

Kight NEW KV-6 Off-Grid, Dual Energy, Site Light

Reliable, off-grid
lighting, creating
safer working
environments

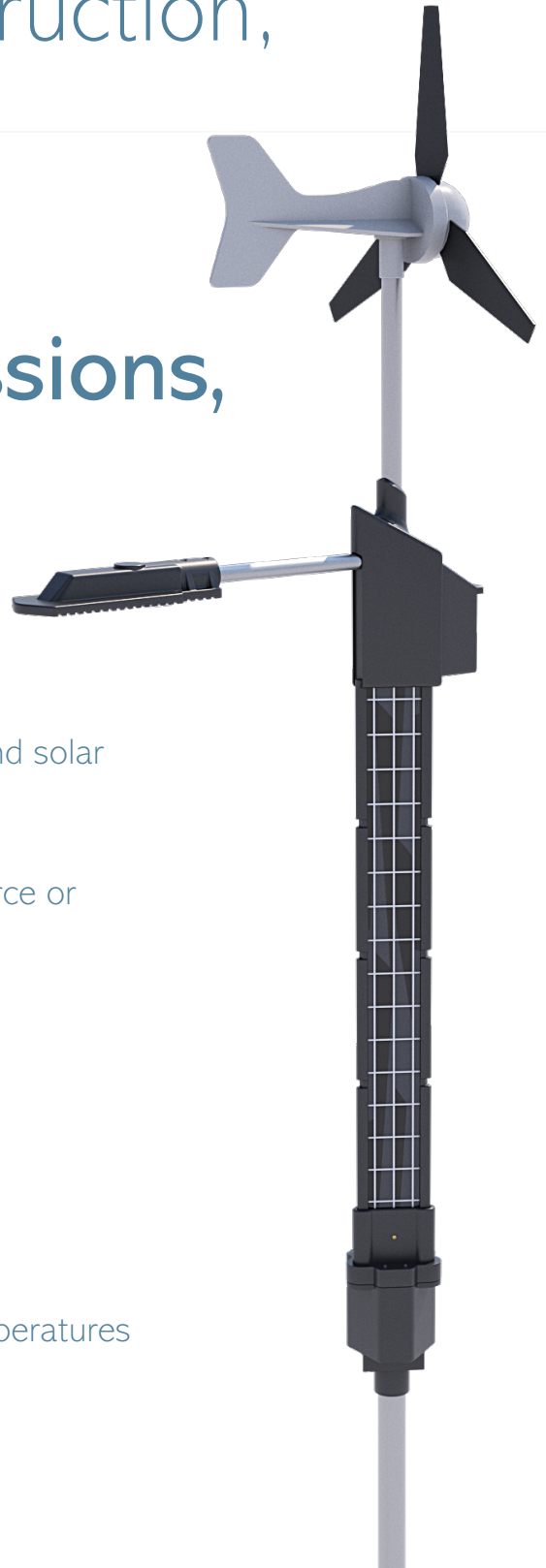
International Patent Pending:
PCT/2024/050801

Kight
Off Grid



Reliable, temporary zonal lighting for construction, events, parking, infrastructure...

No fuel, no emissions, no noise..



- Dual energy input harnessing both wind and solar energy for all-year round reliability
- 100% off-grid with no back up power source or generator. No battery swaps.
- Highly portable, quick and easy to install
- Superior zonal lighting
- Multiple units delivered on one vehicle
- No loss of efficiency or charge rate in temperatures as low as -25°C
- Extended product lifespan of 20+ years

Energised by nature...

Kight
Off Grid

Key Features

Fully Installed Unit

Features

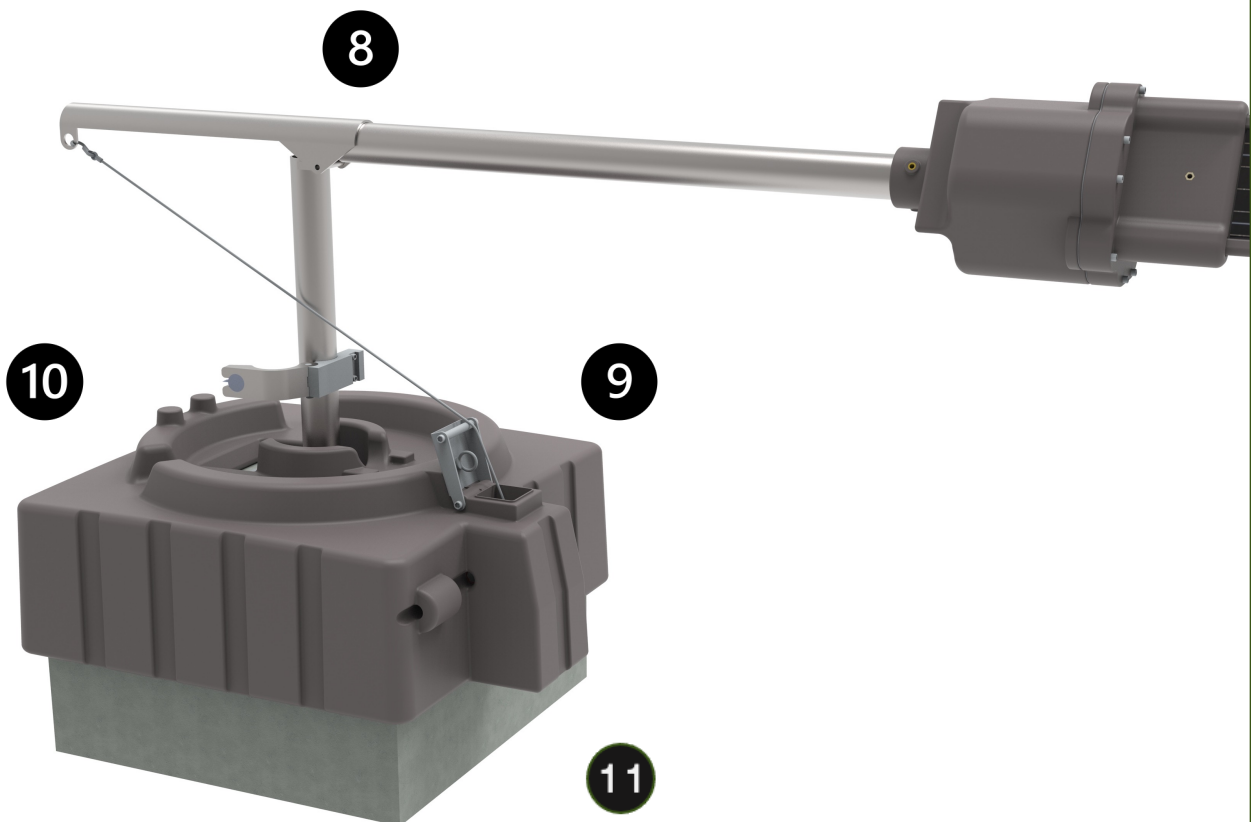
1. UK made durable wind turbine producing 300W peak power (optional)
2. 12W LED Lantern IK10 specification, 2200 lumen
3. Integrated Smart Controller
4. 3 x 50W vertical solar panels producing 150W peak solar
5. 40ah sealed "Kight Technology" battery, certified to 10,000 cycles. no loss of efficiency in sub-zero temperatures
6. Hinged column for easy installation
7. Base block with fork slots housing winch system for installation



Key Features

Hinged column & winch

- 8. Heavy duty, steel column with mid-hinge for easy installation
- 9. Quality integrated winch system for 'up-righting' column
- 10. Fixed column clamp for safe installation
- 11. Concrete base block with NAL retention socket to house column. Fork slots for installation/manoeuvrability



Key Features

Transportation & Installation

For transportation, the wind turbine is housed in the moulded case covering the concrete block.

The column locates in the retention socket and locks into position

Pre-installed, manual winch system for up-righting/de-rig lighting column





Reliable,
temporary zonal
lighting

Image shows version 1 KV-6 model

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Product Information & Data

Dimensions

- Lantern height 5m
- Total height with turbine 6m
- Column 76mm shaft.

Lantern

- Die cast aluminium LED lantern, IK10 specification
- High performance LEDs, generating 183 lumen per watt
- Total lantern output 2196 lumen

Coverage

- Spread of light on ground 30m x 17m
- Recommended distance between lights for consistent coverage 30m
- Quality zonal, ground lighting

Solar

- 4.8W relative efficiency at low light 97.3%
- 3 x 50W solar panels with 150W peak solar
- Si Polycrystalline solar panels with 0.4% annual degradation
- Vertical self-cleaning solar panels
- Secure solar holder designed to capture maximum solar radiation all year round
- Optimising size of solar array without windage issues

Installation

- Concrete base block 800 x 800 x 600mm
- Fork slots for ease of manoeuvring
- Overall weight approx. 800kg
- NAL socket to retain column securely
- Integrated winch system with fail safe

Battery

- Battery storage – 40ah
- Next generation battery technology
- Kight non-graphite anoid Technology
- Chemistry designed specifically for Kight lighting products

Energy

- 150W peak solar
- 300W peak wind
- 40Ah/12V/552w/h

Integration

- Dual solar/wind input simultaneously
- Designed to optimise efficiencies between wind and solar inputs and output requirement of the product

Turbine

- Wind turbine – KLE-300
- Related power 300W
- Peak power coefficient 0.34c
- Valid power curve air density 1.23kg/m³

Connectivity

- Remote monitor LoRa end node
- LoRa private gateway
- Connected to private LoRaWAN network
- Custom client dashboard for monitoring assets
- Stepped programmable lighting levels remotely adjustable

