

Blue Sun Energy Solutions

DEYE C&I 100KW - 2.5MW
SOLAR HYBRID SYSTEMS

BROCHURE
MAY 2026

**SERVING CLIENTS ACROSS
SOUTHERN AFRICA**

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Your Trusted Partner in Sustainable Power



Blue Sun Energy Solutions has 17 years of experience delivering scalable solar hybrid systems across Southern Africa – reducing grid purchased power costs and power security to businesses of all sizes.

15+ Years

INDUSTRY EXPERIENCE

We've built solar hybrid systems for corporations, lodges, government departments, and municipalities since 2009.

1200+ Sites

MANAGED SOLAR HYBRID LOCATIONS

From remote off-grid installations to large commercial projects, we support energy operations across Southern Africa.



Reliable, Scalable, Smart Energy Solutions

We offer flexible, high-efficiency systems built with top-tier battery and inverter tech—engineered to meet the demands of Southern Africa’s energy landscape.

01.

SYSTEM RANGE

100kW to 2.5MW scalable hybrid systems

For C&I sites, remote operations, and large-scale facilities.

02.

SUPPLIER SUPPORT

Full Range of Local Technical Support and warranties. Ensuring operations disruptions are minimized and your capital is working for you

03.

ENERGY CONTROL

From Solar Power Performance to Battery management, all our systems are under permanent Deye Cloud monitoring

Complete Hybrid Power Solutions – Built to Scale

With intelligent control, robust design, and expandable architecture-

These high-capacity systems are built for ensuring
Increased solar consumption - Continuous operations,
Energy arbitrage & TOU peak demand savings

MODULAR SYSTEMS

STARTING WITH

• *DEYE 125KW
PCS+MPPT+STS & THE*

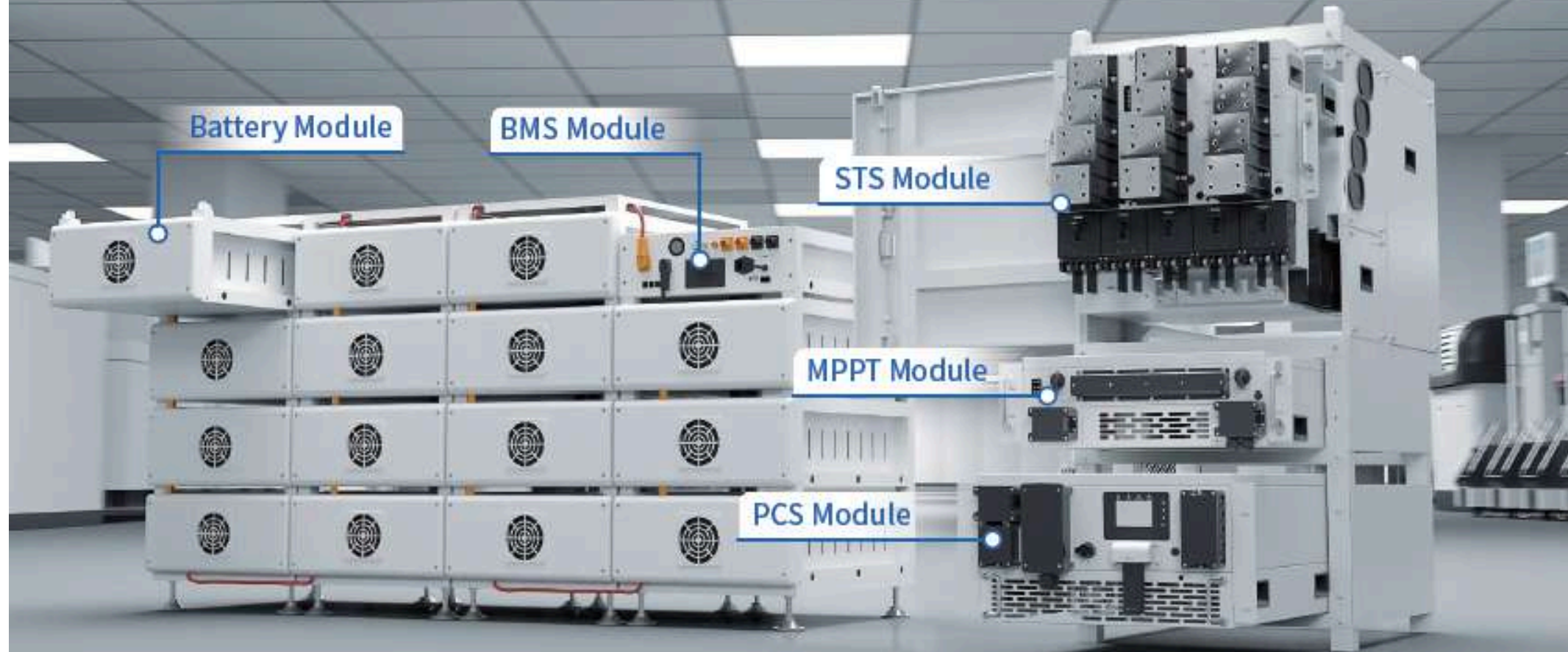
*「BOS -B BATTERY
INVERTER SYSTEM
215KW」*

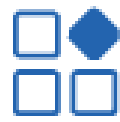
WHO IT'S FOR

- Factories and workshops
- Manufacturing plants & processing facilities
- TOU Power Tariff Users
- Power Factor Correction
- Industrial parks & warehouses
- Farms or agro-industrial operations
- Municipal infrastructure (e.g. water treatment, civic buildings)
- Data Centers and IT Hubs
- Mission-critical remote operations (e.g. mining, telecoms)
- Health clinics and rural hospitals
- Remote lodges and eco-tourism sites
- Mining support operations
- Educational campuses in off-grid

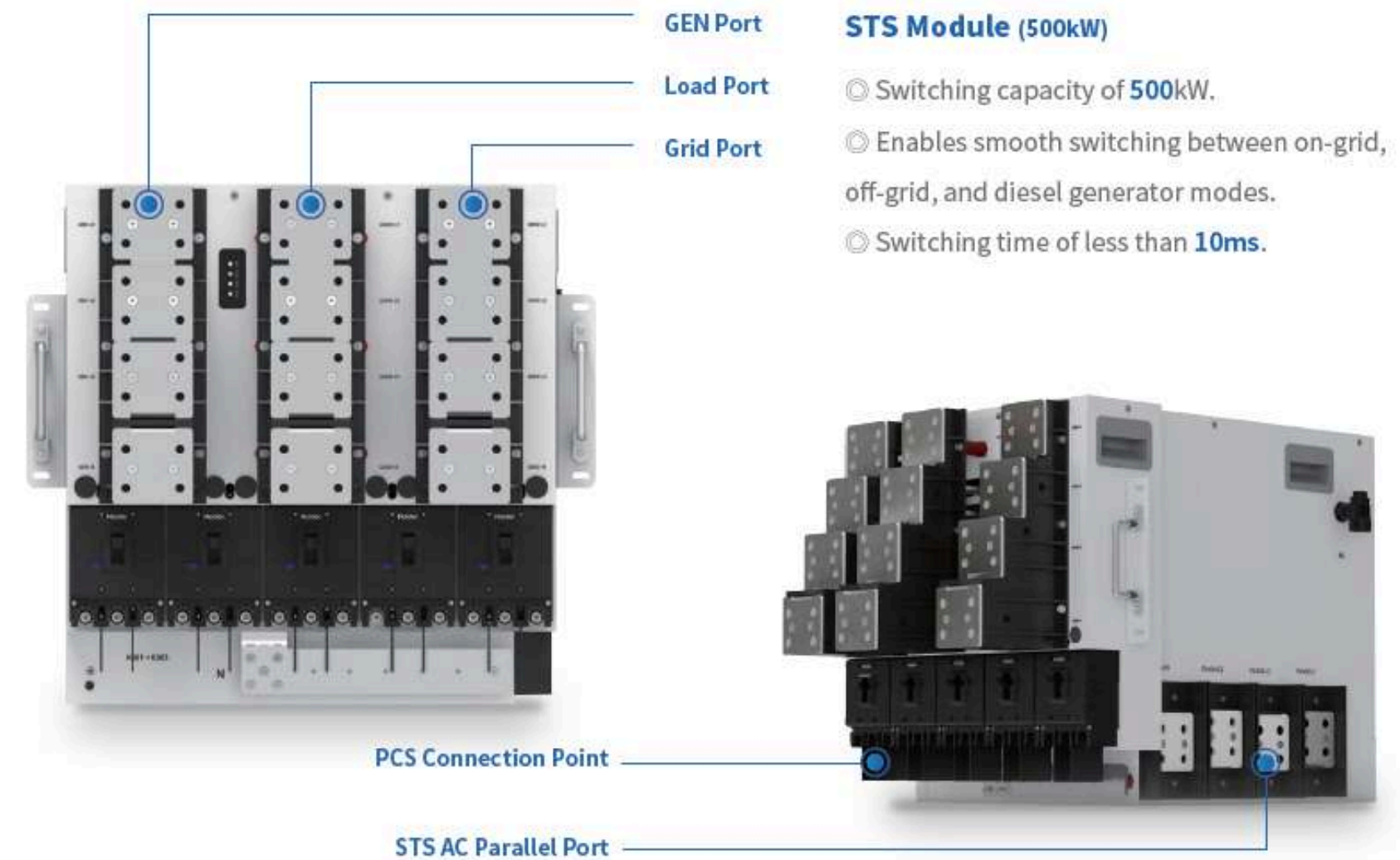
125KW-2.5MW C&I ESS SOLUTION

Featuring PCS, MPPT, and STS modules with
integrated EMS functionality





125kW-2.5MW C&I ESS Solution



8 MPPT



DC Port



Battery Port

CT/Meter/BMS/
MPPT/Parallel

Data Logger

KEY STATS

- STS MODULE SWITCHING CAPACITY 500KW
- SOLAR MPPT MAXIMUM 200KW
- PCS MODULE 175A/200A CHARGE & DISCHARGE CURRENT
- BOS B 15 X 14.3KW LITHIUM 200AH/51.2V DC

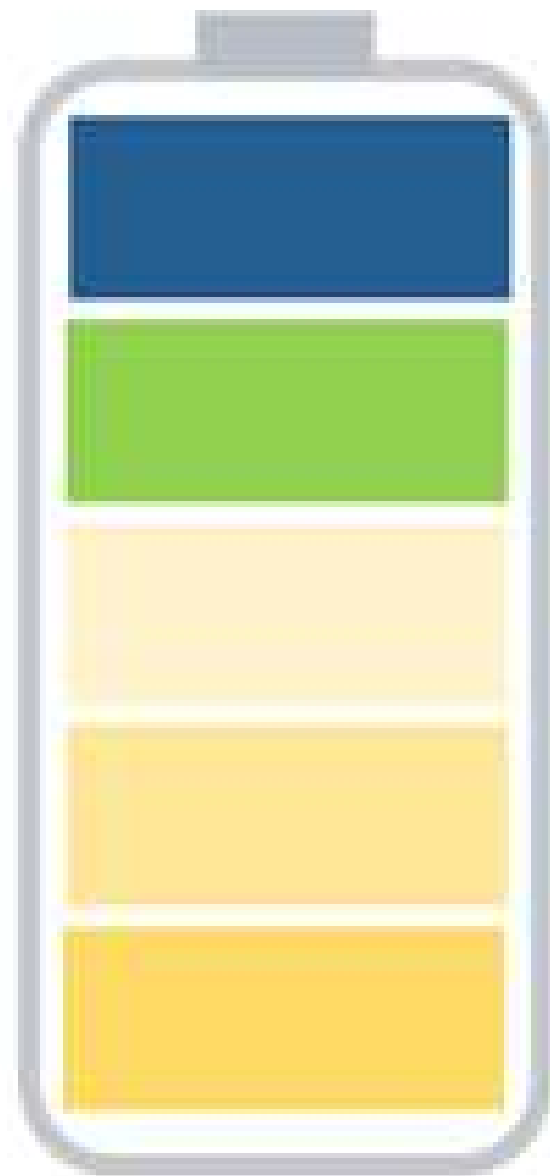
MPPT Module (8 MPP Trackers)

- Maximum 200kWp PV module connection with 8 MPPT channels, **40A** per MPPT.

PCS Module (100kW/125kW)

- 175A/200A** charge and discharge current.
- Maximum efficiency of **98.5%**.
- System rated power up to **2.5MW**.
- Supports instantaneous peak power up to 200% of rated power.
- Integrates zero-export and time-of-use control functions.
- Eliminating the need for additional EMS.

VALUE STREAMS: REDUCING GRID-PURCHASED POWER COSTS



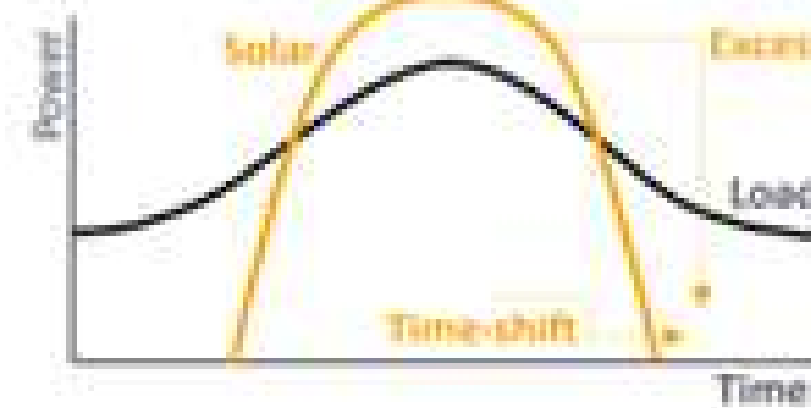
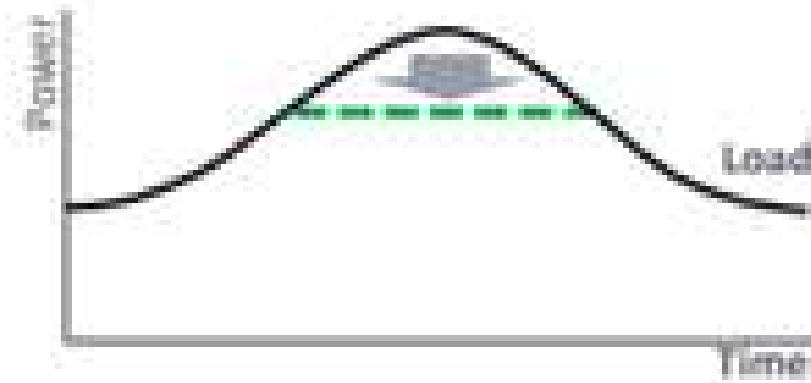
Notified maximum demand reduction

Peak demand reduction

Increased solar PV consumption

Solar energy time shift

Energy arbitrage



Batteries can be used to clip peak demands, resulting in a reduction in demand charges and potentially capacity charges (if the user is prepared to reduce their NMD).

The battery enables solar PV to be shifted to peak ToU periods. It also enables excess solar PV to be captured, increasing self consumption.

The battery enables energy arbitrage, charging during cheaper off-peak periods and discharging during peak ToU periods when energy rates are highest.



Services

CUSTOM SOLAR HYBRID DESIGN

SCALABLE ENERGY SOLUTIONS

**SLA'S WITH SITE MONITORING &
MAINTENANCE**

ENERGY AUDITS & CONSULTATIONS

SOLAR FINANCE OFFERINGS



Projects

**1200+ SOLAR HYBRID SITES ACROSS
SOUTHERN AFRICA**

CORPORATE + OFF-GRID APPLICATIONS

HIGH-VOLTAGE BESS INSTALLATIONS

GOVERNMENT & COMMERCIAL CLIENTS

Gallery Slide

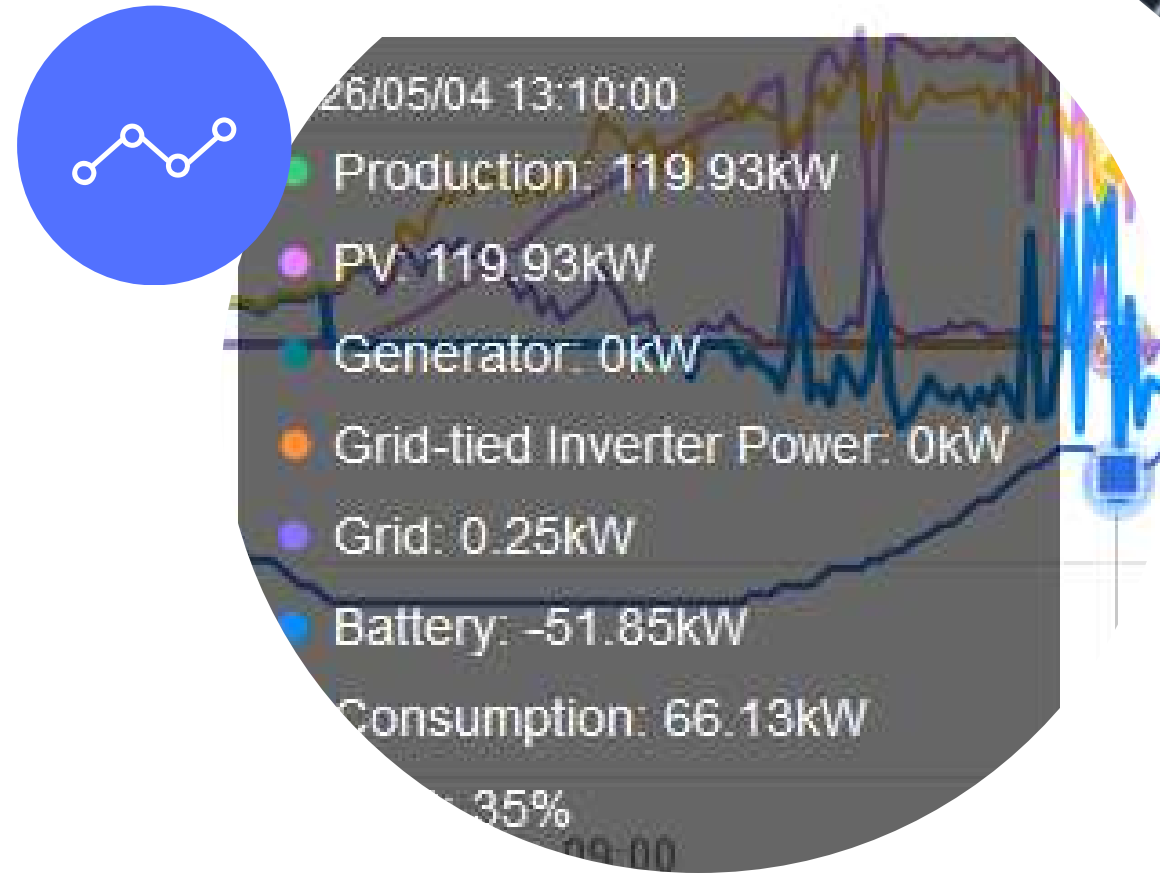
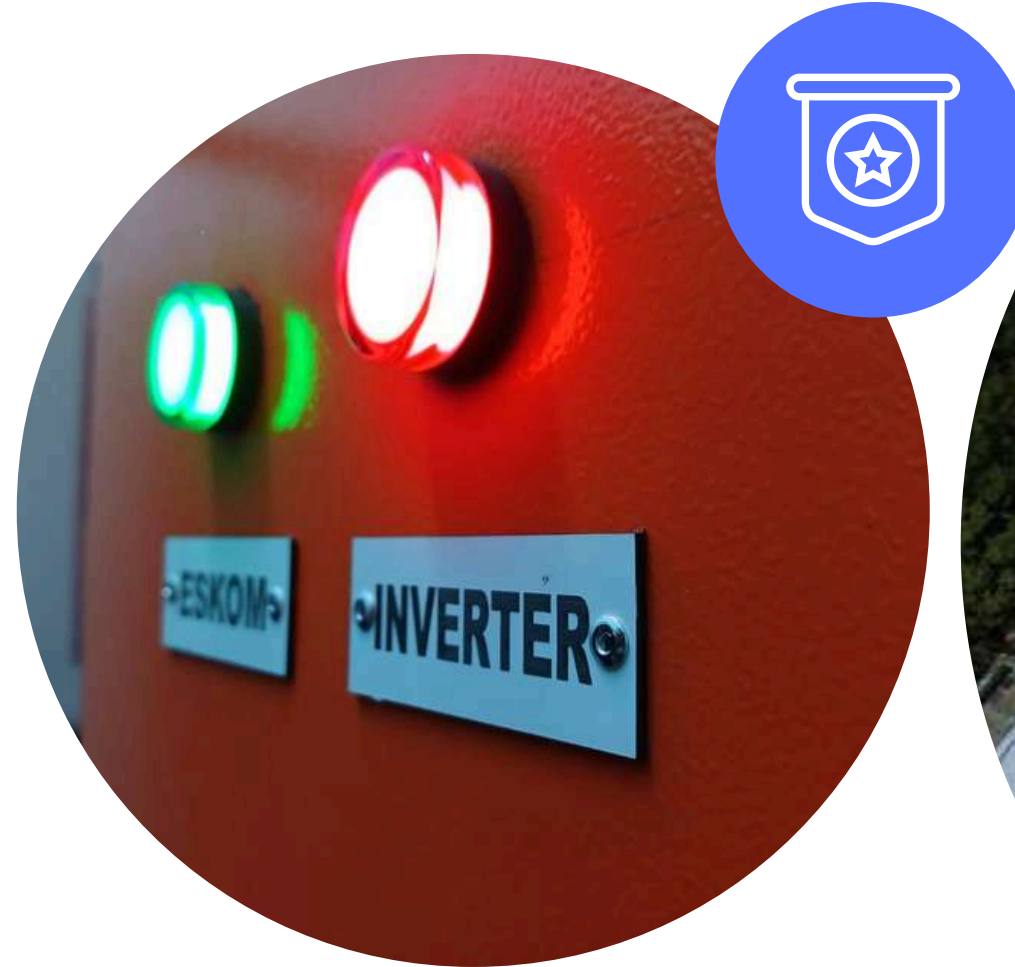


- **BUILT TO PERFORM**
- **COMPACT AND SAFE**

Installed by our professional team
All systems under remote monitoring

Why Choose Us?

- Free consultations & site assessments
- Full turnkey system design & support
- Over 15 Years of Solar Experience
- National Deye Systems Product Support
- Long-term technical partnership & monitoring



Let's Build Your Energy Future.



Partner with Blue Sun Energy Solutions for scalable, reliable hybrid systems tailored to your power needs. From remote lodges to large-scale industrial operations — we deliver energy cost savings and security, built to last.

Contact Us

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energy solutions