

SIDEWAY A NEW LEASE OF LIFE  
**TECHNICAL DATA**

Sideway's state-of-the-art design should mean an annual energy saving of 2,288,000 kWh (equivalent to more than 500 homes' electricity consumption), water savings of 256,051 litres (3,200 baths at 80 litres per bath) **AND** carbon reductions of 575 t CO<sub>2</sub> (240 cars' annual carbon emissions.)

**This is how some of those gains will be achieved:**

- **North Lights:** Substantial triple-glazed north lights will significantly increase daylight and reduce the need for electric lighting

**13% carbon reduction**

- **Minimised Air Leakage:** A large proportion of energy is lost through the external fabric of a building. Building regulations stipulate a maximum of 10m<sup>3</sup>/hr/m<sup>2</sup> at 50 Pa. Through careful detailing, ProLogis will achieve a superior 3m<sup>3</sup>/hr/m<sup>2</sup> at 50 Pa

**15% carbon reduction**

- **Solar Air Heating System:** South-facing walls of the two warehouses will be solar collectors, virtually eliminating the need for frost protection

**4% carbon reduction**

- **Low Energy Fittings:** By specifying energy-efficient fittings and intelligent building management systems, further energy savings can be achieved

**Saving 5% lighting costs = 2% carbon reduction**

- **Planted Walls:** West-facing elevations will be planted with vertical hedgerow and earth mounds to create bio-diversity

**1.5% carbon reduction**

- **PhotoVoltaic Panels:** PhotoVoltaic panels will be incorporated on the roofs of the warehouses and smaller industrial units. These will produce energy which can be utilised in the offices. If excess energy is generated, it can be sold back to the National Grid. (ProLogis has extensive experience of PV installation in Europe)

**6% reduction in energy costs**

- **Water Savings:** Water will be saved by installing spray taps and low flush WCs. Rainwater will be harvested for irrigation and grey water usage

**Saving 143,346 litres per year =  
30% off metered water costs**

- **Materials:** Working directly with manufacturers, ProLogis demands that materials are pre-cut to size, so minimising wastage on site. Local and recycled and/or recyclable materials are used wherever possible

**Supply cost savings up to 10%**

- **Prefabrication:** ProShed® is ProLogis' system-build approach which forms the basis of its technical strategy for sustainable construction. By manufacturing construction items off-site, waste is reduced and results in a higher standard of construction, reducing air leakage

**Reduction in embodied energy 30% a year**

## The office design

- The offices will incorporate integrated wind towers, which are designed to improve natural ventilation and are orientated to take maximum advantage of the prevailing south-west wind
- Timber cladding from renewable resources will soften the walls and external brise soleil (solar shading) will be incorporated to reduce solar gain
- The office block will be built at a tangent from the main buildings, to maximise daylight and natural ventilation and minimise use of electricity

## Independent accreditation

- In order to establish Best Practice guidelines for future schemes, ProLogis will fund Nottingham University's School of the Built Environment to gather scientific data about Sideway and establish sustainability credentials which can be published and distributed throughout the industry
- This two-year research collaboration will provide independent data which demonstrates what can be done to exceed current industry practice. It will have national and international relevance and make Sideway a flagship development of its kind