#### CASE STUDY POWYS COUNTY COUNCIL PRESTEIGNE DARK SKIES



DARK SKIES

ECOLOGY 

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# PRESTEIGNE DARK SKIES

First IDA Dark Sky Community in Wales and mainland England



The preservation of the dark sky is critical not only for the well-being of people and wildlife, but also for scientific and astronomical purposes.



#### BACKGROUND

Presteigne Dark Skies have put lighting design at the forefront of transforming Presteigne into the first IDA Dark Sky Community in Wales and mainland England.

The previous street lighting technology was very intrusive with a cool white light which negatively impacted the town's night-time ambience and its residents, with many complaining about light nuisance. With the help of the Town Council, Powys County Council agreed to replace all street lighting in Presteigne with new low energy 'dark skies compliant' lighting technology, starting in April 2021.

The goal was to light the town whilst preserving the night sky - Presteigne is so remote and perfect for star gazers – and protecting an important local resident, the endangered Lesser Horseshoe Bat, which adversely changes its feeding patterns in response to bright streetlights. For Dark Skies status the Council needed to show 'exceptional dedication' to preserving the night sky.

## SOLUTION

The TRT Lighting team worked with Dark Source (Lighting Designers) and the clients (end users) Powys County Council and Presteigne and Norton Town Council to develop a sympathetic lighting solution that was also fit for purpose.

Using the innovative **Optio Micro (16 LED)** with 2200K LEDs dimmed at different times of the day when not needed, this softer, warmer light safely enhances the historic night time ambiance of old villages and towns as it is reminiscent of the way streets might have appeared a century ago with incandescent lamps.

The Optio Micro lantern was created to provide flexibility, adaptability and choice, with easy fit glare control accessories and interchangeable optics to address light spill, and a wide range of colour temperatures to help protect biodiversity and ecologically sensitive areas.

The design of this lantern was inspired by the features and benefits it could provide on-site and designed with the real world in mind, offering an ecologically friendly and versatile lighting solution.



This tremendous initiative has reduced CO2 emissions by 4.5 tonnes and managed to set an important precedent for implementing responsible lighting within built and populated areas. Thank you TRT Lighting for going above and beyond for this project.

Kerem Asfuroglu Dark Source



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### OUTCOME

The town is now sufficiently lit for residents and visitors, providing good visibility and a feeling of safety, whilst also protecting the endangered Lesser Horseshoe Bat and other bats, birds and wildlife. The Spaceguard Centre, an observatory located on a remote, dark sky site ideal for astronomy, has also benefitted as they now have better visibility of the night sky.

In addition to the ecological benefits and improved end user experience, moving to the Optio Micro lantern provides an estimated saving of 3.5 tonnes of CO2 emissions per annum.









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