



CARBON REDUCTION PLAN

Publication Date: September 2023

Commitment to achieving Net Zero

L&W is committed to achieving Net Zero emissions by 2050 and also to building sustainable development into all we do.

Our Plan

Significant short-term opportunities to continually reduce L&W's carbon generation arise from harnessing technology to reduce staff commuting, business travel and office footprint leading to a reduction in power consumption and carbon generation.

Other more marginal short-term opportunities arise from encouraging staff to reduce energy usage (turning off lights and computers when not in use) and eradication of disposable items where possible. We will seek ever-more efficient channels for internal and external communication and find more ways of reducing waste and increasing recycling. We will discuss green energy procurement with landlords and work with other suppliers to reduce carbon generation. In the medium-term, L&W may consolidate the number of offices and further increase homeworking with the expectation that clean energy technology in residential properties (i.e solar, heat pumps) will absorb the marginal higher emissions domestically that may arise from this location shift. In the longer-term, gains in clean energy technology will provide opportunity reach net zero.

In addition, we reaffirm our commitment to sustainable development as part of this plan. This includes minimising resource use such as printing, using electronic papers wherever possible, encouraging recycling and providing recycling points, minimising use of non-recyclable catering supplies such as plates and cups, and purchasing from ethical sources wherever possible.

Baseline Emissions Footprint

Baseline Year: 2020
Additional Details relating to the Baseline Emissions calculations. 2020 is our baseline year, we made a 2% reduction against baseline in 2021. We expect that by the end of 2023 when the full year effect of decisions already made for smaller

office footprints and reduced commuting from hybrid working are captured, there will be more significant reductions against the baseline.

Calculating L&W’s footprint

The calculations have ignored the short-term effect of Covid-related restrictions on the operating model and has assumed that in 2020 and 2021 L&W were operating from offices, moving to a hybrid model in April 2022 and all the time reducing office footprint and thus energy usage.

Removing irregularity arising from short term covid restrictions is entirely congruent with L&W’s plan to make normal operating decisions to reduce carbon generation to zero by 2050, i.e. not tracking short term decisions forced by temporary covid-related restrictions.

Baseline year emissions: 2020

EMISSIONS	TOTAL (tCO ₂ e)
Scope 1 – Direct Emissions	0 tCO ₂ e Scope 1 is not relevant to L&W as the organisation purchases electricity from the grid and does not combust energy at site.
Scope 2 - Electricity conversion for heat light and power at L&W premises	26.29 tCO ₂ e For the purposes of measurement and planning 20kwh per ftsq will be assumed for all energy usage ¹ , remembering that the aim is to reduce carbon footprint rather than endlessly seek to perfect methods of measurement. Working remotely in a hybrid manner is assumed to reduce carbon by 29% ² . L&W will reduce its carbon footprint through hybrid working, leveraging technology and reducing office capacity. In the longer-term, L&W expects conversion factors will reduce as cleaner energy becomes available. Currently electricity supplied by the grid can be scoped at generating CO ₂ at a conversion of 0.21kg for every kWh used. Source Greenhouse gas reporting: conversion factors 2021 - GOV.UK (www.gov.uk)

¹ An [EU study](#) suggested average commercial building energy usage is 250kwh for every msq equating to 23kwh per ftsq, this falls to 180 kwh per m2 for all building usage or 16.7kwh per ft2. Another [study](#) based on office buildings in Poland concluded that average electricity usage per mq was 150kwh (or 13.9 kwh per ftsq).

² [Working Remotely Can More Than Halve an Office Employee's Carbon Footprint - Scientific American](#). The study found that people who work remotely four or more days a week can reduce their carbon footprint by up to 54 percent, and those who do so up to four days a week can reduce it by up to 29.

	<p>L&W operates from three leased office properties in relatively modern shared user premises across the UK.</p> <p>In the baseline year 2020, L&W initially operated from the following sites in a traditional non hybrid manner:</p> <p>Part 4th floor Arnhem House 2874ftsq at 20kwh per ft sq generated an assumed 57,480 kwh generating 12,070 kg of carbon.</p> <p>Part 3rd Floor 89 Albert Embankment, 1,815 ftsq generated an assumed 7,623kg of carbon.</p> <p>Part Cathedral Road 1771ftsq, generated an assumed 4,959kg of carbon until August 2020.</p> <p>In August 2020 the Cardiff office was downsized and moved to Part Parc Ty Glas Cardiff 1470 ftsq which is a 17% reduction in footprint. For the period August 2020 to December 2021, we assume 2,058kg of carbon was generated.</p>
<p>Scope 3 (Included Sources)</p>	<p>32.65 tCO₂e</p> <p>Upstream transportation of goods purchased by L&W is relatively immaterial and has not been calculated. L&W purchases office consumables typically from a supermarket delivery service or similar online service and some items of IT. Any estimate of carbon production would be immaterial.</p> <p>Staff commuting normally (without Covid restrictions) this involves approximately 50 staff commuting to the offices. Assuming that on average staff travel 20 miles per day and 20 staff use private cars and 30 staff use rail or tube we can calculate CO₂ generation as follows:</p> <p>Car commute: $20 \text{ staff} * 200 \text{ days} * 20 \text{ miles} * 0.27 \text{ kgCO}_2/\text{mile} = 21,600 \text{ kg pa}$</p> <p>Train / tube commute: $30 \text{ staff} * 200 \text{ days} * 20 \text{ miles} * 0.068912 \text{ kgCO}_2/\text{mile} = 8,269 \text{ kg pa}$ (source of conversion factor broadly mid-range from different types of cars as shown by Greenhouse gas reporting: conversion factors 2021 - GOV.UK (www.gov.uk))</p> <p>Total = 29,869kg of CO₂ per annum. We can take this as a sensible scoping for both 2020 the baseline year and 2021.</p> <p>Business travel</p> <p>Staff use the train typically to make Leicester / London return journeys. L&W strongly encourages use of public transport if business travel is necessary and public transport links are an important factor in office procurement.</p> <p>Business travel CO₂ generation can be scoped as approximately 5 staff per week * 48 weeks * 200 miles * 0.068912 kgCO₂/mile = 3,308 kg pa (source of conversion factor quoted by London North</p>

	<p>Eastern Railway, originally taken from the government conversion factors). Disposal of waste generated in operations</p> <p>L&W's core activity is research and development of policy, this generates very little waste. All offices are in multiuser establishments where joint waste facilities are used and L&W strongly encourages employees to harness technology and reduce usage of office consumables wherever possible. Quantification of carbon generation from waste disposal would be small and relatively meaningless and as such has been omitted.</p> <p>Downstream transportation and distribution</p> <p>L&W's output is typically reporting sent electronically to funders. This requires very minimal CO2 generating activity beyond that picked up by electricity usage captured under scope 2 above and as such has been omitted.</p>
Total Emissions	58.94 tCO ₂ e

Current Emissions Reporting

Reporting Year: 2022	
EMISSIONS	TOTAL (tCO₂e)
Scope 1	<p>0 tCO₂e</p> <p>Scope 1 is not relevant to L&W as the organisation purchases electricity from the grid and does not combust energy at site.</p>
Scope 2	<p>15.15 tCO₂e</p> <p>The reduction is brought about due to a full year in a smaller Leicester office and the adoption of hybrid working where staff work approximately 40% of their week in the office. The Wales and London offices are as per 2021.</p>
Scope 3 (Included Sources)	<p>21.29 tCO₂e</p> <p>From April 2022 L&W adopted full hybrid working and this presents the largest opportunity to reduce CO2 generation from staff commuting. Staff are required to be in the office c40% of the time and extensively use technology (MS Teams etc) in place of travel. This has reduced carbon emission to four months as above 9,956 and 8 months at 50% 9,956 = 19,913 kg (33% reduction)</p>

	In 2023 this would equate to 14,934kg a 25% reduction on 2022.
Total Emissions	36.44 tCO ₂ e

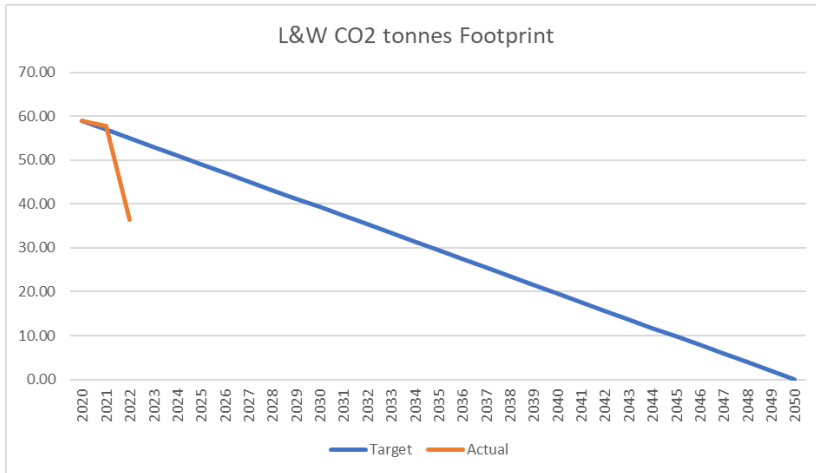
Carbon Reduction Projects/ Initiatives Progress

The following table details progress on a number of projects/ initiatives.

Project	Status
Cardiff Office move	Completed Aug 2020
Leicester Office move	Completed Nov 2021
Adoption of Hybrid Working	Completed April 2022
Cardiff office move	Due July 2023

Emissions Reduction Progress and Targets

The chart below illustrates progress in achieving Net Zero by 2050 with a linear target set.



L&W will revisit plans each year, and devise actions to complement, to ensure continued progress towards achieving Net Zero and to reflect our commitment to delivering a better quality of life and environment for everyone and achieving continuous environmental improvement in all our activities and services.

Policy Approved by:

Senior Management Team 25 September 2023

Signed on behalf:

Paul Cleminson
Director of Finance and Operations

Next Review due: September 2024

URL: <https://learningandwork.org.uk/about-us/>