Zero Waste to Landfill and End of Life Policy

As part of our sustainability goals, we are committed to reducing our waste to landfill to zero in order to ensure that we play our part in the circular economy and ensure that resources are not wasted through the creation of needless waste. We are applying this both to the internal operations of the business and also the End of Life (EOL) of solid-state lighting (SSL) products supplied to customers.

Materiality

For internal operations, we send only 19 per cent of our production waste to landfill and in 2021 we recycled almost 500 tonnes of materials from our manufacturing processes. We are also incorporating re-usability into our solid-state lighting products, although we have less control over their end of life as they are installed at customer premises.

Scope

This policy is relevant to

a) all of manufacturing sites of the Group
b) and all solid-state lighting products. Our vehicle and rail signals and micro-LED components are incorporated into larger products which will be subject to end-of-life considerations by those end manufacturers. Traffic lighting products have a very long life ranging from 10 to 20 years and they can be recycled by the end user, generally municipalities, who tend to have their own recycling abilities.

Target(s) and commitments

Eliminating the waste we send to landfill is part of our Net Zero strategy by 2040 and aligns with the United Nations Sustainable Development Goal (UN SDG) 12 “Responsible Consumption and Production”. Our target is to send zero production waste to landfill by 2030. We have also committed to produce the first fully recyclable solid state lighting fixture for the industrial market.

Management

Responsibility for our sustainability performance is governed at the highest levels in line with our strategic goal of Net Zero by 2040. The Group Chief Executive is ultimately responsible for the management of all sustainability-related topics. Management of individual topics is done within the appropriate divisional and functional teams with oversight by the ESG Committee.

Our production processes are light industrial and do not generate significant waste. Where possible, we will recycle materials internally, for example 25% of injection molding scrap is re-used internally. The residual materials from our internal processes mainly consist of scrap metals from our machining processes and cardboard packaging related to inbound raw materials. These are sent to external recycling facilities for re-use.

End Of Life (EOL) design policy

There are four main aspects to EOL policy

1) design a fixture that will last significantly longer than conventional lighting
2) extend the working life by designing field replaceable parts
3) retrofittable upgrades
4) Use materials that are easier to recycle at the end of life

We are incorporating this into product designs as follows:

1) Dialight fixtures are expected to last in excess of 10 years and Dialight offering a 10-year warranty on most fixtures. This is up to 5 times longer than traditional lighting
2) If a failure occurs in the field, it is likely to relate to the power supply as that is the most complex aspect of the fixture. Newer fixtures such as the Reliant High Bay have field replaceable power supplies that will prolong the fixture life beyond the original 10-year life.
3) The ability to upgrade in the field is being incorporated into newer fixtures with a dedicated external slot for plug and play sensors to be added. This allows new safety features/efficiency features to be subsequently added.
4) Our R&D function is using data acquired from the materials carbon footprint impact analysis which is a key part of the certification of Environmental Product Declarations (EPD) to inform the materials to be used in new designs. As a result, we have committed to producing the first fully recyclable industrial light.

Recycling at EOL

The ability to recycle is also dependent on the geographic location of the end user with Europe having a more advanced recycling programme, the Waste Electrical and Electronic Equipment (WEEE) legislation. The level of recycling that can be achieved varies but our UK partner can currently recycle up to 96% of components of the fixture. Our other markets are not currently at this level of recycling capability, but this will change over time.

Stakeholder engagement

We have maintained a dialogue with investors and customers on all aspects of ESG and this will expand in future to include more discussions with suppliers. Our ambition to help our customers achieve Net Zero means that this is a key area of dialogue to shape the R&D focus and our future products.