

Case Study | Abri Housing Association

Street lighting for new housing developments
Powered by 100% clean, green renewable energy

“The solar panels and wind turbines are a striking visual manifestation of our commitment to sustainability in our new housing developments” – Brian Ryves, Abri Technical Manager

Kight
Off Grid

Customer

Abri Housing Association

Project

Install 12 columns of off-grid street lighting in a new housing development of 34 homes

Locations

Emsworth, the first of four Hampshire locations including Tangmere, Westway and Botley

Product

Kight KV2 Off-Grid Street Light. 100% clean green energy powered by hybrid wind and solar

Duration

Two days in total - staged installation to follow development schedule, with no requirement for cabling or trench digging

Key Facts

- 12no off-grid streetlights
- 100% renewable energy
- No 'back-up' grid connection
- Energy saving 20,323 KWh over lifecycle
- CO2 saving 3,922 kg over lifecycle
- Installation time of columns – 2 days



The Challenge

Abri Housing Association is committed to constructing 12,500 new homes by 2030 in collaboration with Hampshire County Council. They needed a sustainable, cost-effective lighting solution for the developments' streets, access roads and pathways. Traditional on-grid lighting solutions continually enlarge the development's carbon footprint and pose difficulties in terms of installation timing, site safety, and financial constraints. Abri wanted to find a lighting solution that could meet these challenges and enhance its eco-credentials as it worked towards its ambitious housing goals.

The Solution

Kight's KV2 street lighting solution offered the following key advantages:

Reliable Off-Grid and Green Energy: Kight's streetlights require no on-grid connection. Instead, they harness green energy dual input wind and solar sources, reducing the carbon footprint of the developments. The state-of-the-art ultra-efficient battery technology has a life expectancy in excess of 20 years, with no loss of efficiency in sub-zero temperatures. The system features full remote monitoring and adjustability.

Early-Stage Installation: Developers can install street lighting earlier or at any stage in the development process, without requiring grid connections to function, improving site safety and security and removing the need for temporary site lighting.

Cost-Efficiency: By reducing the need for temporary lighting solutions and eliminating trench digging, grid connection and cabling costs, as well as long-term energy costs, Kight's solution offers a cost-efficient alternative to traditional on-grid lighting.

The Result

Abri Housing Association is actively contributing to a sustainable future in the built environment. Emsworth's Kight lighting installation has been fully operational for over a year and a second installation in a low carbon development in Tangmere is almost complete. The off-grid, green energy lighting aligns perfectly with their commitment to responsible construction practices.

Savings at Emsworth over the 20-year product lifespan

Energy savings: 20,323 kWh

Energy cost savings: estimated at more than £8,000

Carbon emission savings: in excess of 3,922 kg

"Kight's products are the perfect off-grid solution to help us on our journey towards net zero carbon. They negate the requirement for mains electricity to power street lighting on our sites moving forward and I am impressed with how easy they are to install and maintain."
- **Brian Ryves**, Abri's technical manager

