

## 1. Introduction

For the past decade there has been a huge focus on energy payback when making decisions on lighting and control specification. Most green building accreditations reward energy efficiency over any other criteria (such as environmental, material or social benefits).

Our philosophy to responsible sourcing goes a lot deeper than energy efficient and maintainable lighting and this statement is a commitment to our clients, suppliers and design supply chain as well as supporting associations.

We want to work with clients, suppliers and contractors to reduce material and energy usage (as well as waste) throughout the entire design process. This is known as a closed loop design model or 'circular design economy'.

The first step is to 'reduce' and yes, before you ask, this means fewer light fixtures wherever possible through considered and technically competent designs.

Our goal is to specify lighting in such a way that products can be maintained and then remanufactured and to avoid a product being 'recycled' as soon as its first life cycle is complete. We are especially keen on working with suppliers and clients on upcycling, salvaging, remanufacture and using refurbished products wherever possible.

There are a whole host of ways this can be achieved such as demonstrating the provenance of materials, promoting the use of said salvaged or upcycled products & parts, or working with contractors to ensure that correct recycling compliance schemes are being used.

## 2. How Do We Achieve Circularity?

Many circular design opportunities will be specific to an individual project's circumstances. Factors such as

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- Whether the client has one or many sites and where these sites are positioned?
- Is the project privately, corporate or publicly funded?
- Is it a new build site/brand/space or a refurbishment?
- The designed life expectancy of the project or fitout.
- Market position of the project/ brand or client.

These will determine the commitment needed from the client team to pioneer new approaches and attitudes towards value, responsible sourcing and circularity.

A circular approach of transferring and upgrading lighting products as opposed to a linear approach of recycling and specifying new products requires partnerships to think innovatively about the system of procurement, maintenance and recovery differently.

However even if the wider approach of the project is not ready to commit to circular initiatives we can still work towards circular first step. Here the Ellen MacArthur foundation talk about '[circular ish](#)' design.

This of course needs to be by looking at our own commitments and then by vetting our supply chains and in turn requesting that they vet their supply chain for responsible processes.

### 3. Our Commitment:

#### 3.1. Reduce -

Reducing waste and reliance on fossil fuels, within our own practice can be achieved through a renewable energy supplier and recording energy use and waste production within our studio. (demonstrate certification).

#### 3.2. Reuse -

We are committed to asking the question. *"Would you be prepared to re-use remanufactured , & refurbished products within your scheme?"*. Admittedly it's a simple step and a very open question but if we all ask it then it will become a common topic of discussion in kickoff meetings. Read more about remanufacture and refurbishment [here](#)

Designing maintainable and upgradeable lighting schemes and specifying products with interchangeable components is at the heart of our design ethos. If and when products are only recyclable (and not able to be refurbished at) end of their first life we will highlight this on our specifications.

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We are also working with manufacturers to find ways for circular design principles (such as solder and glue free assembly) to be included within our specification to ensure that value engineered products need to play by the same principles.

We are committed to using refurbished IT equipment and only buying new where absolutely necessary.

### 3.3. Be Climate Positive -

As design consultants we're fortunate to have a relatively simple business model to compensate in terms of carbon to be a Carbon Positive business. In the same way that we have failed to value the environment for decades, the low price of 'traditional' carbon credits can fail to address the community and social costs.

We work with [Earthly](#) to calculate our carbon footprint and [purchase nature based credits](#) which prioritise nature based solutions and projects with positive community impacts rather than credits which subsidise renewable energy projects. You can't see our public profile and annual cumulative contribution [here](#)

We have joined [North Sweden CleanTech](#), a sustainability platform for service and product suppliers of green technology and sustainable solutions. Through this we get exposure to innovative sustainability practices from aligned industry's related to the circular economy.

### 3.4. Education -

We are working to educate ourselves and others on the benefits of the circular economy, keeping efficient, well designed products in use. This has involved Circular Economy course, seed funding and helping found a community within the lighting industry called the [Green Light Alliance](#) which works with associations within the industry (such as the LIA and SLL), suppliers and manufacturers alike to streamline adopting and promoting the circular economy.

### 3.5. Travel -

As a small consultancy practice we don't have a complex logistics to track however we do commute and will have need to travel. On a daily basis we travel via bike, foot, or car pool. We do not own cars and where we do use cars, trains or air travel we use a certified regenerative scheme called ['Earthly'](#) to achieve a 'climate positive' carbon footprint.

## 4. Our Suppliers:

### 4.1. Legacy:

By far our biggest impact on the environment is a result of the products we specify, the energy used to create and operate them and what happens to them at the end of their useful life.

Waste Electric & Electronic Equipment [WEEE](#) is the fastest growing waste stream globally and we feel that the responsibility for tracking, repairing, and eventually disposing of products brought to market is too far removed from those profiting from manufacturing and specifying them.

It is vital therefore that we work with responsible partners and suppliers to establish what is being done and what needs to be done in the future to improve this picture. A two pronged approach can be used to review the business practices and product impact.

### 4.2. Product Approach:

Several scientific methods exist for tracking embodied carbon in products, materials & processes. This can take the shape of (but not limited to):

- Environmental Product Declarations ([EPD](#)'s) or Life Cycle Assessment methods ([LCA](#)'s).
- Third party product certification from companies such as [C2C](#) or [Lighting for Good](#).
- Audited self certified circular or sustainable assessments from associations such as the [SLL](#) following [CIBSE TM65 Guidelines](#) which use EPD and LCA principles.
- Product design confirming to Ecodesign Regulations.

We have a goal of discussing circular Design principles with all of our suppliers to understand how their products are designed for maintenance and end of life disassembly (for remanufacture & eventually recycling).

In late 2020 we visited a specialist [lighting recycling](#) facility to better understand the material values, flow of materials from luminaires at the end of life and the challenges with material recovery and safe disposal from both traditional and modern light fixtures to gain a better understanding of the differences between being able to disassemble a product vs being able to recycle one and the very different machinery and processes used. This helped us to understand the importance of circular processes such as

- Minimal use of plastics - use of recycled plastics where possible. (the market for second hand plastics is minimal resulting in incineration instead of repurposing).
- Using less material, through miniaturization and improved product efficiency,

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- Designing out solder and using glue free assembly (to aid maintenance & remanufacture).
- Using standardized components such as LED COB's to enable future upgrades to be made with relative ease.

#### 4.3. Business Approach:

We request business environment and sustainability reports or declarations from our suppliers. This can include following recognised principles or organisations such as (but not limited to):

- Produce an in house or outsourced sustainability report.
- Demonstrating compliance with United Nations sustainable Development Goals [UNSDG's](#)
- [Be Corp](#) membership
- ISO-14001 - Environmental Management Systems
- [MeetGreen](#) assessment
- [Ecovadis](#) assessment
- World Class Manufacturing (WCM) assessment.
- Using green logistics such as Go Green – Climate Neutral by DHL.

In addition to these recognised principles we promote and request examples of responsible use of materials which can be demonstrated through less scientific but practical processes such as (but not limited to):

- The Use of reusable crates/ recycled and recyclable packaging.
- No use of polystyrene packaging & reduce plastic usage.
- Using renewable energy providers and/ or have on site renewables such as solar power, solar hot water or water treatment.
- Local procurement of components & provenance of raw materials.
- Onsite recycling and water treatment.

## 5. Summary:

We believe that the key to unlocking circular economy opportunities lies in communication both up and down the design and specification chain so exploratory conversations with contractors, developers and architects are also planned through the Green Light Alliance with findings being shared with the wider industry rather than being used for commercial advantage.

If we can capture the actions taken by responsible manufacturers within our designs & specifications then we can insist that value engineered products or equal & approved alternatives meet these same standards. Our work with the [Green Light Alliance](#) is working towards an industry standard scoring matrix for just such a process.

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