

25 THINGS YOU NEED TO KNOW ABOUT PART L

AND ENERGY EFFICIENCY IN THE
BUILDING REGULATIONS

01 WHAT IS PART L?

Under the Climate Change Act 2008, the UK is committed to greenhouse gas emission reductions of 34% by 2020. Around 45% of our emissions come from buildings. Energy usage such as space heating, cooling water heating, lighting and mechanical ventilation are covered by Part L of the Building Regulations. Current Part L requirements came into force in England on 6 April 2014.



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02 WHAT ARE THE REQUIREMENTS FOR NEW BUILD DWELLINGS?

To meet compliance with the regulations all new build homes will need to initially beat targets set for Carbon (CO₂) and Energy (kWh/m²/year). These targets are measured using the Standard Assessment Procedure (SAP) software. In addition, measures to limit the effect of heat gain in summer and to ensure the quality of construction are also required.



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03 WHAT ARE THE REQUIREMENTS FOR NEW BUILD NONDOMESTIC BUILDINGS?

Unlike new build homes, non-domestic buildings have only one emission target and this is measured using government approved software such as the Simplified Building Energy model (SBEM). Like new homes, measures to limit the effect of heat gain and to ensure the quality of construction are also required.

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HOW CAN YOU DEMONSTRATE COMPLIANCE?

For the new 2014 Part L, the government has published 'model' designs for compliant dwellings and non-domestic buildings. If you follow these model specifications in your own design, it is guaranteed to meet the carbon and energy targets. You can of course vary your specification and the relevant software will measure your performance against the target.

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AT WHAT STAGE OF THE PROJECT DO I REQUIRE AN ENERGY ASSESSMENT?

A design stage Energy Assessment is required before works start on site. The 'As Built' Energy Assessment is required at completion to produce your Building Regulations Final Certificate.

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CAN I CARRY OUT THE ENERGY ASSESSMENT MYSELF?

No, an accredited assessor must carry out the calculations. All Jhai Enerji+ team Energy Assessors are fully accredited.

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WHAT INFORMATION DO I NEED TO SUPPLY FOR THE ENERGY ASSESSMENT TO BE CARRIED OUT?

A full set of plans (including site plan, floor plans, sections and elevations) along with the specification (including space and water heating, lighting, ventilation and renewables).

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WHAT IS THE NEW HOMES ENERGY TARGET?

This is new in the 2014 Building Regulations. It is known as the Target Fabric Energy Efficiency rate (TFEE) and is expressed in terms of a maximum space heating and cooling energy demand (kWh/m²/year). It is designed to ensure that every new home has a good minimum standard for its fabric.

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WHAT HAPPENS IF THE ENERGY ASSESSMENT SHOWS A 'FAIL' AT DESIGN STAGE?

One of our experienced assessors can advise on the most economical and practical way to comply with Approved Document L; this is included in our fee.

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WHAT HAPPENS IF THE DESIGN CHANGES MID-BUILD ?

It is vital any changes are communicated to the Energy Assessor; we can then ensure the proposed changes will not compromise achieving compliance at the 'As Built' stage.

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I AM EXTENDING MY HOME - DO I NEED AN ENERGY ASSESSMENT?

Strictly speaking no, but Part L guidelines recommend the amount of glazing an extension should have as being 25% of its Gross Internal Area (GIA). If you are planning to exceed this level, one method of achieving compliance is to show - by using energy assessment calculations - that the proposed dwelling has lower CO₂ emissions than a 'notional dwelling' which complies with the 25% rule.

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DOES ENERGY EFFICIENT LIGHTING AFFECT THE ENERGY ASSESSMENT?

Yes. For domestic assessments 75% is the minimum compliance or 100% if following the LTA method. For commercial buildings lighting details will differ from building to building.

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WHICH IS THE MOST COST EFFECTIVE: SOLAR HOT WATER OR PV OR BOTH?

This will depend on various factors. The Enerji+ team can provide totally independent Energy Assessments which will provide actual projected future energy costs for your home, allowing you to choose the most effective option from various scenarios.

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WHAT BENEFITS WILL AN EFFICIENT BUILDING HAVE?

The building will require less energy and this will be reflected in lower bills. With energy inflation rising, energy efficient buildings are increasingly recognised to significantly reduce ongoing costs.



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DO I HAVE TO USE RENEWABLES?

No, there are numerous ways to achieve compliance. Your Enerji+ Energy Assessor can advise on a number of options and you can decide on the most practical/economical option specific to your project.

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I DON'T HAVE U-VALUES FOR ALL THE THERMAL ELEMENTS IN MY PROJECT. HOW CAN THIS BE ASSESSED?

We will calculate all U-values from the specifications and tell you if they are compliant with Part L of the Building Regulations. We will advise you if any improvements need to be made.

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DO I NEED AN AIR TEST AND A SOUND TEST?

For a new build project you will normally require an air test as it has an implication on the SAP result. jhai also offers an air testing service. You will not need a sound test for your SAP but for new dwellings you may need one to demonstrate compliance with Part E of the Building Regulations. jhai can discuss and arrange your sound testing requirements.

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WHAT ARE ACCREDITED CONSTRUCTION DETAILS AND HOW DO THEY AFFECT MY SAP CALCULATION ?

Accredited Construction Details (ACDs) were developed to assist the construction industry in achieving the performance standards required to demonstrate compliance with Approved Document L of the Building Regulations. The details focus on the issues of insulation continuity (minimising cold bridging) and airtightness. Minimising cold bridging and increasing air tightness will significantly contribute to lower CO₂ emissions and lower running costs. These details can be found at <http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partl/bcassociateddocuments9/ac>

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I'VE HEARD OF PROJECTS USING THE LATEST AIR SOURCE HEAT PUMP SYSTEMS AND ULTRA-EFFICIENT MVHRs FAILING TO MEET EMISSIONS TARGETS IN SAP. WHY?

SAP Assessors are only permitted to make calculations using technologies and products from the Appendix Q database of tested systems. If a system is not listed in Appendix Q, default values must be used and this will have a significant effect on the emissions result.

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AS PART OF PLANNING I NEED TO ACHIEVE CODE FOR SUSTAINABLE HOMES LEVEL 4. I'M NOT SURE MY BUILD SPECIFICATION IS GOOD ENOUGH ?

Three sub categories of Code rely on the Part L results, Enerji+ can save you a lot of time and money by managing both assessments. We can produce and optimise tailored, cost effective strategies for companies and self-builders.

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WHAT ARE CONSEQUENTIAL IMPROVEMENTS?

If a building over 1000m² floor area is being extended or fixed building services are either being installed for the first time or increased, the existing building may need to be upgraded to comply with Part L.

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WHAT INFORMATION SHOULD A BUILDING USER EXPECT FROM THE DESIGN TEAM?

The Building Regulations require persons undertaking building work to pass certain information in respect of a building's energy efficiency to the end user. These include a copy of the Energy Performance Certificate (EPC) and operation and maintenance information regarding the building's fixed building services systems, so that they may be operated to use no more fuel and power than is reasonable.

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HOW LONG DOES IT TAKE TO PRODUCE THE ENERGY ASSESSMENT?

Our standard time for a Design Stage assessment is ten working days or, if required, we offer a fast track 48 hour domestic or 72 hour commercial service. The As Built assessment and issue of the Energy Performance Certificate is five working days.

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HOW MUCH DOES AN ENERGY ASSESSMENT COST?

This depends on the project. Our jhai Enerji+ team will be pleased to provide a competitive quote and advise on any other services your project may require.

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WHO DO I CONTACT TO ARRANGE AN ENERGY ASSESSMENT?

The contact details for Dave and Steve plus the full range of our services are provided overleaf.

CONTACT US ON
INFO @JHAI.CO.UK
VISIT US AT WWW.JHAI.CO.UK
CALL US ON 01308 428020



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YOU TO
BUILD A
POSITIVE
FUTURE...**

**SAP, SBEM,
BREEAM, CODE for
SUSTAINABLE HOMES
AIR & ACOUSTIC
TESTING**

dave.hoskin@jhai.co.uk

01308 428022

steve.pratt@jhai.co.uk

01308 428023

