

Your energy efficiency partner

Working to ever-changing rules is a full-time job. To make sure you can keep up to date and even plan ahead, Darren Evans provide a nationwide, comprehensive range of energy efficiency and sustainability services.

Our services are aimed primarily at:

Architects and Developers: SAP, EPCs, CSH, Airtightness Testing, SBEM, Low Carbon Consultancy, Training

Commercial: SBEM, EPCs, Low Carbon Consultancy, Airtightness Testing

Public Sector: Training, RDSAP, SAP, CSH, EPCs

Residential: RDSAP, SAP, CSH, Airtightness Testing

Materials and Manufacturing: Training, SAP, CSH, SBEM, EPCs, Low Carbon Consultancy

We can also provide air-conditioning checks, display energy certificates and over-glazed extension calculations.

The customer comes first

We would rather build a long-term relationship with you than do a one-off job. To make this possible, we provide an energy assessment service that is:

Painless – instruct us and we will complete what you require without fuss or delays

Straightforward – we take away the confusion

For a single fee – one price for your project, from design to completion and sign-off

In plain English – we'll tell you how the legislation applies to you and what you need to do to meet it

We're not like other companies

Our broad knowledge of the building energy industry means that we can act as a single point of reference. We cut through the jargon so that you know exactly what is required. If, at any time, you are unsure, simply pick up the phone and ask.

And, to help provide clarity on what building energy efficiency means in real life, Darren Evans provides a range of additional solutions. These include training on topics such as how the Code for Sustainable Homes applies to you and consultancy on the application of sustainability legislation.

Make it easier for yourself – choose Darren Evans as your energy efficiency partner.

Call Darren Evans Today on: **44 (0)1454 317 940** or visit: www.deassessments.co.uk

Providing a comprehensive range of energy efficiency and sustainability services to: Architects, Developers, Housing Associations and Commercial & Domestic Landlords nationwide.



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Energy Efficiency and Sustainability Services

With continuing changes in legislation and increasing social awareness, it is very clear that, in the future, all buildings will need to be more sustainable. We can help you achieve this.

Whatever your requirements, Darren Evans offers a range of services ranging from a single Energy Performance Certificate (EPC) to a complete building assessment under the Simplified Building Energy Model (SBEM) to calculate the sustainability of your property. Then, to help you choose the best course of action, we guarantee to provide sensible, practical advice and solutions that make improving the energy efficiency of your property as straightforward and cost-effective as possible.

Standard Assessment Procedure

SAP is the method of measuring the energy efficiency of new-build residential buildings. It involves the use of a 'notional' model to evaluate new-build projects to produce a Target Emissions Rating (TER) in line with Part L building regulations.

SAP takes into consideration:

- Building materials
- Insulation values
- Ventilation
- Heating and lighting
- Use of renewable energy technology

Once the building is complete the SAP assessor will produce an 'actual' Dwelling Emissions Rating (DER) based on the same criteria. If this rating is equal to, or better than, your target rating the building will receive an EPC.

As well as new builds, many renovations and extensions require SAP calculations.

A Reduced Data SAP (RDSAP), a simplified version of SAP, is used to produce residential EPCs for existing buildings.

RDSAP produces an efficiency rating on an A-G scale similar to the labels on white goods and rates the property on its CO₂ emissions. The report also provides an indication of costs for space and water heating and lighting and improvement recommendations.

Darren Evans performs both types of SAP calculations, working to ensure that the project is signed off by Building Control.

The Code for Sustainable Homes

All new homes built in the UK now require assessment against the Code for Sustainable Homes (CSH).

The Code is the government standard for sustainable house-building, based on nine key areas:

- Energy/CO₂
- Water
- Materials
- Surface water run-off
- Waste
- Pollution
- Health and well-being
- Management
- Ecology

A home can achieve a sustainability rating from one to six stars, depending on the extent to which it has achieved the Code standards. One star is the entry level – above the level of the Building Regulations; and six stars is the highest level – reflecting exemplary development in sustainability terms.

According to the Department for Communities and Local Government (CLG), the plan is to raise standards through building regulations. At the moment a nil rating against the Code is acceptable, but as we get closer to 2016, the bar will be raised. By 2016, all new homes constructed will have to be zero carbon (i.e. Have a six star assessment against the Code).

This legislation is part of the European Performance of Buildings Directive, which dictates standards that all EU governments must follow in order to tackle the significant contribution that the construction industry and the existing housing stock add to global carbon emissions.

If your project is at the design stage, Darren Evans can assess it in order to ensure it is on the right track. However, we would recommend assessing the project throughout the build in order to achieve a Code certificate upon completion without unnecessary delay or additional costs. We are able to provide this service regardless of the project's size or complexity.

Airtightness

Airtightness testing may seem like an unusual approach but the way air moves through a building often contributes more to energy efficiency than the insulation values of the walls and windows.

To perform the test, all of the intended apertures in the building are sealed up. Then air is either pumped in, or sucked out, the front door and the results recorded.

Darren Evans can perform the test and produce a report on where air is escaping along with suggested steps to take to reduce any air loss.

Energy Performance Certificates

An EPC is now a legal requirement for any property put up for sale, lease or rent in the UK. This includes commercial properties.

As with RDSAP for existing domestic property, an energy-efficiency and CO₂ emissions rating on an A-G scale similar to the labels on white goods is produced. Properties achieving two As are the most energy efficient and emit the least CO₂.

Darren Evans will compile information on the heating, insulation and the building materials used to construct the property. This data is then used to calculate the property's energy efficiency rating and environmental impact (CO₂ emissions). Where appropriate, one of our qualified inspectors will visit the property.

Simplified Building Energy Model

SBEM is used to calculate the compliance of new-build commercial property with Part L building regulations.

Calculations are performed based on the building materials and the types of heating, lighting and power to be used, as well as the use of renewable energy sources such as photo voltaic cells, wind turbines and ground/air-source heating. These calculations will provide a clear picture of the energy performance and carbon emissions of the proposed property.

Darren Evans provides SBEM calculations for all types of construction project.

Display Energy Certificates

A Display Energy Certificate (DEC) shows the actual energy usage of a building, the Operational Rating, and helps the public see the energy efficiency of a building. This is based on the energy consumption of the building as recorded by gas, electricity and other meters. The DEC should be clearly displayed and visible to the public at all times.

Display Energy Certificates are required for buildings that are occupied by a public authority or institution providing a public service to a large number of persons and therefore visited by those persons. They are valid for one year.

Darren Evans has the resources and knowledge to undertake assessments of virtually any type of building. Once completed, the DEC will be accompanied by an Advisory Report that lists cost effective measures to improve the energy rating of the building. The accompanying Advisory Report is valid for seven years.

Air conditioning systems

Air conditioning systems can account for 50% of the energy used in a building. They are specifically targeted in legislation including EPBD Article 9 and the Energy Performance of Buildings Regulations.

In particular, the Article 9 Air Conditioning Inspection is gaining recognition as an excellent tool. The aims of this inspection are to:

- Provide you with information about your system's performance, and
- Identify opportunities to reduce your CO₂ emissions and save energy and money

The inspection report is valid for five years, after which the system will need to be inspected again.

Which systems require inspection?

An air conditioning system is defined within the regulations as "a combination of all the components required to provide a form of air treatment in which the temperature is controlled or can be lowered, and includes systems which combine such air treatment with the control of ventilation, humidity and air cleanliness".

The regulations are being adopted in two phases. The first phase applies to systems with a rated cooling capacity above 250 kW and the second phase for the

Darren Evans provides a range of services for domestic and commercial properties. These are supplemented by tailored training and low-carbon consultancy.

Energy Efficiency and Sustainability Services						
Domestic				Commercial		
Existing	New Build	Change of use	Extension	Existing	New build	Change of use
RDSAP	SAP			DECs	SBEM	
EPC						
	CSH			Aircon		
	Airtightness				Airtightness	
HIP						
Training and Consultancy						

remaining systems over 12 kW. The cooling capacity of an air conditioning 'system' is further defined as "the sum of all individual cooling units under the control of one building owner or operator". It may therefore include smaller 'window-box' and split units which are considered to be part of the 'system'.

An air conditioning inspection from Darren Evans will help ensure that you comply with the applicable legislation. Following our inspection we will provide a report highlighting measures which, if adopted, will save you energy and money.

Often, the air conditioning inspection will pay for itself in just a few weeks when the no- and low-cost measures identified during our inspection are implemented.

Low Carbon Consultancy

The change in construction culture being brought about by the Part L Building Regulations is revolutionising construction practice. For those that wish to stay ahead of the game, Low Carbon Consultancy from Darren Evans is the way forward.

Our Low Carbon Consultants are trained and accredited by the Chartered Institute of Building Services Engineers (CIBSE) and the Carbon Trust.

They will not only provide you with the expert guidance you need to meet the required standards of energy efficiency, but even help you to exceed them to benefit from government incentive schemes aimed at increasing sustainability in construction.

