

Good Practice Case Study: Kirsty Maguire Architect Ltd



## Kirsty Maguire Architect Ltd

Kirsty Maguire Architect Ltd are an architecture practice delivering zero carbon, low energy, high performance, high comfort buildings, both in the UK and abroad. All the work is rooted in Passivhaus design. Their work ranges from undertaking full architectural services to providing specialist Passivhaus consultancy to other design teams and they deal both with new build and retrofit. Their projects are varied in scale and geographical range, from one-off high quality Passivhaus homes and education buildings across Scotland, to a science visualisation gallery space in sub-Antarctica.

Buildings account for 35% of total global energy consumption. Passivhaus is an international building design standard that results in significant reductions of energy use from buildings, of up to 90%, while at the same time providing high standards of comfort and health. Thus, it is a key step in creating environment-friendly options for the built environment, that can also reduce fuel poverty. There are many facets to the practice's approach, such as minimising or eliminating energy and carbon use during the construction and building life, lifecycle analysis, "design for deconstruction" having (i.e. in mind deconstruction and recovery of materials and parts at end-of-life), the careful selection and use of new and salvaged materials, and local sourcing of both materials and labour. Landscaping, wildlife support and water habitats can be designed into the projects.

## Highlights

## Architecture practice:

specialising in low energy/Passivhaus building design and consultancy

delivering Passivhaus training UK wide and globally

committed to sustainability in their products and services, and operations

committed to ongoing improvement of internal practices



Since inception, in 2011, Kirsty Maguire Architect Ltd have shown a strong commitment to sustainability and social improvement action, with Passivhaus design being a core element of this holistic approach.

Kirsty was one of the first Passivhaus designers in Scotland, and is the only Passivhaus certifier trained person in this nation to date. They consistently undertake research and training at international level to bring best practice to the UK as early adopters, developing improved practices across the construction industry and supply chain in this country, through examples and capacity building. Their business is expanding and they have tripled in size over two years.

Kirsty Maguire Architect Ltd are also specialist Passivhaus training providers, having trained more than 600 individuals, to develop new job skills.

Kirsty Maguire Architect Ltd designed their own new office, a Passivhaus building for workshops and meetings, that minimises operational energy and carbon, saving 137% carbon (1.8 tonnes/year) as compared to the building regulations baseline; compared to their previous office space, there is an energy use reduction of 95%; and the embodied energy in this new build office space meets the Royal Institute of British Architects' 2030 targets. Water usage reduction is also achieved.

The office's energy consumption will be entirely from renewable sources: the office's solar panel and an appropriate selection of energy provider, providing a 100% renewable energy tariff. All staff have undergone training in energy efficiency and carbon targets, both for their operations and for the provision of their services, and are committed to circular economy, reduce, reuse, and recycling, both internally and as part of service to clients.

There is an ongoing hybrid model of working in place (a mix of work from home and from the office), designed by staff. Bike parking is available at the office.

Staff have flexible working in place, and they build cohesion as an internal community via informal weekly coffee time.

Kirsty Maguire Architect Ltd have a policy of positively supporting Passivhaus upskilling of all, particularly women in construction, as well as of those who without support may not be able to take part in training.

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