

Power plant cuts 57% on lighting energy needs for coal hopper shed and almost 27 tonnes of annual CO₂ output with LED lighting.

Efficiency is important, even for power stations

:: Key Benefits

- Vast improvement in light quality
- Maintenance no longer an issue
- Energy savings of 63% on high bays
- Reduced trackside fittings by 50%
- Carbon reduction of 26.9 tonnes annually and W/m² down from 4.74W/m² to 2.02W/m²



Before

High-Pressure Sodium
High Bay Lighting
20ea X 440W
Trackside Fittings
30ea X 75W

11.5 kW



After

GigaTera LED
High Bay Lighting
20ea X SEGA 160W
Trackside Fittings
15ea X WAPA 100W

4.7 kW

:: The Challenge

Drax is the UK's largest power station, typically providing some 8% of the UK's electricity.

Its coal hopper shed is in use 24/7 and had become a very poorly lit working environment because of its 15 year-old SON light fittings and the amount of dust and dirt they accumulated. Regular two-yearly maintenance was a problem, as track damage had made access difficult and prevented timely replacement of failed SONs, so a more reliable and high performance lighting solution was needed.

:: The Result

The LED fittings were delivered in two weeks and installation took only six days using a rail-mounted scissor lift for ease and speed due to the track system being faulty. The glare-free LED fittings provide a much better working environment throughout the shed with everything now looking clear and crisp.

By reducing the total number of fittings from 50 to 35 and total wattage from 11,050W (the 400-W high-bays actually drew 440 W and the 70-W wall packs drew 75 W) to 4,700W, Drax has been able to cut its energy use from 5.52 to 2.35 W/m² and its carbon emissions by almost 27 tonnes annually.

While Drax generates its own power, energy reduction is still on its corporate responsibility agenda.

Now maintenance needs are vastly reduced as LED fittings run at a much lower temperature than the SONs and are designed to dissipate driver heat away from the fitting, so they do not attract dust and dirt from the atmosphere. The LED luminaires also carry 5-year warran-

:: Our Solution

Hadar Lighting was called in by Electrical Maintenance Technician, Matthew Glazier, after he had been impressed with their product range at a Procurement Open Day.

After carrying out a more in-depth presentation of their products, the Hadar sales team proposed replacing the 20 x 400W high bay track-mounted SONs and 30 x 70W trackside fittings with 20 x 160W SEGA LED high bays and 15 x 100W WAPA LED floodlights.

ties, so lamp failure is no longer an issue and re-lamping can be scheduled at times to suit the plant.



“ We looked at a range of fittings from other manufactures as alternatives, but Hadar was a perfect fit.

The quality and ruggedness of their fittings is great. It's solid. The coal hopper lighting now speaks for itself. It's a 100% improvement. ”

Matthew Glazier
DRAX Electrical Maintenance Technician

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