



# Case Study

South Tyneside, UK

THORN

# South Tyneside Council get energy streetwise

With Thorn Lighting



## Background

Thorn Lighting has supplied over 5000 LED R2L2 lanterns as part of a retrofit project by South Tyneside Council (STC) that will replace street lighting on major infrastructures and residential highways in the area. The project has already shown impressive payback figures, with energy saving calculations of over £200,000 per annum.

Grahame Clennell, Senior Design Engineer, Balfour Beatty stated "Our brief was to replace and reduce high energy lanterns used on South Tyneside's highways and replace them with low wattage LED equivalents. The Thorn R2L2 lanterns fitted our specification and calculations showed the percentage energy savings were approximately 58% which equated to an annual energy saving of just over £200,000 based on a 10.4p per KWhr energy cost".



## Lighting objectives

STC's lighting replacement scheme was spread over two phases with Phase I being the replacement of lanterns with high wattage lamps of 250W/150W on major roads and Phase II replacing 100W/70W lamps and lanterns in residential areas. Thorn's R2L2 lantern was the perfect choice as the fitting comes in three sizes and has extensive optical, lumen and light distribution choices for all road applications up to ME1.

The 11 types of light distribution offered by the lantern's optics deliver the precise light placement and, perhaps more importantly, no wasted light. Energy savings can also be maximised with a wide range of intelligent lighting control solutions from stand-alone dimming to full remote control via a central monitoring system. The R2L2 fitting also offers a universal and integrated spigot that provides flexibility through top and side entry for any maintenance and tilt adjustment.



### **Solution**

Working closely with the main project contractors Balfour Beatty, Thorn supplied its R2L2 lantern incorporating the very latest LED technology to replace the old SON street lighting lanterns, whilst utilising the existing columns. One of the main considerations for using Thorn luminaires was the company's strong ties to the North East via its facility in Spennymoor, which allowed both STC personnel and Balfour Beatty to visit the Thorn factory and to have close contact, should any adjustments need to be made during the project.

Councillor Moira Smith, Lead Member for Area Management and Community Safety at South Tyneside Council, said: "We are reaping the twofold benefits of this project. We have to make significant savings due to continued reductions in government funding and the LED lights have already cut our energy costs by thousands of pounds. The new system also reinforces our commitment to protecting the environment by reducing our carbon footprint."

### **Energy saving potential**

Over £200,000 per annum



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**Publication Date: XX/17**

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