

EXPLANATORY MEMORANDUM TO
THE BUILDING REGULATIONS ETC. (AMENDMENT) (ENGLAND)
REGULATIONS 2021

2021 No. 1391

1. Introduction

- 1.1 This explanatory memorandum has been prepared by the Department for Levelling Up, Housing and Communities and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

- 2.1 The Building Regulations etc. (Amendment) (England) Regulations 2021 (“the instrument”) amend the Building Regulations 2010 (“the Building Regulations”) to provide for a new way of measuring energy efficiency, using a new performance metric; change the way on-site electricity generation systems are regulated; and introduce regulation on overheating mitigation. It also makes provision about ventilation standards when work to which Part L relates (conservation of fuel and power) applies. It makes associated changes to the Building (Approved Inspectors etc.) Regulations 2010, makes transitional provision, and makes minor changes in respect of self-certification schemes.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 None.

4. Extent and Territorial Application

- 4.1 The territorial extent of this instrument extends to England and Wales.
4.2 This instrument applies in relation to England only.

5. European Convention on Human Rights

- 5.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

6. Legislative Context

- 6.1 The instrument amends Part 2 of the Building Regulations (which deals with the control of building work), Part 6 (which deals with energy efficiency), Part 8 (which deals with the provision of information), Part 9 (which deals with testing and commissioning) and Schedule 1 (requirements relating to buildings) and makes associated amendments to definitions in Part 1. Minor amendments are also made to Schedules 3 and 3A to the Building Regulations which deal with changes to the bodies which may participate in self-certification schemes and third-party certification schemes respectively. It also makes related amendments to the Building (Approved Inspectors etc.) Regulations 2010. These amendments are made under powers contained in the Building Act 1984. The Building Regulations are supported by Approved Documents, approved and issued under section 6 of the Building Act 1984,

which set out detailed practical guidance on compliance. Those documents are being updated in line with these legislative changes.

7. Policy background

What is being done and why?

- 7.1 The Government remains committed to meeting its target of net zero emissions by 2050. Improving the energy efficiency of dwellings and non-domestic buildings represents a significant opportunity to reduce carbon emissions and support the Government in reaching its target, whilst keeping energy costs down for consumers now and in the future. The performance-based targets set through Part 6 of the Building Regulations are an important means by which the Government can regulate for minimum energy efficiency standards.
- 7.2 The Government has committed to making changes to the Building Regulations and the Approved Documents through the Future Homes Standard (for new dwellings) and the Future Buildings Standard (for new non-domestic buildings). The intention is for these standards to be introduced from 2025. A two-stage approach to implementation has been adopted, with a package of changes to the Building Regulations and Approved Documents introduced in 2021. These changes are intended to provide a meaningful and achievable increase to the energy efficiency standards for buildings, revise the way in which performance is measured, and support industry to prepare and position itself for the full Standards from 2025.
- 7.3 The changes also address ventilation in new and existing dwellings and non-domestic buildings and the risk of overheating in new residential buildings. Overheating has been highlighted as a key risk for the health and productivity of people and businesses in the UK. It is estimated that there are around 2,000 heat-related deaths each year in England and Wales and, due to climate change, this number is expected to more than triple to over 7,000 by the middle of the century.¹ It is therefore crucial that we ensure homes and other residential buildings are able to cope with the warmer climate of the future.
- 7.4 The package of changes is being delivered partially through this instrument and partially through changes to the Approved Documents.

Introduction of a new performance metric

- 7.5 The instrument introduces a new performance metric, the primary energy rate. The new metric applies to both new dwellings and new non-domestic buildings.
- 7.6 Primary energy is energy from renewable and non-renewable sources which has not undergone any conversion or transformation process. It is a measure of the total energy used in a building, for example through its lighting, heating and hot water, and it includes energy losses from extraction, processing, conversion and transportation.
- 7.7 There has been considerable progress made in reducing the carbon intensity of the electricity grid, and it will continue to decarbonise over time. This means that, when a new building uses electricity, carbon dioxide will become a less useful way of measuring the actual energy efficiency of the building. A primary energy target

¹ House of Commons Environmental Audit Committee, 2018. Heatwaves: adapting to climate change. Available online: <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/826/826.pdf>

enables an energy performance target to be set which drives the energy efficiency of the building fabric regardless of the heat source.

- 7.8 Once the instrument comes into force, newly constructed buildings must be measured against the new primary energy target as well as (as is currently the case) a CO₂ emissions target and for new dwellings, minimum standards for fabric efficiency.

Regulation of on-site electricity generation

- 7.9 The Building Regulations previously did not regulate on-site electricity generation for the purposes of the conservation of fuel and power. This instrument introduces such regulation for the first time. This fills a gap in standards to make sure that when on-site electricity generation is installed it is installed well, benefiting consumers.
- 7.10 When the instrument comes into effect, any on-site electricity generation must be appropriately sized for the site and available infrastructure; have effective controls; and must be commissioned by testing and adjusting as necessary to ensure that it produces the maximum electricity that is reasonable in the circumstances. A notice confirming the commissioning must be provided to the local authority (or building inspector) and information about the on-site generation system must be given to the building owner. Commissioning' in this context refers to the process for services and controls in buildings being tested and adjusted properly after installation to ensure the generation system works as it should.
- 7.11 With regards to oversight and enforcement of these new arrangements, building control bodies have a general duty to see that building work complies with the applicable requirements in the Building Regulations. This might be a local authority building control service or a private building control service.
- 7.12 Alternatively, a tradesperson registered with a Competent Person Scheme can certify that their work installing on-site electricity generation is compliant with Building Regulations. In order to be registered with a Competent Person Scheme tradespeople must have demonstrated competence in carrying out work in compliance with Building Regulations.
- 7.13 Ensuring that building work complies with all applicable requirements of the Building Regulations is the responsibility of those carrying out the work, for example, agents, designers, builders, installers and the building owner.
- 7.14 Local authorities have enforcement powers they can use if work does not comply with the Building Regulations.

Introduction of a new overheating requirement

- 7.15 The instrument introduces a new overheating requirement in the Building Regulations to reduce the risk of overheating in new residential buildings. This means that new residential buildings, including houses, flats, residential care homes, student accommodation, and children's homes must be designed in such a way as to reduce overheating. This requirement is met by designing and constructing the building to achieve both of the following:
- Limiting unwanted solar gains in summer.
 - Providing an adequate means of removing excess heat from the indoor environment.

- 7.16 Two potential routes to compliance have been set out in statutory guidance (Approved Document O: Overheating):
- The ‘simplified method’ has maximum glazing areas and for buildings in the identified high-risk location (set out in the Approved Document), minimum shading standards. The method also includes minimum standards for removing excess heat in buildings in all areas.
 - The ‘dynamic thermal modelling method’ allows computer modelling to demonstrate that the building will not overheat. This method allows for more design freedom.
- 7.17 Given the Government’s net zero commitment, our preferred means of mitigating overheating is through passive means (i.e. means which require low or no energy). While mechanical cooling, such as air conditioning, can be used to meet the standard, this should only be where passive means cannot sufficiently mitigate against overheating.

Changes in relation to ventilation

- 7.18 The instrument makes provision in relation to ventilation standards in new and existing dwellings and non-domestic buildings where building work is carried out to which Part L of Schedule 1 to the Building Regulations applies.
- 7.19 Good ventilation is important for the health of the building occupants, for example preventing internal air pollution and mould. The Building Regulations require buildings to have adequate means of ventilation (Part F of Schedule 1). This instrument does not change Part F of Schedule 1. Statutory guidance sets out in detail how, in the Secretary of State’s view, the requirement for adequate means of ventilation is met in common circumstances (Approved Document F).
- 7.20 Part L of Schedule 1 to the Building Regulations requires that reasonable provision must be made in buildings for the conservation of fuel and power. This requirement will be relevant to any building work that changes the energy efficiency of a building.
- 7.21 Building work that makes the building more energy efficient will often increase airtightness and reduce useful ventilation. New Regulations 4(4) and 4(5) (inserted into the Building Regulations by Regulation 4 of this instrument) provide that where building work is carried out to which Part L is relevant, the building must continue to meet the ventilation standard in the Regulations. It is sufficient to show that the ventilation wasn’t made worse by the building work where it did not meet that standard before the work started.

8. European Union Withdrawal and Future Relationship

- 8.1 This instrument does not relate to withdrawal from the European Union.

9. Consolidation

- 9.1 This instrument does not consolidate any existing provision. The Department is, however, considering whether the Building Regulations should be consolidated in the future.

10. Consultation outcome

- 10.1 The Government held online a two-stage consultation on proposed changes to the Building Regulations and the accompanying statutory guidance. The first stage of the

consultation, the Future Homes Standard consultation, was launched in 2019 and the Government response was published in January 2021. This stage of the consultation set out proposals relating to the Building Regulations and the accompanying statutory guidance for new dwellings.

10.2 The second stage of the consultation, the Future Buildings Standard consultation, was launched in January 2021 and closed in April 2021. This stage of the consultation set out proposals relating to the Building Regulations and the accompanying statutory guidance for new and existing non-domestic buildings, new and existing dwellings, and a new overheating requirement for residential buildings.

10.3 The consultations received significant interest, with over 3000 responses to the first stage and over 700 responses to the second stage. The Government response to each stage of the consultation provides an overview of the responses received and sets out the Government's policy position. The Government response to the first stage of the consultation is available online through the following link:

<https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-1-and-part-f-of-the-building-regulations-for-new-dwellings>

The Government response to the second stage of the consultation is available online through the following link:

<https://www.gov.uk/government/consultations/the-future-buildings-standard>

10.4 82% of respondents supported the proposal to introduce a new overheating requirement in the Building Regulations and 93% of respondents supported the proposed requirement to provide information on the overheating strategy to the building owner.

10.5 There was also support for the improvements proposed to the commissioning process, including for enhanced commissioning requirements for on-site electricity generation.

10.6 For non-domestic buildings and dwellings, most respondents did not support the introduction of a new primary energy metric and raised concerns including that it is not a recognisable quantity to the end users of buildings. Government believes primary energy to be an effective metric which will drive the energy efficiency of the building fabric. Results of compliance calculations are not intended as predictions of energy use and as such we do not believe that these outputs are of great interest to end users. Wider work, however, is being carried out by DLUHC and more widely across Government to make sure that end users have the information that they need to take action to improve the energy efficiency of their home.

10.7 Over 85% of respondents supported the proposed transitional arrangements.

11. Guidance

11.1 The Approved Documents provide statutory guidance on how to meet the requirements of the Building Regulations. New versions of the Approved Documents have been produced and are available online through the following link:

<https://www.gov.uk/government/collections/approved-documents>

12. Impact

- 12.1 A suite of legislative and non-legislative changes are being brought in together. The impact of the changes has been assessed collectively. The figures provided below are therefore not solely a result of those changes set out in this instrument.
- 12.2 The impact on business of the changes to the Building Regulations relating to energy performance and the accompanying statutory guidance relating to Part L for new and existing dwellings is an increase in costs of £475m per year over the 10-year policy period. Most of this cost is the capital costs incurred by developers. There are no direct benefits to business of the new requirements for dwellings, as the benefits of greater energy savings will be experienced by the occupants, whilst reduced carbon emissions and improved air quality are societal benefits. The impact on business of the changes to the Building Regulations relating to energy performance and the accompanying statutory guidance relating to Part L for new and existing non-domestic buildings is an increase in costs of £2.5m per year over the 10-year policy period. The impact on business of the introduction of the new overheating requirement for new residential buildings is an annual cost of £0.3m, which reflects the training and familiarisation costs incurred.
- 12.3 For many charities and voluntary bodies there will be no impact but if a charity or voluntary body is involved in the construction of a new building, or certain works to existing buildings, then they will bear the cost. If they occupy the building, they will also experience the benefits of reduced fuel bills.
- 12.4 The impact on the public sector arises because all buildings, including public sector buildings, must abide by the Building Regulations unless specifically exempted. In the case of publicly owned buildings such as hospitals and schools, local or national government will bear the cost, but will also experience the benefits of reduced fuel bills.
- 12.5 Impact Assessments, which assess the impact of this instrument and changes to the statutory guidance (the Approved Documents) are published on the Department for Levelling Up, Housing and Communities website, alongside the Government response to the Future Buildings Standard consultation.

13. Regulating small business

- 13.1 The legislation applies to activities that are undertaken by small businesses.
- 13.2 To minimise the impact of the requirements on small businesses (those business employing up to 50 people), the Department will continue to engage proactively with industry as the interim uplift is introduced, including representatives of small and micro businesses (SMBs). This will be done alongside additional research relating to routes and barriers to compliance for SMBs for the full Future Homes and Buildings Standards.
- 13.3 The industry-led Future Homes Hub is also a key tool in supporting SMBs understand and meet the new regulations. With the support and input of government (DLUHC, BEIS, DEFRA and Homes England) the Hub will support industry by coordinating pilot developments and prototypes, identifying technical and operational solutions, carrying out research and analysis into delivery challenges and producing technical guidance. Of particular use to SMBs will be the specialist guidance that the Hub will produce, which will focus on the practical ways in which SMBs can meet the regulations.

- 13.4 SMBs make up ~99% of the number of businesses involved in domestic building works and the construction of non-domestic buildings. Given this, an exemption from regulatory changes would be inappropriate as it would prevent the policy objectives of the regulatory changes from being achieved. Additionally, the construction industry is made up of businesses of all types and sizes working together. Applying and policing differing construction standards to some businesses and not to others would be impracticable.
- 13.5 Furthermore, given that amendments to the Building Regulations have historically happened every few years, regulatory changes such as the ones set out in this instrument are fully embedded in the construction industry. Most businesses are therefore aware of and would be expecting the increase in standards, hence an exemption for SMBs is not required and there is no precedent to exempt SMBs from uplifts to the Building Regulations.
- 13.6 The accompanying Impact Assessments set out the full SMB Assessments.

14. Monitoring & review

- 14.1 The instrument does not include a statutory review clause and, in line with the requirements of the Small Business, Enterprise and Employment Act 2015 Eddie Hughes MP has made the following statement.
- 14.2 A statutory review clause to monitor and evaluate the impacts of the policy after 5 years has not been included in the instrument since the policy is due to be monitored and reviewed in advance of that as part of the stakeholder engagement and technical consultations on the 2025 Future Homes and Buildings Standards.

15. Contact

- 15.1 Elena Lynch at the Department of Levelling Up, Housing and Communities Telephone: 07458 052 231 or email: Elena.Lynch@communities.gov.uk can be contacted with any queries regarding the instrument.
- 15.2 Rebecca Williams-Phelan, Deputy Director for Energy Performance of Buildings at the Department of Levelling Up, Housing and Communities can confirm that this Explanatory Memorandum meets the required standard.
- 15.3 Eddie Hughes MP at the Department of Levelling Up, Housing and Communities can confirm that this Explanatory Memorandum meets the required standard.