

SHUAA SERIES



Solar Energy Container

Designed & Manufactured in the UAE 

ABOUT IAN SUSTAINABLE SOLUTIONS



IAN is a subsidiary of **AG Holding**, a well-established UAE-based conglomerate founded in **1935** and owned by a prominent Emirati family.

With a strong legacy spanning decades, AG Holding operates across diverse sectors including energy and environmental solutions, engineering and manufacturing, services and trading, real estate, landscaping, auctioneering, and several other strategic industries.



THE ENERGY PROBLEM IN REMOTE AREAS



Diesel dependency increases operating cost



Fuel transport creates safety risk



Generator maintenance causes downtime



Carbon targets are tightening

SHUAA™ is a turnkey, containerized solar energy system delivering advanced, environmentally responsible hybrid power, empowering industries and communities with clean, efficient, and reliable infrastructure wherever it's needed.



WHAT IS IAN SOLAR ENERGY CONTAINER



An All in One, Plug & Play, Relocatable, Containerized Solar Systems with Battery Energy Storage Systems inside 20' ISO Container.



It integrates solar PV generation, battery energy storage, hybrid power conversion, and energy management system into a single, factory-engineered platform—ready for rapid deployment and scalable operation.

ENGINEERED TO OPERATE AS:

- ✓ OFF-GRID POWER SOURCE**
- ✓ HYBRID SYSTEM WITH DIESEL GENERATORS**
- ✓ MICROGRID BUILDING BLOCK**

Designed for Continuous operation, Relocation and Harsh Operation Environments.

WHAT'S INSIDE THE SHUAA™ CONTAINER



High-Efficiency Bifacial Solar PV Modules



Battery Energy Storage System (BESS)



Hybrid Energy Storage Inverters



Integrated Cooling & Ventilation



Safety & Protection Systems



Smart Monitoring & Control

“DESIGNED TO REDUCE DIESEL RUNTIME BY UP TO 60-80% DEPENDING ON LOAD PROFILE”



SHUAA SYSTEM CAPACITY & SAFETY FEATURES



SOLAR PV SYSTEM

- Solar Capacity: **85 kWp**
- PV Module Type: TOPCon/HJT
- PV Module Quantity: **144 units**

BATTERY ENERGY STORAGE (BESS)

- Battery Type: LiFePO₄ (LFP)
- Total Energy Capacity: **393 kWh**
- Battery Sets: **2×8 units**

INVERTER SYSTEM

- Inverter Type: Three-phase Energy Storage Inverter
- Inverter Rating: 2 × 40 kW
- AC Output Voltage: 400/230 V , 50 Hz

PLUG AND PLAY POWER BOX

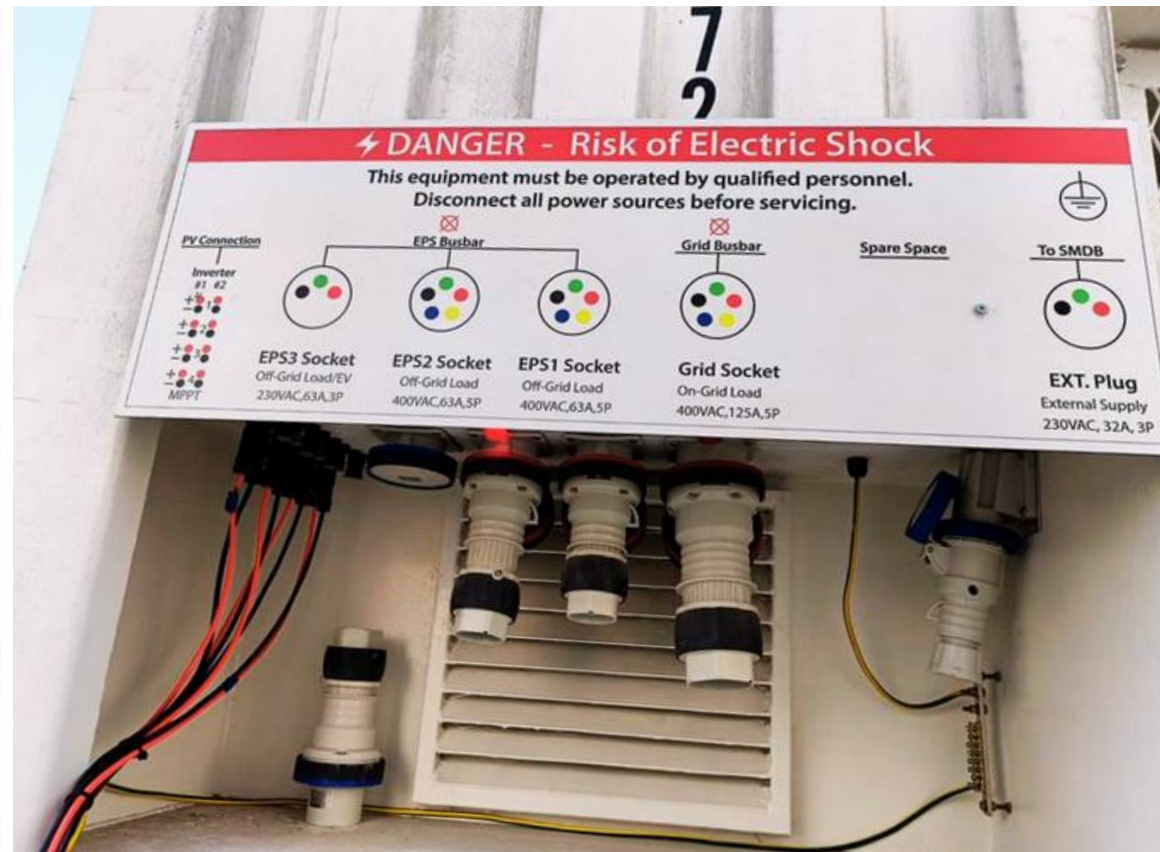
- Output Connections:
- 125A 5-pin (3-phase), 2 × 63A 5-pin (3-phase), 1 × 63A (single-phase)

CONTAINER SPECIFICATIONS

- Container Type: 20 ft High Cube
- External Dimensions (L×W×H): 6.06 × 2.44 × 2.89 m
- Approx: Total Weight: **14,538 kg**
- Tare Weight: **2,420 kg**
- Payload: **12,118 kg**

EQUIPMENT & SAFETY

- Cooling: Air Conditioning + Mechanical Ventilation
- Fire Alarm System: **Provided**
- Fire Suppression System: **Provided**
- Mounting Method: East-West Ballasted Solar Sandbox
- Hazard: High Voltage
- IP Rating: IP65
- Compliance: IECstandards



SOLSANDBOX™ MOUNTING SYSTEM



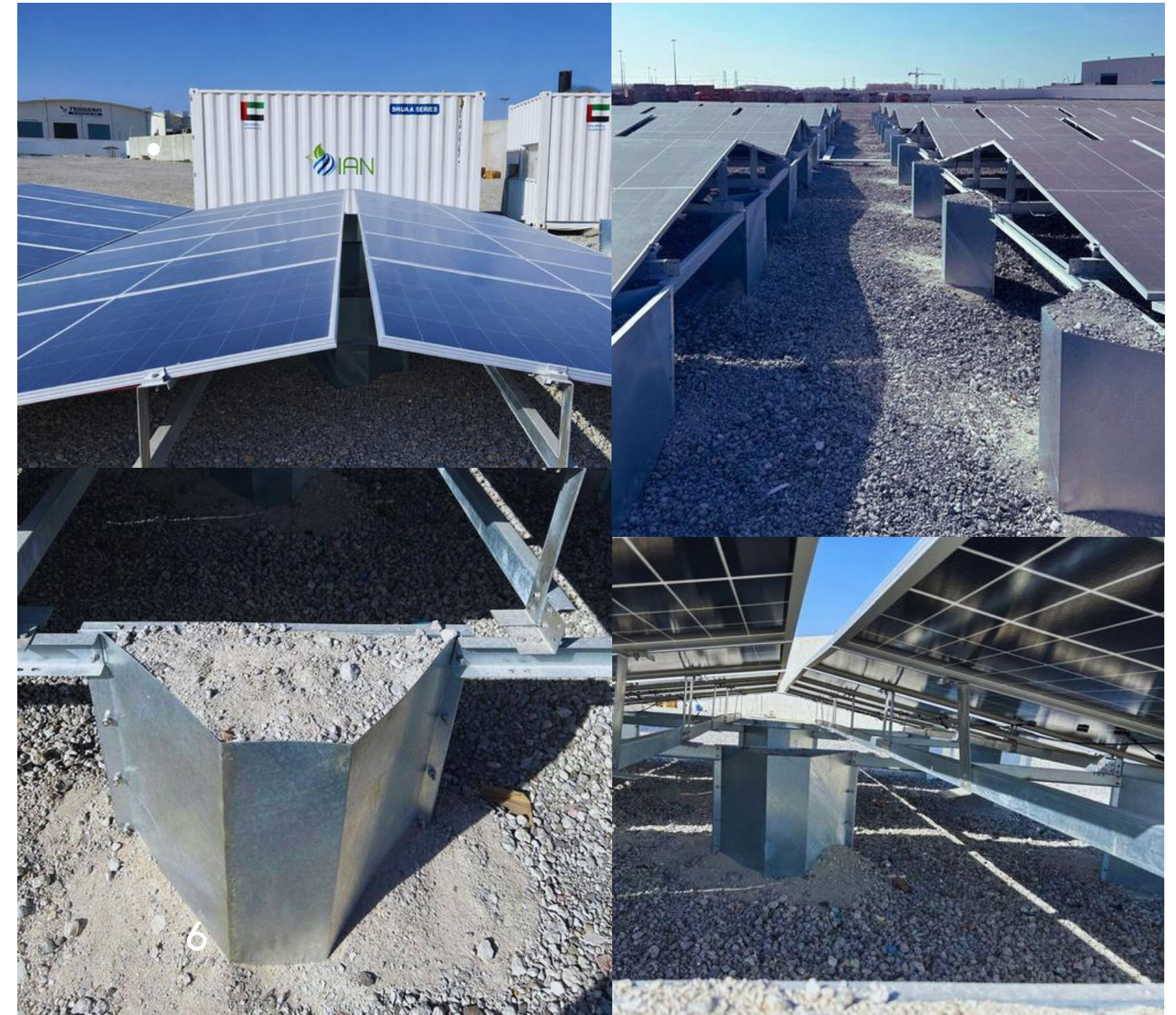
Elevated Solar Mounting, Stabilized by Sand..

SolSandBox™ is a proprietary mounting solution developed specifically for containerized solar systems.

Key Advantages:

- ✓ No concrete foundations or ground penetration
- ✓ Elevated structure reduces dust and water exposure
- ✓ Modular layout adapts to constrained or irregular sites
- ✓ Fast installation with minimal tools
- ✓ Integrated into container logistics and transport

SolSandBox™ enables true rapid deployment without civil works.



SHUAA DEPLOYMENT & CONSTRUCTABILITY



SHUAA™ is engineered around energy balancing.



Fully containerized and factory tested



Minimal site preparation



No dedicated battery or electrical rooms required



Rapid installation and commissioning



Easy relocation for temporary or phased projects



Designed and manufactured in the UAE

SHUAA™ CONTAINER SERIES



Model	Solar Cap	Battery	Usable Energy	Use Case
Shuaa-85 Basic	85.7 kWp	131 kWh	105 kWh	Economical choice tailored for dependable daytime power supply
Shuaa-85 Performance	85.7 kWp	262 kWh	210 kWh	Optimized for reliable day and night performance
Shuaa-85 Ultra	85.7 kWp	393 kWh	315 kWh	Extended battery capacity for reliable nighttime support
Shuaa-85 Super Ultra	85.7 kWp	524 kWh	420 kWh	Max storage for continuous off-grid power

One Container. Every Power Possibility.

Solar + Battery + Hybrid Control integrated into a single mobile energy platform, scalable from kW deployments to multi-MW microgrids across any industry.

SHUAA SYSTEM DESIGN CONCEPT

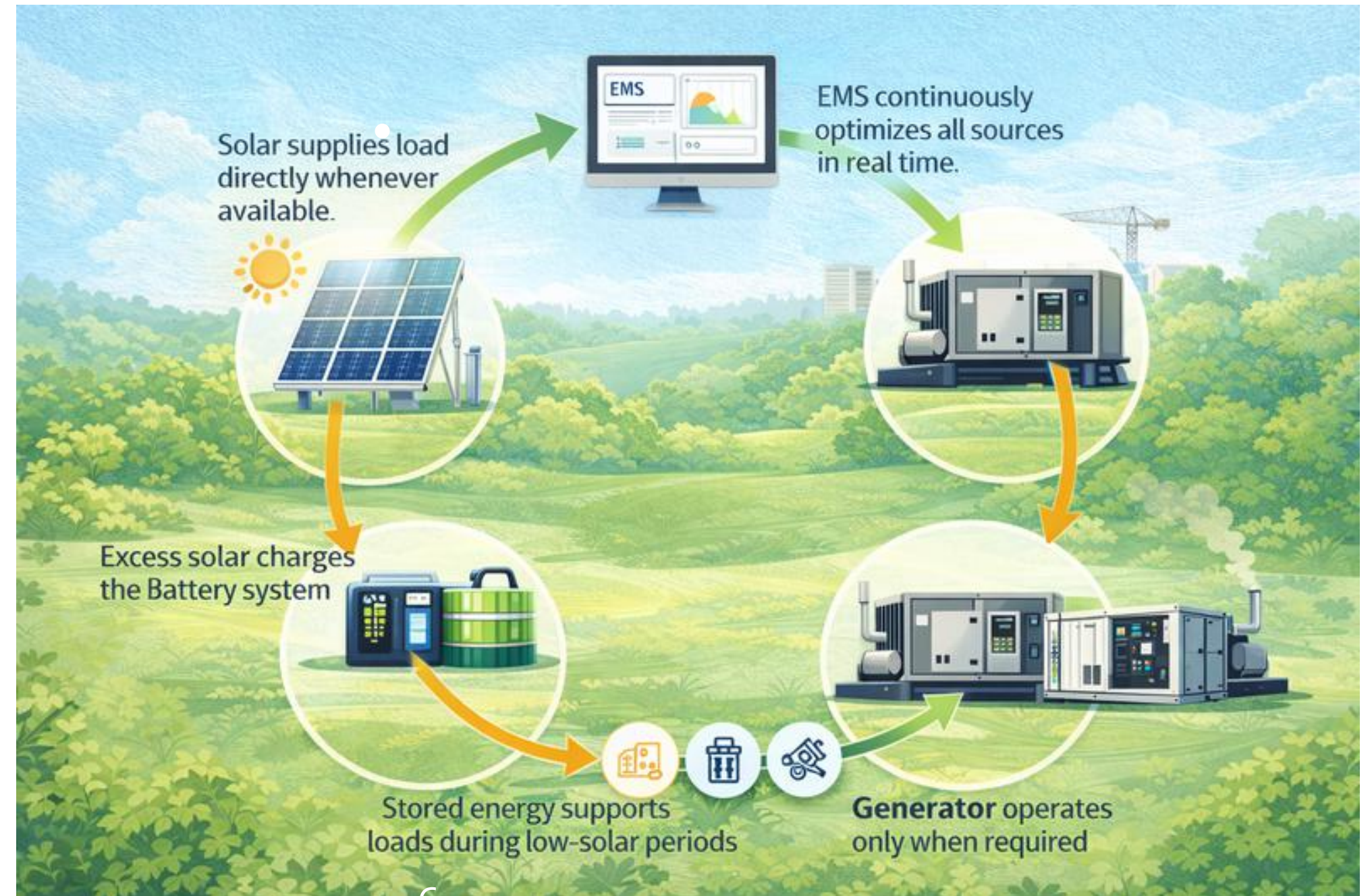
SHUAA™ is engineered around energy balancing.

OPERATING LOGIC:

- ✓ Solar supplies load directly whenever available
- ✓ Excess solar charges the battery system
- ✓ Stored energy supports loads during low-solar periods
- ✓ Generator operates only when required
- ✓ EMS continuously optimizes all sources in real time

THIS APPROACH:

- ✓ Reduces generator runtime
- ✓ Improves fuel efficiency
- ✓ Maintains uninterrupted power for critical loads



WHY SOLAR + BESS?



- ✓ Enables load-first power supply
- ✓ Smooths load fluctuations and peak demand
- ✓ Reduces mechanical stress on generators
- ✓ Improves overall system availability
- ✓ Supports scalable and modular expansion

SHUAA™ IS DESIGNED FOR OPTIMIZED HYBRID OPERATION ACROSS MULTIPLE POWER SOURCES.

SHUAA DIESEL OFFSET MODEL



Replace Fuel Dependency with Predictable Solar Power.

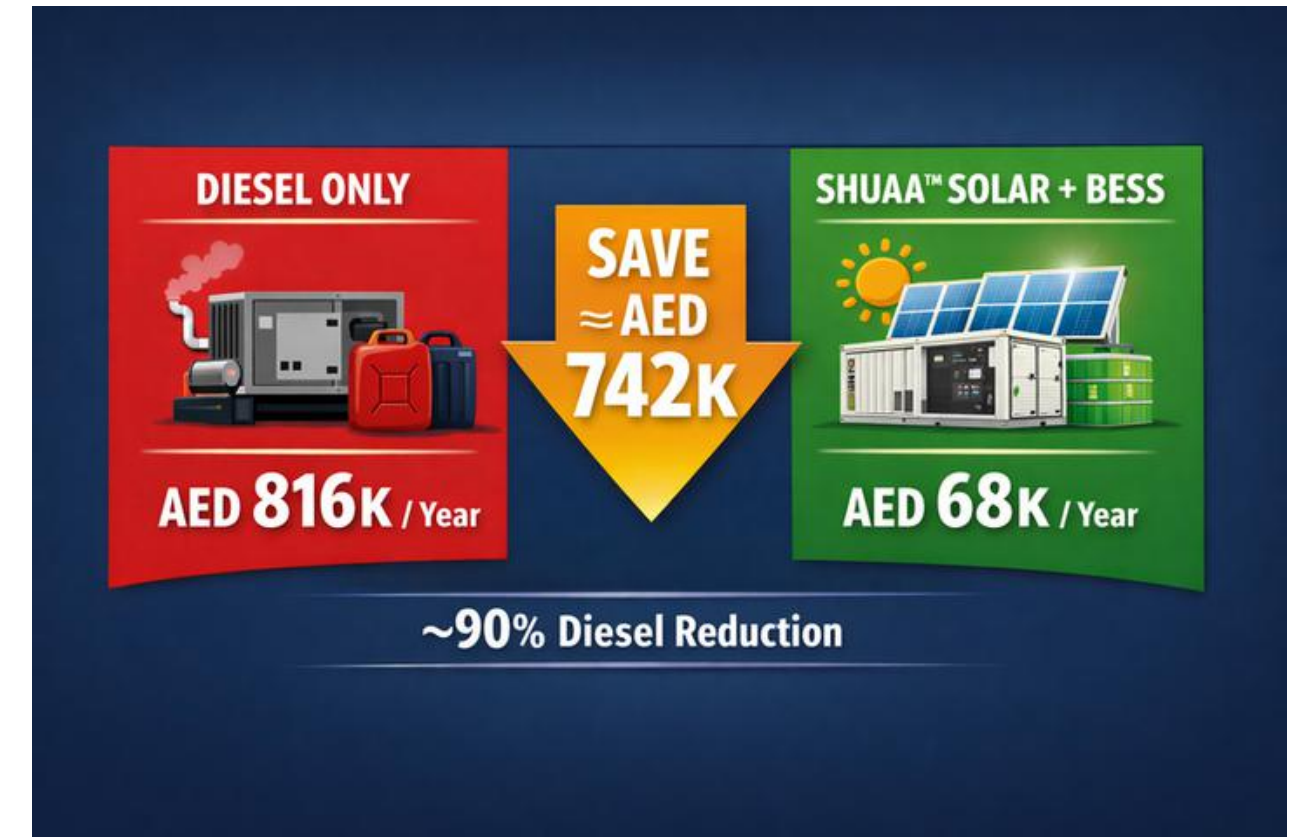
Shuaa™ containerized Solar + BESS supplies over 90% of daily energy, allowing the diesel generator to operate only as backup rather than the primary power source.

Measured Operational Impact:

- ✓ 160,000+ liters of diesel avoided annually
- ✓ ≈ AED 742K reduction in yearly operating cost
- ✓ Significantly lower generator runtime and maintenance
- ✓ Stable, reliable power for critical loads

What This Means for the Customer:

- ✓ Convert energy from a volatile fuel expense into a controlled operating cost
- ✓ Reduce fuel logistics, storage risks, and site dependency
- ✓ Improve long-term asset life and operational reliability
- ✓ Strengthen sustainability performance with major CO₂ reduction



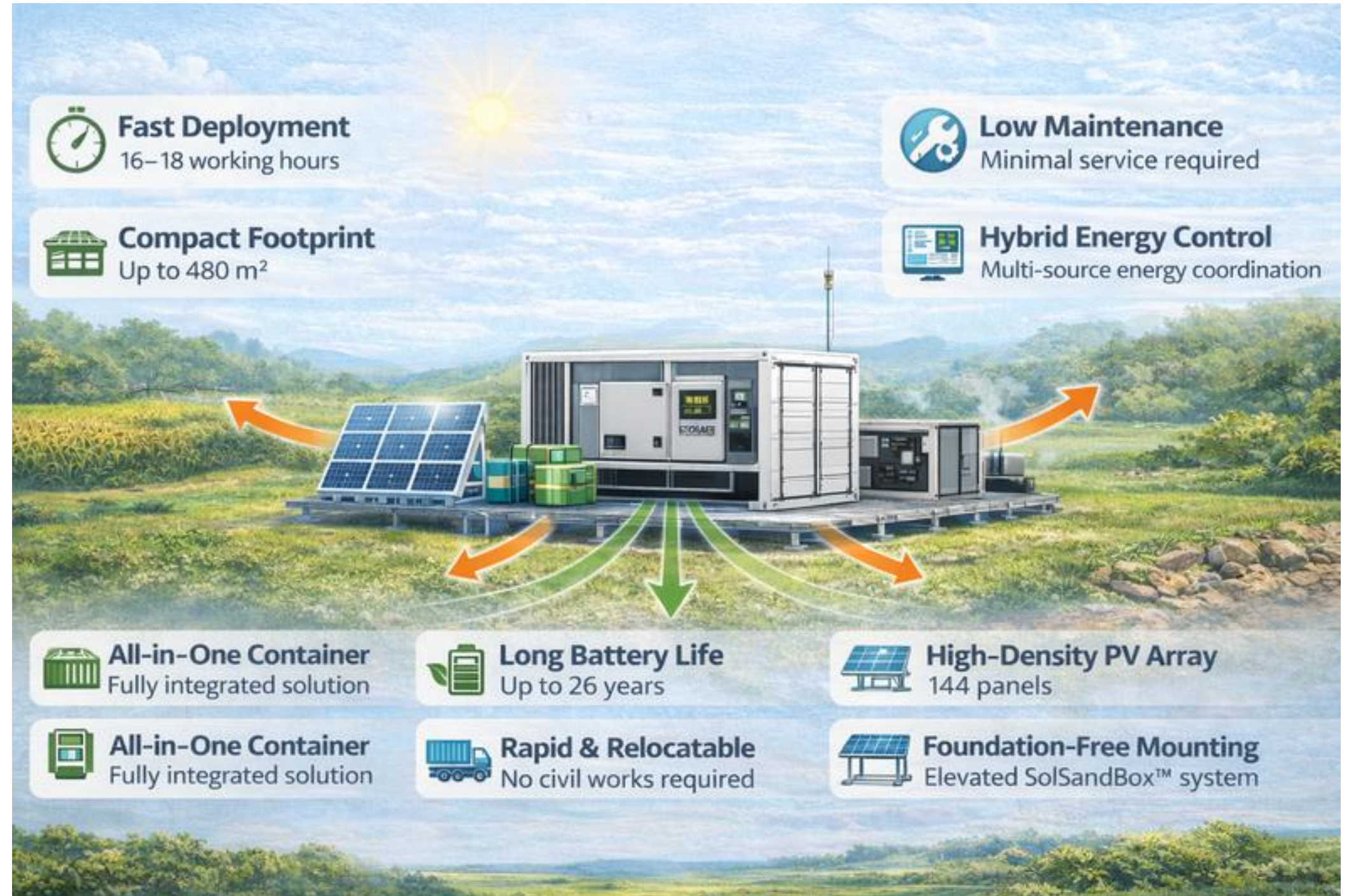
👉 Stop paying for fuel every year — generate your power once and benefit for decades.

BENEFITS OF SHUAA SOLUTIONS



Clean Energy, Anywhere, Anytime..

- ✓ Fuel reduction
- ✓ Logistics simplification
- ✓ Scalable from XX **kW** to multi-**MW** microgrids
- ✓ Operational uptime
- ✓ ESG reporting
- ✓ Remote reliability
- ✓ High temperature tolerance
- ✓ Dust-resistant design
- ✓ Industrial-grade containerization
- ✓ Designed for continuous duty cycles
- ✓ Engineered for harsh desert environments





SHUAA APPLICATION SECTORS



- 01** | Agriculture: Irrigation, greenhouse operations, cold storage
- 02** | Water Management: Pumping, purification, desalination, and atmospheric water generation
- 03** | Off-grid Communities: Community power solutions
- 04** | Disaster Response: Mobile energy supply for emergency operations
- 05** | Construction & Events: Temporary and mobile energy infrastructure
- 06** | Defense: Reliable, secure energy for field deployments
- 07** | Peak Demand Support: Stores solar energy for release during peak demand, reducing costs.



IAN DEMO SITE



Visit the IAN SHUAA system demo site at Dubai Industrial City (DIC) for a live, in-person demonstration.

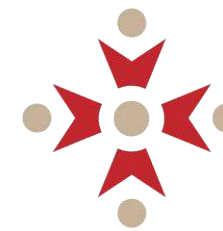




TAKE THE NEXT STEP TOWARD SUSTAINABILITY



CONTACT US TO EXPLORE OPTIONS, PRICING, AND INSTALLATION ASSISTANCE



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