

Hybrid Solar Lighting

Guaranteed illumination.
Come rain or shine.

RANGE PREVIEW

Offering reduced energy costs and lower carbon emissions, solar power is fast becoming a viable alternative to conventional energy sources.

However, the UK's unpredictable weather presents a unique challenge for solar powered lighting. With long winter nights and frequent cloudy days, relying solely on solar energy can lead to inconsistent lighting. Ensuring continuous, reliable illumination requires a solution that can adapt to these changing conditions.



Why hybrid solar lighting?

Hybrid solar lighting systems combine the benefits of solar energy with the security of grid power, ensuring continuous illumination even during periods of limited sunlight. This dual-power approach guarantees reliable street lighting year-round, regardless of weather or season, providing consistent, high-quality illumination.

For local authorities and businesses in the UK, hybrid solar systems reduce energy costs, minimise environmental impact, and improve overall lighting reliability. By using renewable energy whenever possible and supplementing with grid power only as needed, these systems offer a sustainable and cost-efficient solution for metered supplies.

Typical applications



Business Parks



Retail Centres



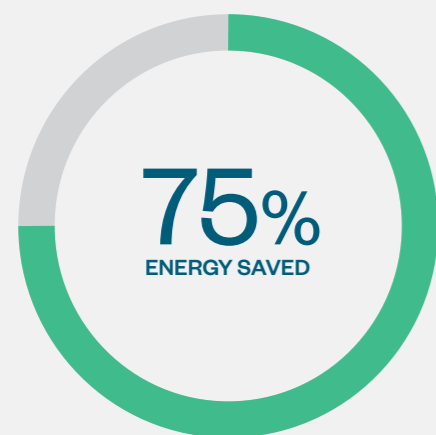
Car Parks



Schools & Universities



Housing Developments



Significant energy savings

Hybrid solar systems can deliver significant energy savings compared to traditional cabled LED street lighting by primarily using renewable solar energy and supplementing with grid power only as needed.



Reduced energy costs

Hybrid solar lighting relies primarily on free solar energy, minimising electricity consumption. This reduces energy bills significantly, providing long-term savings compared to traditional grid-powered lighting.



Reliable performance

Hybrid systems ensure continuous lighting by switching seamlessly between solar and grid power. This guarantees uninterrupted illumination even during overcast days or power outages.



Environmentally friendly

Hybrid solar lighting significantly reduces carbon emissions by maximising the use of renewable solar energy, contributing to cleaner air and reduced environmental impact.



Higher light levels

Hybrid solar lighting provides the flexibility to achieve higher illumination levels by supplementing solar energy with grid power, allowing increased lighting classes to be achieved.



Scalable solutions

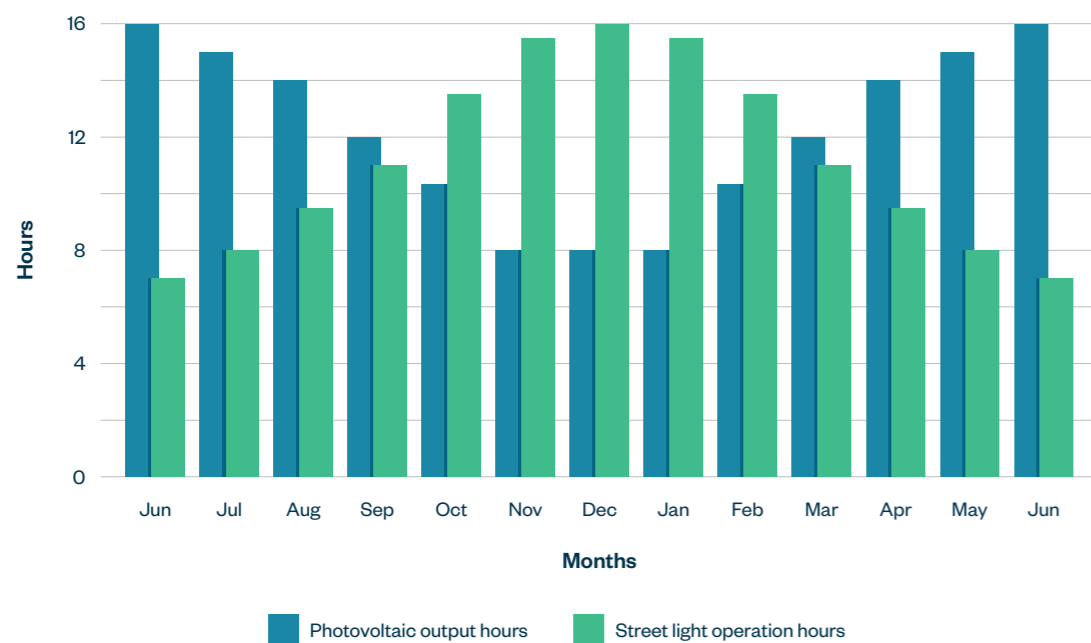
Hybrid solar systems can be tailored to match the specific lighting requirements of any location. This flexibility ensures that performance and efficiency are maximised to suit the application.

Managing solar variability

The uneven distribution of solar energy throughout the year poses a challenge for reliable off-grid solar lighting. In regions like the UK, sunlight availability peaks in summer but declines sharply during winter months, resulting in prolonged periods of low energy capture.

Hybrid systems solve this by automatically supplementing solar power with grid energy when needed, such as during longer winter nights, ensuring continuous, dependable illumination year-round.

Annual lighting hours vs average solar output



Here to support your solar needs

Choosing the right solar lighting solution—whether off-grid or hybrid—can be complex. Our experienced solar team is here to guide you through every step, from feasibility assessments to product specification and lighting design. We're committed to helping you make the best choice for your project needs.

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Intelligent control system

All our hybrid solar solutions are managed by advanced controllers to optimise battery life and are fitted with motion sensors to help manage light levels during quieter periods to ensure reliable and consistent illumination throughout the night



Monocrystalline panel

Photovoltaic (PV) cells convert light directly into electricity; however, not all solar panels are the same. We only use monocrystalline panels made from single silicon crystals as these offer a higher efficiency compared to other solar panels



Efficient LED luminaire

Our hybrid solar systems are compatible with a number of our luminaires. Designed to maximise energy savings, these LEDs offer high performance with low power consumption, ensuring high quality, efficient illumination

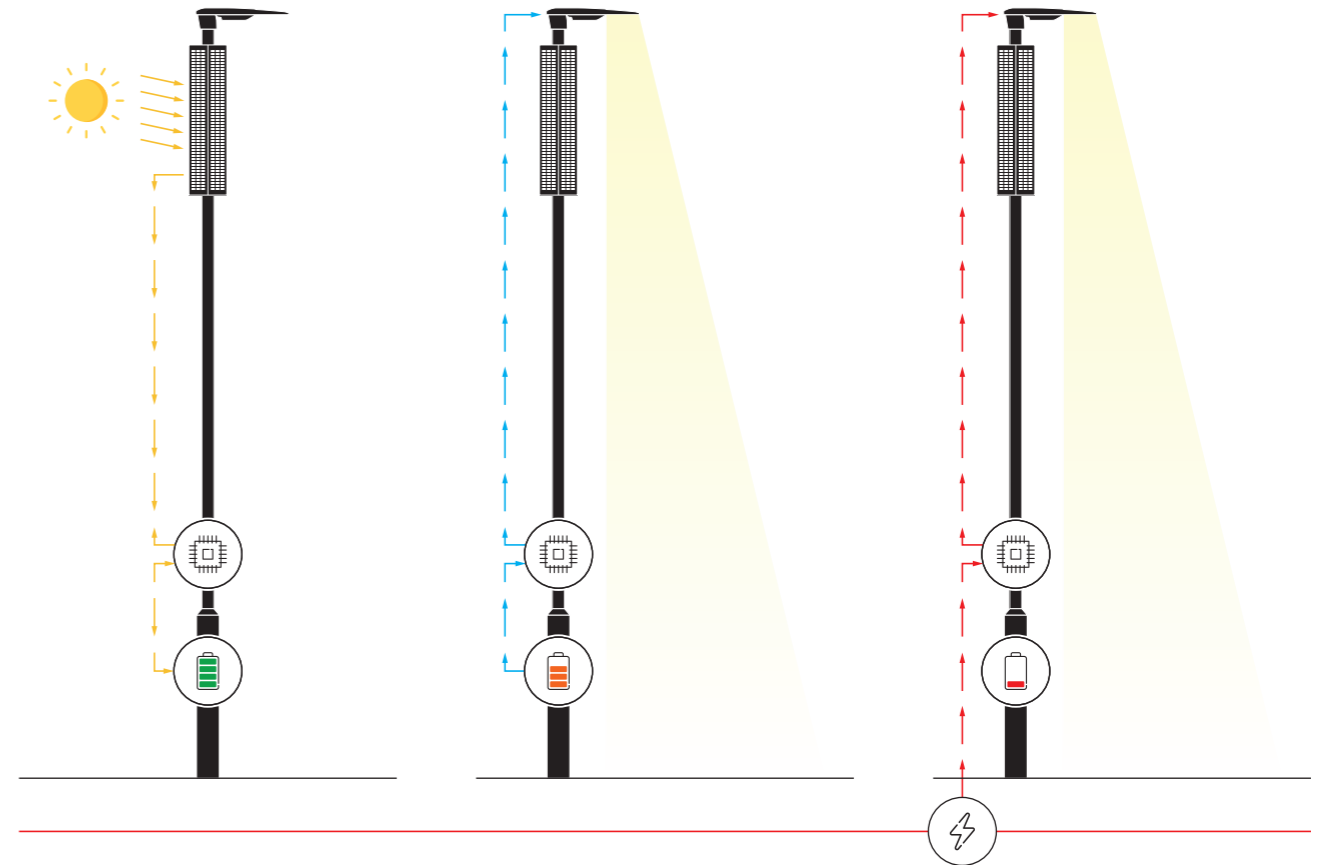


Lithium iron phosphate battery

Our solar solutions utilise lithium iron phosphate (LiFePO4) batteries which offer significant advantages over other battery types due to their higher energy density, including added safety, longer lifespan and a wider operating temperature range

How hybrid systems work

Hybrid solar systems use an intelligent control unit to manage the balance between solar and grid energy, providing reliable lighting around the clock. This seamless process ensures that energy is optimally captured, stored, and used, switching effortlessly between solar and grid power as required to maintain continuous illumination.



Charging during the day

Solar panels capture sunlight and store energy in the system's battery throughout the day. The smart control unit optimises charging to ensure full power is available for nighttime lighting.

Battery powers light at night

At night, the control unit directs stored energy from the battery to the luminaire, powering reliable, emission-free lighting, ensuring sustainable operation through peak usage hours.

Grid power provides backup

If the battery runs low, the system seamlessly switches to grid power. The control unit ensures uninterrupted lighting, switching automatically to maintain continuous illumination.

Hybrid solar range

Our hybrid solar range combines advanced solar technology, intelligent control systems, and reliable grid backup to deliver sustainable lighting solutions tailored for the UK's conditions. Designed for metered supplies, each system maximises solar energy capture and storage, guaranteeing continuous illumination—even through the longest winter nights.



Torino Panel Hybrid

Torino Panel Hybrid is a simple, cost-effective solar solution featuring a flat photovoltaic panel mounted directly to the top of the column. With a tilt angle optimised for the UK, the panel can be easily orientated on site to maximise solar absorption.

Lumen Output
up to 11,000 lm

Power
up to 72 W

Solar Panel
100W / 200W / 300W

Battery Capacity
307Wh / 691Wh



Torino Sleeve Hybrid

Torino Sleeve Hybrid is a vertical solar solution with innovative wraparound photovoltaic panels, maximising solar absorption from any angle. Its low-profile tubular design is built to blend seamlessly into urban landscapes while offering robust resistance to wind and weather.

Lumen Output
up to 11,000 lm

Power
up to 72 W

Solar Panel
100W / 150W / 200W

Battery Capacity
307Wh / 691Wh





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