crest factors, frequency analysis within 40–70 Hz, and comprehensive power calculations including active, reactive, distortion, and apparent power.

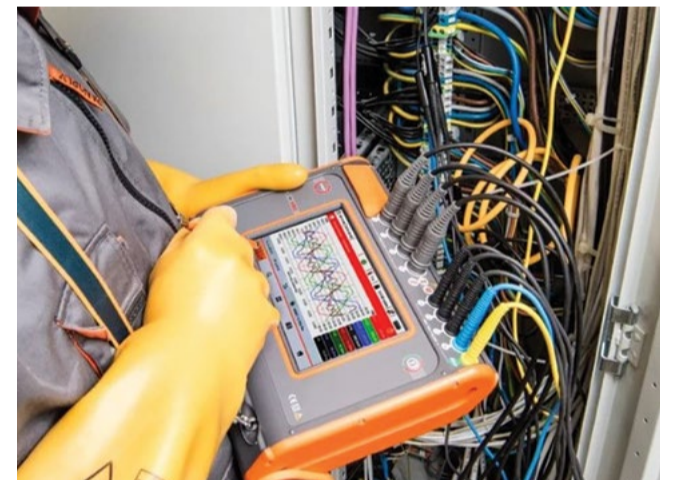
Harmonic analysis extends to the 50th order for both voltage and current, whilst event logging captures anomalies with oscillograms and half-period RMS charts. An integrated energy cost calculator adds practical value for economic analysis of power consumption issues.

### Versatile network compatibility

The device demonstrates remarkable flexibility across network configurations, supporting both 50 Hz and 60 Hz systems with rated voltages from 58/100 V to 400/690 V. System compatibility includes single-phase, split-phase, various three-phase arrangements (WYE and Delta), and specialised measurement setups using Aron/Blondel methods. Direct current systems and transducer compatibility further extend its application range.

### Extended analysis and data management

With over ten years of recording capacity and removable memory card support, the PQM-707 enables comprehensive historical analysis. The CAT IV 600 V measurement category rating ensures high safety standards, whilst the ability to power directly from the measured network enhances measurement reliability. Integration with desktop Sonel Analysis software extends



analytical capabilities for detailed reporting and trend analysis.

### Target applications

The PQM-707 serves maintenance teams in industrial facilities, electrical contractors offering power quality services, facility managers tracking energy efficiency, and power engineering consultants conducting detailed system studies. Its versatility across voltage systems makes it valuable in manufacturing, healthcare, data centres, and renewable energy installations.

The Sonel PQM-707 represents a significant advancement in portable power quality monitoring, delivering professional-grade analysis capabilities in a truly mobile package that meets the demands of modern electrical maintenance and engineering practices.

Enquiries: [enquiries@aisa.co.za](mailto:enquiries@aisa.co.za)



## Cable care is critical to machine longevity

The management of moving cables and hoses in machine building is critical to the operation and longevity of the equipment, with modern systems like energy chain cable carriers often replacing conventional systems like cable festoons, reels or free-hanging loops.

Introduced in South Africa by German polymer manufacturer, igus, the innovative polymer chains act as a protective guide for cables and hoses, ensuring that they move in a defined, controlled path without tangling, twisting or wearing prematurely.

igus energy chains are fast replacing traditional festoon and cable reel systems due to their low-maintenance characteristics and ability to handle multiple energy types (electrical, hydraulic, pneumatic, fibre optic and even auxiliary components such as hoses) all in one neat,

flexible solution.

"Our e-chain cable carriers are increasingly being designed into new systems or retrofitting festoons and cable-reel systems in most industries. Our e-chains simply act as a moving conduit or a sort of spine that keeps the cable neat and always protected," says igus South Africa managing director, Ian Hewat.

According to him the following are the ten most compelling reasons why engineers and system integrators in South Africa are increasingly turning to igus energy chains when designing and building machines:

### 1. Cable-friendly design

igus energy chains have smooth inner surfaces and a controlled minimum bending radius based on cable specification. It

also protects cables and hoses from micro-abrasions and stress cracks. This drastically reduces premature failures and extends cable life even in highly dynamic applications.

### 2. Modular, lightweight and strong

Made from high-performance polymers, igus chains are lighter than metal systems yet offer impressive strength and stability. Their modular construction means they can be easily extended, shortened or customised on site, which makes them ideal for tight project timelines.

### 3. Multi-media integration

igus energy chains can simultaneously carry electric cables, pneumatic lines, hydraulic hoses and even fibre optic cables in a coordinated and well-protected housing. This helps streamline machine design and reduces the number of separate systems required.

### 4. Predictable service life with warranty

igus backs its products with a guaranteed service life based on millions of lab-tested cycles. Many igus chainflex cables carry up to a four-year warranty or the prescribed minimum cycle lifespan, offering peace of mind to OEMs and machine users alike.

### 5. Low-friction, energy-efficient operation

igus chains glide with minimal resistance thanks to their self-lubricating plastic design which significantly reduces drag forces. This makes them more efficient than festoon or reel systems that suffer from mechanical resistance or cable overlap.

### 6. Maintenance-free operation

No greasing or lubrication is needed

throughout the life of the chain. This reduces downtime and makes igus energy chains perfect for use in clean environments like food processing or high-dust areas like cement and mining operations.

### 7. Quick configuration and customisation

Designers can use the free igus online configurators to select, model and download their ideal energy chain setup. This speeds up the design process and ensures perfect compatibility with the machine layout.

### 8. Intelligent condition monitoring

With igus's i.Sense smart plastics add-on sensors can be embedded to monitor wear, cable tension and chain motion in real-time. This enables predictive maintenance and reduces the risk of cable failure.

### 9. Space-saving and safe

Energy chains allow for neatly routed cables and hoses that don't hang or swing to improve machine aesthetics and workplace safety. They also fit into compact machine designs where festoons or loops would be impractical.

### 10. Broad industry uptake

igus e-chains are in use in over 50 industries, from CNC machines and robotics to packaging lines, quarries and marine applications. Their proven versatility makes them a reliable choice across virtually any moving cable application. From travels as short as 100 mm up to the current longest application of 950 m.

Enquiries: [www.igus.co.za](http://www.igus.co.za)



## Managing e-waste in South Africa

South Africa has concluded its five-year Sustainable Recycling Industries (SRI) project, which ran from 2020 until 2025. What progress has been made over these past five years, and what's next?

Led by the Department of Forestry, Fisheries and the Environment (DFFE), funded by Switzerland's State Secretariat for Economic Affairs (SECO), and jointly managed by Empa and the World Resources Forum (WRF), the SRI project was delivered by a local team of three experts: Susanne Yvonne Karcher, Paul Jones and Aysha Lotter.

SRI was the development driver of the

country's first draft National Waste Electrical and Electronic Equipment (WEEE) Policy, as well as minimum technical and operational standards for e-waste operators. The programme also supported small business development and launched a national public education platform, known as the "WEEE are SA" website. Together, these outcomes lay the foundation for systematically building long-term, inclusive e-waste solutions, expanding reuse and recycling while also creating space for waste reclaimers in the system.

As the country prepares for the introduction of a new programme aimed at building on the progress made under SRI (which will be known as the Circular Electronics Initiative [CEI]), we reflect on the work and lasting impact of the SRI chapter so far.

### Delivery goals that shaped a new system for e-waste

Since its launch, the SRI programme aimed to strengthen circular economy models in developing countries by supporting policy development, the introduction of normative requirements (e.g. in the form of standards), and strengthening industry capacity, especially around WEEE-related waste streams. It also promoted higher environmental and social standards, with a strong focus on integrating waste reclaimers through collaboration and knowledge sharing.

In South Africa, SRI set out to:

- Develop a National WEEE Policy as part

of a broader regulatory framework for responsible e-waste management;

- Develop Norms and Standards that provide WEEE management activity based on minimum technical and operational requirements and seek to support collaboration between formal WEEE operators (including recyclers, collection service providers, and transporters) and reclaimers, enabling them to work together in a mutually beneficial way;
- Establish a voluntary Conformity Assessment Scheme, introducing fair and consistent minimum requirements for all WEEE operators;
- Support the growth of SMMEs under safer, environmentally sound working conditions in the developing e-waste management sector;
- Identify and investigate problematic waste streams, including lithium-ion batteries, solar PV panels, and e-waste plastics, towards finding local solutions that can safely handle such WEEE types while harnessing their material value;
- Expand public awareness and improve access to information through the WEEE are SA platform; and
- Integrate academic research into evidence-based policymaking.

### Milestones in SA's e-waste transformation

During its implementation, the project:

- Saw the DFFE gazette a draft of the National WEEE Policy in 2024;
- Developed the first draft of National Norms and Standards, shaped by

public input and grounded in real-world application;

- Conducted pilot audits at four WEEE facilities and trained registered PROs to prepare for compliance audits;
- Contributed to the development of nationally accredited WEEE management training curricula through MICTSETA (NQF Level 3) and EWSETA (NQF Level 4);
- Launched the 'WEEE are SA' public knowledge platform in 2024 to improve education and accessibility;
- Produced practical toolkits, including the Municipal WEEE Compass, to help local governments and small e-waste businesses implement responsible practices; and
- Hosted webinars and workshops on high-impact waste streams, including lithium-ion batteries, solar PV panels, and e-waste plastics.

### Beyond SRI: What the future holds for e-waste in SA

Now that the SRI project has reached completion, the focus has shifted to full-scale implementation.

"The new CEI initiative will carry forward the same work ethic as SRI, leaving no stone unturned in identifying and collaborating with partners across South Africa's WEEE sector," explains Susanne Karcher, SRI national project manager. "Our goal is to drive continuous improvement in e-waste management, environmentally, socially, and economically."

Enquiries: [www.weeeaesa.org](http://www.weeeaesa.org)



## SEW-EURODRIVE invests in regional capabilities

SEW-EURODRIVE continues to invest in developing local skills and sharing technical expertise across its African operations, recognising that successful industrial solutions require more than just supplying products. Through targeted training and collaboration, the company is enhancing its

ability to deliver fit-for-purpose drive and automation technologies across diverse sectors and regional challenges.

Operating successfully in Africa demands far more than the delivery of products or technology – it requires a deep understanding of local conditions, proactive skills

development and sustained collaboration across borders. While industry sectors share some common operational requirements, each African country presents its own distinct set of challenges shaped by infrastructure limitations, environmental conditions and regulatory variations.

As a leading provider of drive and automation solutions across the continent, SEW-EURODRIVE recognises that local insight and on-the-ground capability are critical to delivering effective, sustainable results. The company continues to invest in people development and technical training within its network of African subsidiaries and partners, supporting the long-term growth of its customers and the broader industrial ecosystem.

A recent regional workshop hosted at SEW-EURODRIVE's Johannesburg facility brought together team members from several African countries for intensive product training and inter-regional knowledge exchange. The focus extended across the company's full suite of advanced technologies.

"Workshops like this are invaluable because they not only upskill our people

but also help us connect the dots between what we do in different regions," says Teboho Moloi, business development executive: Africa at SEW-EURODRIVE South Africa. "Our teams face very different realities depending on where they are operating...By sharing technical experiences across these sectors, we enhance our ability to apply the right solution for each unique application."

Moloi highlights the value of knowledge-sharing in building a robust reference base across industries.

By equipping its people with the latest product expertise and encouraging collaboration across borders, SEW-EURODRIVE is strengthening its ability to serve Africa's evolving industrial and mining landscape. The company's commitment to developing regional capability ensures it remains responsive, reliable and aligned with its customers' strategic needs.

"Ultimately, our investment in people and technology is what sets us apart," says Moloi. "It is how we grow with our customers – and grow Africa's industries at the same time."

Enquiries: [www.sew-eurodrive.co.za](http://www.sew-eurodrive.co.za)



## Vertiv's new design provides energy-efficient cooling and power

Vertiv, a global leader in critical digital infrastructure, announced its energy-efficient 142 kW cooling and power reference architecture for the NVIDIA GB300 NVL72 platform. In addition to fully integrated end-to-end cooling and power strategies for this next-generation platform, the reference architecture unlocks a new era of infrastructure design by shifting from traditional buildouts.

Vertiv solutions are available as SimReady 3D assets in the NVIDIA Omniverse Blueprint for AI factory design and operations. The reference architecture can be customised for bespoke data centre designs to dramatically reduce planning times and reduce risk during the buildout process.

Vertiv works with NVIDIA and its data centre roadmaps to develop AI infrastructure strategies and deployment-ready designs that anticipate increased rack power densities. For example, Vertiv is collaborating with NVIDIA to support 800 VDC data centre power infrastructure for 1 MW IT racks and beyond, with Vertiv solutions available starting in 2026.

"Building upon our strong collaboration with NVIDIA and a shared vision to advance AI infrastructure, Vertiv is proud to release our comprehensive reference design and SimReady 3D assets for the NVIDIA GB300 NVL72 platform," stated Scott Armul, executive vice president of global portfolio and business units at Vertiv. "Vertiv solutions allow customers to not only scale faster, but to optimise their AI-focused data centres digitally before a single physical module is built."

"By combining NVIDIA's advanced AI platforms with Vertiv's expertise in power and cooling infrastructure, we're enabling customers to deploy next-generation data centres that are more efficient, scalable, and ready for the most demanding AI workloads," said Dion Harris, senior director of HPC and AI Infrastructure at NVIDIA. "Together, we're helping organisations unlock new levels of performance and sustainability as they build the future of AI."

The reference architecture for NVIDIA GB300 NVL72 is part of the Vertiv 360AI

infrastructure platform, designed to help customers navigate integrated solutions for powering and cooling AI workloads and other high-performance computing applications.

Key benefits of Vertiv's reference architecture and SimReady 3D assets for the NVIDIA GB300 NVL72 design include:

- **Simulation to deployment in one path:** Leveraging NVIDIA Omniverse technologies in the architecture bridges physical and digital infrastructure, enabling real-time system-level collaboration across IT, facilities, and engineering teams – allowing customers to test, optimise, and validate the design before a single component is built.
- **Built for the age of AI reasoning:** Supporting rack densities up to 142 kW, the reference architecture for NVIDIA GB300 NVL72 defines the new benchmark for accelerated infrastructure – engineered for AI factories at scale.
- **Accelerated performance, scale, and speed:** Delivering 1.5x more AI performance, up to 50% faster on-site builds, and in 30% less physical space, Vertiv's reference architecture for NVIDIA GB300 NVL72 enables customers to scale AI infrastructure with unprecedented agility and energy efficiency.
- **Thermal flexibility meets efficiency gains:** Liquid cooling-ready, supporting both air- and hybrid-cooled configurations, achieves up to 70% better annual energy efficiency allowed by higher water temperatures.
- **Design, deploy, operate – globally:** Backed by 4,000+ Vertiv field service engineers globally, Vertiv's reference architecture for GB300 NVL72 brings unmatched scalability, serviceability, and supply chain reliability to global AI rollouts.

As global AI demand accelerates exponentially, Vertiv is constantly working to deliver critical energy-efficient cooling and power solutions to enable AI-ready infrastructure to run the next generation of AI factories.

Enquiries: [www.vertiv.com](http://www.vertiv.com)

## ACTOM launches data centre power solutions

ACTOM launched its innovative Data Centre Power Solutions at Enlit Africa 2025 in May. As the data centre industry rapidly expands across the African continent, ACTOM is positioning itself as a strategic partner to address the sector's growing demand for reliable and sustainable energy solutions.

Sy Gourrah, senior general manager at ACTOM, explains, "ACTOM is placing great emphasis on raising awareness of the role its data centre solutions play in supporting Africa's digital transformation. With data centres forming a vital part of the continent's future, there is an increasing need for energy infrastructure that is not only efficient and scalable, but also sustainable."

The African data centre industry is projected to exceed US\$3 billion in 2025, fuelled by the increasing demand for cloud computing, e-commerce, and digital services. As mobile adoption, big data analytics, and the Internet of Things (IoT) continue to drive digital growth, the need for robust data storage, processing, and distribution grows alongside it. However, this surge in demand comes with the challenge of ensuring a stable and sustainable power supply, as data centres are energy-intensive and require reliable energy sources.

"Digital transformation, urbanisation, and the expansion of cloud services from global providers are key drivers of this demand," says Gourrah. "With data centres becoming the backbone of industries like finance, entertainment, and more, it is imperative to ensure their energy needs are consistently met with reliable power infrastructure."

The rise of Artificial Intelligence (AI) has added further pressure on data centres, which now face significantly higher energy demands. Traditional racks consumed 5–10 kW per unit, but AI-focused racks now demand between 30–40 kW, with some even reaching 60–100 kW. This increase in rack power density not only elevates energy requirements but also complicates cooling infrastructure, as high-density AI racks generate substantially more heat.

"The energy infrastructure in many African countries is often not equipped to support these increased demands," explains



Gourrah. "To ensure data centres operate reliably, dedicated substations and power supplies must be constructed. In some cases, operators are even required to build independent power sources to guarantee continuous service."

This has seen a demand for local manufacturers that design and construct substations tailored to data centre power requirements, which ACTOM has been doing for years. Not only does this approach enable potentially shorter lead times, but it also reduces reliance on imported components – an increasingly important consideration for developers looking to de-risk projects and improve timelines.

ACTOM has emerged as a key player in this space, with capabilities that extend beyond traditional substation design to also integrate renewable energy technologies, including solar, battery storage, and hybrid systems.

Gourrah adds, "What is vital for data centres, but often regarded as an afterthought, is after-sales support, condition monitoring, and maintenance services. ACTOM has been able to provide these services and has developed in-house condition monitoring systems, especially for their power transformers."

As Africa's digital transformation accelerates, reliable and sustainable energy infrastructure is crucial. ACTOM's Data Centre Power Solutions meet this need by offering efficient, scalable, and locally tailored power solutions. Through the integration of renewable energy and ongoing support, ACTOM helps ensure a stable and sustainable power supply for the continent's growing data centre sector.

Enquiries: [www.actom.co.za](http://www.actom.co.za)



## Schneider Electric introduces new circuit breaker range to the South African market

Schneider Electric, a leader in the digital transformation of energy management and automation, has launched its new MasterPacT MTZ Active range of circuit breakers in South Africa.

The MasterPacT MTZ Active is a revolutionary new circuit breaker designed to set new benchmarks for safety, efficiency, and sustainability while ensuring business continuity. These circuit breakers are helping to meet customers' daily challenges, such as 24/7 uptime demands and managing spiralling energy costs in an electrically driven and digitised world.

Kamogelo Makwana, Power Products offer manager at Schneider Electric South Africa, explains that this is Schneider Electric's latest offering to accelerate energy efficiency and decarbonisation, optimising asset life without compromising functionality or safety.

"The MasterPacT MTZ Active brings features that enable facility managers to monitor and measure power usage in real time," says Makwana.

Across industry sectors ranging from healthcare, buildings, and energy to chemicals and OEMs, power is becoming more distributed and more complex to manage, especially with the current context of compromised power availability and reliability from the national grid, forcing industry to consider the addition of other power sources to complement the grid. This adds complexity to managing power and the MTZ Active is ready to act in assisting industry to manage this complexity.

At the same time, companies expect electricity to be available 24/7, and for good reason. Experts at the Uptime Institute assess that outages can cost businesses

over \$100,000. Ensuring the safety of installers, operators, and maintenance personnel is also a priority.

When outages do occur, they are becoming more expensive, a trend that is likely to continue as dependency on digital services increases. With more than two-thirds of all outages costing more than \$100,000, the business case for investing more in resiliency and training is becoming stronger.

### Safety-enhancing innovations

Makwana notes that the MasterPacT MTZ Active features safety-enhancing innovations to help protect electrical contractors, building occupants, maintenance personnel and property. Its energy reduction maintenance setting (ERMS), which is natively embedded in its intuitive control unit, sets a new benchmark in safety to improve the protection of maintenance operators/personnel from arc flash hazards.

Together with the native ERMS feature, the in-field selectivity check ensures that there's full selectivity achieved in the installation, ensuring faster fault clearance and helping to prevent equipment damage, thus improving safety.

"This product is a more digitised circuit breaker solution with wireless connectivity features achieved through embedded Bluetooth, NFC, and groundbreaking Zigbee technology, allowing customers to communicate with the breaker efficiently and to save on costs associated with a wired communication design. The key benefit of digitising this unit is enabling faster response times," he says.

"Customers can now remotely view and interact with the breaker, thanks to the availability of digital modules and the

digital-ready breaker. This enables real-time data access for maintenance planning and safety, eliminating the need for on-site status checks."

### Quick action during outages

Knowing the root cause of an outage allows quick action to restore power and resume normal operations instead of having to endure lengthy and costly delays. The MasterPacT MTZ circuit breaker combines real-time information and ease of use to enable fast mitigation of outage events.

Makwana points out that the new MasterPacT MTZ's innovative control unit, MicroLogic Active, monitors various breaker functions to provide vital, real-time information.

"In the event of an electrical fault, the breaker lets you scan a QR code, displayed on the LCD screen of the control unit, which is an industry-first QR code solution, providing quick access guidance on the best actions to take based on the trip's root cause," he says.

Designed for circularity, MasterPacT MTZ Active breakers can be refurbished by Schneider Electric for a second life with their



original guarantee, thereby reducing waste and promoting sustainability. Additionally, the lifecycle of installed MasterPacT NT/NW breakers can now be extended simply by upgrading their trip unit with MTZ Active's electronic control.

By avoiding the replacement of the entire breaker, costs are reduced, and waste is minimised.

As electrification and digitalisation transform power supply and demand worldwide, Schneider Electric continues to evolve its MasterPacT offer based on input from customers to deliver robust and reliable circuit breaker performance.

Enquiries: [www.se.com/za](http://www.se.com/za)



The MasterPacT MTZ Active brings features that enable facility managers to monitor and measure power usage in real time.

- Kamogelo Makwana, Schneider Electric South Africa

## Paving the way for a carbon-neutral future in South Africa

By: Veron Maharaj, product marketing specialist, Smart Buildings Division, ABB Electrification

Wherever there are people, there is infrastructure. From the electricity that powers our vibrant cities to the clean water that nourishes our communities, infrastructure is the unseen force that shapes our daily lives and determines our quality of life. Yet, much like the air we breathe, it's often only noticed when something goes wrong. With South Africa grappling with challenges like rapid urbanisation, climate change, and resource scarcity, it is clear that our infrastructure must evolve to become smarter, more resilient, and sustainable, ensuring it can meet the needs of today and tomorrow.

At ABB Electrification, we believe the infrastructure of the future must do more than support daily operations; it must anticipate them. With over 130 years of experience in electrification and a presence in more than 100 countries, including South Africa, ABB is committed to building intelligent systems that connect and optimise infrastructure across sectors. We are reimagining how airports operate, how ports manage energy, how cities move people, and

how utilities deliver critical services, using digital technologies to improve efficiency, reliability, and sustainability.

The world is in the midst of a global transition. To meet the climate targets outlined in the Paris Agreement, a staggering \$13.5 trillion must be invested in energy efficiency and low-carbon technologies by 2030. This shift requires not just investment, but innovation. ABB is at the forefront of this transformation, delivering smart, connected solutions that reduce environmental impact while enhancing performance.

A key differentiator of ABB lies in our ability to combine global expertise with local delivery, particularly in South Africa. Our team of 53,000 professionals, working across 200 manufacturing sites globally, brings deep local knowledge and expertise to every project, ensuring that our solutions are customised to meet South Africa's specific needs while adhering to global best practices.

Through our ABB Ability platform, we integrate cutting-edge technologies such as edge computing, cloud connectivity, analytics, artificial intelligence, and cybersecurity into infrastructure management. These innovations empower our customers in South Africa with real-time insights and predictive capabilities, driving efficiency

and sustainability in key sectors such as energy, water, and transportation, while contributing to South Africa's ongoing digital transformation.

In the smart buildings space, we deliver energy and asset management solutions that allow owners, operators, and governments to reduce operating costs, improve sustainability, and enhance occupant comfort. With embedded software and intelligent devices, our systems continuously monitor and adapt to usage patterns, ensuring optimal performance while minimising waste.

A growing focus area for ABB is e-mobility, which is slowly gaining traction in South Africa as infrastructure develops. With road transport responsible for more than 75% of transport-related CO<sub>2</sub> emissions globally, and passenger cars alone accounting for 60%, electric mobility is a cornerstone of the net-zero transition. At ABB, we are powering this shift with charging solutions for every application, from residential EV chargers to high-power highway stations and fleet-scale electrification for buses and trucks.

Electrified transportation, when combined with renewable energy, has the potential to significantly reduce emissions and improve air quality in many South African cities. This transition is not just a technological imperative, but a societal one, as it addresses the country's pressing challenges of air pollution and traffic congestion. Cleaner transport means healthier cities,



reduced noise pollution, and more liveable communities, especially in urban centres like Johannesburg and Cape Town, where pollution levels are a growing concern.

Ultimately, the future of infrastructure in South Africa is one where systems are seamlessly integrated, intelligently managed, and environmentally responsible. It is a future where connectivity drives efficiency in sectors such as energy, transportation, and water, where digital tools enable predictive maintenance to avoid system failures, and where electrification paves the way for a carbon-neutral South Africa, contributing to the country's climate goals and sustainable development.

Enquiries: [www.abb.com](http://www.abb.com)



## 3CCT lighting: Versatility at the flip of a switch



In a market driven by flexibility, efficiency, and design simplicity, 3CCT fittings offer a smarter solution for lighting professionals. From on-site adaptability to streamlined inventory management, this technology makes a strong case for inclusion across both residential and commercial projects. Eurolux Lighting breaks down 3CCT and why it matters.

3CCT stands for Three Correlated Colour Temperatures, typically 3,000K (warm white), 4,000K (cool white), and 6,000K (daylight). Products with 3CCT functionality include a small switch (often integrated into the housing or driver compartment) that lets the

installer select the desired light tone during or post-installation.

### Practical advantages – one fitting, multiple applications

With a single fitting adaptable to different environments, 3CCT products allow electrical contractors to respond to last-minute design decisions or changes in client preference.

- **3,000K:** Warm white tones are suited to residential areas, lounges, and hospitality zones.
- **4,000K:** Cool white for workspaces, kitchens, and hallways.



As lighting demands grow more complex, Eurolux 3CCT fittings help streamline the process – from specification to installation.

- Eurolux

- **6,000K:** Crisp daylight ideal for garages, task areas, and healthcare applications. Eurolux offers premium and cost-effective ceiling light and batten ranges in 3CCT that are ideal for industrial and domestic settings alike, but more electrically-savvy buyers will be interested in the performance metrics:
- **Driver quality and thermal performance:** Eurolux fittings in the 3CCT range are engineered with stable drivers and reliable switch interfaces, ensuring long-term thermal stability and minimal drop in performance over time. This is crucial in high-use environments or semi-commercial settings.
- **Consistent CRI across temperatures:** Consistency in colour rendering (CRI) across all three CCT steps is vital – especially in display areas or rooms with both natural and artificial light. The ceiling and batten ranges maintain a CRI of  $\geq 80$ , ensuring colour fidelity regardless of the selected temperature.
- **Ease of installation:** For contractors, the

inclusion of clearly marked switches, tool-free access, and compact housings makes the Eurolux 3CCT series fast and straightforward to install, particularly in tight ceiling cavities or retrofit scenarios.

### Conclusion: A future-proof fit

As lighting demands grow more complex, Eurolux 3CCT fittings help streamline the process – from specification to installation. Whether you're a contractor on a deadline, a wholesaler managing stock, or a designer seeking flexibility, 3CCT offers a balanced solution that doesn't compromise on quality or control.

Eurolux offers a range of 3CCT products from ceiling lights in versatile designs and wattage options, ideal for domestic or commercial interiors, and battens perfectly suited to garages, corridors, under-shelf and workspace illumination.

One fitting. Three colour temperatures. Countless applications!

Enquiries: [www.eurolux.co.za](http://www.eurolux.co.za)

## Energy-efficient lighting solution for Cape Flats MAR plant

BEKA Schröder has supplied the lighting solution for the Cape Flats Managed Aquifer Recharge (MAR) plant in Cape Town.

The Cape Flats MAR plant is a pioneering response to Cape Town's water crisis, offering a sustainable solution to safeguard the city's future water supply. Situated within the False Bay Nature Reserve in Pelican Park, this facility addresses the need for sustainable water management by purifying treated effluent to potable standards and recharging the Cape Flats Aquifer. The site, a flat sandy

expanse bordered by dunes, endures strong prevailing southeasterly winds and corrosive coastal conditions, all of which informed the design approach.

BEKA Schröder is proud to have supplied the interior lighting for the four linear filtration buildings, as well as the exterior area lighting with South-African designed and manufactured lighting products.

### Linear filtration buildings

Central to the project is the innovative civil

engineering process of recharging the Cape Flats aquifer with purified effluent. Four filtration buildings, set along an artificial slope, use gravity to guide water from the highest point to the lowest, where it is returned to the aquifer at potable quality.

BEKA VAPOURLINE linear industrial luminaires illuminate the passageways. Designed to provide a long-term solution for harsh industrial environments, the BEKA VAPOURLINE has a strong mechanical design that makes it highly resistant to shock and vibration, while its IP rating makes it ideal for dusty and wet locations. This high-performing luminaire provides an energy-efficient lighting solution. With a lifetime five times longer than a fluorescent tube, this modern linear LED luminaire lowers the total cost of ownership of a lighting installation and eliminates the need for maintenance.

ECOBAY SP highbay luminaires illuminate the main areas within the linear filtration buildings. The ECOBAY is a high-performance luminaire designed for industrial environments, ideal for both lowbay and highbay applications. With round or square PCB options and an optional skirt, it suits a variety of settings. Offering energy efficiency, reliable operation in high ambient temperatures, and low maintenance, the ECOBAY ensures long-term value. Available in various lumen packages and light distributions, it enhances visual comfort while reducing energy costs and initial investment.

### Exterior area lighting

LEDLUME 1 LED streetlights, mounted on 9 m glass fibre reinforced polyester (GRP) poles, have been installed along the roads on the premises. The LEDLUME range offers optimised photometrical performance with a minimum total cost of ownership. It provides customers with the ideal tool to generate energy savings, improve lighting levels and reduce maintenance costs. The

great variety of high-performance optics optimises the photometric distribution for each specific application to achieve minimum energy consumption.

The BEKAPOLE, BEKA Schröder's locally manufactured GRP pole range, has virtually unlimited applications. It can be manufactured to any requirement relating to the number and configuration of luminaires to be mounted, inclusive of any special colour. Furthermore, the low mass of the GRP poles saves handling, transport and erection costs during installation. Further advantages include:

- **Non-corrosive:** No above- or below-ground corrosion in salt climates or acid soil.
- **Maintenance-free:** No corrosion or decay ensures that the surface coat of the pole will not require maintenance.
- **Longevity:** Over time, BEKA Schröder fibre glass poles will outlast wood, concrete, steel and aluminium under similar climatic conditions.
- **Vandal resistant:** High impact strength of polyester gel coat and glass filament wound structure and material offering no scrap value, therefore very low risk of theft.
- **Non-conductive:** Perfect electrical insulation prevents accidental electrocution by faulty wiring.
- **Low inertia:** A reduction in personal injury and damage to vehicles in road accidents.
- **Sustainable:** The manufacturing process for glass fibre poles is much kinder to the environment than metal or concrete products.

As a flagship project for the City of Cape Town, the MAR plant represents more than just a technical milestone – it reflects the city's dedication to innovation and sustainable development.

Enquiries: [ct@beka-schreder.co.za](mailto:ct@beka-schreder.co.za)





## IESSA's 19<sup>th</sup> annual conference illuminates path forward for Africa's lighting industry

By: Ilana Koegeleberg

The Illuminating Engineering Society of South Africa (IESSA) successfully concluded its 19th annual conference on 13–14 August, at Phahama Lodge in Johannesburg, bringing together lighting professionals under the theme “Empowering Africa through innovative lighting solutions”.

The two-day event provided a comprehensive platform for knowledge exchange, networking, and professional development while offering attendees 1.5 CPD points through IESSA's long-standing Engineering Council of South Africa (ECSA) accreditation. Nearly 50 attendees were present in person, with more joining online.

The evening before the conference, IESSA also launched its first-ever technology showcase at the venue. This inaugural event, where suppliers could share their latest innovations, was well-attended and considered a massive success by the organisers. The growing role of lighting controls was of particular interest to participants during the showcase.

The conference's success was underpinned by strong industry support across multiple sponsorship levels. Signify served as gold sponsor, with Nordland Lighting as silver sponsor, eWaste Africa as delegate gift sponsor, and Tridonic as lanyard sponsor. Additional backing came from BEKA Schröder, who sponsored one of the roundtable discussions, while the Illuminating Engineering Society (IES) provided endorsement, and Sparks Electrical News served as official media partner.

### Industry leadership and opening remarks

The conference was officially opened by IESSA president Abner Naidoo, who said in his address that, “Lighting is more than a technology. It is a beacon of hope, safety, education, and economic growth through our collaborative innovation. It is the difference between stagnation and possibility. This conference calls on us all...to reimagine what light can mean for Africa's cities, towns, villages, industries and future generations.”

Opening remarks were delivered by Tintswalo Ntlhane from the National Regulator for Compulsory Specifications (NRCS), underscoring the importance of regulatory alignment in the evolving lighting landscape. She discussed the challenges the regulator faces, particularly the lack of testing facilities, the limited number of inspectors available, the influx of non-compliant products, and the application backlog perpetuated by industry not filling in the applications correctly or understanding all the requirements.

### Keynote insights: Vision, AI, and the future of lighting

The conference featured two compelling keynotes that explored both the fundamental and cutting-edge aspects of lighting technology. Tony Bergen of the Australian Photometry and Radiometry Laboratory opened the first day with “The human eye – it's not just about vision!” Bergen's presentation, delivered via video call, explored the broader implications of lighting beyond basic illumination, examining how light affects human physiology and well-being.

Mark Lien of the IES in the United States delivered the second keynote, addressing

“AI in architectural lighting” and highlighting how artificial intelligence (AI) is transforming lighting design and implementation in architectural applications.

Bergen also presented a second session on “Challenges of metrological traceability and measurement uncertainty in the age of AI”, exploring how artificial intelligence impacts measurement accuracy and calibration in photometric and radiometric applications – a critical concern as the industry becomes increasingly automated.

### Technology and innovation

The conference highlighted South Africa's growing focus on intelligent lighting infrastructure. Abner Naidoo from DNA Consulting Engineers presented “Innovative Smart Street Lighting for South Africa”, outlining developments in municipal lighting systems that can improve energy efficiency and urban safety.

Martin Hartmann from Tridonic demonstrated how technology can drive sustainability through his presentation “Sustainable lighting through intelligent data Utilisation”, showing how smart data analytics can optimise lighting performance and reduce environmental impact.

A key theme throughout the conference was the intersection of technological advancement and environmental responsibility. Mark Williams-Wynn from e-Waste Africa presented “Lighting Choices: Short-Term Savings, Long-Term Impact”, addressing the critical issue of balancing immediate cost considerations with long-term environmental consequences.

Maciej Debowski from Signify explored biomimicry in lighting design with his presentation “Lighting inspired by nature – the benefits of natural light indoors”, demonstrating how nature can inspire more sustainable lighting solutions.

The integration of green building practices was addressed by Dash Coville from the Green Building Council South Africa, who presented on “Green Star New Build V2”, providing insights into how lighting design contributes to sustainable building certification.

The conference addressed innovative applications of lighting technology in unexpected sectors. Bjorn Smidt-Hart from DNA Consulting Engineers presented on both “Sensitive Light” applications and “Lighting the Way to Cleaner and Efficient Waters”, highlighting the intersection of lighting technology with water treatment and environmental applications.

Urbain du Plessis from Verdantek explored infrastructure applications with “Moving sanitation beyond Emily Hobhouse technology”, examining how modern lighting solutions can support improved sanitation infrastructure.

During Day 1's final session, Connie Jonker from SafeHouse presented “SDoC (Supplier's Declaration of Conformity) as Part of the NRCS Regulatory Model”. The NRCS's current Letter of Authority (LoA) system was criticised for its inadequate testing and compliance monitoring, leading to high non-compliance rates. The SDoC model, already adopted by 27 countries, was proposed as a more effective alternative system, emphasising routine testing and supplier responsibility.

### Expert roundtables

Day two featured three comprehensive roundtable discussions addressing critical



Some of the Day 1 speakers, from left: Abner Naidoo (IESSA president), Connie Jonker (SafeHouse), Urbain du Plessis (Verdantek), Tintswalo Ntlhane (NRCS), Mark Williams-Wynn (eWaste Africa), and Maciej Debowski (Signify).

regulatory and compliance issues:

Extended Producer Responsibility (EPR): Moderated by Henk Rotman from Tridonic (IESSA Gauteng chair), the “Enlightened Compliance: A Roundtable on EPR and Lighting” session brought together Crystal Baloyi from the Department of Forestry, Fisheries and the Environment (DFFE), Alex Cremer (ERANPC), and Mark Williams-Wynn (eWaste Africa) to discuss the implications of EPR regulations for lighting manufacturers and distributors.

The roundtable discussed the implementation of EPR regulations in South Africa, focusing on the management of electronic and lighting equipment. Key points included the need for producers to submit schemes for managing identified products, the separation of lighting and triple-E products, and the inclusion of packaging and pesticides. Challenges highlighted were the complexity of the process, the lack of historical data, and the need for simplification.

LoAs: Daniel Kasper from Beka Schröder (IESSA past president) moderated a discussion on “Navigating Letters of Authorisation in Lighting Engineering: Best Practices, Pitfalls & Future Outlook”. The panel included Kate Sibongile Maswanganyi (NRCS), Andre Paul (Prism Group), and Patrick Stuckie (Eurolux).

The discussion focused on navigating LoAs for lighting and engineering, emphasising operational best practices and pitfalls. Key points included the new online system for LoA applications, which requires company approval before submission. Challenges highlighted were incorrect reports, outdated information, and the need for better traceability between LoAs and manufacturing.

Safety standards: The final roundtable, “Illuminating Safety: Evolving Standards and Testing Protocols in Lighting Engineering”, was moderated by Andre Paul (Prism Group and IESSA vice president) and included Joel Ndaba (JL House of Quality and Accura Laboratories), Johnson Marema (SABS/SANC), Edwin Mofokeng (NMISA), Tintswalo Ntlhane (NRCS), and Marthinus Smit (Shuttle Lighting).

The session included a lively discussion around how to deal with non-compliance, including the contentious suggestion of naming and shaming distributors of substandard goods – a topic that received mixed support due to brand damage concerns.

### Looking forward

The 19<sup>th</sup> IESSA annual conference was hailed a success by its organisers, with the event's comprehensive coverage of regulatory developments, technological advances, and environmental implications positioning the local lighting industry for continued growth and innovation.

“The conference successfully met all its



Roundtable on LoAs in action, moderated by Daniel Kasper, IESSA past president (far right). Panellists included, from left: Kate Sibongile Maswanganyi (NRCS), Andre Paul (Prism Group), and Patrick Stuckie (Eurolux).



Abner Naidoo, IESSA president.



The welcoming address on Day 1 in progress.



Joel Ndaba, JL House of Quality & Accura Laboratories, during the technology showcase.

objectives, facilitating extensive knowledge sharing through presentations that were closely aligned with key developments in the global lighting market,” said Henk Rotman. “Importantly, we didn't operate in isolation – relevant government representatives participated alongside industry professionals and academics, laying a strong foundation for positive change and future collaboration.”

Enquiries: <https://www.iessa.org.za/>



## Lighting with purpose: The value of Aurora Lighting Africa's LED panels in retail, commercial, and healthcare spaces

In the evolving landscape of lighting design, functionality must go hand-in-hand with efficiency, aesthetics, and user well-being. Aurora Lighting Africa's latest panel innovations, BackLite+, BackLite Eco, and Cyalux, have been engineered to meet the growing demands of modern commercial, retail, and healthcare environments. Designed with precision optics and tailored performance, these panels are redefining expectations in energy savings, visual comfort, and long-term value.

### BackLite+ and BackLite Eco: Illumination for retail and commercial spaces

When it comes to commercial offices, boardrooms, corridors, and retail environments, lighting does more than brighten a space; it drives productivity, reinforces brand image, and shapes customer experience. Aurora's BackLite+ and BackLite Eco LED panels are designed with these principles at their core.

BackLite+ offers superior light distribution through uniform backlite technology, delivering excellent visual comfort with minimal glare. This is critical in office environments where screen work dominates, and visual strain can impact productivity. With a high efficacy of up to 140 lm/W, BackLite+ meets and exceeds the lighting standards required for modern workspaces. It is backed by a five-year

warranty and rated for 50,000 hours of operation, ensuring long-term performance and peace of mind.

BackLite Eco, while designed as a cost-effective solution, still delivers dependable efficiency and flexibility. Ideal for high-volume commercial and retail rollouts, it provides easy installation and consistent illumination at an accessible price point. One of its standout features is its colour-selectable technology, allowing users to choose between multiple colour temperatures (typically 4000 K, 5000 K, and 6500 K) on-site. This gives installers and facility managers added control to customise ambience without additional stock complexity. The BackLite Eco is supported by a three-year warranty and rated for 35,000 hours of use, making it a reliable choice for projects with budget constraints but no room for compromise on quality.

In retail, the slim profiles and uniform brightness of both panels enhance product visibility and shopper experience across displays vital for fashion, décor, and cosmetics retailers.

### Cyalux: purpose-built for healthcare and clinical precision

In hospitals and healthcare environments, lighting is more than a practical concern; it directly influences patient wellbeing and staff performance. Aurora's Cyalux LED



panel is purpose-built for these demanding environments.

Cyalux offers flicker-free, low-glare illumination in a sealed, hygienic IP-rated design ideal for wards, cleanrooms, surgical prep zones, and treatment areas.

Its uniform brightness supports a calm, comfortable environment for patients and allows medical professionals to work with clarity and confidence.

Crucially, Cyalux is engineered for longevity and reliability in critical applications. It comes with a five-year warranty and is rated for 50,000 hours of continuous operation, ensuring consistent performance in high-dependency medical settings.

### Conclusion

Aurora Lighting Africa's panel range represents a new standard in application-specific lighting, combining energy performance, visual comfort, reliability, and compliance. Whether you're illuminating a retail chain, fitting out a corporate office, or specifying fixtures for a hospital, Aurora's BackLite+, BackLite Eco, and Cyalux panels offer trusted solutions each backed by solid warranties, engineered for long life, and built to perform in Africa's most demanding environments.

"Lighting quality directly affects how people feel, work, and heal," says Scylagh Clunnie, managing director at Aurora Lighting Africa. "With BackLite+ and BackLite Eco, we're helping commercial and retail clients improve their spaces with more efficient lighting. And with Cyalux, we're delivering specialist solutions that support wellness and precision in Africa's hospitals and clinics."

Enquiries: [www.auroralighting.co.za](http://www.auroralighting.co.za)

#### OCTOBER 2025 FEATURES

- MCCs and motor protection
- Energy measurement and supply
- Lighting

#### NOVEMBER 2025 FEATURES

- Standby and emergency power
- Energy efficiency
- Lighting

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## Lighting control by Tridonic does 'Matter'

What if you could control all your Smart Home or Smart Office devices, such as floor lamps, Smart TVs, and electronic door locks, from a single app – either Apple or Google? A new connectivity protocol has brought us an important step closer to this vision. It's called Matter. Tridonic can now offer its customers the first Matter-compatible products.

Matter, the new open-source communication standard, bridges the gap between a smart ecosystem, such as Apple Home, and intelligent devices from various providers. Matter is the result of a joint initiative involving tech players such as Amazon, Apple, Google, and the Connectivity Standards Alliance (CSA). Today, around 270 companies from a wide range of industries are part of the Matter Alliance, all working to improve interoperability in the smart world.

### Tridonic is committed to interoperability in the lighting industry

Interoperability runs like a thread through Tridonic's research and development activities. As a provider of hardware and software for intelligent lighting, its commitment to the interoperability of lighting technology systems goes back many years. Among other things, Tridonic has played a major role in the development of the DALI 2 standard and has been offering the first LED drivers certified according to Zhaga Book 24 since 2022.

Matter now complements the proven DALI standard for wired lighting systems. With the support of the Matter protocol, Tridonic gives luminaire manufacturers a competitive advantage in smart lighting, enabling them to quickly develop Matter-compatible luminaires that can be easily integrated in a wide variety of smart ecosystems – for example, in offices, retail stores, hotels, holiday apartments and the high-

end residential sector. Thanks to Matter-compatible elements, the entire atmosphere of a room can be set up with just a few clicks on a single device – everything from lighting to air conditioning, including smart locks for opening and closing doors.

### First wireless Matter drivers and Matter modules for DALI lighting systems

Tridonic is one of the first manufacturers to offer Matter-compatible products. The following are available:

- **Wireless Matter driver:** Dimmable 24 V constant-voltage driver available in 35 W, 60 W, 100 W and 150 W versions.
- **Active wireless Matter to DALI module:** Active module with integrated 10 mA DALI bus supply and one momentary-action switch input.
- **Passive wireless Matter to DALI module:** Passive module that requires a DALI power supply (power consumption: 4 mA), four momentary-action switch inputs.
- **Wireless Matter to DALI SR:** With strain relief for robust installation and 50 mA integrated DALI power supply.

The new Matter-compatible DALI modules can be connected directly to DALI LED drivers already installed in existing luminaires and can then control them. There is no need for any retrofitting work.

Here is a possible Matter use scenario: A smartphone with the respective app of the preferred ecosystem, such as the Apple Home app preinstalled on every iPhone, acts as a remote control and commissioning tool for the smart network. To add a Matter-ready device, you point the smartphone's camera at the QR code on the device. Quick and

simple. A smart home device, such as the Apple HomePod mini or a Samsung wireless charger, serves as the hub for Matter communication. It forwards the commands from the terminal device via a wireless mesh network to a lighting strip system, which can "understand" the commands and translate them into the desired lighting mood thanks to the Matter intelligence integrated in the LED driver.

Matter can communicate via both WiFi and Thread. Tridonic uses the IP-based Thread wireless protocol as the basis for the wireless mesh network. Compared to classic WiFi, Thread has a lower power consumption even with a large number of network nodes, and offers stable, low-latency data transmission with AES encryption. A simple command, such as "Hey Siri, dim the lights in the office to 20 percent", is then all that is needed to control the LED lighting.

Enquiries: [www.tridonic.com](http://www.tridonic.com)

