

## Case Study

# Costain

### Background

The M1 is a strategic route that carries high volumes of heavy goods and other vehicles, with drivers experiencing congestion and unreliable journey times at busy periods.

In 2014 the M1 junction 23a-24 was confirmed to extend the previously announced M1 smart motorway junctions 24-25 improvement to junction 23a (East Midlands Airport).

In total Highways England and Costain upgraded 7.5miles (12km), which started main construction in early 2017 and completed in late 2018.

### Challenge

After Costain had completed an environmental exercise in 2016 the key issues to be considered were the air quality, noise reduction and protection for endangered species.

They needed lights that were innovative, cost effective would, also reduce the emissions and noise pollution across the M1 Smart motorway project.

The great thing about Prolectric's ProLights is the solar lights have performed really well since we took delivery earlier this year. The LED lighting quality and the fact they produce zero noise and zero emissions makes them ideal for our Hemington compound. Being able to remotely connect to the Tower Lights ensures that they can be measured and monitored all year round making it easy for Costain to report on the huge fuel and carbon savings. In addition to measuring and monitoring, the control menus can be remotely accessed at any time so we can easily and quickly change the on/off settings as well as all the other menu options.

**Sean Allen**  
Engineer



# The Solution

We were invited to demonstrate the performance and reliability of our ProLight solar lighting tower as an alternative to the conventional diesel generator lights being proposed on the Hemington M1 site compound.

The ProLights are designed to operate year-round with zero site intervention. The outstanding performance of the ProLight during the trial period led to Costain approving the purchase of 3 ProLights for the M1 compound.

The units were delivered and have provided significant benefits, not least of which there has been huge diesel savings. Combined with the labour savings achieved and not having to continuously fill the units with diesel.

No human intervention is required to operate and control the ProLights, this can be done remotely via the Smart Remote Portal.



# The Result

Savings achieved were not just financial! Carbon emissions were zero from the use of the ProLight.

Since the delivery of the ProLights, the units weren't attended to by any site operative freeing up hours for site staff as well reducing carbon emissions to zero and the use of diesel to zero. The benefits to the use of the ProLights have been threefold and include financial, environmental and health and safety benefits.

## Why choose Prolectric?



**No Emissions**  
No fumes or greenhouse gas emissions.



**No Noise**  
Ideal for urban, residential or night time projects.



**No Refuelling**  
No fuel costs, spills or refuelling labour costs.



**Minimal Maintenance**  
Setup and forget technology.



**Advanced Technology**  
Remote control, monitoring and reporting capabilities.

