

Consideration of energy efficiency and low carbon impact of new developments is becoming increasingly prevalent at national and regional planning levels through emerging core strategies. Mandatory minimum standards for CO<sub>2</sub> emissions are continually increasing and enforced by ever tightening regulations such as Part L of the Building Regulations, BREEAM (Non-Domestic), Home Quality Mark (Domestic) and Industry Best Practice Guidance.



## *Legislative Compliance*

For clients to fully understand the local planning and legislative context and their potential impact on a new scheme, Sol routinely conducts high level reviews of the local, regional and national statutory and non-statutory planning policies (pertaining to energy and climate change). Subsequently, relevant requirements and key principles can be ascertained and addressed through incorporating the requirements into development design at the earliest stage.

Sol are able to undertake early stage dynamic thermal modelling using proprietary SBEM software to ensure the most appropriate route to Part L compliance is specified and incorporated into the final design.

## *Low-Zero Carbon Feasibility Assessment*

Sol Environment provide a range of services associated with selection and assessment of suitability of Low-Zero Carbon (LZC) Technologies for new developments.

Based on relevant standards detailed within local planning policy, Sol conduct detailed studies for new developments to ascertain the feasibility of potential LZC / renewable energy generation facilities for each site.

These studies identify the most appropriate LZC energy schemes for the development on a site wide (decentralised) and building-integrated basis, in consideration of an estimated energy profile for each site.

The Feasibility study process utilises modelling software in order to assess all potentially feasible technologies against the following criteria;

- Predicted generation capacity / annual generation;
- Payback;
- Land use & suitability;
- Planning constraints;
- Potential environmental impacts;
- Life cycle assessment (regarding carbon impacts);

## *Development Site Energy Strategy*

The Energy Strategy is increasingly the key document in providing assurance to local planning authorities regarding energy performance of a development and, for exemplar developments, acting as a provisional marketing tool.

Sol can provide detailed Energy Strategies for potential new developments. These documents are typically submitted with outline planning applications and assess the performance of the potential development against defined 'Energy Criteria'.

The strategy is informed by the high level policy review and LZC feasibility assessment, comprising a report demonstrating the compliance of a development with local planning requirements and government standards.

## *SBEM & EPC*

Sol can provide full SBEM and EPC services and are licensed Non-Domestic Energy Assessors.

Sol work closely with design teams and utilise modelling and calculation software to ensure that any proposed developments comply with Building Regulations Part L and any overarching local policies. As part of this service, Sol are also able to produce and lodge EPC's to achieve legal compliance during building handover or occupation.

## *Sol Environment Ltd*

Sol Environment Ltd are fully licensed assessors for both CSH and BREEAM schemes and are CIBSE accredited Low Carbon Building Design Consultants. Sol have significant experience in low carbon strategy and are currently assisting several of the UK's largest residential and commercial developers in devising sustainable energy strategies and optimising energy performance of their developments.

