

# LowC making low carbon communities happen

## EPC/DEC Certification from LowC

Energy Performance Certificate  
Non-Domestic Building

HM Government

Certificate Reference Number:

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information on the Government's website [www.communities.gov.uk/epcd](http://www.communities.gov.uk/epcd).

### Energy Performance Asset Rating

More energy efficient

A+

A 0-25

B 26-50

C 51-75

D 76-100

E 101-125

F 126-150

G Over 150

Less energy efficient

94 This is how energy efficient the building is.

### Technical information

Main heating fuel: Natural Gas  
Building environment: Air Conditioning  
Total useful floor area (m<sup>2</sup>): 3131  
Building complexity (NBS level): 4

### Benchmarks

Buildings similar to this one could have ratings as follows:  
B7 if newly built  
D31 if typical of the existing stock

EPCs are now mandatory for construction, sale or rent of all non-dwellings >50m<sup>2</sup> and DEC required for all public buildings >1,000m<sup>2</sup>.



Regular inspection of air-conditioning plant is required by January 2009.

### Regulatory Requirements

The EU is committed to complying with the Kyoto protocol and has responded with a range of legislative and carbon mitigation initiatives. Many of these measures impact the built environment which represents more than 40% of the carbon emissions in the UK.

The Energy Performance of Buildings Directive (EPBD) was adopted by UK Government in December 2002, to be implemented in all member states before January 2009.

### Energy Performance Certificates (EPCs)

EPCs are now mandatory for all commercial buildings over 50m<sup>2</sup>, either under construction, sale or rent. Certificates must be produced by the building owner, vendor or landlord and provide:

- **Asset ratings (A-G)** detailing the intrinsic energy performance of a building
- **Performance benchmarks**
- **Recommendations** for cost-effective improvements with indicative payback periods

EPCs will improve investment yields and as such should not be considered as a constraint but as an opportunity, bringing benefits such as:

- **Attracting** environmentally conscious tenants and buyers
- **Capitalising** on marketing your 'green' credentials
- **Identifying** energy saving measures and renewable/low carbon technologies
- **Strengthen** competitive advantage by being prepared for legal audit processes
- **Improving** building management and providing all stakeholders with a clear roadmap of what to do next

EPCs can form part of an energy efficiency or sustainability audit to include recommendations related to operation (including water, waste and well-being related parameters) thus benefiting both landlord and tenant.

### Inspection of Air-Conditioning Systems

Under EPBD regulations, regular inspection of air-conditioning plant over 250kW is required by January 2009, with all remaining equipment over 12kW required by January 2011.

LowC has specialist building services engineers accredited to perform inspection to meet these criteria.

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**Display Energy Certificate**  
How efficiently is this building being used?

A Government Dept  
12<sup>th</sup> & 13<sup>th</sup> Floor  
Justice House  
High Street  
Anytown  
A1 2SD

Certificate Reference Number:  
1234-1234-1234-1234

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. It is compared to a benchmark that represents performance indicators of all buildings of this type. There is now advice on how to interpret this information on the Government's website [www.communities.gov.uk/dec](http://www.communities.gov.uk/dec).

**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.

**Total CO<sub>2</sub> Emissions**  
This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO<sub>2</sub>.

**Previous Operational Ratings**  
This tells you how efficiently energy has been used in this building over the last three assessment periods.

**Technical information**  
This tells you technical information about how energy is used in this building. Construction (Year/Type), Main heating fuel, Heating Environment, Total useful floor area (m<sup>2</sup>), Asset Rating.

**Administrative information**  
This is a Display Energy Certificate as defined in Schedule 6 of the Energy Act 2011.  
Assessment Software: QBE  
Property Reference: 8911237862  
Assessor Name: John Smith  
Assessor Number: ABC12345  
Accreditation Scheme: ABC Accredited Ltd  
Employer/Trading Name: EnergyWorks Ltd  
Employer/Trading Address Alpha House, New Street, Birmingham, B2 1AA  
Issue Date: 12 May 2017  
Renewal Date: 01 Apr 2018  
Valid Until: 31 Mar 2018  
Related Party Disclosure: Employment not controlled as energy manager  
Recommendations for improving the energy efficiency of the building are contained in Report Reference Number: 1234-1234-1234-1234

Rating	Bandwidth
A	0-25
B	26-50
C	51-75
D	76-100
E	101-125
F	126-150
G	Over 150

Assessment Period	Rating	CO <sub>2</sub> Emissions (tonnes)
Apr 2016	F	1250
Apr 2017	E	1108
Apr 2018	D	950

Rating	Bandwidth
A	0-25
B	26-50
C	51-75
D	76-100
E	101-125
F	126-150
G	Over 150

Annual Energy Use (kWh/m <sup>2</sup> /year)	Bandwidth
120	A
150	B
180	C
210	D
240	E
270	F
300	G

Typical Energy Use (kWh/m <sup>2</sup> /year)	Bandwidth
120	A
150	B
180	C
210	D
240	E
270	F
300	G

Energy from renewables	Bandwidth
0%	A
10%	B
20%	C
30%	D
40%	E
50%	F
60%	G

**DEC Certificates** provide a running score for the current and previous two years energy use.

**EPC and DEC Inspections** identify energy saving measures and renewable/low carbon technologies

## Display Energy Certificates (DECs)

DECs are required for all public buildings over 1,000m<sup>2</sup> and demonstrate how efficiently a building is operated. Certificates must be produced by the occupier (public authorities only in a first instance) and are reviewed on a 12-monthly basis.

It is expected that all commercial buildings will eventually require DEC certification in addition to EPCs to further demonstrate improvements in overall energy performance.

## How does the certification process work?

LowC offers a range of consultancy services designed to integrate seamlessly with existing design strategies and planning procedures. Our certification processes for EPC and DEC accreditation involve the following phases:

- Information gathering
- Data modelling using approved software models
- Sign-off by an Approved Assessor
- Registration with National Database

EPC and DEC certification must be performed by Low Carbon Consultants accredited by a Government-authorized body. LowC employs Low Carbon Consultants accredited by the Chartered Institute of Building Services Engineers (CIBSE).

Our consultants are members of the Low Carbon Energy Assessor (LCEA) Register and have undertaken examinations to demonstrate their competence to deliver and maintain buildings which exceed minimum standards of energy efficient operation.

LowC consultants are required to update and enhance their skills continuously to ensure that they keep up with technological developments and the requirements of the regulations.

For more information about EPC or DEC accreditation please contact Mark Brown at [mb@lowc.co.uk](mailto:mb@lowc.co.uk) or call 07837 573917.

**WE EMPLOY LOW CARBON CONSULTANTS**