



Department for
Business, Energy
& Industrial Strategy

THE NON-DOMESTIC PRIVATE RENTED SECTOR MINIMUM ENERGY EFFICIENCY STANDARDS

The Future Trajectory to 2030

Closing date: 07 January 2020



OGL

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General information

Why we are consulting

In the Clean Growth Strategy (CGS), published in October 2017, the Government committed to support businesses to reduce their energy use by at least 20% by 2030.

This consultation seeks views on how best to improve the energy performance of non-domestic private rented buildings through tighter minimum energy standards. Acting now to set a clear long-term trajectory to 2030 is designed to provide time and certainty to non-domestic landlords, businesses and the energy efficiency market in delivering the energy savings to support a zero-carbon future.

Consultation details

Issued: 15/10/2019

Respond by: 7/1/2020

Enquiries to:

Business Energy Use Team
Department for Business, Energy & Industrial Strategy
2nd Floor, Orchard 3
1 Victoria Street
London, SW1H 0ET

Tel: 020 7215 5000

Email: businessenergyuse@beis.gov.uk

Consultation reference: The Non-domestic Private Rented Sector Minimum Energy Efficiency Standards

Territorial extent:

Consultation proposals on the Private Rented Sector Regulations cover England and Wales only.

How to respond

The use of Citizen Space would be the preferred response method.

Respond online at: <https://beisgovuk.citizenspace.com/heat/non-domestic-private-rented-sector-minimum-energy>

or

Email to: businessenergyuse@beis.gov.uk

Write to:

Business Energy Use Team
Department for Business, Energy & Industrial Strategy
2nd Floor, Orchard 3
1 Victoria Street
London, SW1H 0ET

When responding, please state whether you are responding as an individual or representing the views of an organisation.

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable UK and EU data protection laws. See our [privacy policy](#).

We will summarise all responses and publish this summary on [GOV.UK](#). The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Quality assurance

This consultation has been carried out in accordance with the government's [consultation principles](#).

If you have any complaints about the way this consultation has been conducted, please email: beis.bru@beis.gov.uk.

Executive Summary

Continuing to improve the energy efficiency of non-domestic buildings will reduce carbon emissions and energy use, help make businesses more productive, and grow the energy efficiency market. The Government considers that amending the 2015 Non-Domestic Private Rented Sector Regulations, to set a more ambitious target, will be the most effective way to drive wide-ranging action in the rented sector by 2030. This consultation outlines two different targets the Government could set to tighten minimum energy efficiency standards.

The Government's preferred target is that landlords of all non-domestic privately rented properties in England and Wales ensure their properties achieve a minimum energy efficiency standard of Energy Performance Certificate (EPC) band B by 2030, provided the action required is deemed cost effective by meeting a seven-year payback test.

The Industrial Strategy set out how the Government intends to build a Britain fit for the future. Clean growth – meaning growing the national income while cutting greenhouse gas emissions - is at the heart of the Industrial Strategy. As one of the UK's 'Grand Challenges', its success relies on the UK being able to maximise the advantages of the global shift towards low carbon. It is anticipated that the low carbon economy could grow by 11% per year from 2015-2030, and the UK is well-positioned to take a leading international role in the development of low carbon technologies, systems and services.¹ In June 2019, the UK became the first major economy to legislate to bring all greenhouse gas emissions to net zero by 2050.²

Improving the way in which businesses use energy will be vital to seizing the opportunities that this transition will bring. *The Clean Growth Strategy*, published in October 2017, outlined how the UK intends to maximise the opportunities of clean growth and meet its commitments under the Climate Change Act 2008. In the Clean Growth Strategy, the Government set an ambition to support businesses to reduce their energy use by at least 20% by 2030, potentially saving businesses up to £6 billion per year.³ In July 2018, the Government published the Call for Evidence, *Helping businesses improve the way they use energy*, which set out our vision for delivering that ambition. The responses have informed this consultation.⁴

Business and Industry are responsible for over a quarter of UK emissions, a significant proportion of which are created through businesses' demand for energy.⁵ The majority of that energy is used to heat the buildings they occupy: of the total energy consumed by UK businesses in 2014-15, 52% was used in maintaining the non-domestic building stock.⁶

¹ Ricardo Energy and Environment for the Committee on Climate Change, 'UK business opportunities of moving to a low carbon economy', 2017, <https://www.theccc.org.uk/publication/uk-energy-prices-and-bills-2017-report-supporting-research/>.

² <https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law>.

³ This is against a 2015 baseline. Savings of £6 billion per year are by 2030.

⁴ The Government published its response to the Call for Evidence at Spring Statement 2019. BEIS, 'Helping businesses to improve the way they use energy: call for evidence', 2018, <https://www.gov.uk/government/consultations/helping-businesses-to-improve-the-way-they-use-energy-call-for-evidence>.

⁵ This statistic excludes transport emissions from business and industry.

⁶ BEIS, Building Energy Efficiency Survey (BEES), 2016, <https://www.gov.uk/government/publications/building-energy-efficiency-survey-bees>. Hereafter referred to as 'BEIS, BEES'.

Non-Domestic Private Rented Sector Minimum Energy Efficiency Standards: Trajectory to 2030

Upgrading the energy efficiency of rented buildings across the UK, both domestic and non-domestic, poses a unique challenge. Landlords and tenants often do not have aligned incentives to improve the performance of the building, and a lack of accurate data has made it difficult for the energy efficiency of a building to be reflected in rental value. In terms of engaging with energy efficiency, many businesses have reported barriers related to cost, time and competing priorities.⁷

The Government introduced minimum energy efficiency standards in 2018 which aimed to improve the worst performing buildings in both the domestic and non-domestic stock. From April 2018, landlords of non-domestic private rented sector (PRS) properties have not been permitted to grant a new tenancy or to extend or renew an existing tenancy if their property had an EPC rating of an F or G. From 1 April 2023, this prohibition on leasing will also apply to continuing with an existing lease; i.e. all non-domestic PRS properties will need to be at least EPC E.⁸

These regulations build on progress made in the last few decades. The energy efficiency of non-domestic buildings has improved since 1990, with emissions 18 per cent lower in 2015-16.⁹ However, it is essential we continue to make progress, and at a quicker rate than we have previously. On 2 May 2019, the Government received new advice from the Committee on Climate Change on the UK's climate targets,¹⁰ following the Intergovernmental Panel on Climate Change report in November 2018, *Global Warming of 1.5°C*.¹¹ The report threw into sharp focus the importance of the eleven years from 2019 to 2030 in limiting global temperature rises to 1.5°C above pre-industrial levels, and the Government accepted the recommendation to commit to reduce greenhouse gas emissions to 'net-zero' levels by 2050.

The Government is committed to setting a long-term regulatory target in the non-domestic private rented sector that will drive clean growth and reduce emissions in line with the Government's renewed levels of ambition. The Government's **preferred trajectory** is that all non-domestic privately rented buildings achieve a minimum energy efficiency standard of EPC Band B by 1 April 2030, provided the measure or package of measures are cost effective. For the preferred trajectory or alternative trajectory of EPC C by 2030, we will ensure that implementation reflects 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 heating infrastructure such as heat networks, biogas and hydrogen networks.

Launching this consultation now demonstrates the Government's commitment to providing time and certainty to non-domestic landlords, businesses and the energy efficiency market. Landlords will have over a decade lead-in time to plan the improvement of their property or property portfolios. This should in turn help minimise disruption to businesses. The lead-in time, with the certainty of sustained demand we anticipate strengthened PRS regulations will create, should also encourage the energy efficiency market to grow, scale and innovate.

Our preferred trajectory would add to the significant levels of ambition the Government has already demonstrated in this space, examples of which include:

⁷ Ibid.

⁸ The full Regulations can be found at <http://www.legislation.gov.uk/ukxi/2015/962/contents/made>.

⁹ BEIS (2017) Final UK greenhouse gas emissions national statistics: 1990-2015.

<https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-2015>.

¹⁰ CCC, 'Net Zero – The UK's contribution to stopping global warming', 2019,

<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>.

¹¹ IPCC, 'Global Warming of 1.5 °C', 2019, <https://www.ipcc.ch/sr15/>.

- The **Future Homes Standard**. Announced at Spring Statement 2019, and to be introduced by 2025, the FHS will future-proof new build homes with low carbon heating and world-leading levels of energy efficiency.
- The **Buildings Mission**, launched in May 2018, which aims to halve energy use in all new buildings by 2030, as well as halve the cost of retrofitting to equivalent standards in the same timeframe.
- The **Clean Growth Strategy** aim to get as many homes as possible to **EPC Band C by 2035**, where practical, cost-effective and affordable.
- **The Public Sector Clean Growth pathway to 2032** which implies reducing emissions by approximately 50% compared to today.
- **Net zero carbon emissions in the UK by 2050.**

This consultation applies to England and Wales. Policy relating to energy efficiency is devolved in Scotland and Northern Ireland. The Scottish Government set out their energy efficiency strategy in their December 2017 publication, *The future of energy in Scotland: Scottish energy strategy* and in the 'Energy Efficient Scotland: Route Map' published in May 2018.¹² In Northern Ireland, work is underway within the Department for the Economy to develop a new Energy Strategy and it is expected that energy efficiency will be a key component.

¹² Scottish Government, 'Energy Efficient Scotland: route map', 2018, <https://www.gov.scot/publications/energy-efficient-scotland-route-map/>; Scottish Government, 'The future of energy in Scotland: Scottish energy strategy', 2017, <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/> and <https://www.gov.scot/policies/energy-efficiency/energy-efficient-scotland/>.

Introduction

The Benefits of Energy Efficiency

In the long-term, the UK will need to find solutions for a full decarbonisation pathway, including the way in which we heat our buildings and generate electricity. In the short term, energy efficiency is vital in reducing emissions. It is also one of the inmost cost-effective ways in which businesses can reduce their energy use and lower the associated bills. The 2030 ambition to reduce business energy use by at least 20% has the potential to contribute up to 22MtCO_{2e} of non-traded carbon savings over Carbon Budget 5 (2028 - 2032), and save up to £6 billion in 2030 from investment in cost-effective energy saving technologies in the industrial and commercial sectors.¹³

Improving the energy efficiency of UK businesses will also create opportunities for national and international growth in the energy efficiency market. The UK is already a successful exporter of construction products. As global investment in energy efficiency increases (\$231b billion was invested in 2016 of which approximately \$133 billion was invested in buildings), the UK has an opportunity to build on an already strong platform to become a leading international exporter of energy efficiency products and services.¹⁴ Investment in energy efficiency also improves the energy productivity of UK businesses; this means less energy per unit of output, and an increased competitiveness in a global marketplace.

¹³ BEIS, 'The Clean Growth Strategy', 2017 <https://www.gov.uk/government/publications/clean-growth-strategy>.

¹⁴ IEA, 'Market Report: Energy Efficiency', 2017, <https://www.iea.org/efficiency2017/>.

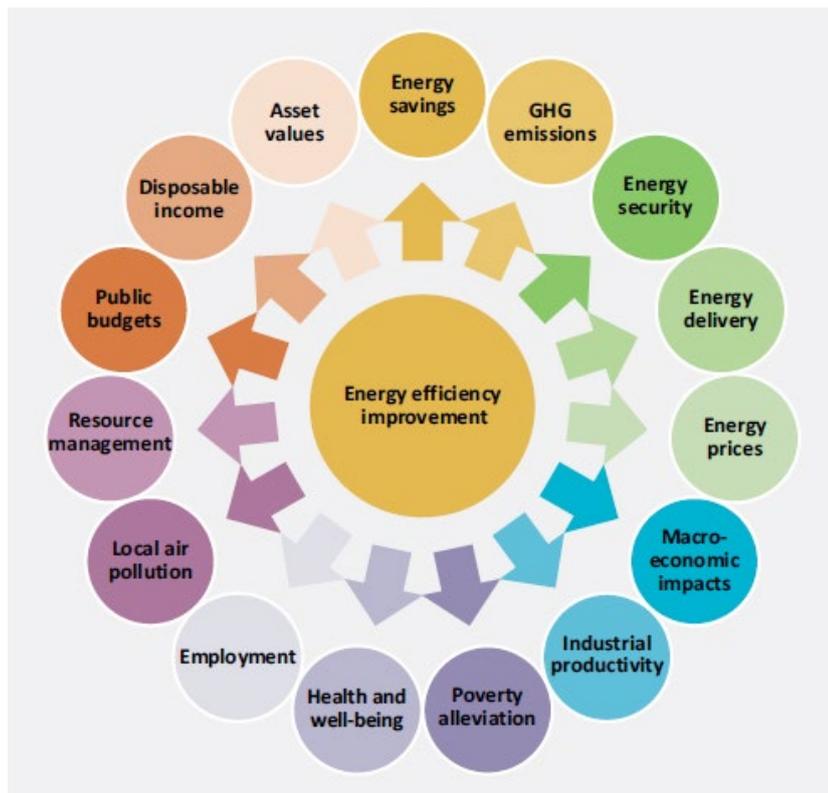


Figure 1: Capturing the Multiple Benefits of Energy Efficiency¹⁵

The graphic above, produced by the International Energy Agency, summarises neatly the wide range of benefits that energy efficiency can bring. As well as contributing to better overall building health and greater resilience, energy efficiency has also been strongly linked to significant health and well-being benefits, as well as creating a more attractive working environments.¹⁶ All of these benefits can boost productivity.

Snapshot of the Non-Domestic Building Stock

The Government has set out a detailed breakdown of energy use in the non-domestic building stock in the 2016 Building Energy Efficiency Survey, which gathered data on the energy use and abatement potential of all non-domestic premises across England and Wales over the period 2014-2015.¹⁷ The key data points below include public sector buildings.

As a high-level summary:

- The survey identified a total of 1.83 million non-domestic premises identified across England and Wales. The building stock is extremely diverse, in terms of the building type, size of the premise, and the activities being undertaken.
- Approximately 1.1 million non-domestic buildings, or 60%, are rented, and use approximately 35% of the UK energy consumption (excluding industrial process).

¹⁵ IEA (2015), 'Capturing the Multiple Benefits of Energy Efficiency' 2015, p.21, https://www.iea.org/publications/freepublications/publication/Multiple_Benefits_of_Energy_Efficiency.pdf. All rights reserved.

¹⁶ Ibid.

¹⁷ BEIS, BEES.

Though the majority of non-domestic buildings are rented, rented buildings only represent 38% of the total non-domestic floor space.

- The sectors with the highest proportion of rented buildings are retail (68%), storage (66%), industry (65%), hospitality (64%) and offices (63%).
- Across both rented and owner-occupied buildings, the five largest sectors in terms of energy consumption accounted for 70% of total non-domestic energy consumption: these were offices, retail, industrial, health and hospitality.¹⁸
- In 2015, businesses used 422TWh energy, of which approximately half was used in the day to day running of the building stock. We have identified the potential to deliver up to 40TWh of cost-effective energy savings from the building stock. The future trajectory of the PRS regulations will be key to delivering a large part of that abatement potential.
- For most businesses, 67% of energy consumption was used to provide building services such as heating, ventilation, cooling, hot water and lighting, with only 33% of energy consumption related to sector-specific activity end uses. The table below represents a full breakdown of end energy use for the whole non-domestic building stock.

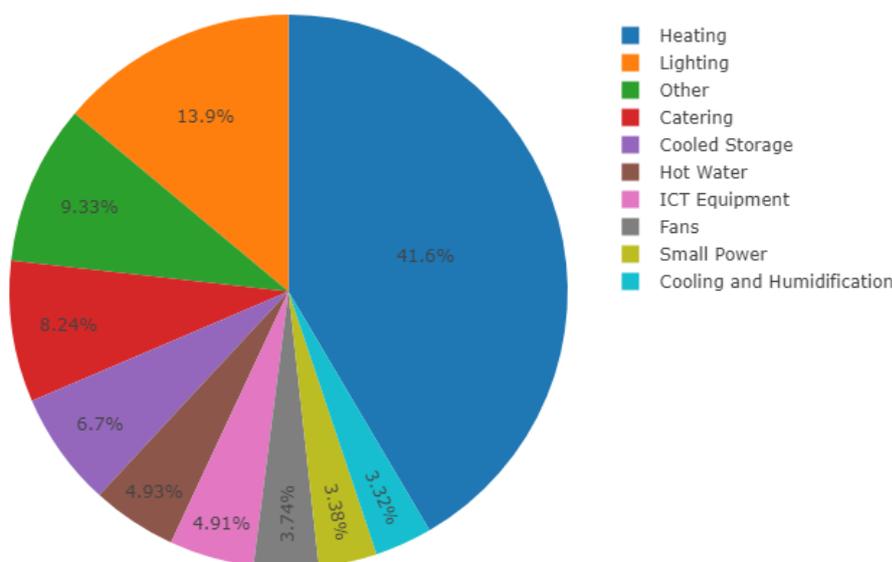


Figure 1: Building Energy Consumption by End Use (excludes industrial processes which are outside the scope of the Building Energy Efficiency Survey)

We encourage readers of this consultation to consult the Building Energy Efficiency Survey report, as well as the Call for Evidence, *Helping Businesses Improve the way they use energy*, for further data on the non-domestic building stock.

Question 1: Do you have any evidence which can improve the Government's understanding of energy use in the non-domestic building stock?

¹⁸ Industrial processes were excluded from the scope of the survey, but industrial building services (e.g. heating, cooling and lighting) were included.

Current Non-Domestic PRS Regulations

The Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 (“the PRS Regulations”) were introduced in 2015 to incentivise improvements in energy efficiency in the non-domestic private rented stock, with the aim to improve the most energy inefficient properties.¹⁹ Since 1 April 2018, the minimum energy efficiency standards laid down in the PRS Regulations have meant that landlords of non-domestic PRS properties have not been permitted to grant a new tenancy, or to extend or renew an existing tenancy, unless their property has at least an EPC E rating. From 1 April 2023, this prohibition on leasing will apply to continuing with an existing lease, with the effect that all non-domestic PRS properties will need to be at least EPC E (except for certain exceptions defined in the PRS Regulations).

Minimum energy efficiency standards were introduced to address market failures, and the persistent barriers that have deterred landlords and business from making energy efficiency improvements to the worst performing properties. These include the split incentive between landlords and tenants, as well as a lack of awareness of the benefits of energy efficiency and the low prioritisation of energy efficiency as a financial investment. These barriers persist and will be discussed in more detail in the following chapter. At the time of making the regulations, we estimated that 18% of non-domestic properties were in the lowest two EPC bands, those rated F and G.²⁰

Minimum energy efficiency standards apply only to non-domestic properties which are legally required to have an EPC. An EPC indicates how energy efficient a building is, based on an energy efficiency rating of A-G. The energy rating is based on the characteristics of the building itself (the fabric), its services (such as heating, ventilation and lighting) and the carbon emissions associated with the fuel(s) used. The non-domestic EPC uses a metric based on carbon emissions, whereas the domestic EPC uses a cost-based metric. EPCs are valid for 10 years and can be reused as required within that period. A new EPC is not required each time there is a change of tenancy or the property is sold, provided it is no more than 10 years old. Where more than one is produced, the most recent EPC is the valid one.

Subject to certain exclusions (such as temporary buildings), an EPC is required for all non-domestic properties on construction, sale or rent and must be produced by an accredited non-domestic energy assessor. It is the responsibility of the landlord to provide an EPC free of charge to prospective tenants at the earliest opportunity. In June 2018, the Government launched a Call for Evidence which sought feedback on the effectiveness of the EPC and ways in which it could be improved.²¹

Installation of energy efficiency improvements are required under the existing regulations for a non-domestic property where the recommended measure (or a package of measures) achieves an energy efficiency payback of seven years or less. The seven-year payback test is met if the expected value of savings on energy bills over a seven-year period is equal to or greater than the cost of the measure(s).

¹⁹ The PRS Regulations can be found at <http://www.legislation.gov.uk/ukxi/2015/962/contents/made>.

²⁰ BEIS, Final Stage Impact Assessment for the Private Rented Sector Regulations, 2014, p. 89. The Impact Assessment can be found at <https://www.gov.uk/government/consultations/private-rented-sector-energy-efficiency-regulations-domestic>.

²¹ BEIS, ‘Energy Performance Certificates in buildings: call for evidence’, 2018, <https://www.gov.uk/government/consultations/energy-performance-certificates-in-buildings-call-for-evidence>.

Non-Domestic Private Rented Sector Minimum Energy Efficiency Standards: Trajectory to 2030

Other exemptions from the PRS Regulations minimum energy efficiency standards rules allowed to landlords are:

- Third Party Consents (regulation 31 PRS Regulations): where the landlord has been refused consent from persons such as a tenant, a superior landlord or planning authorities for improvement works to be undertaken;
- Devaluation (regulation 32 PRS Regulations): where an independent surveyor determines energy efficiency improvements will likely reduce the market value of the property by more than 5%;
- Certain temporary exemptions (regulation 33 PRS Regulations); and
- Where the landlord can show they have met the conditions in regulation 29 of the PRS Regulations, being that all relevant energy efficiency improvements have been made or that there are no relevant energy efficiency improvements that can be, but the property EPC rating remains below the minimum standard.

Where a valid exemption applies, landlords must register the exemption on the PRS Exemptions Register (Regulation 36, PRS Regulations).

Local weights and measures authorities enforce the minimum standards for buildings in scope of the non-domestic PRS Regulations. As the enforcement authority, they may serve a penalty notice of up to £150,000 on the landlord if a property has been let in breach of the Regulations, as well as publish the details of the breach on the PRS Exemptions Register. The landlord may request the enforcement authority to review their decision and appeal to the first-tier tribunal.

Although the PRS Regulations apply to both domestic and non-domestic properties, there are currently a few key differences. For example: the relevant enforcement authority; the maximum financial penalty (£5000 per domestic property); a different regulatory backstop date (1 April 2020); and the variant of the payback test based on a landlord contribution capped at £3,500 per domestic property, inclusive of VAT.

Unless otherwise exempted, the PRS Regulations apply to public sector buildings and where a public sector organisation is the landlord.

Detailed guidance for landlords and enforcement authorities on the PRS Regulations is available on GOV.UK²²

Question 2: It has now been over a year since the minimum energy efficiency standards for the non-domestic private rented sector were introduced. What have been the positives and areas for improvement of their introduction?

²² Guidance for landlords and enforcement authorities on the minimum level of energy efficiency required to let non-domestic property under the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015, 2017, <https://www.gov.uk/government/publications/the-private-rented-property-minimum-standard-landlord-guidance-documents>

Strengthening the Non-Domestic PRS Regulations: Trajectory Options to 2030

Rationale behind our proposals to strengthen the PRS Regulations

Continuing to improve the energy efficiency of the non-domestic private rented sector is pivotal to the ambition of delivering at least a 20% reduction in business energy use by 2030 and achieving net zero emissions in the UK by 2050. Historically, there have been a number of interlocking barriers which has made it difficult to encourage energy efficiency improvements in the sector. The PRS regulations were introduced in April 2018 to address worst performing buildings, but the barriers identified below persist across the majority of the stock:

- **The split incentive between landlord and business acting as tenant.** The costs of installing energy efficiency measures typically fall on landlords, whilst any benefits associated with the energy efficiency measures are accrued by the business. This situation means there are misaligned incentives in undertaking improvements to the energy efficiency of the building.
- **Imperfect information on the costs and benefits of energy efficiency.** In principle, in a well-functioning market, the split incentive would not exist because rent levels would reflect the differences in the energy efficiency of the property. Many energy efficiency measures pay-back their up-front cost well before the end of their lifetime. This makes energy efficiency a sensible investment that has the potential to yield returns for the landlord over the lifecycle of the measure and reduce overall energy costs to businesses from the start of their lease (overall costs are taken to mean, in this case, the decrease in bills minus any uplift in rent). Businesses may also not be aware of the numerous additional benefits that energy efficiency brings, including potentially increasing staff productivity, health, and wellbeing in the workplace.
- **Low prioritisation as a financial investment has contributed to low demand.** Energy bills typically represent a small proportion, approximately 3% on average, of the overall costs to businesses.²³ Combined with the potential lack of awareness of the additional benefits outlined above, this means energy efficiency improvements are rarely a priority in decision making. Without sufficient demand, landlords have little incentive to make improvements to the energy efficiency of their buildings.
- **Access to upfront capital investment.** The nature of energy efficiency as an investment is that it requires a capital cost upfront (which can be significant) and delivers returns over time. Access to the capital required to install a measure, or package of measures, has been cited as a further barrier to making improvements.

These issues have been further exacerbated as average tenancy lengths have decreased. If businesses enter contracts knowing that the savings from energy efficiency will not be

²³ BEIS, Business Energy Statistical Summary, 2018 <https://www.gov.uk/government/publications/business-energy-statistical-summary>

recouped during the length of their lease, they are unlikely to work with the landlord to undertake improvements.

Trajectory Options

The Government has identified two potential trajectories for strengthening the PRS Regulations. Both options aim to address the barriers identified above to unlock the economic opportunities of low carbon growth, and deliver important energy and carbon savings:

- The Government's **preferred trajectory** is that all non-domestic privately rented buildings achieve a minimum energy efficiency standard of EPC B by 1 April 2030, provided the measure or package of measures required to reach an EPC B prove cost effective.
- The **alternative trajectory** is that all non-domestic privately rented buildings reach an EPC C by 1 April 2030 if cost effective.

In both cases, the Government recognises that not all buildings will be able to reach the required minimum EPC standard. Therefore, for both trajectories, the Government proposes that if the building cannot achieve the minimum standard, landlords will be able to continue to lease their building from 2030 if they can prove that the building has reached the highest EPC band that a cost-effective package of measures can deliver.

The emerging approach to heat decarbonisation will also be taken into account. There are different ways that heat decarbonisation may be achieved. We will need to ensure that as well as incentivising low carbon heating systems in buildings, we do not inadvertently undermine the deployment of low carbon infrastructure solutions where they are more cost effective such as heat networks, biogas and potentially hydrogen networks.

The options presented are based on retaining the existing regulatory framework of using an EPC rating to determine the energy efficiency of a non-domestic building in the private rented sector. We consider that the EPC can be an effective tool to drive improvements in the quality of non-domestic buildings.

The Government acknowledges that the EPC is not a tool that can reflect or value improvements in operational performance. That is why the Government announced in October 2019 that it will consult in 2020 on introducing mandatory in-use energy performance ratings for non-domestic buildings in the private sector.

We are currently analysing responses to the 2018 Call for Evidence 'Energy Performance Certificates in Buildings' to consider what improvements could be made to the EPC. The EPC is used for a number of different purposes, and due consideration will be given to the key metric used for this policy should it become clear that there is a more effective tool for delivering the policy objectives. Further consideration will be given to the role of the EPC later in this chapter.

The Government proposes that the definition of cost effective remain based on the 7-year payback test briefly described in the previous chapter. One of the key challenges to improving the energy efficiency of non-domestic buildings is the heterogenous nature of the building stock: building types and uses vary considerably. The 7-year payback test should ensure that no landlord is required to install any measure, or package of measures, that is not cost effective. It will also help make sure that any measures installed are sensible for the individual

building and immediately reduce the energy costs of the business or businesses occupying the property. A key benefit of the test is that it will be receptive to both reductions in the cost of measures, and improvements in the energy efficiency of measures, through the 2020s. For example, under this test landlords may have a regulatory obligation to install a package of measures in 2028 that may have not been cost effective in 2021. Further work is required to ensure the administration of this test is fit for purpose as the trajectory tightens, a challenge which is discussed in more depth later in the chapter.

Both trajectories should deliver benefits to the UK economy. The Government anticipates that either target would instigate a closer correlation between the rental value of a non-domestic building and its energy efficiency, as well as increase the overall value of the landlord's asset. The intention is that this will drive a more productive economic cycle of improvement, followed by return on investment to the landlord and lower energy bills to the tenant, as opposed to inertia, inactivity and inefficiency.

The Green Finance Taskforce asserted that the 'certainty provided by a defined long-term EPC target' should 'underpin energy improvement plans and the supporting investment decisions'.²⁴ A similar message was iterated in responses to the recent Call for Evidence, *Helping businesses improve the way they use energy*, as well as the Call for Evidence *A future framework for heat in buildings*.²⁵ Many respondents outlined that the Government could encourage positive outcomes by setting clear medium and long-term targets at an early stage.

We anticipate that setting a clear trajectory to 2030 now should provide landlords and businesses with a long-enough lead time to act and provide certainty to the energy efficiency market and enable growth and innovation.

The design of the options considered some of the lessons learnt from the implementation of the PRS Regulations since 2018, but there has not been enough time for a full evaluation to be undertaken. On balance, we concluded that the benefits landlords, businesses and the market would gain from a long lead in time outweighed the further insights we might gain from waiting for a full evaluation of the initial implementation. The Government will carry out a full evaluation of the initial implementation when sufficient data has become available and no later than five years after the PRS Regulations were introduced.

To achieve the energy and carbon savings the trajectories are designed to deliver, the Government is aware close consideration will need to be given to several factors, including: the exemption criteria and specific requirements of individual sectors, the use of the EPC, the seven-year payback test, the use of operational data and how the regulations are enforced. These issues are considered in this chapter. The interaction with heat decarbonisation will also need to be considered.

Question 3: Do you agree that 2030 is the appropriate date to set the future trajectory? Does this allow a long enough lead in time for landlords and businesses to plan effectively, as well as providing the energy efficiency market with medium to long-term certainty of demand?

²⁴ Green Finance Taskforce, *Accelerating green finance: a report by the Green Finance Taskforce*, 2018, p. 24. <https://www.gov.uk/government/publications/accelerating-green-finance-green-finance-taskforce-report>.

²⁵ BEIS, *A future framework for heat in buildings: call for evidence*, 2018, <https://www.gov.uk/government/consultations/a-future-framework-for-heat-in-buildings-call-for-evidence>

Preferred Trajectory: All Non-Domestic Rented Properties Achieve an EPC Band B by 2030, Where Cost Effective.

The Government's preferred trajectory is that all rented non-domestic buildings meet an EPC Band B by 2030, provided the action required is cost effective.

Table 1 below illustrates the impact of the two options on total energy saved by 2030, and carbon savings across the Carbon Budget 5 period. The baseline for savings is 2015. Table 2 outlines the projected economic impacts of the two trajectory options. Please consult the full Impact Assessment published alongside this consultation for a full analysis of the impacts of both trajectory proposals. Both tables apply to England and Wales and include public sector buildings. **All figures in the second table are £billion unless stated:**

Table 1: Trajectory Proposals: Energy Reduction and Carbon Savings

Trajectory Proposals: Energy Reduction and Carbon Savings	
EPC B by 2030	EPC C by 2030
Energy Reduction by 2030 (TWh)	
12.4	4.4
Carbon Savings over CB5 Period (MtCO_{2e}) (Non-Traded)	
5.4	1.5

Table 2: Projected Economic Impacts of the Two Trajectory Proposals

	Present Value Costs	Present Value Benefits	Net Present Value	Equivalent Annual Net Direct Cost to Business (£m), 2016 prices
EPC B by 2030	£6.1	£12.2	£6.1	-£361
EPC C by 2030	£1.6	£4.7	£3.0	-£180

The Government considers EPC B by 2030 to be better aligned to the level of ambition required if the UK is to meet the ambitions set out in the Clean Growth Strategy and the Industrial Strategy. Our modelling, outlined in table 2, suggests this has a greater overall net

present value and delivers significant benefits for the UK economy. This should be a driver for increasing the productivity of businesses across England and Wales.

We estimate the EPC B trajectory would require an investment cost of approximately £5 billion between 2019 and 2030. We estimate that the return on that investment would be substantial, with an average payback time on these measures of between 4-5 years. Our modelling suggests bill savings to business in 2030 would be £1 billion. In total, we anticipate that the trajectory would deliver an overall net present value of £6.1 billion to the UK economy. The projected Equivalent Annual Net Direct Cost to Business (EANCB) is negative, forecasting that the benefits would significantly outweigh the direct costs. Under an EPC B projection, the annual benefit to businesses would be approximately double the EPC C projection.

Table 1 provides a high-level comparative breakdown of the non-traded carbon savings and energy savings that our modelling suggests the two trajectory proposals could achieve. At a reduction of 5.4 MtCO_{2e} over CB5 and 12.4 TWh respectively, setting the trajectory at EPC Band B by 2030 is the only trajectory modelled that delivers carbon reductions consistent with those required under the Paris Agreement. Our modelling suggests that an EPC C by 2030 trajectory would not deliver the energy or carbon savings required from this sector.

The trajectory of EPC B by 2030 is predicted to deliver significantly more savings than a trajectory of EPC C for two reasons. The first is obvious: EPC B reflects a higher standard of energy efficiency than EPC C. The measures landlords will be required to install are simply more effective at the higher EPC standard. The second reason is due to the current make-up of the existing stock: we estimate an EPC B trajectory would bring 85% of buildings into scope, compared with 42% of buildings under a trajectory of EPC C.²⁶ It is this increase in scope at EPC B that is responsible for most of the additional savings compared to an EPC C trajectory.

This ambitious regulatory trajectory should not be taken to mean that the Government assumes all buildings must and will be able to reach an EPC B by 2030. We are aware that not all buildings will be able to achieve an EPC B by 2030 cost effectively. Our modelling suggests 64% of buildings will be able to reach an EPC B, with 20% failing to meet an EPC B but able to reach an EPC C, and a remaining 17% unable to reach an EPC C.²⁷

An early regulatory trajectory of an EPC B by 2030 sets a clear marker to the sector. It demonstrates how energy efficient the non-domestic buildings will need to be in 2030 and ensures that landlords across 85% of the existing stock must take-action. Where the action to get to an EPC B is not cost effective, then the landlord must upgrade the building to the highest EPC band that is cost effective.

An EPC B by 2030 trajectory would also have a significantly greater impact in stimulating demand in the energy efficiency market. Table 3 below outlines the assumptions our model has made regarding the required level of rollout for certain measures:

²⁶ This estimate is taken from internal modelling.

²⁷ Figures may not sum to 100% due to rounding.

Non-Domestic Private Rented Sector Minimum Energy Efficiency Standards: Trajectory to 2030

Additional installation numbers in 2030 from 2015 baseline (note, buildings can have more than one installation).

Measure	EPC B by 2030	EPC C by 2030
Low carbon heating installations	540,000	160,000
Lighting upgrades	1,100,000	340,000
Controls	1,100,000	240,000
Insulation and glazing	470,000	76,000
Other energy efficiency measures	900,000	200,000
Cooling and ventilation	28,000	16,000

Table 3: Additional installation numbers of energy efficiency measures in 2030 from a 2015 baseline

The model represents the non-domestic building stock and selected the most cost-effective package of measures or measure that would get a building to EPC B by 2030. If there is no package of measures that can get a building to EPC B, the model selected a package of measures to get the building to EPC C, and so on.

As demonstrated in table 3, the Government is confident a trajectory of EPC B by 2030 would drive a greater demand for energy efficiency measures. However, we cannot predict the full impact of the estimated installation numbers on the energy efficiency market. We consider that an EPC B trajectory would go significantly further than an EPC C trajectory in encouraging a competitive marketplace in which suppliers can use the certainty of demand to grow, scale and innovate. This is ultimately good for landlords and businesses: if the market functions well there is the potential for the costs of individual measures to decrease and for performance to improve, as well as the potential for new innovations to become available.

Question 4: To what extent do you think an EPC B trajectory provides sufficient certainty of demand to encourage suppliers in the energy efficiency market to grow, scale and innovate?

Question 5: What do you think are the opportunities and challenges of the Government's preferred 2030 EPC B trajectory?

Alternative Trajectory: For all Non-Domestic Rented Properties to meet an EPC band C by 2030 where cost effective.

An alternative trajectory is that all rented non-domestic buildings meet an EPC C by 2030, again provided the action required to meet an EPC C is possible and cost effective. This is not the Government's preferred target as our modelling suggests the trajectory is not ambitious enough to deliver the level of carbon reduction and energy savings required in this sector.

As highlighted earlier in the chapter, the significant challenge with setting this trajectory is that it would only bring 42% of the current non-domestic private rented sector building stock into scope. As a result, 58% of buildings in the existing stock would not have a regulatory requirement to act on energy efficiency. Whilst regulation is not the only driver for improvement, previous experience has indicated that it will be difficult, given the range of market failures and barriers in this area, to drive similar action across that remainder of the stock with non-regulatory policy levers. Regulation also has an advantage in that it can provide certainty and clarity for businesses, including those in the energy efficiency sector, enabling them to invest for the long-term.

Setting the trajectory for 2030 at an EPC C would require a £1.5 billion private investment cost. This is approximately three times lower than the investment cost of £5 billion required for a trajectory of EPC B. A trajectory of EPC C compared to EPC B would also deliver approximately three times lower bill savings in 2030 at £0.4 billion. The average payback period for a package of measures on the EPC C trajectory is estimated to be 3 years. As outlined in table 3, an EPC C trajectory would also stimulate significantly less demand in the energy efficiency market.

We consider that implementing this trajectory would not deliver a large enough contribution to the Government's energy and carbon reduction targets from this sector. It would also miss an opportunity to support business in driving down costs and raising productivity, a core aim of the Industrial Strategy. Therefore, if this trajectory were to be implemented, landlords would need to be incentivised to act outside of the regulatory framework.

As mentioned above, this has historically been difficult. The split incentive between landlords and tenants, whereby the landlord pays for the improvement and the tenant secures the bill reductions, has been difficult to correct. There has also been limited tenant demand for energy efficiency, as energy bills typically make up only 3% of turnover. Without sufficient demand the inertia that has stifled progress will only persist. The Government considers that setting a more ambitious trajectory of EPC B by 2030 will be more effective in guaranteeing demand. This should in turn encourage a more productive economic cycle where the improvements landlords have paid for will be reflected in higher rental values with significant benefits for tenants through lower energy bills and an improved working environment.

If the Government pursues an EPC C trajectory, the Government would need sufficient confidence that landlords of current EPC C band buildings would improve their properties in the absence of a regulatory incentive.

Question 6: We estimate an EPC C trajectory will only bring 42% of the non-domestic PRS building stock into scope of the regulation. Are there any alternative approaches that could complement an EPC C trajectory that would guarantee the necessary action across the remaining stock to drive clean growth and deliver sufficient energy and carbon reductions?

Seven-year payback test

The seven-year payback test underpins both outlined trajectories and is essential to the proposed regulatory approach. The seven-year payback test is designed to ensure that landlords are only required to install measures that are cost effective and make sense on a building by building basis. This is a key priority for the Government.

The PRS Regulations currently employ this test (regulation 28). Regulation 28 states that a measure, or a package of measures, meets the seven-year payback test where the expected value of savings on energy bills that the measure(s) is expected to achieve over a period of seven years (starting with the date the installation is completed) are equivalent to, or greater than, the cost of repaying it. These measures include those that have been recommended in a report prepared by a surveyor.²⁸

The PRS Regulations state that where a landlord registers an exemption on the basis that the recommended measure would not pass the seven-year payback test, the landlord must provide copies of three quotations for the cost of purchasing and installing the improvement from qualified installers to demonstrate what the repayment cost would have been. The landlord must also obtain a figure representing the savings which a measure, or a package of measures, is expected to achieve over seven years. Unless the landlord has in-house capability, they are likely to require the services of a non-domestic energy assessor to determine this estimate. The landlord will then be required to provide the most recent 12 months' worth of energy bills for the property to determine the relevant energy price.

The Government is not minded to change the administration of the seven-year payback test, but is committed to ensuring the test delivers the right policy outcomes. That will rely on the test being effective and user friendly, and we are committed to acting on clear feedback that outlines any ways in which this test can be improved in practice.

Question 7: Can you identify any issues regarding the current administration of the seven-year payback test which could be improved to support the goals that a tightened regulatory trajectory to 2030 aims to deliver?

EPC milestones versus a single implementation date in 2030

The current regulations mean that from 2023, landlords cannot continue to rent their building if it is below an EPC E, unless they have registered a valid exemption. We have identified three broad ways in which the Government could implement the trajectory options in this consultation in the period up to 2030:

Single Implementation Date

Under this option, the Government would legislate that all non-domestic buildings cannot continue to be leased after 31 March 2030 unless they have reached an EPC B or C by that date, provided the action required is possible and cost effective.

This would offer flexibility to landlords to consider their tenancy cycle and undertake the necessary work at the appropriate points. In terms of reporting, landlords would only have to

²⁸ Further information can be found in the landlord guidance and full regulations.

demonstrate that they had met an EPC B (or that they had registered a valid exemption) by 1 April 2030.

One drawback of this approach is that there would be no regulatory incentive for a landlord of a property of EPC E or higher to undertake improvements early. This brings a risk that most improvements take place close to the 2030 deadline, which could lead to capability and capacity issues in the energy efficiency and EPC assessor markets. We welcome comments on the potential of this risk, or whether in practice landlords would likely take a considered and phased approach to improvements through the 2020s.

The Government also acknowledges that there could be the potential to set a single backstop date whilst incentivising landlords to act early. This is important: carbon and energy savings that can be delivered in 2022 will have a greater positive impact than savings delivered in 2029 and mean that businesses and landlords can unlock the economic benefits of energy efficiency at an earlier date. Early action between now and 2030 is also vital to the global effort to keep temperatures under 1.5 degrees higher than pre-industrial levels.

Incremental milestones

Under this option, the Government would regulate EPC milestones to get to a trajectory of EPC B or EPC C by 2030. Some examples of how this might work are set out below:

Incremental milestones for an EPC B Trajectory

Examples:

- a. All privately rented non-domestic buildings cannot be **newly** rented, or have their lease extended or **renewed**, unless they have achieved an EPC D by 2024, an EPC C by 2026 and an EPC B by 2028. By April 2030, non-domestic privately rented buildings cannot **continue** to be rented out unless they achieve an EPC B.
- b. All privately rented non-domestic buildings cannot **continue** to be rented out unless they have achieved an EPC D by 2025 and an EPC C by 2028. By April 2030, non-domestic privately rented buildings cannot continue to be rented out unless they achieve an EPC B.

Incremental milestones for an EPC C Trajectory

- c. All privately rented non-domestic buildings cannot be **newly** rented, or have their lease extended or **renewed**, unless they have achieved an EPC D by 2025 and an EPC C by 2028. By April 2030, non-domestic privately rented buildings cannot **continue** to be rented out unless they achieve an EPC B.
- d. All privately rented non-domestic buildings cannot **continue** to be rented out unless they have achieved an EPC D by 2027. By April 2030, non-domestic privately rented buildings cannot **continue** to be rented out unless they achieve an EPC C.

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In all the examples above, the Government would legislate a gradual increase of the minimum standard until it reaches an EPC B or C by 2030. In examples a) and c), increments are applied based on tenancy cycles. In examples b) and d) the increments would apply to all buildings.

Applying increments based on extending or renewing or entering a new tenancy appears the most feasible due to the tightness of the timescales. If incremental stages were applied on the basis set out in examples b) and d), it is feasible that the same property could be required to improve its EPC rating by two bands under the same tenancy. This is unlikely to be as practical as working with natural tenancy cycles, however it could drive a faster uptake of energy efficiency measures.

The benefit of applying incremental milestones is that it would go some way to addressing the deployment risk identified under the previous option. At each increment the landlord would be required to upgrade the property to the appropriate EPC band.

One of the key drawbacks we have identified is that incremental milestones could create more burdens for landlords (both in terms of improving the property and reporting its improvement or registering an exemption) and would increase the amount of enforcement work that authorities would need to undertake. Furthermore, it could encourage the staged improvement of non-domestic buildings when it may be more cost effective and practical to upgrade the property to an EPC B in one renovation.

Question 8: Would a single backstop date in 2030 or phased milestones to 2030 be the more effective method for implementing the trajectory options? Does it depend on the trajectory option? If a single backstop were favoured by the Government, what type of financial and non-financial incentives could encourage landlords to install measures earlier than the 2030 deadline?

Exemptions and different sectors

Under either trajectory option, it is important that the current exemptions remain relevant. The majority of exemptions outlined in the PRS Regulations are valid for five years. The exemptions have been outlined in chapter two of this consultation, and include the seven-year payback test, the inability to obtain third party consent and whether the measures would significantly devalue the property.

The five-year period is intended to give certainty to landlords and to allow for a realistic chance that circumstances (for example, changes in fuel prices, availability of other funding mechanisms, or reductions in the cost of improvements) will have changed enough for the particular measure(s) to have become cost effective.

As outlined previously in this chapter, the trajectory options to 2030 will be more reliant on landlords employing the seven-year payback test than under the current PRS Regulations. The number of buildings that are sub-standard in 2030 will also be higher than under the current Regulations, which will result in more landlords registering exemptions.

Question 9: Are there any reasons why any of the current exemptions will be less effective under a tightened trajectory?

The Government appreciates that different sectors do not operate in the same way and have different standard lease arrangements. One example of this is that energy efficiency can provide some unique challenges for the retail sector. Landlords will often hand over retail units in a shell and core condition; lighting, air-conditioning and ventilation may be absent and commonly installed after the lease is signed, as different retailers may have different fit out requirements. The minimum energy efficiency standards currently place the responsibility with the landlord to ensure the building is compliant with the PRS Regulations. Under the proposed trajectories this would continue to be the case. We are aware that, if the landlord and prospective tenant cannot come to a satisfactory arrangement prior to the signing of the lease, this can create a situation whereby to satisfy the PRS Regulations the landlord may need to install measures that the tenant may want to immediately remove.

This is not a situation that satisfies the landlord, the tenant or the objectives underpinning the PRS Regulations. Nor is it a situation unique to retail; similar issues can arise where a tenant agrees to undertake improvement works to the energy efficiency of the prospective building as a condition of the tenancy. Under the PRS Regulations, the landlord cannot lease the building until it has reached the minimum standard. The PRS Regulations do not stipulate which party needs to pay for the improvement works to get the building to the required standard, although we are aware that, in the case outlined above, if the tenant were to pay for the works they would need to do so before they legally became the tenant.

The Government welcomes feedback on approaches that can address this issue. The primary objective of this legislation is to improve the energy efficiency of the non-domestic privately rented building stock. Though we do not suggest altering the underpinning principle that responsibility for the energy efficiency of the building rests with the landlord, we are committed to ensuring that there is a sensible outcome in situations in which the tenant has a genuine requirement and is willing to fund the improvement of the building at the start of the tenancy. We welcome comments on potential market-led solutions to this issue.

The Government also welcomes comments on whether there are other unique concerns to individual sectors or building types that, under a tightened PRS trajectory, could lead to unreasonable burdens or expectations or could be counterproductive to the objectives of the PRS Regulations.

Question 10: Are there any ways in which the market can overcome situations where the tenant has fit-out requirements and is willing to fund the improvement of the building at the start of the tenancy?

Question 11: Are there any unique challenges that the tightened trajectory will pose to SMEs or any individual sector? How could the sector look to overcome those?

Operational Performance

The existing regulatory framework in England and Wales focuses primarily on building fabric and is effective at improving the quality of business buildings. However, without ensuring that industrial and commercial buildings are operated in ways that maximise their energy performance the gains in building quality will never be fully realised.

That is why the Government has set out that in 2020 we will consult on introducing mandatory in-use energy performance ratings for non-domestic buildings in the private sector. This will be

a key step in helping businesses understand and improve the actual energy performance of their buildings.

The EPC

EPCs were designed to be a simple and cost-effective way of enabling prospective buyers or tenants to make informed decisions about the potential energy performance of a building. EPCs are now serving a wider set of uses than that original purpose. They have been incorporated into several Government policies which rely on understanding the energy performance of buildings, including the non-domestic PRS Regulations.

The two trajectory options outlined in this consultation are both underpinned by the continued use of the EPC. As outlined earlier in this chapter, the EPC can be an established and effective driver of improvements to non-domestic buildings. However, it is important that EPCs are accessible and of appropriate quality, and the Government has sought views on how the EPC can be improved in a Call for Evidence, *Energy Performance Certificates in buildings*, published in July 2018.²⁹

The Government is conscious that any future improvements or adjustments to the EPC could impact on the trajectory. The non-domestic EPC is calculated using an approved National Calculation Model (NCM) - either the Simplified Building Energy Model (SBEM) or Dynamic Simulation Model (DSM). It attributes a 'carbon factor' to determine the carbon intensity of different sources of energy (gas, oil, electricity etc.). Therefore, the EPC is not a static instrument. For example, as the electricity grid continues to decarbonise the EPC will value the use of electricity increasingly favourably from a carbon perspective. This will have impacts to the EPC distribution: an existing EPC C building that has a high electricity load could see its band improve when carbon factors are updated in the future.

Carbon factors are updated periodically. We are alert to the impacts that this might have on the EPC bandings of non-domestic buildings and the overall distribution of how many buildings occupy each band. We have undertaken some preliminary modelling which suggests that the impact of updating carbon factors should be relatively minor (some buildings may go up or down an EPC band). When the carbon factors are next updated, we will provide a full model of the predicted impacts.

Regardless of any future changes to the EPC, the improvements to non-domestic privately rented buildings driven by either of the proposed trajectories are vital and will need to be delivered. As stated earlier in the chapter, consideration will be given to the key metric used for this policy should it become clear that there is a more effective tool than EPCs for delivering the policy objectives.

Enforcement

As outlined in chapter one, under the PRS Regulations, every local weights and measures authority is the "enforcement authority" for their area. The local weights and measures authorities are responsible for enforcing compliance of the minimum level of energy efficiency provisions within their geographic boundaries. Enforcement authorities can decide how they

²⁹ BEIS, 'Energy Performance Certificates in buildings: call for evidence', 2018, <https://www.gov.uk/government/consultations/energy-performance-certificates-in-buildings-call-for-evidence>.

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wish to enforce the minimum standards, for example through Trading Standards Officers or Environmental Health Officers.

The Government is aware that effective enforcement will be key to the success of current and future minimum energy efficiency standards in the non-domestic private rented sector. The Government is currently running a pilot project with seven local authorities to determine how the regulations can be most effectively enforced. All seven cover domestic properties, with four assessing approaches in domestic and non-domestic.

The Government will use the learnings from that pilot to consider the most effective way to improve the enforcement of the PRS Regulations.

Question 12: At this stage we welcome views on how the Government could most effectively improve enforcement of minimum energy efficiency standards under an EPC B or C by 2030 trajectory.

Case Studies on the impact of the trajectory options on selected Non-Domestic Privately Rented Buildings

Illustrative Case Studies

The table below outlines illustrative case studies of three different building types modelled in the Impact Assessment. The table predicts the measures these individual buildings would be required to install to move from E energy rating to a B or C, as well as the associated additional cost, bill savings and the implied private payback period.

Building Type	Floor area m ²	EPC Improvement	Installation measures required and additional capital costs (includes installation and hassle costs)	Bill reduction in 2030	Private payback years
Office, pre 1900 construction, small	157	E to C	Gas heat pump and 1 lighting upgrade Cost = £3,871	£818	4.7
		E to B	Gas heat pump; 1 lighting upgrade; other controls; controls; other thermal efficiency Cost = £4,668	£1,002	4.7
Retail, small shop, construction 1940to1985, small	139	E to C	Reversible air to air heat pump and 1 lighting upgrade Cost = £2,118	£501	4.2
		E to B	Reversible air to air heat pump and 2x lighting upgrades Cost = £2,139	£545	3.9

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Building Type	Floor area m ²	EPC Improvement	Installation measures required and additional capital costs (includes installation and hassle costs)	Bill reduction in 2030	Private payback years
Retail, small shop, construction age unknown	218	E to C	Reversible air to air heat pump for heating and cooling and 1 lighting upgrade Cost = £3,976	£1,744	2.3
		E to B	Reversible air to air heat pump for heating and cooling; 2x lighting upgrades; thermal controls; and other controls Cost = £5,828	£2,135	2.7

In each case modelled, the buildings can achieve both an EPC B and EPC C standard. The model has selected the most cost-effective package of measures that will get the building to the nominated EPC band. Full information on the modelling can be found in the Impact Assessment.

Question 13: As illustrative examples, do the costs, bill savings and private payback periods that our modelling assumes for these building types approximate your experience?

Assessment of impacts

The table below outlines the costs and benefits of moving to an EPC B or C minimum energy efficiency standard by 2030.

	Costs	Benefits
Landlords	<ul style="list-style-type: none"> Capital expenditure, covering costs of technologies installed including equipment, hidden and installation costs. Operating expenditure of measures. 	<ul style="list-style-type: none"> Potential increase in rental value to reflect upfront investment in package of energy efficiency measures. Potential increase in property values.

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Costs		Benefits
	<ul style="list-style-type: none"> Familiarisation costs associated with understanding new regulations (estimated as if undertaken by letting agency). Compliance costs associated with time taken demonstrating exemptions and/or compliance with regulations (estimated as if undertaken by letting agency). Opportunity Cost of Capital forgone from other business activity. Cost of forgone rent due to increase void periods during installation. 	<ul style="list-style-type: none"> Increase in tenant satisfaction. Reduction in long-term property maintenance costs. Reduction in letting costs as property will be easier to let. Energy bill savings during non-rented periods.
Tenants	<ul style="list-style-type: none"> Capex, Opex and hidden costs (covered in landlord section, but potentially financed through energy bills, rent or other contractual arrangement). 	<ul style="list-style-type: none"> Energy bill savings during lease periods (bills not in social CBA). Comfort and productivity. Improved health. Increase in tenant satisfaction and reduced void periods.
Letting agents	<ul style="list-style-type: none"> No additional cost on top of landlord costs. 	
Society as a whole	<ul style="list-style-type: none"> As above 	<ul style="list-style-type: none"> As above plus: Carbon emission savings Air quality improvements Social Value of Energy Savings Increase in security of energy supply (not monetised) Wider economic benefits e.g. economic growth, jobs in the green construction industry (not monetised)

Question 14: The table lists the costs and benefits we have identified as a result of the proposals. Are there any impacts relevant to your sector or organisation/business (e.g. SME, Civil society organisations) that are missing? If so, can you provide us with any supporting evidence?

Question 15: We understand that there are natural void periods when leasing a property, due to finding a tenant and refurbishing a building. Is there any evidence to suggest the proposals are likely to increase void periods and if so by how long? Please provide as much detail as you can.

Question 16: Under both trajectory options, landlords of buildings below EPC B or C will be required to invest money upfront to improve the energy efficiency of their building. If you are a landlord, what are the key factors that would determine the pass-on cost to the tenant, and the length of time under which you would seek a return on your investment? We anticipate key factors could include: investment cost, bill savings delivered by the measure, payback period of the measure, lifetime of the measure, maintenance costs and market forces. If you are not a landlord, we also welcome any evidence you could provide.

Question 17: Is there a possibility that under certain types of lease arrangements (for example green leases) the costs of improvements might be shared between landlords and tenants?

How the trajectory options support current and future government policy

In-Use Energy Performance of Business Buildings

The Government announced an ambitious package of measures designed to improve the energy performance of non-residential buildings, as part of its response in October 2019 to the Committee on Climate Change. This included plans to consult in 2020 on introducing mandatory in-use energy performance ratings for non-domestic buildings in the private sector. This will be key to helping businesses understand and improve the actual energy performance of their buildings.

Buildings Mission and New Build

The Government has an ambitious vision for the future of energy use in UK buildings. This is typified by the Buildings Mission, which the Government introduced to seek to halve the energy use of new buildings by 2030, as well as halve the cost of renovating existing buildings to a similar standard. The mission covers both domestic and non-domestic buildings.

The Buildings Mission and the future trajectory of minimum energy standards in the non-domestic private rented sector are policies which drive the delivery of common objectives. If the cost of retrofitting can be halved by 2030, then more buildings will be able to install cost-effective measures which enable them to reach the minimum standard of an EPC B or C. Similarly, the Government anticipates that setting an ambitious regulatory trajectory in the private rented sector will provide the energy efficiency market with the necessary certainty to scale, to innovate, and to ultimately reduce costs to the customer.

To deliver on the ambition in new buildings, the Government committed to a Future Homes Standard which will see new build homes future-proofed with low carbon heating and the highest standards of energy efficiency by 2025 in the 2019 Spring Statement. In October 2019, the Government published a consultation which set out plans for the Future Homes Standard, including proposed options to increase the energy efficiency requirements for new homes in 2020.³⁰ The second part of the Part L consultation, which will cover non-domestic buildings, will be published later this year.

Domestic Properties

The UK's 28 million homes account for 22% of CO₂ emissions so improving energy efficiency is a key Government priority. That's why in the Clean Growth Strategy we set out our aspiration that homes should achieve EPC Band C where cost effective, affordable and practical. We have already strengthened the private rented sector regulations so that domestic landlords are required to contribute up to £3,500 towards the cost of improvements to EPC

³⁰ BEIS, 'The Future Homes Standard: changes to Part L and Part F of the Building Regulations for new dwellings', 2019, <https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings>.

Band E and will consult on the trajectory to higher EPC Bands for domestic rented properties during winter 2019/20.

Tightening both domestic and non-domestic minimum standards trajectory sends a strong signal that all buildings need to move towards better energy performance standards and further support the growth of the energy efficiency market by increasing demand products and services and stimulating innovation and growth.

Furthermore, many micro businesses and SMEs operate from smaller properties. Homes and small businesses will be able to mutually benefit from improved energy efficiency solutions and reduced costs from the wider supply chain. These consumers should also benefit from better access to their energy consumption data once smart meters are installed. The Government is currently consulting on how to ensure the market-wide rollout of smart meters by 2024.³¹

The Future of Heat

If the UK is to hit its legally binding 2050 climate targets it is likely that nearly all heat-related emissions in buildings will need to be eliminated by 2050. This is one of the greatest challenges in the clean growth strategy.

It will be a long road to fully decarbonise heat in the UK, and these announcements demonstrate how committed the Government is in meeting the challenge. Tightening the PRS regulations to an ambitious standard in non-domestic buildings should support the long-term decarbonisation of heat. We are mindful that some heat decarbonisation solutions are infrastructure ones requiring coordination, rather than being driven by individual building decisions. We will ensure the implementation of more ambitious EPC trajectories takes account of this.

SME Scheme and Innovation Competition

At Spring Statement 2019, the Government published a CfE, *Energy efficiency scheme for small and medium sized businesses*³², which sought views on three options for a potential energy efficiency scheme for small and medium sized enterprises (SMEs). The Government also launched the *Boosting Access for SMEs to Energy Efficiency*³³ (BASEE) competition on the same day.

We know that SMEs face specific barriers when installing energy efficiency measures. They often lack the time and resources to explore energy efficiency options, and they lack information about where and how energy is used in their businesses. In many cases, their access to financing for energy efficiency measures is constrained by insufficient capital to develop bankable projects with financial institutions, who often remain reluctant to provide financial products due to perceived risks and a lack of suitable product. The business energy

³¹ BEIS, 'Smart meter policy framework post 2020', 2019, <https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020>.

³² BEIS, 'Energy efficiency scheme for small and medium sized businesses: call for evidence', 2019, <https://www.gov.uk/government/consultations/energy-efficiency-scheme-for-small-and-medium-sized-businesses-call-for-evidence>.

³³ BEIS, 'Boosting access for SMEs to energy efficiency (BASEE): competition', 2019, <https://www.gov.uk/government/publications/boosting-access-for-smes-to-energy-efficiency-basee-competition>.

efficiency scheme for SMEs will respond to these barriers and aims to increase the uptake of energy efficiency measures among SMEs.

The BASEE competition aims to accelerate the growth of the energy services market for SMEs by driving down transaction costs and promoting third party investment in small-scale energy efficiency projects. The competition will make available £6m of funding for innovative, scalable business models or solutions that facilitate the investment for small energy efficiency retrofit/refurbishment projects in commercial and industrial buildings in the UK. The competition is funded by the BEIS Energy Innovation Programme which aims to reduce the UK's carbon emissions and the cost of decarbonisation by accelerating the commercialisation of innovative clean energy technologies and processes into the mid-2020s.

Strengthening the PRS Regulations will complement the options for an SME scheme by improving the energy efficiency for those in rented buildings. Similarly, growing the energy services market for SMEs could encourage innovative ways that SME tenants can work with landlords to improve the energy efficiency of the buildings they occupy. According to BEES data, we estimate that 64% of SMEs in England and Wales rent.³⁴

Existing and Future Energy Schemes, such as: Energy Savings Opportunity Scheme (ESOS) and Streamlined Energy and Carbon Reporting Framework (SECR).

Energy use in the business and industry sector has been steadily decreasing since 2000. Business energy demand is expected to continue to reduce due to continuing improvements in energy efficiency in response to existing policies such as energy taxes and trading schemes. These include the Climate Change Levy (CCL), Climate Change Agreements, product standards and labelling, building regulations, the roll-out of smart meters, and audit schemes such as the Energy Savings Opportunity Scheme (ESOS). ESOS is particularly relevant in that it requires all large UK undertakings at least every 4 years to calculate the total energy across their buildings, industrial processes and transport, and to receive recommendations following an audit of at least 90% of the total energy consumption on how to improve their energy efficiency. The current ESOS Phase requires all large undertakings to have confirmed to the Environment Agency they are compliant by 5 December 2019.³⁵

We estimate that demand could fall by 45TWh as a result of existing policies and schemes between 2015 and 2030³⁶.

³⁴ BEIS, BEES (estimate calculated using building weights).

³⁵ ESOS guidance can be found at <https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos>.

³⁶ BEIS, 'Helping businesses to improve the way they use energy: call for evidence', 2018, <https://www.gov.uk/government/consultations/helping-businesses-to-improve-the-way-they-use-energy-call-for-evidence>.

Consultation questions

Question 1: Do you have any evidence which can improve the Government's understanding of energy use in the non-domestic building stock?

Question 2: It has now been over a year since the minimum energy efficiency standards for the non-domestic private rented sector were introduced. What have been the positives and areas for improvement of their introduction?

Question 3: Do you agree that 2030 is the appropriate date to set the future trajectory? Does this allow a long enough lead in time for landlords and businesses to plan effectively, as well as providing the energy efficiency market with medium to long-term certainty of demand?

Question 4: To what extent do you think an EPC B trajectory provides sufficient certainty of demand to encourage suppliers in the energy efficiency market to grow, scale and innovate?

Question 5: What do you think are the opportunities and challenges of the Government's preferred 2030 EPC B trajectory?

Question 6: We estimate an EPC C trajectory will only bring 42% of the non-domestic PRS building stock into scope of the regulation. Are there any alternative approaches that could complement an EPC C trajectory that would guarantee the necessary action across the remaining stock to drive clean growth and deliver sufficient energy and carbon reductions?

Question 7: Can you identify any issues regarding the current administration of the seven-year payback test which could be improved to support the goals that a tightened regulatory trajectory to 2030 aims to deliver?

Question 8: Would a single backstop date in 2030 or phased milestones to 2030 be the more effective method for implementing the trajectory options? Does it depend on the trajectory option? If a single backstop were favoured by the Government, what type of financial and non-financial incentives could encourage landlords to install measures earlier than the 2030 deadline?

Question 9: Are there any reasons why any of the current exemptions will be less effective under a tightened trajectory?

Question 10: Are there any ways in which the market can overcome situations where the tenant has fit-out requirements and is willing to fund the improvement of the building at the start of the tenancy?

Question 11: Are there any unique challenges that the tightened trajectory will pose to SMEs or any individual sector? How could the sector look to overcome that challenge?

Question 12: At this stage we welcome views on how the Government could most effectively improve enforcement of minimum energy efficiency standards under an EPC B or C by 2030 trajectory.

Question 13: As illustrative examples, do the costs, bill savings and private payback periods that our modelling assumes for these building types approximate your experience?

Question 14: The table lists the costs and benefits we have identified as a result of the proposals. Are there any impacts relevant to your sector or organisation/business (e.g. SME, Civil society organisations) that are missing? If so, can you provide us with any supporting evidence?

Question 15: We understand that there are natural void periods when leasing a property, due to finding a tenant and refurbishing a building. Is there any evidence to suggest the proposals are likely to increase void periods and by how long? Please provide as much detail as you can.

Question 16: Under both trajectory options, landlords of buildings below EPC B or C will be required to invest money upfront to improve the energy efficiency of their building. If you are a landlord, what are the key factors that would determine the pass-on cost to the tenant, and the length of time under which you would seek a return on your investment? We anticipate key factors could include: investment cost, bill savings delivered by the measure, payback period of the measure, lifetime of the measure, maintenance costs and market forces. If you are not a landlord, we also welcome any evidence you could provide.

Question 17: Is there a possibility that under certain types of lease arrangements (for example green leases) the costs of improvements might be shared between landlords and tenants?

This consultation is available from: www.gov.uk/government/consultations/non-domestic-private-rented-sector-minimum-energy-efficiency-standards-future-trajectory-to-2030

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