

## Written Evidence Submitted by Signify Commercial UK Ltd.

### Introduction to Signify

**Signify and Sustainability:** Signify (formerly Philips Lighting) have a legacy of over 125 years of experience as the world leader in lighting, operating in more than 70 countries. When it comes to sustainability and energy efficient lighting, we speak from experience - we have been recognised as “Industry Leader” for three successive years in the Dow Jones Sustainability Index (DJSI); in 2020 we became a Global Carbon Neutral Company, utilising only renewable energy.

### Executive Summary

**Planning systems and Building regulations** have an intrinsic role in the correct governance of application and use of de-carbonising lighting systems. The conversion of existing lighting to Smart LED with the decarbonising benefits are highlighted.

**Re-use & Refurbishment balanced with New Build** is particularly pertinent to the application of LED Lighting in existing properties. Low Capex Lighting solutions will decarbonised buildings and will minimise the need for new build and inherent locked-in Carbon footprint.

**Government can incentivise repair, maintenance and retrofit** of Lighting by the inclusion of LED smart systems as a named technology. The grants and incentives available now and in the future will be far more effective if directed to a wider initial audience than core structural areas such as heating and insulation. By taking the fast and proven de-carbonising benefits of LED Lighting systems these other core and infrastructure areas will also benefit and maximise their low and net zero potentials.

### Submission

#### Planning systems and Building Regulation’s role in incentivising Sustainable Design

1. To de-carbonise the Built environment, planning systems must ensure sustainable development is delivered into homes and commercial properties by referencing technologies beyond the Heating and Insulation infrastructure. For example, ensuring that Lighting systems are prescribed as not just LED platforms but also include ‘smart’ controls to optimise the low and zero net carbon opportunities afforded by super-efficient Lighting Systems.

2. Building Regulations especially Part L must continue to include clear guidance on the application and use of LED lighting systems with clear usage guidance and realistic and meaningful targets for luminaire performance but add ever greater emphasis to the correct and efficient usage of lighting afforded by well commissioned and maintained control systems.

3. The low-carbon footprint of LED Lighting, paired with smart controls would maximise these aims. The substantial energy savings of LED lighting are well known. For the UK, we estimate that it could be possible to **remove emissions equivalent to 1 Coal Power Plant, or **636 Thousand cars** or **nearly half a million (496K) households**.**

Carbon Footprint Reduction & Coal Power Equivalence		Carbon Footprint Reduction Equivalence t CO2	
Carbon Footprint Reduction - t CO2	1,654,230	Equivalent Cars (000s)	636
No. Coal Plants	4	Equivalent Trees (000s)	75,192
Coal Open Capacity (MW)	9,651		
Coal Power Savings (%)	19%		
Equivalent Coal Power Plants	1		

#### How should re-use and refurbishment be balanced with new developments

4. LED Lighting is one of the quickest renovations that dramatically cuts carbon - it does not require large capital investments and has a short payback time. It is a major counterbalance to disadvantages of locking-in carbon consequential in new developments by refreshing and re-purposing existing building stock. It can also reduce electricity demand in existing buildings to the point that, for example, the renovation of Gas Boilers to heat Pumps, will not require new electricity supply infrastructure thanks to the reduced energy demand of the new lighting system.

5. Smart LED adoption will also be key to providing schools and public buildings with comfortable, efficient lighting that can be user-controlled for better health and wellbeing, whilst at the same time minimising our carbon footprint. Again this is a faster and much lower Capex solution to the need for decarbonised buildings that will minimise the need for new build through smart re-furb of lighting and complimentary upgrades to all structural and infrastructures.

6. Government should follow the advancements in our sustainable product growth platforms like for example solar lighting, applied not just in public street lighting but also in private residential developments, car parking as part of a green transport infrastructure at the same time as incorporating EV Charging point. the already mentioned circular 3D printed luminaires, horticultural lighting for green houses and verticals farms, and energy efficient lighting controls. At the same time, we are advising consumers, corporates and governments across the world on how they can become more sustainable.

### What the Government can do to incentivise repair, maintenance and retrofit

7. A complete switch to LED across the UK that would aid economic recovery and support carbon targets for the UK in the next five years is only achievable in a short timeframe with sustained and targeted Government funding, and advocacy of LED Lighting as a named technology.

8. We propose a new Green Homes Grant and an increase in the existing Public Sector Decarbonisation Schemes to cover the inclusion of switching to LED lighting and controls, highlighting Lighting as a named technology.

9. Circular Economy thinking and methodology is an essential part of the low carbon contribution to 'Build Back Greener'. Signify embraces Circular methodologies and now offers product designed with reuse, repurpose and upcycling in mind including 3D printing. Recycling is used only as the last option if the other three are not suitable.

10. We encourage standardisation and legislation by Government to clarify the definitions and implementation of circular principles into manufacturing. We are happy to advise on this further both directly and via partnership with our industry association the LIA.

11. To date, other than in some of the Public decarbonisation projects, Lighting has not been a named technology in the Government Action plans for Residential or Commercial re-Furbishment and new Development. For Government and their agencies to have Lighting as a named technology would help to promote the wider benefits of replacing all the UK Lighting stock. The easy and quick potential of smart LED lighting would allow the government to realise significant results early on, and the digital nature of LED lighting would be a platform for other low carbon technologies in the built infrastructure.

12. I and my colleagues within the UK team remain at your disposal for any additional information and assistance you might need.

Steve Meadows

For and on behalf of  
**Signify Commercial UK Limited**

*May 2021*

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*UK data presented here is a summary of the Signify EU Green Deal conventional light point conversion exercise and should only be considered as a function of UK market figures and the relevant market model. All figures and data presented here are illustrative and based on forecasts and assumptions. These figures are only directional and not to be quoted in formal planning processes. Light point references compiled from Eurostat Data.*