



AL TSA
Leading with LED



LEADING THE WAY
WITH LED

AL TSA leads with LED

Cutting-edge LED lighting and electrical solutions for Africa.

- ALTSA is a leading mining and industrial LED lighting solutions provider in sub-Saharan Africa, as well as the largest lighting replacement company in Africa.
- ALTSA operates in seven countries on the African continent: South Africa (Head office), Nigeria, Tanzania, Democratic Republic of Congo, Uganda, Kenya and Mozambique and Botswana.
- Since 2011, ALTSA has grown significantly throughout Africa within its own network as well as through agency networks Africa.
- ALTSA currently employs 150+ people.
- ALTSA distributes its own premium range of LED lamps and luminaires, assembled in South Africa, distributed to regional offices both nationally and internationally.

We transform the way energy is consumed by providing sustainable, environmentally friendly lighting solutions to benefit people, improve communities and impact positively on society as a whole.

We strive to be the leading supplier of groundbreaking LED lighting solutions, cutting-edge technology.

CUSTOMER ORIENTATED

ALTSA staff are dedicated to go the extra mile in building long-term relationships while helping customers feel good in their environments, with compliant lighting solutions and a profitable return on investment (ROI).

We partner with our customers on their journey to sustainable energy.

OUR VALUES

INTEGRITY:

We are honest, fair and demonstrate respect to our customers and colleagues.

ACCOUNTABILITY:

We follow through with what we say and hold ourselves to the highest standards.

HARD WORK:

We deliver outstanding results through our culture of exceptional service.

TEAM WORK:

We support one another to deliver results for our customers and our company.

INNOVATION:

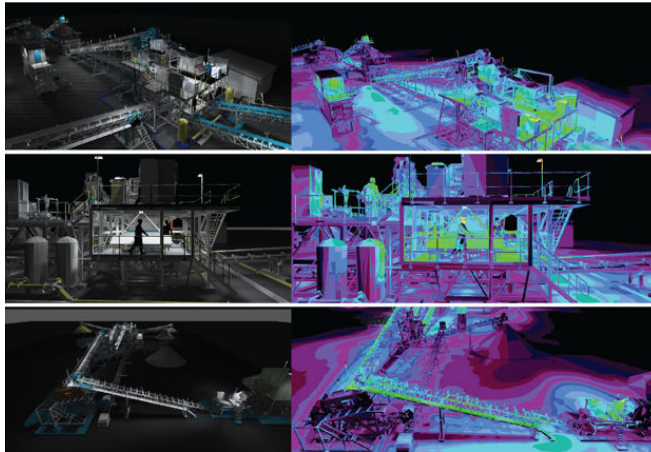
We seek creative and innovative ways to solve our customers' challenges.



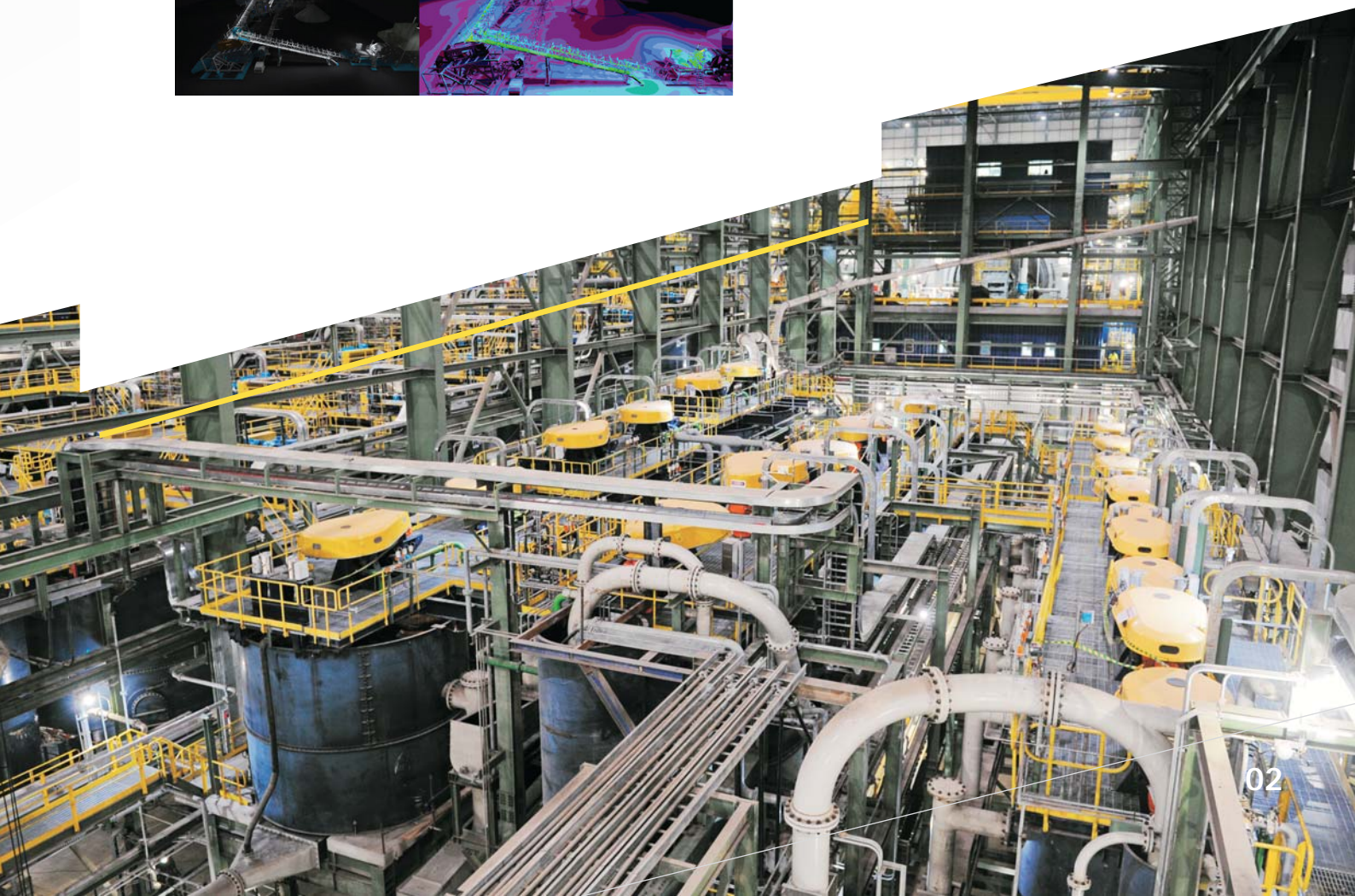
AL TSA Services

- On mine consultation.
- Lighting assessments and audits.
- Lighting proposals / ROI .
- Lighting designs.
- Replacement projects.
- Energy efficiency and optimization calculation.
- Eskom demand side management.

Lighting Design Simulation



Key Indicators	Total	
Quantities		
Old Qty Replaced	9,077	
New Qty Installed	6,342	
Power and Energy Saving		
Total Old Power	1,147,301	
Total New Power	457,916	
Max Power Saving (W)	689,385	60%
Monthly Old Energy (kWh)	580,968	
Monthly Energy Saving (kWh)	352,392	61%
Maintenance Saving		
Maintenance Rate (Annual % of Initial Cost)	20%	
Annual Saving on Maintenance	R 1,902,600	
Financial		
Total Supply Cost	R 11,901,705	
Total Installation Cost	R 1,124,230	
Total Installed Cost	R 13,169,935	
Cost per kW	R 28.76	
Preliminary & General Cost	R 658,497	
Contingency	R 395,098	
Crushing & Disposal	R 127,078	
High Lift Equipment	R 163,500	
Total Project Cost	R 14,350,608	
Potential Eskom DSM Subsidy	R 1,347,898	
Potential Eskom 12L Subsidy	R 469,292	
Total Project Cost Less DSM Subsidy	R 12,533,417	
Monthly Electricity Saving	R 659,347	
Monthly Financial + Maintenance Saving	R817,897	
Payback Period (Months)	15.3	
Net Monthly Cashflow Position for 5 yr rental deal	R 864,293	
Environmental Impacts		
Annual Savings of SO ₂ (Tons)	33.5	
Annual Savings of NO _x (Tons)	17.7	
Annual Savings of CO ₂ (Tons)	4,186	





BBBEE Rating

We are a proudly South African, certified Level 1 Broad Base Black Economic Empowerment Contributor. ALTSA does major upliftment throughout Africa.

CERTIFIED LEVEL 1

COMMUNITY DEVELOPMENT

EMPOWERING PEOPLE

ALTA 5-Year Guarantee

We take immense pride in our ISO9001 national and internationally certified product range. We offer our customer a 5-year guarantee with an option to extend to 10 years.

Compliance

ALTSA ensures compliant lux levels over the full warranty period.

Product Range

ALTSA offers Indoor, outdoor and speciality lighting solutions that are ideally suitable for mining and industrial sites - especially areas that require robust, hard-wearing and explosion-proof luminaires.



Ensuring Change through Empowerment
QSE 1717 Sector Code 8-BBEE Verification Certificate
Gauteng, Reg. 40165

Alternative Lighting and Technical Solutions for Africa (Pty) Ltd

Registration Number: 2011/004211/07
Address: 87 Mowbray Road, Greenfield, Johannesburg, 2193

LEVEL ONE CONTRIBUTOR

Category	Score	Weighted Score	Black Ownership Percentage	Score
Management Control	10.00	10.00	Black Women Ownership Percentage	10.00%
Skills Development	10.00	10.00	Black Male Ownership Percentage	10.00%
Enterprise and Supplier Development	10.00	10.00	Black Designated Group Percentage	10.00%
Human Resources Development	10.00	10.00	Black Youth Percentage	10.00%
Total Score	40.00	40.00	Black Disabled Percentage	10.00%
Procurement Registration Level	100.00%	100.00%	Black Unemployed Percentage	10.00%
Procurement Principles Applied	Yes	Yes	Black People Living in Rural areas Percentage	10.00%
Employment Supplier	Yes	Yes	Black Military Veterans Percentage	10.00%
Financial Year End	30 September 2022	30 September 2022	Black New Entrant Percentage	10.00%
Not Audited	478820000	478820000	Exclusion Principle used	No
Issue Date	10 May 2023	10 May 2023	Participation in S.A. & elsewhere	No
Re-issue Date	N/A	N/A	Adherence to S.A. & Target and 50% Allocation	No
Expiry Date	10 May 2024	10 May 2024	Adherence to S.A. & Target and 50% Allocation	No

Technical Signatory: Invest Phakiso

AL1007965/06/2023

Certificate Number

The information on this certificate and the verification report represent an independent opinion based on verification procedures and evidence collected for the purpose of the verification of the principles contained in the Department of Trade and Industry's Code of Good Practice on Broad-Based Black Economic Empowerment (BBBEE) Act, 2003.



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www.mpowerratings.co.za



CERTIFICATE

ALTSA takes pride in distributing a locally assembled range of 190+ lamps and luminaires:

- Long life - up to 100,000 hrs.
- High efficiency - up to 200lm/W.
- Compact, High-quality Profile Designs.
- Wide Operating Temperature Range -50° C to +55° C and up to 80° C on thermal resilient models.
- Easy Installation and low maintenance.
- Manufactured to withstand high, consistent volumes of dust and moist offering IP ratings of up to IP68.
- High electrical and mechanical specifications.
- All products carry a range of SANS and IEC certifications.
- Our EX range carries IECEx certification.
- All products have battery backup and sensor options.

The Gold Standard for Lighting above ground and below

ALTSA understands the core needs of the mining industry, including the need for health and safety, cost reduction, environmental and electrical compliance. The need to maintain optimal production while remaining prepared for challenging or unexpected circumstances is equally critical. Our LED lighting is designed to meet these needs and to operate flawlessly in demanding and hazardous conditions.

Facing the challenge

ALTSA provides LED lighting solutions designed specifically for areas that are consistently exposed to high levels of dust, grime, vibration, corrosion, water, moist, and rockfall - while being in constant use during both day and night shifts.

Efficient and effective lighting is critical to the safety of mine workers as they depend heavily on visual cues to securely navigate pinning and striking dangers (as well as slipping and tripping hazards) within their work environments. Effective illumination greatly improves their ability to perform their jobs safely while still meeting the daily production requirements.

We provide LED lighting solutions that are robust, with high technical specifications, for underground shafts and surrounding areas. This safeguards the longevity the installed luminaries. Our range offers low maintenance and reduced energy costs while still guaranteeing compliant lighting that helps people get the job done.



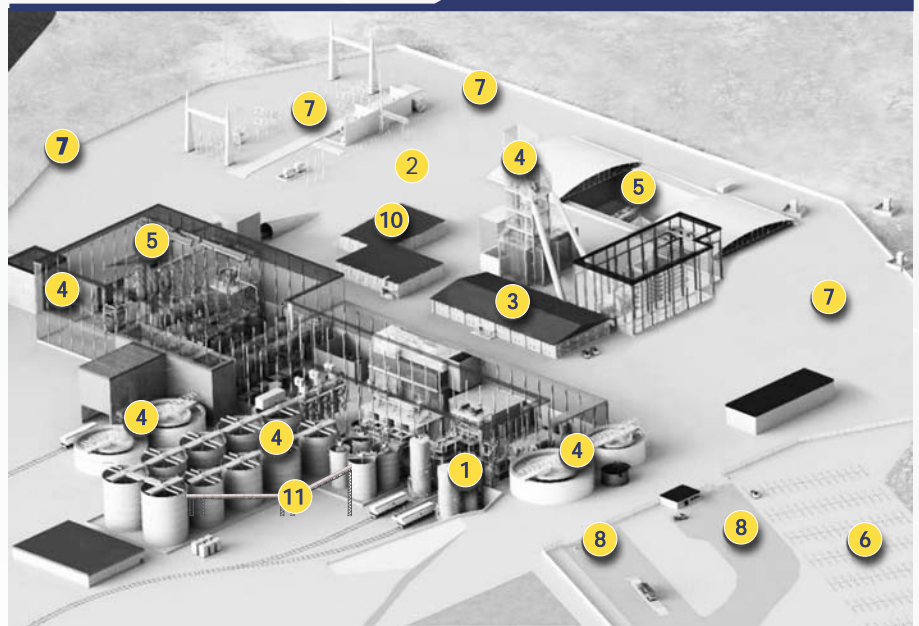
Surface Applications

- 1 HAZARDOUS AREAS
- 2 EXTERIOR FUNCTIONAL
- 3 INTERIOR FUNCTIONAL
- 4 PLANT AND EQUIPMENT
 - Winder house.
 - Processing plants.
 - Storage facilities.
- 5 TOWERS
- 6 PARKING AND PATHWAYS
- 7 SECURITY
- 8 ROADWAY
- 9 VEHICLE LIGHTING
- 10 WAREHOUSES
- 11 CONVEYOR

Ideal Products

Highbays
Floodlights and Highmasts
Bulkheads
Streetlights
EX Linear
EX Floodlights & Vapour Proof
Bulkheads & Vapour Proof
EX Streetlights
Conveyor Lighting
Solar Streetlight
Solar Floodlight

MINING SITE EXAMPLE



Hard-wearing and hard-working Lighting

Impact and Ingression Protection

Our robust lighting will withstand low quality electricity supply, hard knocks and hazardous working conditions; water, heat, dust, grime, gas and vibration.

Corrosive Environments

The ALISA range offers corrosion resistant models of all fittings - designed for hazardous chemical and water environments. IP68 rated luminaires are available for under water areas.

High-Vibration Exposure

Our lighting is designed specifically for environments where substrate movement and equipment creates high vibration and where shock waves from blasts occur frequently. Each unit has a closed profile to ensure that nuts and bolts are not worn down or shaken loose, thereby limiting impact or damage to the luminaire. With the challenge of lighting in environments with low ceilings, tight spaces and high production requirements, our lighting design plan offers high visibility, low glare and low maintenance in both time and cost.

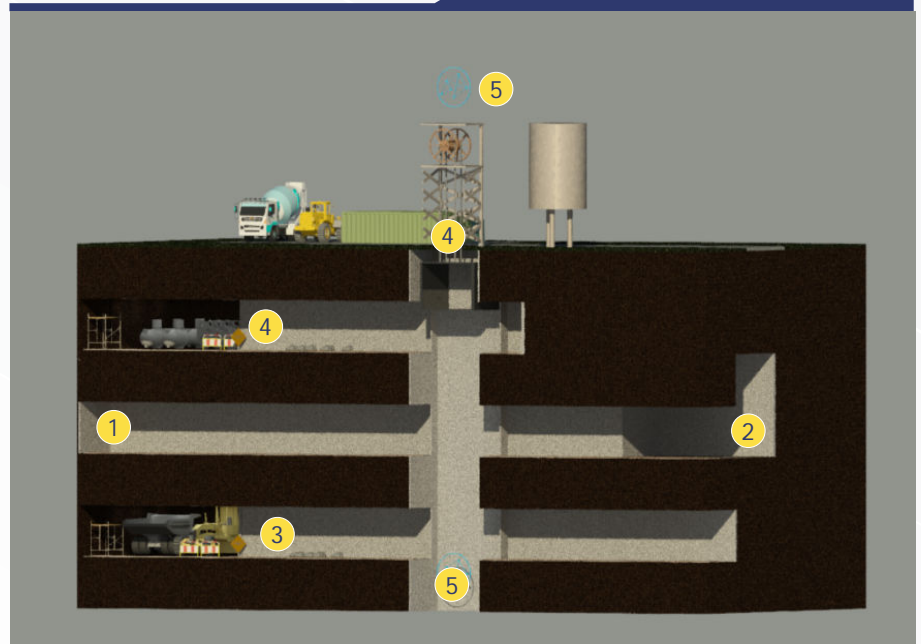


Underground Applications

- 1 HAULAGES
- 2 STOPE
- 3 DEVELOPMENT END
- 4 STATIONS
- 5 BLUETOOTH SYSTEMS

Ideal Products

- Haulage Lighting
- Stope Lighting
- Bulkheads
- Rhino Floodlight
- Mining Strip Lights
- Portable Forest Frog
- Shaft Bottom Light
- Shaft Exam Light



Hard-wearing and hard-working Lighting

Portable Lighting Solutions

AL TSA LED Lighting offers portable lighting systems as a solution for areas where fixed lighting is not feasible or subject to theft. Our range includes Ex products, and Stope Lighting.

The portable luminaire range features lithium batteries with over 100 000 switching cycles, providing high-quality performance. They provide between 2 and 10 hours of working light, offering flexibility and reliability - where you need it most.

Area Lighting

AL TSA LED luminaires stands out as a top choice in Industrial environments. Improving visibility with brighter natural light. Delivering a light that is as close to natural as possible by providing the highest colour rendering index. Lens diffusers that reduce glare and has instant-on capability, delivering bright, accurate lighting the moment it is turned on increasing visibility that is critical to the safety and efficiency to mine workers. Our lighting has the ability to dim when there is no human presence.





Fit for purpose

AL TSA provides advanced LED lighting solutions with the aim of maximising underground mine efficiency. Our lighting ranges include Haulages, Stopes, Development Ends, Stations.

Safety Illumination

Enhancing Safety and Productivity in Harsh and Hazardous Applications using LED Lighting solutions in underground mining environments play a huge role in safety measures. Lighting before stopes, walkway routes, railways locomotives are important.

With AL TSA the luminaires that we provide perform well in these environments, ensuring that illumination provided meets required lux levels and uniformity, serving as signaling measures.

Built to last

AL TSAs LED luminaires feature a robust housing design that combines functionality with user-friendly serviceability. Impact ratings (IK08 to IK10) that will outlast most hard knocks.

IECEX and ATEX Certified Lighting Solutions

IP65 or higher rating

Robust and durable design to withstand high temperatures

Corrosion resistant

80+ Colour Rendering Index



IK10 IP67

SANS

Communication Systems

ALTSA Bluetooth Mesh (BTM) offers a smart lighting-based control system for monitoring and intervention in mining environments. Our luminaires feature integrated IoT networks for below ground control systems. With ALTSA Smart Lighting Systems, you can expect high standards of safety and reliability. Our smart illumination and user-friendly controls ensure visual navigation and easy communication above and below ground.

Benefits

- Improves general lighting levels to optimise efficiency.
- Reinforces safety procedures through visual alerts.
- Initiates alerts and emergency evacuations.
- Manages any human risks.
- Bluetooth mesh network topology allows devices to communicate with neighbouring devices and creates a robust, scalable network.
- The mesh network ensures reliable communication even in environments with obstacles or signal interference.
- Users can manage and adjust lighting settings, schedules and other perimeters via a control point (Mobile App, Control System).
- Bluetooth mesh incorporates security features to protect against unauthorized access and tampering.

Advantages

- Works off Bluetooth low energy and Bluetooth communication protocol to communicate through a wireless network.
- Eliminates the need for expensive and sensitive fibre optic cables running through rugged haulage environment. Avoids cable tampering and damage.
- Spacing of nodes every 20metre as opposed to a wired connection being required.
- Communicate through any device that has a Bluetooth low energy protocol available.

ALTSA BTM Sensors

Oxygen levels

Temperature and humidity

Electrical sensors

Water level sensors

Toxic gas levels (CO, CO², CH⁴, SO_x, NO_x, etc)

Loco and people monitoring

Seismic activity
(accelerometers/vibration)

Smoke detection



Performance where it matters

AL TSA's LED Lighting Solutions are optimized for all underground mining environments:

- Improved lighting quality reduces the amount of lighting needed, lowers power consumption and improves energy efficiency.
- Input voltages ranging from AC100-300V.
- Low voltage operations DC12V,24V,36V and 48V.
- Improved environmental performance including no UV emissions.
- Enhanced quality and lighting distribution of the LED optics include a variety of symmetrical and asymmetrical beam angles.
- All our products come with a standard 5-year guarantee.

BULKHEADS



MAX BULKHEAD
[VIEW DATASHEET](#)



UP & DOWN
[VIEW DATASHEET](#)



ADJUSTABLE
WALLPACK
[VIEW DATASHEET](#)



SKEO WALL LIGHT
[VIEW DATASHEET](#)



CANOPY BULKHEAD
[VIEW DATASHEET](#)



VANDAL GUARD
[VIEW DATASHEET](#)



MID BULKHEAD
[VIEW DATASHEET](#)



BULKHEAD SERIES
[VIEW DATASHEET](#)



WALL PACK
[VIEW DATASHEET](#)

FLOODLIGHTS



SK FLOOD
[VIEW DATASHEET](#)



RHINO FLOOD
[VIEW DATASHEET](#)



MID FLOOD
[VIEW DATASHEET](#)



MINI FLOOD
[VIEW DATASHEET](#)



COOL FLOOD
[VIEW DATASHEET](#)

OUTDOOR

HIGH MASTS



MAX HIGH MAST
[VIEW DATASHEET](#)



MAX STADIUM II
[VIEW DATASHEET](#)



MAX STADIUM III
[VIEW DATASHEET](#)



MEGA STADIUM
[VIEW DATASHEET](#)



VISTA
[VIEW DATASHEET](#)

EXPLOSION PROOF



EXPLO TUBES
[VIEW DATASHEET](#)



SS MAX
[VIEW DATASHEET](#)



AL TSA ALTBAY
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SWORDFISH
[VIEW DATASHEET](#)



TRITON HIGHBAY
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POLAR BEAR
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FOREST FROG
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SEA LION
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SHAFT
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GYD FLOODLIGHT
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PORTABLE FROG
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HAULAGE



HAULAGE LIGHTS
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HELUKABEL CABLE
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OUTDOOR

MINING STRIP LIGHTS



MINING STRIP LIGHT
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MYNA FLOODLIGHT



MYNA FLOODLIGHT
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CONVEYOR/SHAFT



CONVEYOR MASTER
[VIEW DATASHEET](#)

STOPE LIGHTING



ASTRA
[VIEW DATASHEET](#)



ELECTRA
[VIEW DATASHEET](#)

HIGH BAYS



FLAT HIGH BAY
[VIEW DATASHEET](#)



SATURN HIGH BAY
[VIEW DATASHEET](#)



LINEAR HIGH BAY
SERIES
[VIEW DATASHEET](#)



GALAXY LINEAR
HIGH BAY
[VIEW DATASHEET](#)



LINEAR SERIES
HIGH BAY
[VIEW DATASHEET](#)



MAX LINEAR
HIGH BAY
[VIEW DATASHEET](#)



MX LINEAR
HIGH BAY
[VIEW DATASHEET](#)



HONEYCOMB
LINEAR HIGH BAY
[VIEW DATASHEET](#)



LINEAR SERIES
HIGH BAY
[VIEW DATASHEET](#)

STREETLIGHTS



MAX II A&C
[VIEW DATASHEET](#)



H SERIES
[VIEW DATASHEET](#)



ST STREETLIGHT
[VIEW DATASHEET](#)



MAX SB
[VIEW DATASHEET](#)



S7 STREETLIGHT
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S8 STREETLIGHT
[VIEW DATASHEET](#)



GALAXY SOLAR
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MINI SOLAR
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AQUILA SOLAR
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EPSILON SOLAR
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SPLIT SOLAR
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FX SOLAR
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LK SOLAR
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FX SOLAR
[VIEW DATASHEET](#)



INTEGRATED SOLAR HIGHMAST
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LINEAR



IP65 VAPOUR PROOF
[VIEW DATASHEET](#)



INTEGRATED
VAPOUR PROOF
[VIEW DATASHEET](#)



ITB TRI-PROOF
[VIEW DATASHEET](#)



H BATTEN
[VIEW DATASHEET](#)



OMEGA BATTEN
LINKABLE
[VIEW DATASHEET](#)



SLIM BATTEN
[VIEW DATASHEET](#)



BETA BATTEN
[VIEW DATASHEET](#)



GAMMA BATTEN
[VIEW DATASHEET](#)



LIGHT BAR LINEAR
[VIEW DATASHEET](#)



AL TSA BATTEN
[VIEW DATASHEET](#)



OFFICE LINEAR
SERIES
[VIEW DATASHEET](#)



LINEAR TRUNKING
SYSTEM
[VIEW DATASHEET](#)



VANDAL GUARD
LINEAR
[VIEW DATASHEET](#)



AL TSA CYRUS
LINEAR
[VIEW DATASHEET](#)



WRAP AROUND
BATTEN
[VIEW DATASHEET](#)



TP TRI-PROOF
BATTEN
[VIEW DATASHEET](#)



T-SERIES
TUNNEL LIGHT
[VIEW DATASHEET](#)



OWM STRIP LIGHT
[VIEW DATASHEET](#)

TUBES & LAMPS



IP65 LAMPS
[VIEW DATASHEET](#)



TUBERON
[VIEW DATASHEET](#)



2G11 TUBE
[VIEW DATASHEET](#)

INDOOR / OUTDOOR

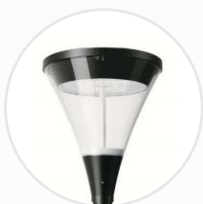
POST TOPS | SPOTLIGHTS | BOLLARDS



BOTANIC
[VIEW DATASHEET](#)



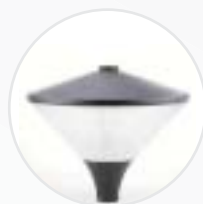
ATHOS
[VIEW DATASHEET](#)



CYRAH
[VIEW DATASHEET](#)



POST TOP SERIES
[VIEW DATASHEET](#)



SOLAR DIAMOND
[VIEW DATASHEET](#)



APOLLO
[VIEW DATASHEET](#)



ATLAS
[VIEW DATASHEET](#)



CYCLOPS
[VIEW DATASHEET](#)



RIO
[VIEW DATASHEET](#)



LINA
[VIEW DATASHEET](#)



VILA
[VIEW DATASHEET](#)

FLASHLIGHT SERIES



FLASHLIGHT 1
[VIEW DATASHEET](#)



FLASHLIGHT 2
[VIEW DATASHEET](#)



FLASHLIGHT 3
[VIEW DATASHEET](#)

Reliable, quality components that go the distance

ALTSA supplies and distributes a wide range of high-quality, long lifespan electrical products essential for everyday use that are related to lighting management solutions.

We facilitate custom specifications to manufacturers and offer a high degree of product format flexibility.

Solutions where you need them

ALTSA is an ISO 9001 company with a proven track record for successful installations at a number of commercial and industrial sites. Our products are IEC/SANS approved and carry multiple national and international accreditations.

We have managed numerous complex installations within the last ten years. Most notable is the Netcare Hospital project which required the installation of over 100,000 luminaires, 116 different products from our indoor and outdoor ranges. Over the project period of 3 years, we installed lighting at all the blue chip mining companies across South Africa which included switched and emergency back-up luminaires.

The ALTSA installation team employ stringent measures throughout the process to ensure the highest standards are met, consistently. Customer satisfaction is a part of our guarantee.





How can ALTSA help?

We handle the entire process as a turnkey solution (including the Eskom process, outlined below):

Start the application process with Eskom (require a letter of intent)

Perform lighting audits on all facilities

Provide efficient lighting proposal

Complete registration process with Eskom

Manage Measurement and Verification

Complete installation project

Manage Subsidy returns

In partnership with LTM Energy, we handle all subsidies on all disciplines

Eskom Demand Side Management Subsidies

Two Subsidy schemes available

Efficient Energy (Recommended option) – R0.42/saved kWh of energy over 2 years

Load Management – R3M/Saved 1MW Power between 5pm and 8pm

Requirements for Subsidy Applications

Awarded contracts are provided with a standard incentive rate (Rand/MW or cents/kWh for achieved demand and/or energy reduction during specified periods.

All approved proposals will be subject to an independent measurement and verification of the proposed baseline.

Incentives are paid in 8 equal parts over 2 years

On completion, projects will be independently measured and verified quarterly against the contracted demand and energy savings.

Customer electricity bill must be up to date.

Projects must be completed within 6 months.

Only 6 sites are allowed per application.

No duplicate applications/claiming with other incentive programmes will be permitted.

ALTSA Turnkey Solution Provider

Lighting Product Provider

- Luminaire and lamp design
- Lighting product Assembly
- Product Logistics
- Product Warehousing and Distribution
- All lighting peripherals including sensors, battery backups, poles, etc.

Lighting Design and Simulation

- Energy Calculation and Monitoring
- Lighting Audits
- Lighting Energy Proposals
- M & V Management
- Metering installation and Monitoring
- 12L Management

Installations

- Lighting Installations
- Electrical Installations
- Upgrades where needed and not SANS10142 compliant
- Intelligent lighting control systems and integration to building management systems
- Complete Maintenance of lighting.

Finance

- Rent to Own
- Provide Share Savings to Own





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