

What is a Display Energy Certificate?

A Display Energy Certificate (DEC) does exactly what it says, it displays the energy efficiency performance of your building in certificate format. More importantly it allows you to visualise how well you are consuming energy on a year by year basis.

In order to do this, it compares your buildings energy consumption to the consumption of a building of similar size and use. This is called the Benchmark Building. You are compared against the Benchmark Building on a scale of 1 to 150+, segmented in to A-G ratings. The rating you achieve is termed your 'Operational Rating (OR)'. An Operational Rating (OR) is a measure of the annual (CO₂) emission per unit of area of the building caused by it's consumption of energy. If by comparison, you produce less CO₂ per unit of floor area than the Benchmark Building, you are rated below 100. If you produce more, you are rated above 100.

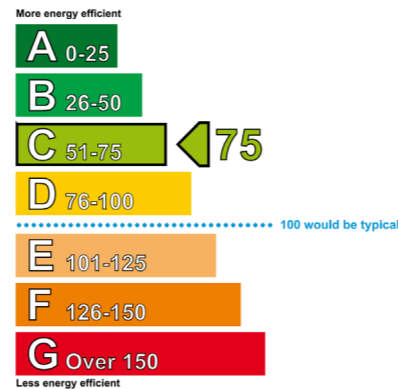
What is the point?

The main benefit of a DEC is it's use as a tool to track your annual year on year energy consumption and provide a visual tool for building management and building users to target and reduce energy consumption within your building.

For example, if in the first year you have a Rating on D:115, and the following year, your rating is F:126, you are likely to be using more energy than you did last year to heat and power your building. This discrepancy should be investigated. DEC ratings are standardised each year. E.g. Variation in external temperatures are accounted for in the rating. Therefore, a colder winter than the previous year in not a valid reason for increased energy consumption.

Energy Performance Operational Rating

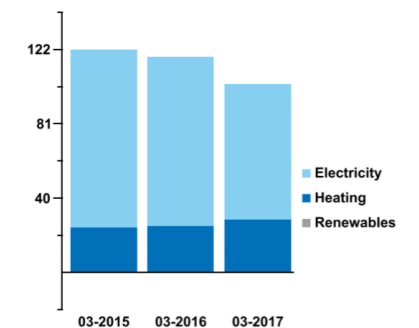
This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.



The DEC displays a histogram showing the Total CO₂ emissions that the building emits, in tonnes per year of CO₂ over the previous 3 years. This is split by CO₂ emitted by heating and electricity consumption. CO₂ saved by energy produced by on-site renewable source (e.g. solar panels) is also recorded and visualised in this section.

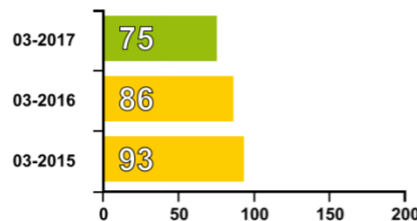
Total CO₂ Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO₂.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



In addition to the current Operational Rating, DEC's provide the previous 2 years ratings on the current certificate. This allows easy comparison of your annual energy consumption performance over the past 3 years. If your ratings are going up, you should look to halt and reverse this decline in energy efficiency performance, if it is going down, you should pat yourself on the back and look to see if you can reduce it further.

Display Energy Certificate

How efficiently is this building being used?



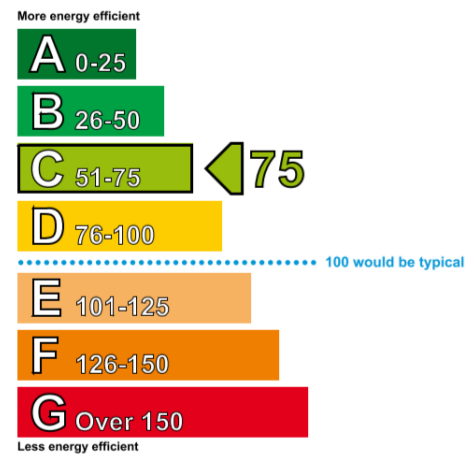
NEW BLOCK
Birchwood High School
Parsonage Lane
BISHOP'S STORTFORD
CM23 5BD

Certificate Reference Number:
0070-2965-0183-9903-1070

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

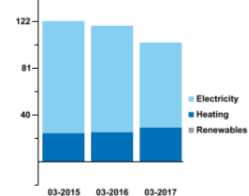
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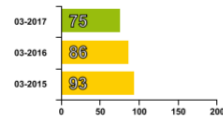
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Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Heating and Natural Ventilation
Total useful floor area (m²): 2647.51
Asset Rating: Not available

	Heating	Electricity
Annual Energy Use (kWh/m ² /year)	57	51
Typical Energy Use (kWh/m ² /year)	156	40
Energy from renewables	0%	0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: DCLG, ORCalc, v3.6.2
Property Reference: 278651090003
Assessor Name: Paul Bleasdale
Assessor Number: QUID201230
Accreditation Scheme: Quidos Limited
Employer/Trading Name: DEC Surveys Ltd
Employer/Trading Address: www.dec-surveys.com
Issue Date: 20-03-2017
Nominated Date: 01-03-2017
Valid Until: 28-02-2018
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - 0070-2965-0183-9903-1070. You can obtain contact details of Quidos Limited at www.quidos.co.uk.

The certificate also provides further detail on your energy consumption comparing your heating and electrical consumption against the benchmark building in kWh (unit of energy consumption) per meter squared of building per year. This allows greater in depth analysis of where you are consuming energy and can help identify areas for improvement.

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What is an Advisory Report?

Advisory Report

Report Reference Number: 0260-2995-0286-9820-8054

Building Occupier	Address
Wandsworth Council	Allfarthing Primary School St. Ann's Crescent LONDON SW18 2LR

Building Type(s): Schools And Seasonal Public Buildings

ADMINISTRATIVE INFORMATION	
Issue Date:	2016-07-19
Valid Until:	2023-07-18
Total Useful Floor Area (m ²):	2177.8
Assessment Software	DCLG, ORCalc, v3.6.2
Property Reference	258958290000
Type of Inspection	Physical

ENERGY ASSESSOR DETAILS	
Assessor Name:	Paul Bleasdale
Employer/Trading Name:	DEC Surveys Ltd
Employer/Trading Address:	www.dec surveys.com
Assessor Number	QUID201230
Accreditation Scheme:	Quidos Limited

In addition to a registered certificate, all DEC's must be accompanied by a valid advisory report. The Advisory Report contains bespoke recommendations for improving the energy performance of the building. The Advisory Report may contain a range of possible improvements, including cost effective measures that may be implemented to improve the energy performance of the property.

The report includes zero and low cost operational and management improvements, possible upgrades to the building fabric or services and opportunities for the installation of low and zero carbon (LZC) technologies.

The report enables the occupier to identify what may be done to improve energy performance to reduce energy consumption and CO2 emissions.

a) Recommendations with a short payback

This section lists recommendations with a payback of less than 3 years:

Recommendation	Potential Impact
Consider installing automated controls and monitoring systems to electrical equipment and portable appliances to minimise electricity waste.	LOW
Enable power save settings and power down management on computers and associated equipment.	LOW
It is recommended that energy management techniques are introduced. These could include efforts to gain building users commitment to save energy, allocating responsibility for energy to a specific person (champion), setting targets and monitoring.	LOW
Consider how building fabric air tightness could be improved, for example sealing, draught stripping and closing off unused ventilation openings, chimneys.	LOW
Consider fitting zone controls to reduce over and under heating where structure, orientation, occupation or emitters have different characteristics.	MEDIUM
Consider introducing variable speed drives (VSD) for fans, pumps and compressors.	MEDIUM
Consider upgrading major time controls to include optimum start/stop.	MEDIUM

The Advisory Report categorises the list of recommendations, by payback period as follows:

- Short term payback (up to three years), for example building energy management measures
- Medium term payback (three to seven years), for example upgrading building services
- Long term payback (more than seven years), for example low and zero carbon technologies

Each recommendation is accompanied by an estimate of how implementation of the advice will impact the buildings carbon emissions. Detailed as a High, Medium or Low impacts on carbon emissions.

Who needs them and how long are they valid for?

Since July 2015 Display Energy Certificates (DECs) need to be prominently displayed in buildings over 250m² that are occupied by public authorities or institutions providing a public service.

Display Energy Certificates (DECs)

For properties with a floor area greater than 1000m², the DEC is valid for 12 months.
For properties with a floor area between 250-1000m², the DEC is valid for 10 years.

Advisory Reports (AR)

For properties with a floor area greater than 1000m², the AR is valid for 7 years.
For properties with a floor area between 250-1000m², the AR is valid for 10 years.

What are the potential penalties?

An affected organisation must display a DEC in a prominent place clearly visible to the public and have in its possession or control a valid advisory report.

Failure to display a valid Display Energy Certificate, the penalty is £500

Failure to be in possession of an Advisory Report, the penalty is £1,000

This applies to every applicable building on your site!