

New Policy Concepts

This handout provides an overview of the Allowable Solutions policy concept that is beginning to emerge at a national level. Local authorities will need to keep up-to-date with developments of the concept in order to ensure that plans and policies make provision for the future on-site, near-site and off-site land requirements of energy infrastructure needed in order to meet Building Regulation standards.

By 2016 Zero Carbon Building standards will be in place and with this the instances where on-site solutions can meet those standards will reduce. This will result in an increasing need to identify near and off-site areas where the energy infrastructure can be located in order for developments to meet zero carbon levels.

Consequently Local Development Frameworks (LDF) will need to recognise this issue and have the policy frameworks in place to address this and, where possible indicate where near and offsite opportunities exist in order to support communities and developers meet standards.

The handout also provides a discussion on Sustainable Energy Action Plans and the role can play in supporting LDFs in terms of baseline, evidence base and implementation of plans and policies.

Building Regulations

UK Building Regulations are one of the main mechanisms for reducing carbon in the built environment. The regulations are statutory instruments that ensure that policies set out in the legislation are carried out. Building Regulations implement Articles 3, 4 and 5 of the EU Energy

Performance of Buildings Directive (2002/91/EC). The regulations drive energy efficiency and carbon reduction targets for new development and

improvements to the performance of refurbished / retrofitted residential and commercial buildings.

Part L of the Building Regulations specifies the Secretary of State's right to approve the methodology for the calculation of energy performance of buildings and approve the minimum energy requirements for new buildings in the form of Target CO2 Emission Rates (TER). Part L of the 2010 Building Regulations is the current regulatory framework for residential development in England and reduces CO2 by 25 % over Part L1A 2006 standards. By 2016 Part L is scheduled to ensure zero carbon standards in new build projects.

Zero Carbon Buildings

The government requires that all new homes in England will be zero carbon from 2016 onwards, and all new non-domestic buildings being zero carbon from 2019 onwards. The initiative is designed to stimulate greater uptake of on-site renewables as part of new development. As part of the budget announcement in 2011, the Government changed the definition of zero carbon homes. The announcement confirmed that only the (regulated) emissions covered by Building Regulations (heating, fixed lighting, hot water and building services) would now be covered by the 2016 policy. Therefore, (unregulated) emissions (from cooking or from plug-in appliances such as computers and televisions) will not be addressed.

The omission of unregulated emissions will result in targets being easier to achieve and although payments towards 'Allowable Solutions' will still be required by housebuilders and developers in order to meet energy and carbon targets in planning policy, the costs are likely to be much less than previously thought.

Allowable Solutions

Allowable Solutions are measures / options available to planners and developers that would reduce / offset carbon (CO₂) emissions should on-site solutions not be feasible and / or viable when bringing forward new development.



In July 2011, the Zero Carbon Hub produced 'Allowable Solutions for Tomorrow's Homes - Towards a Workable Framework', an industry led study into the 'real world' delivery of zero carbon buildings. To comply with the 2016 Building Regulations, new zero carbon homes will have to meet on-site requirements for Carbon Compliance (achieved through the energy efficiency of the fabric, the performance of heating, cooling and lighting systems, and low and zero carbon technologies).

In addition, through Allowable Solutions, they will need to account for the carbon emissions that are not expected to be achieved on site through Carbon Compliance. Carbon Compliance and Allowable Solutions measures will both be needed to meet the zero carbon Building Regulations in 2016, and each will need to be submitted, checked and verified as part of Building Control approval.

Allowable Solutions options include scenarios where:

- The developer would make a payment to secure emissions reductions through (largely) near-site

or off-site, carbon-saving (Allowable Solutions) projects.

- Independent of the developer, there would be an opportunity to aggregate a number of Allowable Solutions payments to deliver larger scale carbon-emission reduction projects.
- Allowable Solutions would be affordable and (per unit of carbon) would cost, at least initially, less than Carbon Compliance.
- That wherever possible, Allowable Solutions would be linked with local projects that would bring local benefits.
- This document sets a number of routes / mechanisms for developer's contributions to be used to deliver off-site energy infrastructure in order to meet carbon targets set by LPAs. These include:
 - Contracts with Third Party Providers overseen by a Local Authority, possibly choosing projects off a National Project Database.
 - Payments into a Community Energy Fund to enable the Local Planning Authority to deliver carbon savings.
 - Payments to a Private Energy Fund (operating in the same way as the Community Energy Fund but privately run and with no geographical constraints).

The payments would not exceed a national market ceiling price for carbon.

Packages of Allowable Solutions have now been developed that provide a flexible framework of options for planners. These are categorised as on-site, near-site and off-site options. Each provides a wide range of energy efficiency, renewable and low carbon intervention measures that can be used to meet and exceed energy policy and target requirements.

On-site options

- Installation of smart appliances
- Application of 'flexible demand' systems (supporting demand side management)
- Use of grid-injected bio-methane linked to the site by Green Gas Certificates
- Installation of communal heat accumulator (site based heat storage)
- Home electric vehicle charging
- Electricity storage for the home (to store electricity generated from PV panels)
- On-site waste management (Vacuum waste collection systems)
- LED street lights for the site

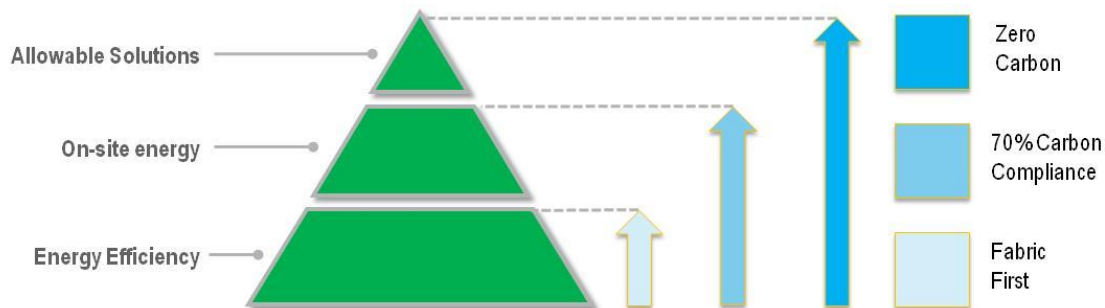
Near-site options

- Export of low carbon heat from site based district heating scheme (i.e. support for cost of pipe-work)
- Retro-fitting of low/zero carbon technologies to local communal buildings
- Investment in creation or expansion of locally planned sustainable energy infrastructure (e.g. district heating or on-site wind turbines)

- Investment in local electric vehicle charging infrastructure
- Investment in low carbon street lighting for local area
- Local micro-hydro schemes
- Communal waste management solutions
- Local energy storage solutions

Off-site options

- Investment in Energy-from-Waste plants (e.g. Anaerobic Digestion and Pyrolysis / Gasification plants)
- Investment in low carbon electricity generation assets up to a maximum determined scale eg, excluding large scale off shore generation
- Investment in district heating pipe-work to connect new loads to existing schemes or support new schemes
- Investment in retro-fitting of low carbon technologies to communal buildings
- Investment in embodied carbon reduction initiative Investment in low carbon cooling Investments in energy storage and demand-side management/flexible demand projects to counter intermittent renewables.



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Using other mechanisms to support LDFs

It is essential that the limitations of the planning system are recognised when developing plans, policies and targets. Other measures outside the remit of the planning system are used to reduce CO₂ emissions and address climate change. This includes Climate Change Action Plans, Carbon Management Plans, Carbon Reduction Plans, Greenhouse Gas Emission reports and Sustainable Energy Action Plans (SEAP). This handout provides an overview of SEAPs, their role in supporting and enhancing Local Development Frameworks (LDF) through the creation of energy consumption and greenhouse gas emissions baselines.

What is a SEAP?

A SEAP aims to provide leaders, managers and officers with a coherent, evidence-based and prioritised action plan to shape a sustainable energy system.

A SEAP is often a first step of a process to set out actions to reduce energy demand, improve energy efficiency and increase energy generation:



The requirements of a SEAP stem from the Covenant of Mayors (CoM) movement that was launched by the European Commission in 2008. There are major advantages from joining CoM including access to EU funding and opportunities to access technological and financial support.

There are currently 3,480 signatories representing across Europe, with a number of signatories

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emerging in the Americas and Africa, however just 39 signatories are in the UK. Consequently there are significant opportunities to become one of the UK's first signatories, raising the profile of your area across Europe and to international markets.

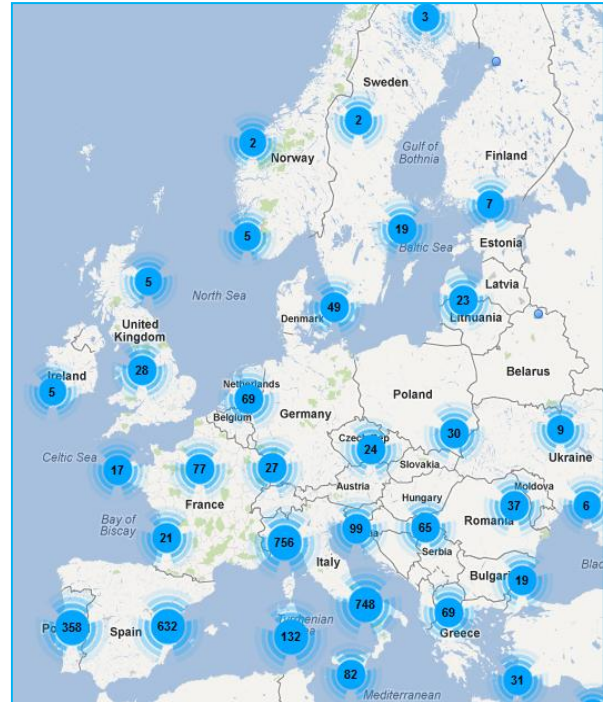


Figure 3: Distribution of Covenant of Mayors signatories across Europe.

SEAPs can be particularly important for LDFs as they provide evidence, actions and projects that will support the deliverability of LDF plans and policies. SEAP can also provide an effective mechanism for de-risking projects at an early stage and ensuring they are resilient to changes in EU and UK policy, financial uncertainty, resource availability and risk.

Key Steps of SEAP Production

Directing the preparation of a SEAP is guidance developed by the Covenant of Mayors (CoM)¹ which sets out clear steps for developing a SEAP. The CoM guidance identifies three key steps in SEAP preparation.



Step 1: Creation of adequate administrative structures

The guidance requires that there are suitable resources set up with appropriate competencies, financial and staff resources to implement the commitments made through the SEAP and wider CoM agenda.

Step 2: Ensuring Community and Political 'Buy In'

The SEAP guidance identifies the need to develop empowerment and support at the highest political levels in order to ensure effective delivery. This a key stage of developing certainty to help attract investment and leverage funding. A LDF can be a key component of this stage, providing evidence, policy and targets to ensuring new development meets and exceeds building standards and maximises the deployment of renewable and low carbon energy in Yorkshire and Humber. Equally the SEAP preparation process can be a powerful tool in developing the understanding and commitments needed to ensure effective implementation of plans and policies that deal with energy and climate change issues.

Step 3: Baseline & SEAP Development

CoM guidance identifies that “Energy consumption and CO₂ emissions at the local level are dependent on many factors: economical structure (industry/service oriented and nature of the activities), level of economic activity, population, density, characteristics of the building stock, usage and level of development of the various transport modes, citizens’ attitudes, climate. It is useful to understand the influence of these parameters, how they vary in time, and identify upon which the local authority can act (in the short, medium and long term)”.

In order to understand the energy system of an area and how actions are performing a baseline is required and it the first critical output needed in order to prepare a SEAP. This stage has the potential to support and enhance LDF evidence bases and monitoring systems.

For more information on SEAPs visit the web links below:

http://www.eumayors.eu/participation/covenant_map_en.html

http://www.eumayors.eu/support/funding-instruments_en.html

http://www.eumayors.eu/support/library_en.html

¹ How to Develop a Sustainable Energy Action Plan Guidebook, Covenant of Mayors