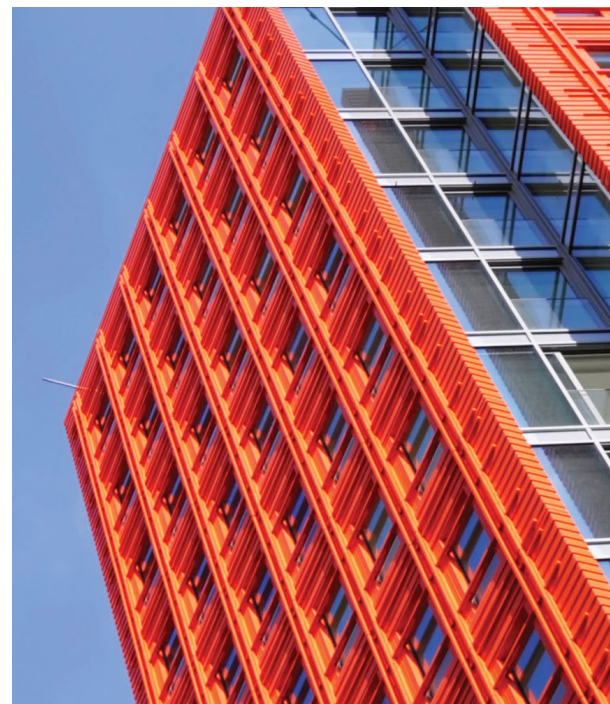


Mitsubishi Electric Guide to Minimum Energy Efficiency Standards for Non-dwellings



Information Guide

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Mitsubishi Electric Guide to Minimum Energy Efficiency Standards for Non-dwellings



This is an independent guide produced by Mitsubishi Electric to enhance the knowledge of its customers and provide a view of the key issues facing our industry today.

This guide accompanies a series of seminars, all of which are CPD certified.

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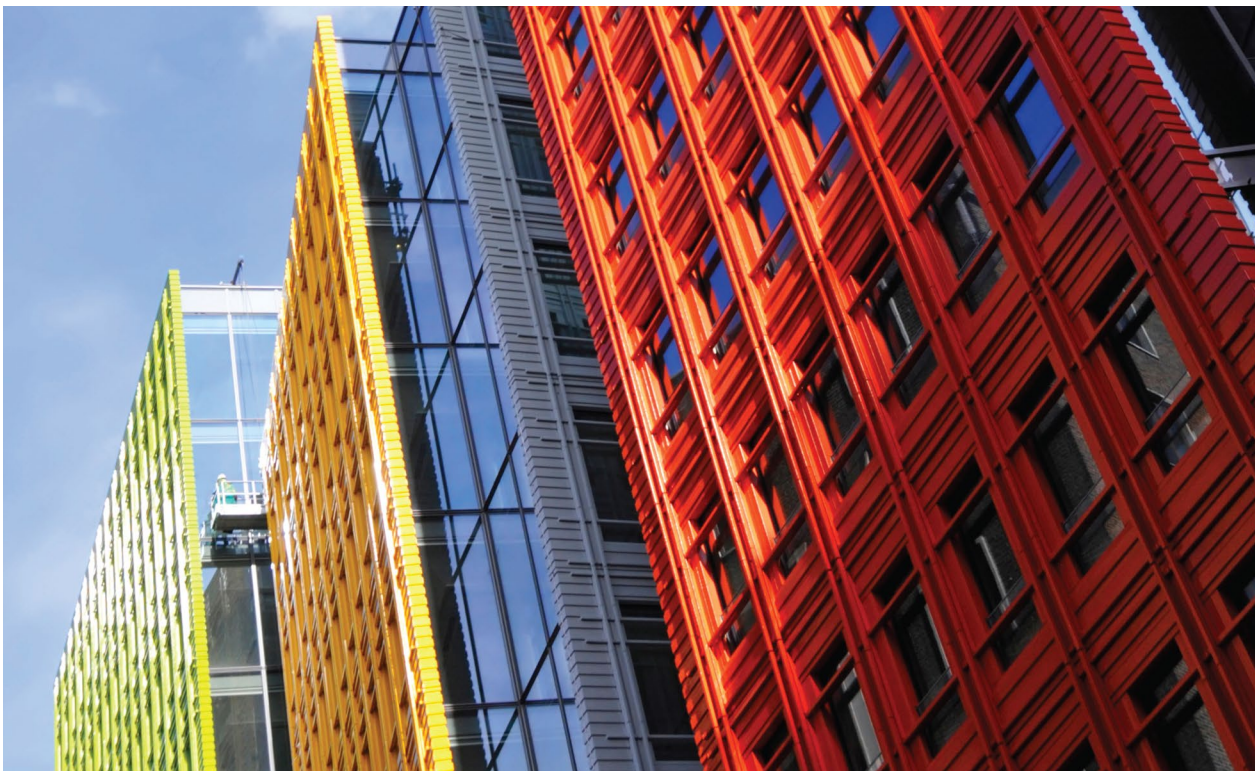
What are Minimum Energy Efficiency Standards for buildings?

Minimum Energy Efficiency Standards (MEES) apply to the rented private sectors for dwellings and non-dwellings. This Guide will concentrate on the impact of the new rules on non-domestic properties in England and Wales.

In simple terms, the MEES regulation means that it is illegal to let any property which has an Energy Performance Certificate (EPC) rating of less than a band 'E'. The non-dwellings which will fall under the scope of the MEES rules are defined as any property let on a tenancy which is not a dwelling. There are exceptions to the requirements which are discussed later in this document.

MEES is being introduced in phases. For non-domestic properties, the rules applied to new leases from 1st April 2018; and to all leases, regardless of the start date of the tenancy, from April 2023.

Commercial landlords whose properties with an existing lease fall under MEES therefore have until 1st April 2023 to ensure that the EPC rating of the properties they let achieve an E rating - or that they have registered an exemption.



Why is the Government taking this approach?

The Government is focused on reducing carbon emissions resulting from energy use in buildings, because these are one of the largest contributors to the country's carbon emissions overall.

Although there are strong arguments for improving the energy efficiency of buildings, including lower operating costs and longer lifetime of building services equipment (to name only two), there is still a long way to go to improve the performance of building stock.

A number of barriers to greater efficiency were identified by Government research. One of the most significant is that the cost of installing efficiency measures usually falls to landlords, but benefits tenants in the form of lower energy bills.

Although, in theory, landlords could charge higher rents for more energy efficient buildings, this is still not generally done. Also, tenancies tend to be relatively short so the amount of financial benefit to tenants arising from improvements to the rented space would be questionable.

As a result of analysis and consultation with the market, the Government has implemented MEES as a way of moving the commercial property market away from buildings with poor energy performance - and at the same time raising awareness of the benefits of being more energy efficient.

At the end of 2019 and into January 2020, the Government opened a consultation period on how MEES should move forward. The Government's preferred target is that all non-domestic privately rented properties in England and Wales achieve a minimum EPC rating of B by 2030 (provided action required to achieve that meets the 7-year payback rule noted on page 7).

As of September 2020, there has been no final output from Government on how it will proceed. However, it is interesting to note that the alternative target of a C-rated EPC was also mentioned. Government also noted that it would ensure that implementation of MEES in the future would reflect 'that heat decarbonisation can be achieved by a mixture of low-carbon heating systems in buildings such as heat pumps, as well as low carbon infrastructure such as heat networks, biogas and hydrogen networks.'



A reminder about Energy Performance Certificates (EPCs)

It is useful to take a look at the requirements for EPCs, since the MEES requirements are based on these Certificates.

EPCs were introduced into the UK in 2008 via the Energy Performance of Buildings Regulation (EPBD). An EPC is valid for ten years - so that the Certificate can be used and re-used until it expires. There is no requirement for a new EPC for each time the building is let or sold, but for each new tenant (or purchaser), the EPC must be available along with the recommendations report that accompanies it.

The Chartered Institution of Building Services Engineers (CIBSE) outlines the information that is used by an accredited EPC assessor to draw up the Certificate:

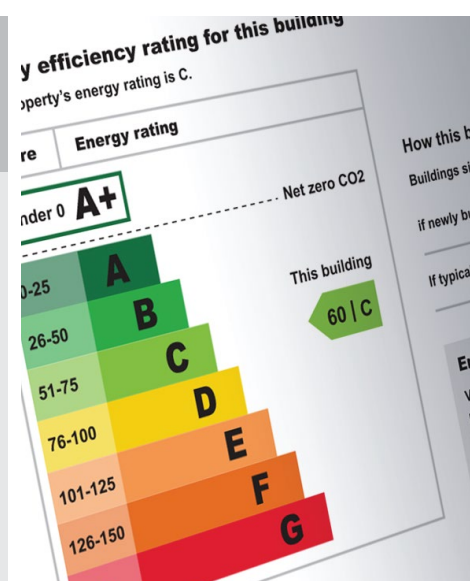
- Size of a building and different activity areas in it
- Insulation levels in the building
- Systems providing heat to the building
- How fresh air is moved around the building
- What keeps the building cool
- How hot water is provided to bathrooms & kitchens
- Building Energy Management Systems or controls
- Electricity feed for the building
- Lighting systems for the building
- Presence of on-site energy generation

The more complete the information provided during assessment, the more accurate the EPC is.

Enforcing requirements for EPCs in a particular geographic area is the duty of the local weights and measures authority.

Their key tasks are:

- Making EPCs available
- Appropriate commissioning and obtaining of EPCs
- Display of EPCs where required
- Compliance with requirements regarding air conditioning inspections
- Ensuring required documents are produced in seven days
- Inclusion in adverts of energy performance indicators



MEES - the rules in detail

Updating your EPC

It is not a requirement to renew an EPC unless it is more than ten years old. However, a number of leading assessment bodies such as CIBSE have pointed out that property owners may want to consider updating older EPCs.

Of course, it is possible that a building assessed almost a decade ago and which achieved an E-rating at time has become less efficient. It may now be an F. However, it is also important to note that when EPCs became a requirement for MEES, a proportion of landlords had their assessments carried out quickly. This means that assessors may have used the 'default' information for the work. This would almost certainly have been a 'worst case scenario' of performance - leading to a lower rating. It may therefore be a chance to consider when and how your EPC assessment was carried out and weigh up if a more up-to-date assessment might be more accurate - and helpful in identifying areas for improvement.

MEES – where exemptions apply

One of the main exemptions to application of MEES to non-domestic properties is the '7-year Payback' test. This means that a landlord must show that the cost of purchasing and installing a recommended improvement will not repay its value in reduced energy costs over 7 years. This exemption lasts five years and at that point the law says that 'the landlord must try again to improve the property's EPC rating to meet the minimum level of energy efficiency'.

There are some other important exemptions to MEES:

- Where a lease is for six months or less, provided that the same tenant has not occupied the property for over twelve months
- Where a lease is for more than 99 years
- Where a building is excluded from having an EPC, for example due to being a stand-alone building of less than 50m²
- Landlords will also be exempt from carrying out improvement works if the tenant refuses to consent to the works
- This also applies if third party consents have been refused in the previous five years
- Improvements do not have to be carried out if they reduce the property value by 5% or more, which should be reviewed every five years

* Where all cost-effective improvements have been carried out as recommended by the EPC survey, but the building still cannot obtain the E rating. This exemption lasts for 5 years.

* New landlords (and the term is very specifically applied in law) are exempt from the MEES requirements for 6 months.

If any of these exemptions apply, the property owner or landlord must register with the Department for Business Energy and Industrial Strategy (BEIS) and the property will be held on a register of exemptions.

The MEES regulations will be enforced by local weights and measures authorities. They will issue compliance notices requesting information and will also be responsible for penalty notices for non-compliance. The fines for non-compliance are based on the rateable value of a property, but could rise as high as £150,000.



Impact of MEES on the commercial property market

There can be no doubt that the potential impact of MEES on the commercial property market is significant.

The non-domestic private rented sector (PRS, as it is termed by the Government) is a major part of the UK economy. According to the Property Industry Alliance's Property Data Report 2017, the value of the UK's stock of commercial property was worth £883 billion in 2016, representing 10% of the UK's net wealth.

There are 1.1 million non-domestic rented PRS hereditaments*1 (the legal term for a unit of property space to which business rates are applied). This makes up around 66% of the non-domestic stock in England and Wales. These buildings account for around **35% of the UK's energy consumption** (excluding industrial processes).



In April to June 2019, EPC ratings for non-domestic properties show a distinct shift when compared against ratings for September 2013.

EPC rating	Percentage of stock 2013	Percentage of stock 2019
A	1%	3%
B	7%	12%
C	27%	33%
D	30%	32%
E	17%	18%
F	8%	1%
G	10%	2%

It can be seen here that there has been a distinct move away from F and G ratings - showing that MEES has shifted the whole non-domestic rental market up the EPC ratings scale. At the end of 2013, there was a cumulative total (since 2008) of 469,594 EPCs lodged for non-domestic buildings. So the 18% rated as F or G represents 84,527 buildings.

As of July 2019, there were a total of 806,440 EPCs registered since 2008. The percentage of F and G ratings on the market now represents just over 24,000 buildings.





Compliance with Minimum Energy Efficiency Standards - taking action

The MEES is a regulation that will require landlords to think carefully about their energy efficiency and to consider what they can do to ensure their building meets the requirements.

The main energy users in commercial buildings are:



Lighting



Cooling



Ventilation



Heating

Heating, ventilating and air conditioning generally use about half the energy in a non-dwelling. Older air conditioning equipment can use up to 50% more energy than new technology. Another reason to consider updating HVAC in commercial buildings is that it provides better indoor environments for occupants.

Given the time scales, it may well be useful to review the current condition of these systems in a building and make decisions about upgrades and replacements.

What's more, the latest air conditioning and heating technologies have been designed with retrofitting and refurbishment very much in mind. One example is Mitsubishi Electric's 'Replace Technology', which has been developed to enable managers of existing buildings to easily install new air conditioning systems with minimum disruption. The case for replacing older air conditioning systems is particularly strong if they are based on the R22 refrigerant - which has been phased out under the F-Gas regulations.



There are also alternatives to consider such as Hybrid VRF (H-VRF) air conditioning - which uses water to transfer cooling and heating. This H-VRF approach is ideal for all environments where VRF could be applied. Again, there is an added benefit because the use of water in occupied spaces also removes the requirement for leakage detection.

Heat pump technology is another well-established modern alternative to traditional heating and cooling systems, and is also considered a renewable technology, which helps to improve the EPC rating of a building. Heat pump-based systems, such as Mitsubishi Electric's Ecodan range, are now available that suit the commercial built environment and there are numerous examples of applications in non-dwellings. It may also be possible to consider the use of heat recovery technology, which greatly reduces energy requirements for heating and cooling, along with the running costs of these systems.

Whatever the choice of technology, the important point is that doing nothing is not an option. Unless your buildings have extremely high EPC bands of A or B, the MEES should be an opportunity to review the state of the building and assess where the best and most cost-effective improvements can be made.

Ultimately, replacing aging air conditioning systems, for example, will not only save money from the day they're installed, it will also result in fewer operational problems and less downtime.

The MEES is just one good reason to start the process as soon as possible.



To receive a CPD seminar on 'Minimum Energy Efficiency Standards for Non-dwellings', you can call your Mitsubishi Electric Regional Sales Office to arrange an in-house presentation of this information.

If you would like to receive invitations to future CPD events, please email livingenvironmentalsystems@meuk.mee.com

Further information

Regional Sales Offices, please call one of the numbers below:

Birmingham

Tel: 0121 329 1970

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Tel: 0161 866 6060

London South Region

Tel: 01737 387170

London North Region and East Anglia

Tel: 01707 282480



Telephone: **01707 282880**

email: livingenvironmentalsystems@meuk.mee.com

web: les.mitsubishielectric.co.uk



@meuk_les
@green_gateway



Mitsubishi Electric Living
Environmental Systems UK



Mitsubishi Electric
Cooling and Heating UK



mitsubishielectricuk_les



mitsubishielectric2



BLOG thehub.mitsubishielectric.co.uk

UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division

Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England

General Enquiries Telephone: 01707 282880 Fax: 01707 278881

IRELAND Mitsubishi Electric Europe Westgate Business Park, Ballymount, Dublin 24, Ireland

Telephone: Dublin (01) 419 8800 Fax: Dublin (01) 419 8890 International code: (003531)

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Note: The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas. R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

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