

# Ultra-low energy building

## Our pathway to zero carbon

The industry is on a journey towards zero carbon and we have an opportunity to lead by example. As signatories of Architects Declare and contributors to the London Energy Transformation Initiative (LETI), we have campaigned to push for faster change. We are working hard to turn advocacy into a built reality by collaborating with clients, stakeholders and design teams to achieve a zero carbon future. This has led us to pursue ultra-low energy design as the first step towards achieving zero carbon in operation.

### **What is an ultra-low energy building?**

We define ultra-low energy as a building designed to Passivhaus levels of efficiency.

We have developed an 'Easi Guide to Passivhaus Design' with Etude, who we share a number of our projects with, to help designers and clients follow ultra-low energy design principles from day one. This will enable us to use Passivhaus design as the best practice starting point for every new project we do. Clients will no longer need to ask us to design to zero carbon, instead they will need to instruct us not to.

### 1 Brief

Integration of zero carbon targets into the design brief by:

- Holding a start-up zero carbon workshop
- Referring to existing case studies
- Setting clear targets
- Establishing a zero carbon consultant team

### 2 Design

Integration of zero carbon targets into the design of the building by:

- Achieving an ultra-low energy fabric
- Using energy modelling to predict performance
- Making the project fossil fuel free in operation
- Maximising the installation of on-site renewables

### 3 Construction

Ensure quality assurance and guarantee performance during construction by:

- Monitoring and testing of the building performance on-site
- Ensuring that targets are met

### 4 Post-construction

Verify whether the project achieves zero carbon on site by:

- Monitoring the building post-construction
- Comparing the actual building performance to targets
- Learning from the project and sharing feedback
- Declaring the building performance



**Project meets zero carbon targets**