

## **FEEDBACK FROM PRIVATE DEVELOPERS, ARCHITECTS AND PLANNING AGENTS**

### **1. What level(s) of energy efficiency are you currently working to achieve in your residential schemes? (for example, do you aim for the minimum requirements of national and local planning policy and building regulations, or higher and if so by how much and why)**

#### EcoWorld London:

Our Goldsworth Road development will achieve a 41% reduction in carbon emissions over current Building Regulations (Part L); twice that of the Council's requirement (19% betterment).

EcoWorld London (EWL) approaches energy efficiency within new buildings from design concept stage, minimising the energy demand of the building in the first instance through low energy design principles. Passive measures, such as building form, orientation, good envelope design, window design, solar shading and proficient uses of services all contribute to energy efficiency.

At Goldsworth Road, U-Values exceed Building Regulation minimum requirements. The next stage in reducing carbon emissions and improving efficiency is to use decentralised energy. At Goldsworth Road, this will be provided by ThamesWey's District Heat Network. ThamesWey have a decarbonisation plan too, which is critical to move away from reliance on gas and improving carbon reduction. Conversations between EWL and ThamesWey have been ongoing to ensure the building design allows connection to the district heating network.

The above is the standard approach to energy efficiency and reducing carbon emissions in the built environment. However, EWL is committed to going further than minimum requirements as demonstrated by the additional reduction at our Woking scheme above standard requirements. Additional design measures and considerations EWL use include:

- Energy Use Intensity (EUI) benchmarks as part of the detailed design process to ensure developments are future proofed for performance. These benchmarks are taken from London Energy Transformation Initiative (LETI) Climate Emergency Design Guide. EUI is an annual measure of the total energy consumed in a building. It provides data on how a building is performing in-use, rather than by carbon emissions, and is a metric that can be estimated at design state and very easily monitored in-use using energy bills. Setting benchmarks will enable early design decisions to be taken in relation to actual energy usage of buildings in-use. This will further assist with the design approach to reduce building energy demand prior to introducing complex mechanical systems.
- SAP modelling is used for the residential uses and a CIBSE TM54 analysis for commercial uses to accurately inform expected operational emissions
- A commitment to reporting and comparing energy consumption for at least five years of operation.

#### Materials

Material selection of developments is an important factor in creating energy efficient homes. At EWL, material efficiency is incorporated into the design enabling the most

efficient use of materials over the life cycle of the building and its components. Preference is given to the use of local materials and suppliers, where viable, to reduce transport distances and support the local economy. By embracing the Circular Economy principles of reduce, reuse, and recycle the development will ultimately lower materials usage and lower wastage levels. Offsite manufacture is a key aspect of this philosophy and the use of a precast masonry façade is just one of the ways in which material efficiency will be achieved on the development.

Lifecycle costing exercises are also undertaken for materials to ensure we capture potential future costs for residents when items need to be replaced. For example, high design standards in relation to lighting are used to ensure that bulbs have long lives and reduce the replacement costs for tenants. EWL has an environmentally friendly policy and responsibly sourced materials will be specified for all projects. EWL's Sustainable Procurement Policy commits us to using products and contractors that have:

- Responsible sourcing schemes (BES 6001)
- Products that have or are working towards adoption of BS EN 15804
- Accredited Environmental Management Systems (EMAS, BS8555 or ISO14001).

#### Climate Emergency

In addition, EWL is committed to responding to the climate emergency, which Woking has declared. This requires consideration of key issues such as increased:

- risk of overheating in both internal and external environments
- risk of flooding from high intensity storm events
- potable water scarcity.

To address climate resilience at Goldsworth Road water efficiency levels, drainage volumes and overheating have all been assessed. For example, all dwellings will be provided with water efficient fixtures and fittings to reduce water consumption. To manage and improve surface water runoff, urban greening plans at roof/podium level as well as in the public realm will deliver significant attenuation. This approach will support our aim to deliver not just biodiversity net gain but also the associated benefits to health and wellbeing through greater interaction with nature for the wider community.

#### EWL Sustainability Council

Within EWL, we have our own sustainability council that is chaired by EWL CEO Heng Leong Cheong and meets bi-monthly. It sets our own sustainability EKPIs and is responsible for championing all social and environmental initiatives and supporting the collection of EKPI data. The group comprises senior leaders from delivery, development, design and finance disciplines, plus specialist experts from our UK shareholder Willmott Dixon's sustainability team.

At project level, Heng Leong Cheong is the allocated board member who will have direct responsibility for sustainability for new projects. Implementation is driven by EWL's Development Director and a dedicated Sustainability Manager who will monitor and drive initiatives daily. Their work is further supported by our sustainability strategy consultants JLL and Greengage. These resources are available from the initiation of the programme through to completion. When works on site are completed the accountability for complying with sustainability commitments will remain with

EWL, but the contractual responsibility for meeting and maintaining these day-to-day will be handed over to the appointed managing agent.

#### Mitigating and Managing Environmental Impacts during Construction

Controlling our environmental impact during construction starts before we commence work. A full environment risk assessment and impact study will look at all elements of the design process, from solutions that reduce waste through to viability of incorporating offsite manufactured products (such as the Byldis system used at our Kew Bridge development). In particular, we will:

- Prepare a Material Management Plan to divert 100% of waste away from landfill and find innovative ways to re-use existing building elements where they are fit for purpose.
- Prepare a Sustainable Procurement Plan for sourcing materials
- Commit to powering the site with 100% renewable energy
- Operate all sites following principles set out in a site-specific green office/site guide.
- Prepare a full logistics plan to minimise energy use and the impact of deliveries and general site works on the local communities and infrastructure.

### **2. Do you anticipate working to a higher level in the short-medium term future? If yes, what level and by when?**

#### EcoWorld London:

EWL has committed to be net zero carbon (NZC) in our own direct business operations by 2025. This will include all office and sales and marketing suites. Across all our activities and developments, we have a pathway plan to deliver net zero carbon by no later than 2040.

### **3. What do you see are the current or future challenges to planning for and implementing greater (if not the highest possible) levels of energy efficiency in your future residential schemes?**

#### EcoWorld London:

De-carbonisation: Changing from reliance on clean energy created by gas plant (i.e., CHP).

Cost: In particular, the challenges faced by increased material and labour costs, material availability, and the reduction in skilled trades that can be secured for works on site.

Conflicting objectives: There are a lot of situations where potential solutions contradict/conflict against objectives. There are real benefits in more off-site production with better control over quality and reduced waste, with fewer operatives on site creating more carbon (travel/larger site welfare facilities), but this undermines promotion of local labour, support of SMEs and significant transport carbon footprint of the components when built.

- 4. Are there any further actions you consider the Borough Council could take to offer greater support or encouragement towards the achievement of the highest energy efficiency standards in residential developments in Woking Borough? (for example, providing additional guidance for developers on this topic, introducing a voluntary 'kitemark' style local development standard which goes beyond planning and government guidance, etc.).**

EcoWorld London:

We are always looking at ways to educate and support our residents once our developments are completed. Operation and Maintenance Manuals (O&Ms) are produced for each development which explain and provide information for how to use energy smarter. The attached document [*officer note – reproduced at the end of this appendix*] was received by our residents at our Aberfeldy Village development.

We also provide detailed home inductions for all new residents, which demonstrates how their new home operates as well as providing advice on the most efficient use of the various mechanical and electrical systems within the apartment.

- 5. Do you have any development schemes in Woking borough you'd like to highlight as a potential case study for good energy efficiency design in residential development? If yes, please provide some details.**

EcoWorld London:

This is our first project within Woking.

- 6. Please let us know of any other comments you may have that you feel committee members would find helpful to their understanding on this topic.**

EcoWorld London:

All mentioned in above responses.

Example of EcoWorld London's Operation and Maintenance Manuals (O&Ms) produced for each development:

## Going greener at home



Nowadays people are becoming more mindful about their carbon footprint and are actively looking for ways to have a positive impact on the planet. At EcoWorld we believe that we all have our part to play to protect the planet and reduce our carbon footprint, that's why we are taking part in World Environment Month where we celebrate and look at environmental backed initiatives to support and encourage sustainable advice that can have a positive effect on our lives. It is important to recognise that we all need to live sustainably and in harmony with nature to bring transformative changes into our world but we are aware that it can be overwhelming when looking at where to start.

As part of our month-long campaign in conjunction with World Environment Day, below are some tips and suggestions which we hope will help give you some ideas how you can be greener, every day.



### Understand what your carbon footprint is

Our carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by human activities. This can include things like how much energy we consume in our homes, our modes of transport and even our diet.

Nearly everything you do releases some amount of carbon into the atmosphere, but exactly how much depends on a number of factors. If you're curious to find out the average carbon footprint your current lifestyle generates, you can head to these websites to find out\*:

<https://www.carbonfootprint.com/calculator.aspx>  
<https://footprint.wwf.org.uk/#/>

So, whilst it is difficult for us to generate absolutely zero carbon in our daily lives, what we can do is try to decrease our carbon footprint through small changes in daily habits.





### Greener everyday

So, what can you do to reduce your carbon footprint in your daily life? Here are some suggestions on where to start:

- Beware of vampire devices. These are electronics that drain power even when they are on standby. Between 9% and 16% of electricity consumed in homes is used to power appliances when they are in standby mode. Switch off or unplug devices when they are not in use and avoid overcharging your mobile devices.
- Monitor your energy usage. If your home is equipped with a smart energy meter, make full use of it! Many meters will now have an 'in-home display' which monitors what energy you're using throughout the day and showing you how much it costs, in near real time. It gives readings in pounds and pence, and kilowatt hours (kWh), so it can help you identify where you can cut back.
- Try Meat-Free Mondays. The food we eat can have a significant impact on the environment. For example, meat and dairy accounts for 14.5% of the world's greenhouse gas emissions, according to the UN's Food and Agricultural Organization. By going meat-free for one day a week, a family of 4 would reduce their carbon footprint by  $\frac{3}{4}$  tonnes CO<sub>2</sub> per year. Plus, with the ever-increasing range of exceptional vegan and veggie options in our supermarkets and eateries, the choice is getting easier to reduce your meat and dairy intake.
- Cut down on single use plastics. Aside from the emissions and resources required to produce them, plastic materials also take up to 200 years to decompose. Have a think about some easy switches to help reduce your need for single use plastics. For example, using beeswax food wraps or bringing your own reusable shopping bag to avoid using plastic food and shopping bags. There are also now more options to shop for groceries plastic-free, such as <https://zerowastebulkfoods.co.uk/> or <https://www.top-uptruck.com/> \* where you can bring your own containers.

**ECOWORLD**  
 — LONDON —  
 CREATING TOMORROW & BEYOND

- Switch to a green tariff. One of the easiest ways for us all to improve sustainability in our home is through switching to a renewable energy supplier. A green tariff means that some or all of the electricity you buy is 'matched' by purchases of renewable energy that your energy supplier makes on your behalf. These could come from a variety of sources such as wind farms and hydroelectric power stations. There are lots of options out in the market but check out the following web-sites for more information\*:



<https://www.which.co.uk/news/2019/09/how-green-is-your-energy-tariff/> <https://energysavingtrust.org.uk/advice/switching-your-energy-supplier/>



These are just a few tips and suggestions, but everyone's needs, and life-styles will be different. Please do your own research as to how you can go greener at home and remember — every small change can collectively make a positive impact for our planet.

\*The website links above are being provided as a convenience and for informational purposes only; they do not constitute an endorsement or an approval by us of the products, services or opinions of the corporation or organisation or individual. We bear no responsibility for the accuracy, legality or content of the external site or for that of subsequent links. Contact the external site for answers to questions regarding its content.

**ECOWORLD**  
— LONDON —  
CREATING TOMORROW & BEYOND