

# Down the TUBES

If there were a lighting source that was easy to install and which illuminated signs and displays more effectively, whilst also saving both energy and money, would you use it? Well there is and you should! **Val Hirst visits Bright Green Technology, a manufacturer of solid state LED backlighting to see its products in action.**

Andy Clark, the CEO and founder of Bright Green Technology, believes that, as a form of sign illumination, fluorescent tubes have very nearly had their day. Indeed, he finds it quite incomprehensible that signmakers, and their customers, should countenance a lighting method, which is expensive to install and costly to maintain, whilst also often failing to do proper justice to the signs and displays it is supposed to be illuminating. This is especially the case when there is a readily available and much more effective alternative – Andy's own sustainable backlighting systems, Bright Green Matrix and Bright Green Edge.

The Bright Green story began in 1999, after diversifying into more general advertising poster production, Andy was challenged by a client to produce an illuminated form of poster advertising for use on buses, he used his engineering skill and creative flair to create a solid state LED backlit system, that was safe, robust and brilliantly impactful. The concept caught on to the extent that Bright Green Technology has now supplied bespoke solutions for bus advertising projects spanning Europe, North and South America, Australasia and the Far East.

Now, Andy believes that Bright Green's two derivative LED-based systems, which are patent pending, should be used for all kinds of signs and advertising displays. He says: Traditional fluorescent tubes convert only a

small proportion of the energy they use into light, with the rest being generated as heat, which in turn, often has to be removed by power-hungry air conditioning. In addition, as tubes can fail suddenly and without warning, they require annual replacement and the costly maintenance visits that engenders. Further, since they contain Mercury, disposal is hazardous and expensive too."

He continues: "That's all bad enough, but fluorescent tubes don't even really achieve what they set out to do - the illumination they offer tends to produce bands of light, thus negatively distracting from the sign or graphic they are lighting."

On the other hand, he believes that LEDs offer an excellent method of illumination, which provides a consistently bright light, with no dark spots or banding. He goes on to say: "Of course, LEDs are widely used to light channel letters and smaller signs, so many signmakers already know how easy they are to install and appreciate the fact that, as they generate no heat and are low voltage, they can safely be used in all sorts of applications. But now they also have the opportunity to light much larger signs, just as quickly and easily."

Andy's Eureka moment came some 18 months ago, during a flight to New York, when he was considering Bright Green Technology's future business strategy. He realised that although, hitherto, the aesthetic appeal of his system had guaranteed its success, times were changing rapidly and in our more energy conscious world, its miniscule energy requirement would be considered an

equally attractive attribute. He explains: "I suddenly thought that the bus poster system, or at least a variation of it, could quite easily be used to illuminate all sorts of signs and graphic displays and offer significant benefits on every level."

Expanding on this theme he says: "Although domestic consumers are now increasingly being encouraged to conserve energy, this is a mere drop in the ocean when compared to the amount of power being used by the sign and outdoor advertising sectors. Think of the number of outdoor shopping precincts, indoor malls and retail parks, all of which field hundreds of signs, many of which are often blazing away, 24 hours a day – the energy expenditure is enormous. In outdoor advertising it's pretty much the same – for example a typical contractor will purchase and dispose of hundreds and thousands of tubes every year to light their bus shelters and billboards - but if all of the fluorescent tubes were swapped for LED based illumination, it would slash the overall energy expenditure by more than three quarters, whilst also saving retailers and advertisers of mint of money too!"

Still pondering on the possibilities of extending his system's reach, upon his arrival in New York, Andy decided to visit one of his clients, the leading outdoor specialist CBS. He continues: "New York was just a stop off point on my journey to Mexico, but I thought I'd just pop in to CBS and say hello. As it happened, it couldn't have been more fortuitous. Their Operations Director confided that he had just received a directive from the New York City Authority instructing him that, in view of its new 'green' policy, he would have to find a more energy friendly way of illuminating the advertising posters in the New York Subway. By happy coincidence, I was able to provide him with an immediate solution!"

For this project, Andy used the special edge-lit version of his system, Bright Green Edge, in combination with Repsol D'Fuse, a cast acrylic with excellent light transmission properties, for the poster face. Bright Green Edge is ideal for use with 6-sheet poster cases and customised lightboxes and, because the LED content takes up so little space, the housing can kept super-thin to provide an elegantly stylish appearance. The resulting posters, which were first used to promote the popular American TV show 'Dexter', combined a superior level of brightness with an 88 percent reduction in energy consumption, when compared to

the previous fluorescent light source, much to the delight of both CBS and the New York Authority. However, both were even more impressed when they discovered that Bright Green's system lasts for upwards of five, totally maintenance-free years, before requiring simple and safe LED replacement. Better still, when the system eventually reaches the end of its natural life, it is 98 percent recyclable.

The New York Subway project quickly generated more work and Bright Green Technology was also invited by Titan Worldwide and Metro North to supply backlighting for seven large advertising panels in New York's Grand Central Station. Since both companies are committed to reducing the carbon footprint of the city, Andy knew that, in this instance Bright Green Matrix would provide the perfect solution, and he took personal charge of the installation. The picture (bottom right) reveals the 'nuts and bolts' of the system, whilst also illustrating just how easy it is to install. The LEDs are spaced at regular intervals on aluminium extrusions, which can be supplied to any length required. Signmakers can decide for themselves how many LEDs are necessary to illuminate specific applications. Andy comments: "The trick is to use as little illumination as possible to provide the best result. Depending on the type of application and the immediate environment, more or less light will be required to produce the desired impact. To us, all applications are bespoke applications, and we try to provide a 'just right' solution"

Bright Green Technology's compact Richmond-based HQ houses six staff, and Andy explains that, as a company who are manufacturing and promoting an energy friendly light source, they also try to practice what they preach. He says: "At present, we don't need a huge warehouse or stockholding facility, as I have an excellent and reliable supply chain. Often, we also find that it is much easier to make housings as close to the project as possible, so there is no need to incur extra handling and transportation costs – the poster cases for the New York Subway were actually made locally, to our specification. However, in the near future the company's space requirements may change.

The appointment of two new key members of staff is likely to generate an avalanche of new work. Dan Kiely, who is based in New York, is the new Head of Operations and his wealth of business management

experience, gained in both the USA and the UK will enable Bright Green Technology to build on its American client base. Terry Cattle, who previously worked for Robert Home Group, where he enjoyed 10 years in senior marketing management positions, has recently become the Head of Product and has already arranged for his old company to begin distributing Bright Green Technology systems to the trade in the New Year. The initial feedback from clients and signmakers has already been extremely promising, with several large orders in the pipeline and the initial stockholding totally sold out. Terry sees it as part of his remit to help convince the sign industry that the initial higher cost of LED based lighting, is far outweighed by payback times of as little as 12 and 18 months.

Taking up this point Andy concedes that LEDs are, initially more expensive, but he quickly adds: "There are very few products where you can achieve a win-win-win situation, but our Bright Green Matrix and Bright Green Edge systems provide something for everyone: well lit signs and displays, which are environmentally friendly and save money and in my book that makes them well worth investing in - really, what's not to like?" What indeed!

Bright Green Edge and Bright Green Matrix illumination systems are available direct from Bright Green Technology Ltd.

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Bright Green Matrix at the Imperial War Museum



Bright Green Edge in the New York Subway



Bright Green Matrix in Grand Central Station, New York



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