

The Localism Agenda: Local Energy Planning and Planning for Renewable Energy

December 2010



Foreword

The UK is committed to a massive expansion of renewable energy. The Climate Change Act 2008 introduced a statutory target to reduce carbon dioxide emissions by 80% below 1990 levels by 2050. It will move the UK towards a low carbon economy so growth can happen in a truly sustainable way. The Coalition Government has further committed to sourcing at least 15% of its energy from renewable resources by 2020.

The Low Carbon Transition Plan and Renewable Energy Strategy set out the role of the planning system in delivering a low carbon community. The Government has committed to a greener Britain and for local communities to have the opportunity and responsibility to deal with climate change.

Subject to consultation and Parliamentary scrutiny, the Government intends to finalise and formally approve its National Energy Policy Statement in spring 2011, building on the previous government's draft Planning Policy Statement on climate and energy 'Planning for a Low Carbon Future in a Changing Climate – March 2010'.

The Decentralisation and Localism Act will give a clear direction on future guidance, but the Government's commitment to a shift of responsibility to local authorities and communities is already demonstrated by initiatives such as the lifting of restrictions on councils selling renewable electricity to the Grid.

As part of this radical shift David Lock Associates (DLA) believe that 'local energy planning' is an important component in delivering the Government's renewable energy targets. DLA is involved in complex development projects across the country delivering renewable energy projects including energy from waste. We have a practical understanding of the principles and application of the technology to achieve low carbon and resource efficient developments. We understand the need to focus on changing the way people think about and use energy; our expertise comes from understanding the bigger picture and working with partners to deliver successful developments which embrace renewable energy technologies and low carbon principles.

DLA is one of the leading independent town planning and urban design consultancies in the UK. We work nationally and have an established reputation for delivering highly successful and sustainable new settlements, urban extensions and major regeneration projects, many of which incorporate renewable energy technology. We also promote smaller and medium sized projects with small local energy generation technology such as biomass boilers and photovoltaics. We have the capabilities that only come from this broad level of experience to ensure the planning agenda on renewables in developments is met as part of a low carbon agenda.

This capability statement provides examples of some of the renewable energy projects for which DLA is responsible. We see renewable energy generation as a key element of the wider low carbon initiative, whether this is undertaken on a site by site basis or as part of a holistic approach to sustainable futures. Renewable energy is at the core of our planning and development work and is integral to our strategies for growth and development.

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DLA brings a number of valuable perspectives to projects involving renewable energy. We:

- Understand the climate change debate and the pivotal role of local energy planning through the planning system;
- Put low carbon energy solutions as part of place making and the design process;
- Provide guidance on futureproofing of infrastructure and development to create not only sustainable but also durable developments;
- Present a clear story 'to win Hearts and Minds' – changing public perceptions, and engaging the community;
- Have a working knowledge of renewable energy generation in new developments, with experience in wind, biomass, photovoltaics, solar farms and anaerobic digestion;
- Promote waste management in terms of energy from waste through anaerobic digestion, pyrolysis, gasification and incineration;
- Understand the importance of schemes within the localism context, supporting the 'bottom up' planning regime, and securing delivery to meet local carbon reduction targets;
- Orchestrate teams with specialist input to keep pace with this changing industry and the increasing demands to cut emissions;
- Understand opportunities for decentralised energy;

- Provide a strategic perspective which includes planning for waste and energy generation and associated infrastructure projects which feed into the National Grid; and
- Apply awareness of national and local requirements such as The Code for Sustainable Homes, changes to the Building Regulations - Part L; the 'zero carbon from 2016' target and possible allowable solutions; the Merton Rule and other policy requirements to achieve low carbon development and carbon reduction targets.

Our expertise is based on understanding when to apply appropriate technologies, whether it be a shift from centralised to decentralised energy generation on a specific site, or whether 'fabric first' energy efficiency would be the most effective low carbon solution.

How we might help

We can provide advice and expertise in planning for energy in a number of ways:

Renewable Energy, Climate Change Agenda and Evidence Based Plans

Evidence based plan making remains pivotal to effective local planning under the new policy regime. DLA works closely with local planning authorities at the outset to understand the potential for the supply and demand for renewable and low carbon options, drawing in specialist energy technical expertise as appropriate. We see energy use and opportunities for renewable energy as part of the evidence base.

Community Engagement

Overcoming preconceptions to help people understand new energy technologies and their benefits locally is key to securing support. We have significant experience and success in organising a full range of stakeholder and community consultations. This is particularly relevant when dealing with energy proposals, when conveying complex information in a clear and concise way is paramount.

Adding Value

On many of our projects we assume the role of design adviser to our client, raising the expectations of the proposed development and suggesting solutions to difficult problems. Added value comes from our detailed understanding of the processes involved and considering energy planning as integral. We identify obstacles to delivery, prepare mitigation strategies and find solutions to technical constraints.

Implementation

We see renewable energy and low carbon solutions as integral in the delivery of the development, ensuring that sustainable performance is not compromised but matches the original vision. We are focused on understanding the perspective of both developer and planning authority at the outset enabling us to guide the development to a successful outcome.

The following pages provide a flavour of the energy projects we are currently involved in.

Marston Vale - Delivering Sustainability

Marston Vale, Bedfordshire

Client: O&H Properties Ltd

O&H Properties Limited has extensive landholdings in the Marston Vale, located between Milton Keynes and Bedford. David Lock Associates were appointed to prepare a development strategy for a sustainable new settlement of up to 15,000 homes. The decision was taken to submit the scheme as part of the Government's Eco-town Initiative, and in April 2008 it was shortlisted as a possible Eco-town location.

The development strategy focuses on the practical application of sustainable technologies for waste, energy production, water and achieving zero carbon including:

- Linking with the Marston Vale Community Forest as a source of bio-fuels and energy production
- Community scale wind turbines
- Maximising the efficiency of buildings
- Sustainable construction practices
- Reducing waste and the potential for waste to form part of a fuel mix for a CHP scheme
- Achieving water neutrality by maximising efficiency measures



In February 2009 O&H Properties decided to withdraw from the Eco-town initiative and promote the scheme through the Regional Spatial Strategy review and the local planning process.

Project Facts

Eco-town shortlisted

Holistic design approach

Zero carbon target



Project Facts

Rural regeneration project

Demonstrates geo-thermal, biomass, solar, wind and hydro solutions

Energy for 3000 homes in Weardale

Eastgate Renewable Energy Village

Location:
Weardale, County Durham



Client: Weardale Task Force (Durham County Council, Lafarge Cement, One North East, Wear Valley District Council)

Eastgate Renewable Energy Village has been dubbed one of the most imaginative rural regeneration projects to be granted planning permission in the UK in recent times.

The new village, on the site of the former Weardale cement works, will demonstrate the use of all five forms of land-based renewable energy – wind, solar, biomass, hydro and geothermal – in a living and working environment.

With a hot springs spa at its heart utilising natural hot water from underground – the existence of which was confirmed by test drilling in 2004 – the village will serve as an education resource and a tourist attraction. Sufficient electricity will be generated on-site not only for the new village but all 3,000 homes in Weardale, located high up in the North Pennines.

David Lock Associates has been centrally involved in the preparation and evolution of the plans since the closure of the cement works was announced in 2002, this including four rounds of public consultation. The company continues to be active on the project, currently acting as lead consultant in its implementation.



Project Facts

Energy centre

CHP from wood chip biomass

5MW of electricity and 17MW thermal capacity

East Devon Energy Centre

Skypark, East Devon

Client: St Modwens, Devon County Council & Hallam Land Management

In response to the East of Exeter New Growth Point Energy Strategy, David Lock Associates co-ordinated, prepared and submitted a planning application for a new Energy Centre on a site on the edge of Skypark commercial area (previously part of Exeter Airport).

It will provide heat via a district hot water main and generate electricity from wood chip fuel using pyrolysis, with natural gas back-up boilers, to both Skypark and the new settlement of Cranbrook. The Energy Centre will provide sustainable low carbon energy with a peak load capacity of 5MW of electricity and peak thermal capacity of 17MWth.

Planning permission was granted in April 2010 within 13 weeks of submitting the application, including significant negotiations with statutory and other bodies.



All Images: © Stephen George & Partners

**Project Facts**

UK Headquarters Building

Wind turbines and biomass boiler

BREEAM excellent

Mercedes-Benz Microenergy Generation

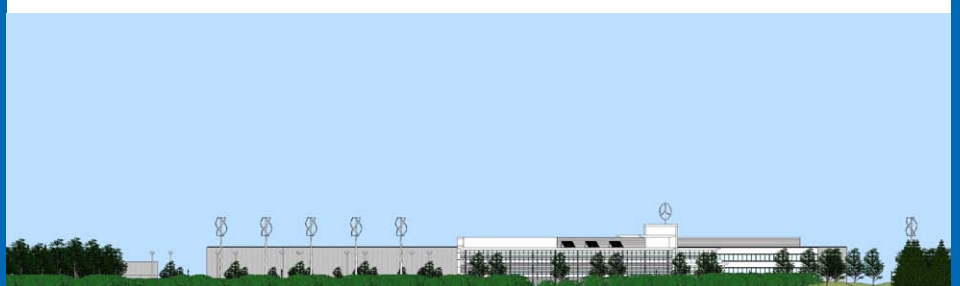
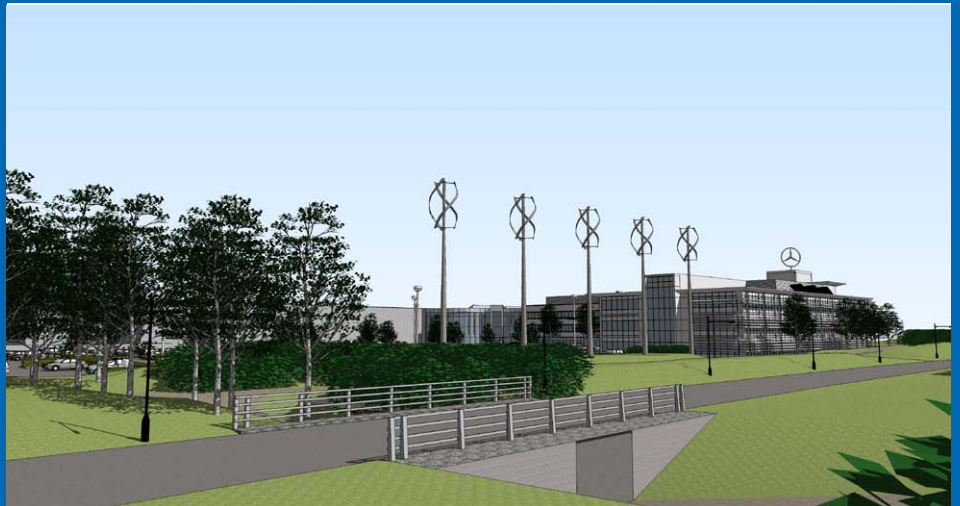
Milton Keynes

Client: Mercedes-Benz
UK Ltd

David Lock Associates secured planning permission for new office space at Mercedes-Benz Ltd UK Headquarters in Milton Keynes. The 5,000 square metre office building will be BREEAM Excellent rated.

In addition there is a commitment to provide 5% of the building's energy on-site and from renewable sources. The scheme includes five Quiet Revolution wind turbines and photovoltaic panels on the building. The Quiet Revolution turbines were chosen for their suitability in urban locations and satisfied Environmental Health Officers acoustic assessment requirements.

DLA has also secured planning permission for the Mercedes-Benz Training Academy, also in Milton Keynes. It will offer state of the art training facilities to support the company's network of dealerships around the country. This will be powered by a biomass boiler that will use otherwise redundant wooden pallets to create power and heat. This, in turn, will reduce the site's reliance on landfill.





Project Facts

- Design Guidelines for National Grid
- Consultation with wide range of interests
- Practical guidance to reduce visual impact

Sense of Place: Design Guidelines for development near high voltage overhead lines

Client: National Grid

On behalf of National Grid, David Lock Associates have developed innovative new design guidelines to promote dramatically improved development near high voltage overhead power lines. This ground-breaking initiative is one of the first examples of a privatised utility company taking an active participation in the urban design debate.

The 'Sense of Place' guidelines give practical guidance on how developers and planning authorities can reduce the visual impact of existing pylons and high voltage overhead lines on new residential and commercial development.

The 'Sense of Place' report demonstrates "joined up thinking" that supports and integrates with the requirements of the Government's planning policy, embraces the principles of good urban design and regeneration, and finds new ways to avoid the unnecessary sterilisation of land near high voltage overhead lines.

The guidelines have been produced in consultation with a wide range of interest groups, organisations and individuals from the development industry, and are supported by a range of organisations including the TCPA, the RTPi, the Landscape Institute, the National Playing Fields Association, the Civic Trust and major developers including Countryside Properties plc and the Berkeley Group plc.

The collage illustrates the 'Sense of Place' guidelines. It features an aerial photograph of a residential development with a high-voltage overhead power line. To the right of the photo are four stylized icons of pylons and lines in different colors (blue, green, red, purple). A red 'X' is placed over the blue and red icons, while a green checkmark is placed over the green and purple icons. Below the photo is a diagram titled 'PROMOTING ENVIRONMENTAL QUALITY' and 'MINIMISING IMPACT OF ELECTRICITY TRANSMISSION'. The diagram shows a central box with two arrows pointing to it from boxes labeled 'PROMOTING ENVIRONMENTAL QUALITY' and 'MINIMISING IMPACT OF ELECTRICITY TRANSMISSION'. Surrounding these are eight circular boxes with text: 'Electric Networks', 'Willing Land and Historical Assets in the Corridor', 'Review Local Plans to Assess Impact', 'Consulting with Local Stakeholders to Assess Impact', 'Facilitating the Public Process', 'Encouraging Developers to Identify and Mitigate to Reduce Visual Impact', 'Understanding the Impacts of Technology', and 'Promoting Visual Excellence'. The National Grid logo is visible in the bottom left corner of the collage.

Magna Park MK - energy efficient buildings

East Milton Keynes
abutting Junction 13

Project Facts

Distribution facility

Energy saving design solutions

Sustainable Drainage System

Client: Gazeley
UK Limited
and Land
Securities

David Lock Associates secured outline planning permission for this distribution facility totalling 370,000m², and subsequently secured the formal adoption of both site wide Development Brief and detailed Development Codes.

More recently we have secured conditional reserved matters permissions for a John Lewis and River Island high bay warehouse, each of which are over half a kilometre in length. The buildings display significant energy efficiencies in their construction and operation.

Notable examples included in these BREEAM excellent buildings are: doubling the number and size of roof lights and including movement light indicators to reduce electricity use; a floor finish made from recycled car tyres; a grey water system and a fully integrated sustainable drainage system of the entire site.



Search for sites for an anaerobic digester

Milton Keynes

Client: The Parks Trust

Project Facts

- Site for Energy from Waste facility
- Anaerobic digestion
- 35,000 tons of household waste

Milton Keynes as a new city has always embraced its responsibility for dealing with its own waste and early in its development located a MRF recycling facility within its boundaries.

The Parks Trust as custodian of Milton Keynes 4,500 acres of open space has the ambitions to continue this tradition and see its own green waste, and the green and food waste from Milton Keynes households amounting to some 35,000 tons pa, dealt with locally.

The Parks Trust commissioned David Lock Associates to identify potential sites from its land portfolio within Milton Keynes and carry out a planning feasibility study for locating an organic treatment facility and anaerobic digester capable of handling the considerable volume of household organic waste. The site identified as the preferred location, adjacent to the existing sewage works at Pineham, successfully received planning permission in October 2010.



Renewable Power from landfill

Project Facts

Former Household Landfill Sites

Solar fields, methane extraction

Land restoration

Chilmington Green, Ashford

Client: Lichen Renewal

There are over 1,500 former household landfill sites across the UK which were used between the 1950s and the 1970s. Many of these now pose significant pollution problems and do not accord with emerging European legislation on contaminated sites. Frequently, the decaying landfill material in the ground produces the potent greenhouse gas methane which is dramatically adding to the global problem of climate change. The decaying material also produces leachate that can pollute local streams, aquifers and adjacent development land.

DLA have been commissioned by Lichen Renewal to advise on a raft of planning matters in relation to solving these historic landfill problems whilst at the same time providing renewable heat and energy. A team of the country's leading specialists in different cutting edge technologies has been established as each site brings with it a slightly different set of technical challenges and different opportunities for renewable energy generation.

