

# 2024 Reforms to the Energy Performance of Buildings Regime

**Consultation Stage Impact Assessment** 

Title: Reforms to the Energy Performance of Buildings Regime

IA No:

RPC Reference No: n/a

Lead department or agency: Ministry of Housing, Communities and

Local Government

Other departments or agencies: None

Impact Assessment (IA)

Date: 04/12/2024

Stage: Consultation

Source of intervention: Domestic

Type of measure: Secondary legislation

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# **Summary: Intervention and Options**

RPC Opinion:

**RPC Opinion Status** 

Cost of Preferred (or more likely) Option (in 2024 prices, 2026 present value)			
Total Net Present Social Value Business Net Present Value Net Cost to business per year			
-£46m	-£81m	£9.4m	

# What is the problem under consideration? Why is government action or intervention necessary?

The Energy Performance of Buildings (EPB) Framework was introduced in phases from 2007, to support carbon reduction in existing homes and buildings by encouraging take-up of energy efficiency measures. Since then, the key elements of the framework – notably Energy Performance Certificates (EPCs) – have become a tool in several different policy areas, such as fuel poverty, net zero and housing quality. However, the Framework itself has not changed to reflect these greater uses, or to reflect wider policy changes such as a different landscape on net zero and energy. As such, the Framework is in need of reform – as recommended by the Climate Change Committee and other key stakeholders.

#### What are the policy objectives of the action or intervention and the intended effects?

The intended outcome of the intervention is, overall, a more efficient Energy Performance of Buildings Framework. We want the Framework to enable easier and more informed consumer decision making, create more accurate, reliable and trusted energy certificates, and allow for better and more open access to data. The desired effects are: consumers having more information to enable them to make a decision based on what is important to them; to make energy certificates a more trusted and reliable source of information, in turn leading to more action being taken on their recommendations; and providing better data to individuals and stakeholders in order to improve the Framework for all. Indicators of success will be positive feedback to the consultation, feedback from key stakeholders including industry and consumer advocacy groups, and a smooth implementation of a new Framework.

# What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Do nothing: the Framework would continue to operate in an inefficient way. Property owners and landlords would still be required to obtain an EPC in certain circumstances under the existing legislation, but these EPCs would not improve in quality, and the policies that use EPCs will not be able to benefit from improved metrics and the more robust regulatory framework. Non regulatory options would have little change as the energy certificates are part of an existing regulatory framework. We have already exhausted non regulatory options for change and improvement through our EPC Action Plan and various lines of user testing work. The preferred option is now therefore regulatory changes. These will allow for sufficient reform to the EPB Framework.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 01/2028				
Is this measure likely to impact on international trade and investment?				
Are any of these organisations in scope?  Micro Yes  Small Yes  Yes  Yes  Yes				_
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)		Traded: -0.0		raded: -0.1

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:

O Date

3 December 2024

Summary: Analysis & Evidence Policy Option 1

**Description:** 

#### **FULL ECONOMIC ASSESSMENT**

Price Base	PV Base	Time Period	Net Benefit (Present Value (PV)) (£m)		
<b>Year</b> 2024	<b>Year</b> 2026	Years 10	Low: Optional	High: Optional	Best Estimate: N/A

COSTS (£m) Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)	
Best Estimate	£0.74m	1	£12m	£103m

#### Description and scale of key monetised costs by 'main affected groups'

Some owners and landlords of holiday lets and HMOs would be under a new duty to obtain an EPC when their property is let, as would some owners and landlords of heritage properties on sale or letting. Landlords must renew their EPCs more frequently if a valid EPC is required throughout a tenancy period. Total costs associated with additional EPCs are estimated at £78m. More frequent DEC and DEC advisory report renewal is estimated to result in costs of £4m. Following transaction, HMO and heritage building landlords who do not have a valid exemption would need to improve their properties to comply with the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 (the MEES Regulations) (minimum EPC Band E) - estimated to total £20m in costs.

#### Other key non-monetised costs by 'main affected groups'

No costs have been included for installed measures resulting from voluntary EPCs and DECs. All recommendations on EPCs are optional and do not have to be implemented. Reducing the validity period of an EPC would mean landlords and property owners renew their EPC more often at transaction, and changing the metrics on an EPC could increase EPC assessment costs if this increases time or complexity. Calls for evidence will follow with quantified costs in future technical consultations as policies develop. There would be higher penalties for non-compliant landlords, owners, managers and letting agents.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	<b>Total Benefit</b> (Present Value)
Best Estimate	N/A	N/A	N/A	£57m

#### Description and scale of key monetised benefits by 'main affected groups'

Investment in measures recommended by EPCs and DECs will result in carbon and energy savings. Given the rate of voluntary uptake is uncertain, switching analysis indicates the required rate of uptake for the policy to have a net benefit. The cost of installing measures is not included in the benefits as it is assumed to be paid back by the private benefit of lower energy bills. The benefits relating to the MEES regulations of EPC E are estimated at £57m.

#### Other key non-monetised benefits by 'main affected groups'

The proposed reforms to the EPC system provide a broader and more accurate view on the energy performance of our buildings, which in turn enables better decision making when buying, renting and retrofitting properties. They also underpin improvements in value for money in government grants, improvements in private and consumer finance, and improvements to the quality and effectiveness of regulation such as MEES. The opening up of EPC data will enable a broader range of products and services to help improve the building stock.

#### Key assumptions/sensitivities/risks

Discount rate (%)

3.5

EPC lodgements by tenure are uncertain, and assumptions are used on the likelihood an EPC will be lodged at transaction based on occupation length. Existing EPCs are assumed to expire evenly over the appraisal period. It is assumed that 50% of HMO stock will be brought into scope once the exemption is removed, all furnished holiday lets under a short-term letting arrangement brought into scope are in the owner occupied tenure and that there is no noncompliance with the regulations. All assumptions are set out in the analytical approach in Section 6 and key assumptions are tested in the sensitivity analysis in Section 7.

#### **BUSINESS ASSESSMENT (Option 1)**

Direct impact on business (Equivalent Annual) £m:		nnual) £m:	Score for Business Impact Target (qualifying	
Costs: £11m	n Benefits: £1.9m Net: £9.4m		provisions only) £m:	
			N/A	

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#### 1. Problem Under Consideration

- 1.1. Buildings are currently responsible for around 20% of UK greenhouse gas emissions<sup>1</sup> and this needs to decrease significantly for the government to achieve its target to reduce greenhouse gas emissions to Net Zero by 2050.
- 1.2. The Energy Performance of Buildings (EPB) Framework was introduced in phases from 2007, to support decarbonisation of existing homes and buildings by encouraging take-up of energy efficiency measures. It is implemented by the EPB Regulations. The key elements of the framework are energy certificates: Energy Performance Certificates (EPCs), Display Energy Certificates (DECs) and Air Conditioning Inspection Reports (ACIRs).
- 1.3. The EPC has become a key measurement tool for assessing the performance of our buildings and is now widely used beyond its original scope. For example, EPC ratings are used as the basis for energy efficiency targets, for regulatory requirements such as minimum energy efficiency standards (MEES) for the private rented sector (PRS) and as an eligibility requirement for funding, such as in the Warm Homes: Social Housing Fund (WH:SHF). The EPC will remain an important tool for delivering the Warm Homes Plan, which aims to save families money and contribute to the UK meeting its climate targets, including by setting new PRS standards for homes by 2030.
- 1.4. Improving the energy performance of buildings would contribute significantly to lowering energy bills for building owners and occupiers, whilst decreasing the carbon output of the UK's buildings and reducing overall energy demand. The Warm Homes Plan will contribute to this target by upgrading five million homes by the end of this parliament.
- 1.5. The proposals in this consultation will, if agreed, be implemented by changes to the EPB Regulations, guidance, methodologies and other aspects of the framework such as Accreditation Scheme Operating Requirements. We expect that these changes will lead to an energy certificate system that is more efficient, easier for consumers and businesses to navigate, and more useful and informative as a result. As the Energy Efficiency (Private Rented Property) (England and Wales) Regulations (2015) use EPCs as a measure, some of the proposals in this consultation could also bring certain properties into scope for MEES requirements and alter when EPCs are required for those already within the scope of MEES. Existing exemptions for MEES will continue to apply and will be unaffected. The EPB Regulations apply to both domestic and non-domestic buildings. The proposals will affect owners and landlords in both the private and social rented sector and, for DECs, managers, owners and occupiers of certain public authority buildings which are frequently visited by the public.

#### 2. Rationale for Intervention

2.1. Intervening through the Energy Performance of Building Regulations reduces information asymmetry which improves property exchanges for consumers and

<sup>&</sup>lt;sup>1</sup> DESNZ 2023 UK greenhouse gas emissions, provisional figures, Figure 2 Buildings & Product uses, Pg 7, <a href="https://assets.publishing.service.gov.uk/media/6604460f91a320001a82b0fd/uk-greenhouse-gas-emissions-provisional-figures-statistical-release-2023.pdf">https://assets.publishing.service.gov.uk/media/6604460f91a320001a82b0fd/uk-greenhouse-gas-emissions-provisional-figures-statistical-release-2023.pdf</a>

- encourages investment in energy efficiency for bill and carbon savings. This is through either voluntary uptake of recommendations or through enabling other policies. This ensures that improvements occur at a faster rate to reduce the risk of climate change.
- 2.2. The energy market currently fails to deliver cost-effective energy efficiency in buildings due to several market failures:
  - 2.2.1. Externalities from climate change: Polluters do not bear the true cost of their emissions. Households use energy (e.g. heating) and benefit from it (e.g. a warm home), but the environmental costs aren't fully included in the energy bills. This leads to overuse of fossil fuel-based energy and low demand for energy-saving improvements.
  - 2.2.2. **Information gaps**: Building buyers, tenants, and mortgage providers lack awareness of long-term energy price increases so cannot accurately value energy-efficient buildings.
  - 2.2.3. Lack of investment: This is due to a lack of trusted information for consumers, including businesses, who are not well informed about energy performance improvement measures. Householders might not know the potential benefits of action or have adequate access to or understanding of information on energy efficiency measures available to them. Short payback periods are required if no property value increase is perceived, and landlord/tenant issues exist concerning who invests and who benefits.
  - 2.2.4. **Behavioural inertia:** Some property owners prefer to keep doing what they know, valuing short-term convenience over long-term benefits.
  - 2.2.5. Errors or inaccurate recommendations may also result in suboptimal choices.

#### 3. Policy Objectives

- 3.1. The government's vision is that EPCs, DECs and ACIRs and the data they are based upon will provide householders (freeholders and leaseholders), landlords, tenants (commercial and domestic) with:
  - A clear indication of the relative performance of their building based on clear, understandable metrics which measure what matters to users, such as the building's energy costs, carbon emitted, or levels of comfort, and which will allow users to understand how their building performs compared to similar buildings
  - Tailored advice about what can be done to improve their building's performance
    and incentives to do so covering the best measures to take to reduce bills and
    carbon emissions, and which are cost effective and affordable. This could be
    extended, potentially, to links to trusted installers so that users can have
    confidence in the quality of work being undertaken
  - The ability to link to relevant grant/loan schemes to support any work recommended. Government is seeking to enhance the information available to building owners on grant and loan schemes to encourage access to and take up of funding for eligible measures to improve energy efficiency of buildings
  - Information on whether their home/building complies with existing and forthcoming legislation

- 3.2. The vision is also for the future EPB Framework to improve the access and use of energy performance data to provide government, public authorities and the private sector with the information to:
  - measure progress towards decarbonisation of the building stock
  - set targets and benchmarks including as the basis for regulatory levers and to measure progress against them
  - inform area-based interventions to improve the energy performance of buildings located in that area
  - inform investment in retrofit programmes by both the private and public sectors.
- 3.3. The energy performance measurement system that underpins EPCs will provide accurate, trusted and credible assessments by:
  - being resistant to fraud and improved monitoring for evidence of fraudulent activity
  - requiring high levels of compliance
  - having the means for robust enforcement where necessary
  - ensuring suitably qualified and experienced individuals conduct assessments
  - being robust and secure in the way in which data is held and managed
- 3.4. To achieve this vision, we need to reform the EPC and energy certificate system to:
  - increase the relevance, clarity and understandability of information provided from assessments. The EPCs and DECs need to engage consumers and third parties to help them understand how a building is performing and how they can make improvements that will be appropriate to them and to the property. Certificates need to work for users, rather than be regarded purely as a regulatory necessity.
  - improve the accuracy of the assessments of EPCs and DECs to increase levels of trust in ratings and thus encourage increased take up of associated recommendations
  - improve the competence of energy assessors and prevent fraud so that users can rely on the accuracy and robustness of the assessments and so will be more confident in taking action on the recommendations
  - enable better compliance with the requirements of the EPB Regulations, including formal enforcement of those requirements where this is necessary
  - enable better, tailored advice to be provided to consumers, householders (freeholders and leaseholders), landlords and tenants (commercial and domestic), about how they could undertake the recommendations flowing from assessments
  - continue to improve the way that data can be made available for use whilst ensuring compliance with data protection legislation. EPCs and DECs provide information on the performance of the building stock and support effective

decisions on improving the energy efficiency of buildings. It is, therefore, important that it is easy to access information and links to other relevant sources of data. The data infrastructure also needs to continue to evolve to meet future needs.

# 4. Options Considered

- 4.1. The 'Do Nothing' option leaves the existing Energy Performance of Buildings regime in place, and leaves EPCs poorly aligned to government ambitions on achieving net zero and improving insulation of the building stock. There will continue to be inconsistencies for how private rented properties are treated, and our data sharing ambitions will not be realised. The fines for avoiding an EPC remain out of step with the potential advantages of avoiding MEES regulations. For these reasons, the 'Do Nothing' option is not considered the preferred option.
- 4.2. This impact assessment gives quantitative analysis on five key proposals in the consultation which constitute the Preferred Option. Whilst the accompanying consultation document sets out a larger range of policy proposals and call for evidence questions, only a subset of proposals are quantified in the Impact Assessment because detailed analysis is not appropriate for those proposals which will not have a significant cost-benefit implication or for those that are not a final stage policy proposal.
- 4.3. **Chapter Two:** 'What EPCs Measure' of the consultation document seeks views on possible future metrics to reflect the performance of buildings. It is important that the metrics shown on energy certificates reflect the items which matter to users in ways which are clear and understandable.
- 4.4. Chapter Three: When EPCs and DECs are required' which looks at when EPCs and DECs are required. The proposals in this section aim to improve access to energy efficiency information by identifying situations where more up to date energy certificate information would benefit users. These include shortening the validity period, expanding the scope, and creating additional trigger points.
- 4.5. **Chapter Four: 'EPC and DEC data'** on how and what EPC and DEC data should be accessible.
- 4.6. Chapter Five: 'Managing EPC quality', includes improving the user experience, energy assessor skills, knowledge and assessment practice, the collection and use of data on the Energy Performance of Buildings Register (EPB Register), and the compliance and enforcement of the EPB Regulations.
- 4.7. Chapter Six: 'Air Conditioning Inspection Reports' seeks views on actions to reduce carbon emissions from air conditioning systems and combined air conditioning and ventilation systems.
- 4.8. Table 1 below gives an overview of the policy proposals covered within the consultation document.

Table 1: Description of Proposals under the policy option

Propo	osal	Description and Rationale
1.	Future metrics to measure energy efficiency used for EPCs.	Proposed flexible approach for future energy performance metrics to replace the current EPC ratings. Aims to address concerns raised by the stakeholders including the Climate Change Committee regarding the limitations of the existing EPC system in supporting the transition to Net Zero. The new approach would provide consumers with a wider variety of relevant metrics.
2.	Proposal to incorporate thermal performance data such as Smart Meter Enabled Thermal Efficiency Ratings (SMETERs) into the energy performance assessment framework.	Smart meters provide granular, real-time data on actual energy consumption patterns across different fuel types and end-uses within a building. Integrating this measured data could improve the accuracy of energy performance assessments compared to the modelled assumptions currently used.
3.	Reducing the validity period of Energy Performance Certificates (EPCs) from the current 10 years.	The current validity period means EPCs may not reflect the current energy performance of a property, especially if energy efficiency improvements or changes in building use have occurred since the certificate was issued. A shorter validity could ensure EPCs provide more up-to-date and accurate information to homeowners and prospective buyers.
4.	Requiring a valid EPC throughout a tenancy period for a property.	Currently in the private rented sector when an EPC expires, a new EPC is only required when a property is re-let and not when the same tenant renews or extends their lease. This proposal would mandate that landlords keep the EPC up-to-date and valid for the duration of the tenancy period. It aims to ensure tenants have access to accurate energy performance information for the property at all times during their tenancy.
5.	Simplify the regulations to state that a building should not be marketed for sale or let without an EPC.	The current EPC regulations have varying requirements and validity periods depending on whether a property is being sold, newly rented, or an existing tenancy is being renewed. This proposal would streamline the rules by mandating that any building cannot be advertised or marketed for sale or let without a current EPC in place first.
6.	Removal of the exemption which permits HMO landlords to rent out individual rooms without the need for a whole-building EPC.	A valid EPC for an HMO when a room is rented out would ensure that a prospective HMO tenant could make informed decisions based on the energy performance of the building and an indication of potential energy costs. Introducing MEES compliance would also result in lower fuel bills and increased comfort for the tenants within the HMO.
7.	Amend the regulations to clarify the EPC requirements for short term rental properties.	An EPC would be required where the building is occupied for the purposes of a holiday let as a result of a short term letting arrangement of less than 31 days to each tenant, and is rented out for a combined total of four months or more in any 12 month period, regardless of whether the occupier is responsible for meeting the energy costs of the property.
8.	Remove the exemption for landlords from obtaining an EPC for buildings officially protected as part of a designated environment or because of their architectural or historical merit.	Bringing such heritage buildings into the scope of the regulations aims to increase transparency around their energy performance while respecting heritage constraints. It would require EPCs for these properties to provide recommendations tailored to their characteristics, bringing more under the scope of Private Rented Sector minimum standards. However, no modifications unacceptably altering a listed building's historic character would be mandated. Existing exemption pathways would still apply where meeting efficiency standards is impractical, preserving historic building stock. This change intends to balance energy

Propo	Proposal Description and Rationale				
		improvements with heritage preservation, giving owners insights			
		and prospective buyers/tenants informed decision-making.			
9.	Propose reducing the	DECs show the actual operational energy performance of a			
	validity periods for DECs	building based on metered energy consumption data over the			
	and advisory reports for buildings between 250-	preceding years. A shorter validity period would ensure the information on a DEC is more current and reflective of the			
	1,000m², and DEC advisory	building's recent energy use patterns. This could provide more			
	reports for buildings over	accurate data to building owners/occupants and better support			
	1,000m².	energy management decisions.			
10.	Proposal to use existing or	Utilising existing or historical building data in EPC assessments			
	historical building data in	could enhance their accuracy and provide a more comprehensive			
	future EPC assessments.	understanding of a property's characteristics and performance			
		over time.			
11.	Provide an exemption for	To ensure best practice on data use and storage.			
	'cancelled' or 'not for issue' EPCs from the 20-year				
	minimum data retention				
	period rules.				
12.	Remove the option to opt	To ensure that owners and occupiers of buildings have access to			
	out EPCs from the EPB	certificates that they need to prove legal compliance.			
	Register public access				
40	search.	The way plations about the statement of the description of Fig.			
13.	Change regulations to	The regulations should be clearer about permitted use of Energy			
	support better data sharing.	Performance of Buildings Register data to better support energy performance policy, government schemes and enforcement so			
		that a general prohibition on data sharing is replaced with a			
		Secretary of State discretion about when, how and with whom to			
		share the data.			
14.	Extending the published	Consult on publishing more useful data items on open data which			
	open dataset to include all	requires changes to the regulations.			
	data items relating to the				
15.	building. Update the existing	To gather evidence on what sanctions could drive improvements			
10.	Schemes Operating	to accreditation scheme performance.			
	Requirements, which set the	To allow the second personnance			
	standard for the delivery of				
	energy certificates, to				
	improve accreditation				
40	scheme performance.	To water a side was a second of the second o			
16.	Consult on options to	To gather evidence on options to increase fines to drive higher			
	increase penalties for EPB non-compliance.	compliance. There has been consistent feedback that penalty charges are insufficient to deter non-compliance.			
17.	Consult on options to	To gather evidence on timing options to apply fines and drive			
	change the timescale in	higher compliance. This will align more closely with other			
	which penalties can be	government regulations; penalty notices under MEES regulations			
	applied.	can be served up to 18 months after the breach.			
18.	Improving EPB	While evidence suggests generally good compliance with EPC			
	enforcement and	regulations, particularly outside of the private rented sector, the			
	responsibilities.	consultation acknowledges low levels of enforcement activity. As			
		the importance of EPC-linked regulations grows, the proposal aims to strengthen enforcement arrangements without major changes to			
		current responsibilities. The goal is to ensure robust enforcement			
		mechanisms that uphold EPC requirements as they become more			
		consequential for housing policies and energy efficiency goals.			
19.	Proposed new penalty	This is to improve enforcement and encourage compliance,			
	charge fine amount of £800	current penalty or fine levels are not sufficient to drive			
	for non-compliance with the	compliance.			

Propo	osal	Description and Rationale
	requirement to have an ACIR for systems with an effective rated output over 12kW	
20.	Proposals to overhaul the design and headline metrics of ACIR reports.	The proposed overhaul aims to simplify the ACIR format, making it more user-friendly and visually appealing. Key metrics could be revised to include cost metrics incentivising engagement with recommendations and improving decarbonisation efforts.

#### 5. Summary and preferred option with description of implementation plan

- 5.1. The preferred option will take effect through secondary legislation, pending the outcome of the consultation and analysis of responses. We currently plan for there to be transitional arrangements of 24 months for private rented properties, such as HMOs, brought into the scope of the regulations to allow them time to comply with the MEES regulations.
- 5.2. The intervention will lead to the intended achievement of the policy objective by making a number of changes to the EPB Framework. These changes will cover a number of areas: changing the metrics on certificates will mean we can tailor them to meet new policy needs and provide more information to consumers; changing when they are required will close existing loopholes and bring more properties into scope of the Framework, in turn increasing information available to consumers and improving our data sources; changes to training and enforcement will improve the quality of energy certificates, in turn boosting consumer confidence in them; and making changes to data will open up more information to individuals and stakeholders, which could in turn be used to inform individual decisions or make recommendations about the future of the Framework, or other policies related to the Framework.
- 5.3. Pending the outcome of the consultation, we envisage publishing a response in 2025, with changes coming into effect after this.
- 5.4. MHCLG will be responsible for ongoing operation of the new arrangements. Some powers will rest with local authorities, such as on enforcement.
- 5.5. As the Framework has existed for several years, we do not believe extensive experimentation or piloting is required. We are committed to keeping the changes under review and making any changes as necessary.

#### 6. Analytical Approach

#### **Appraisal Period**

- 6.1. The proposed EPB Regulations are planned to come into force from 2026 and will continue into the foreseeable future. From late 2026, building owners and landlords will be required to meet the new regulations when a heritage building is sold, when a heritage building is let, when a holiday home is let, when a HMO is let, or when a new DEC advisory report is lodged. There will also be a requirement for landlords to have an EPC in place throughout the tenancy period for private rented buildings.
- 6.2. The cost appraisal period lasts 10 years, starting in 2026 and ending in 2035. The 10-year period is as per Green Book Guidance as this is an administrative change.<sup>2</sup> Refurbishment of existing buildings are not mandatory under the policy option. Though some buildings in the PRS may fall into scope of DESNZ's MEES regulations when an EPC is required for the first time.
- 6.3. Benefits are likely to last for a significantly longer period than the 10 years covered in the cost appraisal period. Any energy efficiency retrofit work undertaken because of the recommendations outlined on an EPC should last at least 10 years, and some recommendations around 40 years.
- 6.4. The benefits switching value, for domestic buildings, is appraised over 20 years. This is a weighted average using the expected lifespan of the top 3 most frequently installed recommendations.<sup>3</sup> This is likely an underestimate as less common recommendations which have a higher upfront cost may last significantly longer.
- 6.5. In DESNZ' MEES analysis, replacement costs and the associated benefits have been considered. However, since there is no requirement to replace installations with an as efficient measure as the original investment, voluntary uptake switching value analysis does not consider replacement installations.
- 6.6. DESNZ' MEES policy will result in more substantial fabric improvements that are replaced at the end of their lifetime to maintain the properties minimum standard on a compulsory basis. Therefore, the benefits and costs associated with MEES are appraised over a 52-year appraisal period aligning with DESNZ.

# **EPC lodgements by tenure under the counterfactual**

**Domestic** 

<sup>&</sup>lt;sup>2</sup> The Green Book guidance (2022), 2.4 Shortlist appraisal: <a href="https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020#shortlist-options-appraisal">https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020#shortlist-options-appraisal</a>

<sup>&</sup>lt;sup>3</sup> This was calculated using 2021 National Energy Efficiency Data Framework and the 2018 English Housing Survey. https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-impact-of-measures-data-tables-2021 https://www.gov.uk/government/statistics/english-housing-survey-2017-to-2018-energy

- 6.7. There are around 780,000 sales per year in England and Wales.<sup>4</sup> This is equivalent to approximately 5% of the owner-occupied stock, which is estimated at about 17m.<sup>5</sup>
- 6.8. EHS 2022-23 data is used to estimate annual PRS and SRS transactions in England, which is the sum of moves for each tenure.<sup>6</sup> There are approximately 1 million moves in the PRS in England each year. This suggests an annual churn of approximately 21%. For the SRS in England there are approximately 236,000 moves annually which is approximately a churn of 6%.<sup>7</sup> Adjustments are then made to account for the PRS and SRS in Wales using Welsh dwelling stock estimates.<sup>8</sup>

Table 2: Types of moves in the PRS and SRS, England, EHS 2022-3

Type of move	Moves
Moves within the sector (From PRS to PRS)	
, ,	676,000
New households to the PRS	
	192,000
Social Rented tenants moving to the PRS	
	38,000 <sup>9</sup>
Owner Occupier moves to the PRS	
	109,000
PRS Total	
	1,014,000
Moves within the sector (From SRS to SRS)	
	125,000
New households to the SRS	
	32,000
Private Rented tenants moving to the SRS	
	60,000
Owner Occupier moves to the SRS	
,	19,000
SRS Total	
	237,000

Footnote: Totals may not add up due to rounding.

6.9. The distribution of each tenure by length of residence in their current home using internal analysis of EHS data from 2022-23 is used to breakdown the annual transactions for each tenure discussed above, by years since the previous

Wales as at 31 March 2023:

 $\underline{\text{https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimates-by-year-tenure}$ 

<sup>&</sup>lt;sup>4</sup> HPSSA Dataset 8. Number of residential property sales for administrative geographies (existing dwellings) Table 1a England and Wales. Annual average over 10 years from year ending Dec 2013 to Dec 2022:

 $<sup>\</sup>frac{https://www.ons.gov.uk/peoplepopulation and community/housing/datasets/number of residential property sales for national and subnational geographic esex is ting dwelling squarterly rolling year hps sadataset 08$ 

<sup>&</sup>lt;sup>5</sup>England 2023 estimate: <a href="https://www.gov.uk/government/statistics/dwelling-stock-estimates-in-england-2023/dwelling-stock-estimates-england-31-march-2023">https://www.gov.uk/government/statistics/dwelling-stock-estimates-in-england-2023/dwelling-stock-estimates-england-31-march-2023</a>

<sup>&</sup>lt;sup>6</sup> EHS Headline Report Chapter 3, Housing history and future housing Figures, Figure 3.4: Household moves, by tenure, 2022-23, <a href="https://www.gov.uk/government/statistics/chapters-for-english-housing-survey-2022-to-2023-headline-report">https://www.gov.uk/government/statistics/chapters-for-english-housing-survey-2022-to-2023-headline-report</a>

<sup>&</sup>lt;sup>7</sup> Calculated churn, using total private renters and social renters in EHS Annex Table 1.6, 2022-3

https://www.gov.uk/government/statistics/annex-tables-for-english-housing-survey-headline-report-2022-to-2023

<sup>&</sup>lt;sup>8</sup> Welsh Dwelling Stock estimates:

https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimates-by-year-tenure

<sup>&</sup>lt;sup>9</sup> This figure is indicative only due to low sample size and should be used with caution, EHS Headline Report 2022-23

transaction.<sup>10</sup> The PRS has a shorter average occupation length than owner occupiers as tenants tend to move dwelling more often.

Table 3: % of stock of each tenure by length of time in current home, EHS 2022-23

Length of residence in current home	% of owner occupiers	% of private renters	% of social renters
< 1 year	4%	22%	6%
1 year to 3 years	12%	30%	13%
3 years to 5 years	10%	17%	13%
5 years to 10 years	18%	18%	22%
10 years to 20 years	20%	9%	25%
20 years to 30 years	16%	2%	13%
30 year and above	20%	1%	9%

Footnote: Figures may not add up to 100%, or match the referenced annex table due to rounding.

- 6.10. For each tenure, an annual average of historic lodgements data is used to make assumptions on the likelihood an EPC would be lodged at transaction given years since the previous transaction. For example, given an EPC expires after 10 years, no properties that have been occupied for more than 10 years will have a valid EPC, unless lodged for non-sale or let reasons like grant schemes. Historic lodgements are adjusted to remove EPCs that do not relate to a let or sale, so that for each tenure total modelled lodgements based on these assumptions will roughly equal adjusted historic lodgements.
- 6.11. There were 628,000 lodgements per year relating to marketed sales and non-marketed sales, and for rentals 506,000 lodgements.<sup>11</sup> We use the assumptions detailed in 6.10. to breakdown the lodgements for rentals into the PRS and SRS, ensuring that they sum roughly to total lodgements for rentals. All other categories of lodgements are not used in this analysis.

#### Non-domestic

6.12. The Valuation Office Agency (VOA) data has been used to estimate the non-domestic stock in scope of a commercial EPC (c-EPC) in England and Wales, as this provides a breakdown at hereditament level. Non-domestic EPCs are likely to be required at hereditament level rather than whole building level as other data sets

<sup>&</sup>lt;sup>10</sup> EHS Data on new households and recent movers, Live table FA4131 (S125), 2022-23: <a href="https://www.gov.uk/government/statistical-data-sets/new-households-and-recent-movers">https://www.gov.uk/government/statistical-data-sets/new-households-and-recent-movers</a>

<sup>&</sup>lt;sup>11</sup> Annual average from 2014-2023, Table D4(b): domestic Energy Performance Certificates for all dwellings by type of transaction and tenure: <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates">https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates</a>

<sup>&</sup>lt;sup>12</sup> Non-Domestic Stock Data Estimate: Valuation Office Agency, Non-domestic rating: stock of properties including business floorspace, 2023 <a href="https://www.gov.uk/government/statistics/non-domestic-rating-stock-of-properties-including-business-floorspace-2023">https://www.gov.uk/government/statistics/non-domestic-rating-stock-of-properties-including-business-floorspace-2023</a>

provide, such as the Non-Domestic National Energy Efficiency Data-Framework (ND-NEED).

- 6.13. It is estimated some 56% of total hereditaments are likely to be in scope of a c-EPC. Properties in sectors most likely to have conditioned buildings were assumed to require an EPC, specifically those that are not industrial, transport, utilities, storage/warehouses and natural product refineries.<sup>13</sup> This proportion of the non-domestic stock in scope of requiring an EPC is assumed throughout the analysis. These are approximate figures based on high level categories and their requirement within the existing EPOB regulations.
- 6.14. A report published from the Property Industry Alliance estimates that 55% of commercial property is leased, 14 and so it is estimated there are about 660,000 non-domestic leased buildings that will require an EPC. The remaining 45%, about 540,000 buildings, are assumed to be owner occupied.
- 6.15. It is then assumed that rental or sale transactions relating a commercial property will be evenly distributed up to the average length of occupation. The average lease length is assumed to be 9.4 years.<sup>15</sup> Average occupation by a commercial owner occupier is uncertain and assumed at 15 years in this analysis. Therefore, it is estimated that each year there will be 70,000 rental transactions relating to non-domestic leased buildings in scope of requiring an EPC, and 36,000 for owner-occupied buildings.
- 6.16. On average, there have been about 108,000 non-residential property sales per year in England and Wales.<sup>16</sup> As set out in paragraph 6.13., it is assumed 56% of these, calculated as 60,000 buildings, will be in scope of requiring an EPC when they transact. ND-NEED data suggests there are 8,000 non-domestic new builds per year,<sup>17</sup> and it is assumed all these new builds will be in scope of requiring an EPC. Of the 60,000 non-domestic sales which require EPCs, new builds and owner occupier transactions are deducted to estimate other non-domestic sales transactions (by investors) which will require an EPC, calculated as about 16,000 per year.
- 6.17. On average there are 87,600 non-domestic EPC lodgements (sales and rentals) per year. The distribution of leased properties by lease length is estimated using data

https://www.gov.uk/government/statistics/non-domestic-national-energy-efficiency-data-framework-nd-need-2023

<sup>&</sup>lt;sup>13</sup> Official Statistics: Non-domestic rating: stock of properties including business floorspace, 2023. Stock SCat, 2023: Table SC1.1: Rateable properties [note 1a] and rateable value [note 2a] by special category (SCat) [note 3a] and country as at 31 March 2023 <a href="https://www.gov.uk/government/statistics/non-domestic-rating-stock-of-properties-including-business-floorspace-2023">https://www.gov.uk/government/statistics/non-domestic-rating-stock-of-properties-including-business-floorspace-2023</a>

<sup>&</sup>lt;sup>14</sup> Property Industry Alliance: Property Data Report 2023. Facts and figures about the UK commercial property industry to year end 2022 <a href="https://propertyindustryalliance.files.wordpress.com/2024/02/pia-2023-final-150124.pdf">https://propertyindustryalliance.files.wordpress.com/2024/02/pia-2023-final-150124.pdf</a>

Data provided by Savills based on MSCI data for 2021 covering 54,209 leases. This data was provided directly by Savills and is not from a published report.

<sup>&</sup>lt;sup>16</sup> Non-residential property transactions completed by financial year above value £40k. Calculated the 10-year average (2013 to 2014 - 2022 to 2023) for England and Wales

https://www.gov.uk/government/statistics/monthly-property-transactions-completed-in-the-uk-with-value-40000-or-above

<sup>&</sup>lt;sup>7</sup> ND Need data (2023), pg 18

<sup>18</sup> Annual average from 2014-2023, Table A: Non-domestic Energy Performance Certificates by energy performance asset rating (2023): <a href="https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates#epcs-for-non-domestic-properties">https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates#epcs-for-non-domestic-properties</a>

from a 2019 MSCI/BNP Paribas Real Estate Report, as reported in Table 4 below. <sup>19</sup> reported in Table 4 below. The shorter the lease, the more likely it is that a valid EPC will be recycled at transaction. It is therefore assumed in the analysis that if the lease length is under 5 years, there is a 25% likelihood an EPC will be lodged, if the lease is between 5-9 years that this will increase to 50%, and that 100% of properties leased over 10 years will require an EPC when they transact, given the 10 year validity period.

Table 4: Distribution of leased properties by lease length

Lease length	% of leased properties
1-4 years	45%
5-9 years	28%
10-14 years	15%
15-19 years	9%
>20 years	3%

6.18. It is assumed in the analysis that 60% of owner occupier transactions will result in an EPC lodgement, where there is not a valid EPC to recycle, given that owner occupiers have a longer average length of occupation than leased buildings, as discussed in paragraph 6.9. for dwellings. It is assumed that about 50% of other property transactions (by investors) will lodge an EPC at sale, and that all non-domestic new builds will result in an EPC lodgement.

# Compliance rates by tenure

- 6.19. The main Cost Benefit Analysis (CBA) modelling assumes no non-compliance with the EPBR across tenures, as this is standard practice when estimating the impact of a regulation. However, since the counterfactual uses a 10-year average of lodgements by tenure, any existing non-compliance rates are already incorporated into the analysis, as is any overcompliance. Using this approach assumes that the policy option does not produce a change to compliance rates.
- 6.20. The ONS have estimated the proportion of dwellings that have had at least one EPC registration since records began by tenure through linking EPC lodgements data to VOA data, <sup>20</sup> and also linking EPC lodgements data to Census data.<sup>21</sup> A dwelling will not have had an EPC if: it has not changed occupation since 2008, it has not applied for a grant scheme which uses EPCs, it is currently excluded from the regulations, or

<sup>&</sup>lt;sup>19</sup> UK Lease Events Review 2019 Prepared by MSCI in association with BNP Paribas Real Estate 2019. Analysis of Figure 1: Unweighted lease length distributions

https://www.realestate.bnpparibas.co.uk/sites/default/files/2019-12/leaseeventsreport2019-final.pdf

<sup>&</sup>lt;sup>20</sup> ONS, Table 6a: Percentage of dwellings covered by an Energy Performance Certificate since records began, England and Wales, as at 31 March 2022:

https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/energyefficiencyofhousingenglandandwalescountryandregion

<sup>&</sup>lt;sup>21</sup>ONS, Table 1 and Table 2, England and Wales, as at 31 March 2021:

https://www.ons.gov.uk/peoplepopulationandcommunity/housing/adhocs/1303percentageofdwellingscoveredbyanenergyperformancecertificateinenglandandwalesusingcensus2021data

due to non-compliance. It will also not have a valid EPC if it has not transacted within the last 10 years.

- 6.21. ONS analysis suggests about 50% of owner-occupied dwellings in England and Wales are covered by an EPC since records began. According to the EHS, some 40% of owner-occupied households won't have changed occupation for 17 or more years. <sup>22</sup> Furthermore, there will be heritage buildings and holiday lets which are claiming exemptions. Together, this suggests high levels of compliance with the EPBR by owner occupiers. A limitation to estimating non-compliance using this approach, which applies across all tenures, is that there may be overcompliance captured within this proportion of dwellings with an EPC, which creates a higher degree of uncertainty and reduces the confidence level.
- 6.22. It is estimated 60-70% of social rented dwellings in England and Wales are covered by an EPC since records began, and the EHS suggests about 27% of SRS households won't have changed occupation for 17 years or more. Social landlords are also regulated and required to achieve defined standards.<sup>23</sup> Therefore, it is assumed there are high levels of compliance in the SRS.
- 6.23. The evidence suggests compliance rates with regulations could be lower in the PRS. Around 60-80% of PRS dwellings in England and Wales are covered by an EPC since records began, whereas only about 4% of PRS dwelling have been occupied for 17 years or more. Some HMOs and PRS heritage buildings are currently excluded from requiring an EPC. It is estimated about 11% of the PRS stock are either an HMO or listed dwelling,<sup>24</sup> although some of these will still get an EPC under the counterfactual. The Rent Smart Wales Energy Performance Dashboard reports 89.24% of PRS properties have an EPC.<sup>25</sup>
- 6.24. Whilst the Housing Health and Safety Rating System (HHSRS)<sup>26</sup> came into force sixteen years ago in April 2006, an estimated 12% of PRS homes in England still suffered from a Category 1 hazard in 2022, meaning they fail the statutory minimum standard for housing in England. For comparison, this was estimated at 4% for SRS homes.<sup>27</sup> Using data from the 2018 English Private Landlord Survey (EPLS), MHCLG categorised 11% of Landlords in a 'Lower compliance' cluster and 35% of Landlords in the 'mixed compliance' cluster.<sup>28</sup>

<sup>&</sup>lt;sup>22</sup>Internal analysis of EHS 2022-3 data to breakdown annual transactions for each tenure by years since the previous transaction.

<sup>&</sup>lt;sup>23</sup> Regulator of Social Housing, 2024, Regulatory standards for landlords: <a href="https://www.gov.uk/government/collections/regulatory-standards-for-landlords">https://www.gov.uk/government/collections/regulatory-standards-for-landlords</a>

<sup>&</sup>lt;sup>24</sup> Calculated. Sum of total HMOs (486,000) and listed domestic stock (78,000), divided by total PRS stock in England and Wales (5.1m).

<sup>&</sup>lt;sup>25</sup> Welsh Government Rent Smart Wales Energy Performance Dashboard 2023, as of November 2024: <a href="https://rentsmart.gov.wales/en/energyperformance/">https://rentsmart.gov.wales/en/energyperformance/</a>

<sup>&</sup>lt;sup>26</sup> The HHSRS is a risk-based assessment that identifies hazards in dwellings and evaluates their potential effects on the health and safety of occupants and their visitors, particularly vulnerable people. The most serious hazards are called Category 1 hazards and where these exist in a home, it fails to meet the statutory minimum standard for housing in England.

<sup>&</sup>lt;sup>27</sup> English Housing Survey 2022-23 Headline Report, Annex Table 4.4: <u>Annex tables for English Housing Survey headline report 2022 to 2023 -</u> GOV.UK

<sup>&</sup>lt;sup>28</sup> DLUHC Segmenting private landlord compliance 2022: <a href="https://www.gov.uk/government/publications/english-private-landlord-survey-segmenting-private-landlord-compliance/segmenting-private-landlord-compliance/segmenting-private-landlord-compliance</a>
Segmenting-private-landlord-compliance/segmenting-private-landlord-compliance

- 6.25. Sensitivity analysis has therefore been undertaken where domestic PRS landlord non-compliance is assumed at 10% and 20% and is presented in Section 7.
- 6.26. There is insufficient evidence to provide an indication of non-compliance with the EPBR for non-domestic buildings.

#### Additional EPC lodgements under the policy option

# Requiring a valid EPC to be in place throughout the tenancy period for rented buildings

- 6.27. The government is seeking views on requiring all private tenancies to have a valid EPC throughout the duration of the agreed tenancy for new tenancies from 2026. Under the counterfactual, an EPC is required in the PRS at transaction if there is not a valid EPC, whereas under the policy a tenanted dwelling would need a new EPC as it expires.
- 6.28. Given EPCs are valid for 10 years, any valid EPC will expire over the 10 year appraisal period. The stock of PRS dwellings with a valid EPC is estimated by removing HMOs or heritage dwellings assumed to be using the exemption from the total PRS stock in England and Wales,<sup>29</sup> and then removing the proportion of dwellings which haven't transacted within 10 years using 2022-3 EHS data, as shown in Table 3.
- 6.29. It is then assumed that EPCs expire at an even rate of 10% each year, given that they are valid for 10 years. Modelled annual PRS lodgements under the counterfactual, as discussed above in paragraph 6.11., are then removed to calculate additional EPCs due to this policy proposal in a steady state. This policy only applies to new tenancies from 2026, and so EHS length of occupation data for the PRS is used to estimate the transition to this steady state over the appraisal period. In total, it is estimated that 540,000 additional domestic EPCs will be lodged over the appraisal period. This is a simplified approach, and the estimate is highly sensitive to the assumptions used to estimate PRS lodgements under the counterfactual, including the split of rental lodgements between the PRS and SRS. Further options are currently being considered for this proposal, and additional work will be done on this for the Final Impact Assessment if implemented.
- 6.30. This approach assumes that under the counterfactual EPCs are lodged for different buildings within a 10 year period given the 10 year validity period.
- 6.31. Additional HMOs and heritage buildings would not be impacted by this proposal over the appraisal period, given EPCs are valid for 10 years.

Wales as at 31 March 2023 (200,000): <a href="https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimates-by-vear-tenure">https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimates-by-vear-tenure</a>

<sup>&</sup>lt;sup>29</sup> England 2023 estimate (4,900,000): <a href="https://www.gov.uk/government/statistics/dwelling-stock-estimates-in-england-2023/dwelling-stock-estimates-england-31-march-2023/dwelling-stock-estimates-england-31

6.32. Similarly, the policy proposal will apply to the non-domestic PRS, where the same method is used. At the point an EPC expires, the building manager/landlord will be required to obtain a new EPC, compared to the counterfactual where an EPC would only be required if the EPC expires and the property is relet. It is estimated that an additional 58,000 c-EPCs will be lodged over the appraisal period.

# **Houses in Multiple Occupation**

- 6.33. The government will seek views on bringing all houses in multiple occupation (HMOs) into scope of the requirement to have a valid EPC. There were an estimated 486,000 HMOs in England and Wales,<sup>30</sup> which equates to roughly 10% of all PRS homes.<sup>31</sup> Typical HMO tenants may include students, young people, low-income households, and vulnerable groups.32
- 6.34. An EPC is currently not required for an individual room when rented out, as it is not a building, or a building unit designed or altered for separate use. A whole building will require an EPC if sold or rented out.33 It is assumed in the analysis that 50% of HMOs do not currently require an EPC, as each room has its own tenancy agreement where there is a shared kitchen, toilet and/or bathroom. Sensitivity analysis has been undertaken on this assumption in Section 7. This type of HMO will be required to have a valid EPC under the policy option.
- 6.35. Under the policy option, HMO properties that come into scope will be required to lodge an EPC when they transact. However, some of these HMOs will already have a valid EPC due to being sold or let as one dwelling in the last 10 years. It is assumed in the analysis, from feedback from industry, that 30% of HMOs being brought into scope of an EPC will have a valid EPC due to a previous sale or let.
- 6.36. Under the policy option, there will be a 24-month transitional period for HMO landlords to obtain a valid EPC after transaction, and so an assumption is made that 50% of those that transact obtain the EPC and comply with MEES the year of transaction, with the remaining 50% lodging and complying the year after. The churn rate set out in 6.8., of 21% for the PRS, is used to estimate 36,000 HMOs bought into scope of needing an EPC would transact each year. Therefore, of the 36,000

https://www.gov.uk/government/statistical-data-sets/local-authority-housing-statistics-data-returns-for-2022-to-2023 In Wales there were 19,196 HMOs as at 31 March 2022: Welsh Government (2023) Housing Hazards and Licences, 2021-22: https://www.gov.wales/housing-hazards-and-licences-april-2021-march-2022-html#:~:text=a%20total%20of-,19%2C196,-HMOs%20in%20Wales

Wales Privately Rented stock as at 31 March 2023: https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-

<sup>&</sup>lt;sup>30</sup>In England there were 467,111 HMOs for 2022-3: MHCLG Local Authority Housing Statistics data returns (2022-23), Local Authority Housing Statistics tables 2022 to 2023 Section F, Column R:

<sup>31</sup> HMO stock (486,000) as a proportion of total PRS dwelling stock in England and Wales as of 2023 (5,100,000) England 2023 PRS stock estimate: https://www.gov.uk/government/statistics/dwelling-stock-estimates-in-england-2023/dwel estimates-england-31-march-2023

Estimates/dwellingstockestimates-by-year-tenure

32 Welsh Government (2015) HMO Review and Evidence Gathering: https://gov.wales/sites/default/files/publications/2018-11/housesin-multiple-occupation-hmos-review-report-on-findings.pdf; and Cauvain and Bouzarovski (2016): https://www.researchgate.net/publication/301621847 Energy vulnerability in multiple occupancy housing a problem that policy for

 $<sup>^{33}</sup>$  DCLG guidance on Energy Performance Certificates for the marketing, sale and let of dwellings (December 2017), pg 7 https://www.gov.uk/government/publications/energy-performance-certificates-for-the-construction-sale-and-let-of-dwellings

- transactions in 2026, 18,000 EPCs would be lodged in 2026, and the remaining 18,000 would be lodged in 2027.
- 6.37. Landlords of HMOs that obtain an EPC in 2026 may transact again over the appraisal period depending on how long each tenancy lasts, so would already have a valid EPC. These properties are therefore excluded from the annual transaction estimates in subsequent years to avoid double counting. To do this, EHS data on the proportion of PRS rentals by length of tenancy as set out in 6.9. is used. For example, in year 2 we exclude the proportion of tenancies that last one year or less, then in year 3 we exclude the proportion of tenancies that last 3 years or less, and so on.
- 6.38. Also, those 30% of HMOs with a valid EPC due to a previous rent or sale will need to lodge a new EPC under the policy option when they expire and are relet it is assumed this is equally distributed over the appraisal period, at around 7,300 per year, and again that 50% would acquire an EPC the year of relet, with the remaining 50% lodging the year after.
- 6.39. It is estimated 200,000 additional EPCs will be lodged over the appraisal period in total relating to HMOs. The policy proposal to require a valid EPC to be in place throughout the tenancy period for rented buildings will mean that all HMOs will be required to have a valid EPC throughout a tenancy, although this would only have an impact after the appraisal period as the additional EPCs expire.
- 6.40. It is assumed that HMOs will only be brought into the scope of DESNZ' PRS MEES EPC E regulations when they transact and get an EPC for the first time. HMOs with a valid EPC that renew under the policy are assumed to already be in scope and comply with the PRS minimum standard EPC E.

# **Short-Term Rental Properties**

- 6.41. The Government will propose to introduce regulations for short-term rental properties which align with the guidance on the rules for holiday lets.<sup>34</sup> Under the policy option, short-term rental properties currently exempt will be brought into scope from 2026 when they transact over the appraisal period. An EPC is currently not required under the exemption in the guidance when the following two conditions are met:
  - 1) The property is rented out as a furnished holiday let as defined by HMRC. This is when:
    - the building is occupied for the purposes of a holiday let as a result of a short term letting arrangement of less than 31 days to each occupier, and
    - it is rented out for a combined total of four months or more in any 12 month period.
  - 2) The occupier is not responsible for meeting the energy costs for the property.

<sup>&</sup>lt;sup>34</sup> DCLG guidance on Energy Performance Certificates for the marketing, sale and let of dwellings (December 2017), pg 6, 7 <a href="https://www.gov.uk/government/publications/energy-performance-certificates-for-the-construction-sale-and-let-of-dwellings">https://www.gov.uk/government/publications/energy-performance-certificates-for-the-construction-sale-and-let-of-dwellings</a>

- 6.42. Whilst short-term letting arrangements are used for a range of properties, include women's refuges, it is the intention of the policy to focus primarily on the holiday let sector, and exemptions are likely to be provided for short-term lets where it is not considered appropriate to require an EPC. There is no single, definitive source of data on short-term and holiday letting activity in England and Wales. Airbnb Citizen UK Insights report suggests there were 188,100 Airbnb holiday lets in England and Wales as of 2018.<sup>35</sup> Airbnb accounts for roughly 62% of the market for holiday lets in Europe.<sup>36</sup> It is therefore calculated there are approximately 300,000 holiday lets in England and Wales.
- 6.43. Airbnb 2016 estimated 21% of listings are let for more than 90 nights in a year, <sup>37</sup> which is used as a proxy for the proportion of holiday lets that are let out for a combined total of four months or more in a year. The highest estimate recorded was used in this analysis rather than the estimate of 4% in the 2018 report and 7% in the 2017 report, because the Airbnb figure is likely to be an underestimate of all holiday lets listed out for a combined total of more than 90 nights given that owners will likely market through multiple outlets.
- 6.44. It is assumed 100% of these holiday lets are let where the owner rather than the occupant will be responsible for the energy costs irrespective of if the entire home is let or a private room.
- 6.45. It is therefore estimated 64,000 holiday lets are currently out of scope of an EPC. It is assumed in the analysis that all 'furnished holiday lets' are in the owner occupier tenure and that 30% will have an EPC under the counterfactual due to a previous let or sale in the past 10 years based on feedback from industry. This means that there are approximately 45,000 short-term holiday lets exempt from needing an EPC and without a valid EPC. Industry intelligence suggests it is reasonable to assume that all holiday lets will have at least one letting in 2026. Therefore, it is assumed those without a valid EPC will all lodge an EPC in the first year.
- 6.46. The valid EPCs for the holiday lets under the counterfactual due a previous let or sale will expire at some point over the appraisal period and will need to be renewed under the policy option. This means that approximately 2,000 holiday lets will be required to lodge an EPC each year where a previous EPC has expired.
- 6.47. Although it is assumed all furnished holiday lets are in the owner occupier tenure, EHS data on the tenure breakdown of properties that are sublet on a causal basis suggests 16% are in the PRS and 19% are in the SRS.<sup>38</sup> Whilst subletting is different to being defined as a furnished holiday let, as a sensitivity in Section 7, the difference

https://op.europa.eu/en/publication-detail/-/publication/0cc9aab6-7501-11e8-9483-01aa75ed71a1/language-en/format-PDF/source-72448580

<sup>&</sup>lt;sup>35</sup> Airbnb UK Insights Report, 2018, Calculated as total active listings (223,200) less listings in both Scotland (31,000) and Northern Ireland (4,100):

https://www.airbnbcitizen.com/wp-content/uploads/2018/10/AirbnbUKInsightsReport\_2018.pdf

<sup>&</sup>lt;sup>36</sup> European Commission Study, 2018, pg 52

<sup>&</sup>lt;sup>37</sup> Airbnb UK Insights Report, 2017, pg 26 <a href="https://researchbriefings.files.parliament.uk/documents/CBP-8395/CBP-8395.pdf">https://researchbriefings.files.parliament.uk/documents/CBP-8395/CBP-8395.pdf</a>

<sup>&</sup>lt;sup>38</sup> English Housing Survey 2022 to 2023: rented sectors, Chapter 2 Annex Tables, Annex Table 2.19, Sub-letting on casual basis, by tenure 2022-23 <a href="https://www.gov.uk/government/statistics/english-housing-survey-2022-to-2023-rented-sectors">https://www.gov.uk/government/statistics/english-housing-survey-2022-to-2023-rented-sectors</a>

to the total cost is estimated if 35% less additional EPCs relating to holiday lets occurred under the policy option.

# **Heritage Building Exemption**

- 6.48. Historic England reported in 2022 there were around 379,280 listed building entries listed buildings on the National Heritage List for England.<sup>39</sup> Welsh government estimated there are 30,000 listed buildings in Wales in 2018.<sup>40</sup>
- 6.49. The Heritage Counts Heritage Indicators report (2016) estimated using a study of NHLE records undertaken by the Ordnance Survey that 71% of designated heritage assets were 'residential' and that 6% were 'other residential'. 77% of listed buildings are therefore assumed to be domestic.<sup>41</sup>
- 6.50. It is therefore assumed 23% of listed buildings are non-domestic. We do not have any information about the organisations that occupy the 'other' listed buildings that are not categorised as non-residential. Therefore, for the purposes of this analysis, these types of listed buildings have been classified as non-domestic. It is assumed that listed buildings in Wales follow the same breakdown of use classes.
- 6.51. For domestic properties, this data was combined with the EHS 2022 tenure breakdown for pre-1919 buildings of which 64% are owner occupied, 30% are PRS and 6% SRS to estimate the tenure breakdown in England and Wales.<sup>42</sup> Not all pre-1919 properties will be heritage, so this is likely to be an over estimation and used for a proxy only. For non-domestic properties, as set out in 6.16., it is estimated that 56% will be scope of requiring an EPC. The estimated stock by tenure is shown in Table 5 below.

Table 5: Estimated stock of Listed Buildings in scope of requiring an EPC, by tenure, to the nearest thousand

Tenure	Listed Building Stock
Owner Occupier	203,000
Private Rented Sector	95,000
Social Rented Sector	17,000
Non-Domestic	53,000

6.52. Listed properties that get an EPC under the counterfactual are already counted in the analysis through using lodgments data. It is assumed that 80% of listed buildings that transact either through rent or sale would get EPC under the counterfactual. Industry feedback suggests any homeowner or landlord with a listed property would be advised to undertake an EPC assessment at rent or sale if they do not already

https://historicengland.org.uk/research/heritage-counts/indicator-data/assets/

<sup>&</sup>lt;sup>39</sup> Historic England, National Heritage List 2022 (as of October 2024)

<sup>&</sup>lt;sup>40</sup> Welsh Government 2018 Understanding Listing in Wales, pg 19

https://cadw.gov.wales/sites/default/files/2019-05/Understanding%20Listing%20in%20Wales.pdf

<sup>&</sup>lt;sup>41</sup>Heritage England, 2016, Heritage Counts Heritage Indicators, pg 5

https://historicengland.org.uk/content/heritage-counts/pub/2016/heritage-indicators-2016-pdf

<sup>&</sup>lt;sup>42</sup> EHS 2022 - Proportion of dwellings built before 1919 by tenure, Annex Table 1.6

https://www.gov.uk/government/statistics/annex-tables-for-english-housing-survey-headline-report-2022-to-2023

have a valid EPC, to establish their current situation and understand what improvements could be made, even if limited. It is reasonable to assume all tenures will behave in the same way. Domestic listed properties of a larger scale, especially Grade I / II\* listed, are much more likely to claim exemption. Historic England estimated 8.3% of listed buildings are Grade I and II\* listed.43

- 6.53. The remaining 20% of listed properties will be brought in scope under the policy option and will be required to lodge an EPC when they transact. For domestic properties, estimated chrun rates by tenure, as set out in paraphraphs 6.7. to 6.8. are used to estimate the annual transactions. For non-domestic buildings, the estimated stock in scope of requiring an EPC in Table 5 is broken down by tenure using the proportions set out in paragraph 6.14. and annual transactions are estimated using the non-domestic churn rates set out in paragraph 6.15. The same approach in paragraph 6.37. for HMOs is followed based on length of tenancy data to remove duplicates to estimate the additional lodgments over the appraisal period.
- 6.54. For heritage buildings, it is estimated that there will be a total 13,600 additional EPCs relating to owner occupiers, 14,500 within the PRS, 1,400 within the SRS, and for non-domestic buildings a total of 5,800 additional EPCs. It is assumed the stock of listed buildings does not change in the analysis. It is also assumed PRS listed buildings only have to get an EPC when they transact from 2026, and will not have to get an EPC to show compliance with DESNZ's EPC E MEES.

# Reducing the Validity Period for Display Energy Certificate Recommendation Reports

- 6.55. The government is seeking views on reducing the validity period for Display Energy Certificates (DECs) accompanying Recommendation Reports for buildings with total useful floor area between 250m<sup>2</sup> and 1000m<sup>2</sup> from 10 years to 7, and for buildings above 1000m<sup>2</sup> from 7 years to 5.
- 6.56. There is no reliable source of information that identifies public authority buildings that are over 250m<sup>2</sup> and frequently visited by the public. Since these buildings in scope require a DEC annually, annual DEC lodgements can be used to estimate the additional DEC Advisory Reports under the policy option. Therefore, the 10-year annual average of DEC lodgements has been used to estimate the impact of this policy.44 Not all public authority buildings will require a DEC and it is assumed that the same proportion of these will not require a DEC Advisory Report throughout the appraisal period.
- 6.57. Using MHCLG analysis of DEC lodgements by building size, it is assumed 8% of Advisory Reports will be for buildings sized between 250 m<sup>2</sup>-1000 m<sup>2</sup> and the remaining 92% will be for public buildings larger than 1000 m<sup>2</sup>. The estimated

<sup>&</sup>lt;sup>43</sup> Historic England, 2022 'Designated Assets, Protected Areas and the Built Environment', Dataset 'Designated Assets, Protected Areas and the Built Environment.xls', as of October 2024:

https://historicengland.org.uk/research/heritage-counts/indicator-data/assets/

<sup>44</sup> MHCLG DEC Lodgements, Table DEC1: Display Energy Certificates by local authority and energy performance operational rating https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates

breakdown of annual DEC lodgements by building size is shown in Table 6. Both the DEC and accompanying Advisory Report are valid for 10 years for buildings sized  $250m^2 - 1000m^2$  under the counterfactual. Therefore, annual DEC lodgements are assumed to represent 10% of the stock in scope. For buildings over  $1000m^2$ , a DEC is required yearly whereas the advisory report is required every 7 years, and thus the number of DEC lodgements is assumed to be the same as the stock in scope.

Table 6: Annual DEC Lodgements, by size of Public Authority Buildings, rounded to nearest hundred

Size of Public Authority Building	Annual DEC lodgements
250m <sup>2</sup> – 1000 <sup>2</sup>	2,700
>1000m <sup>2</sup>	31,300
Total	34,000

- 6.58. It is assumed the validity period reduction will only impact a building when their existing advisory report expires. There would therefore be a policy impact from year 8 for 250m<sup>2</sup> 1000<sup>2</sup> buildings, as advisory reports lodged from the implementation date with the reduced validity period <sup>begin</sup> to expire. For buildings over 1000m<sup>2</sup> this would be from year 6 of the appraisal period.
- 6.59. It is assumed expiry of the DEC advisory report is evenly distributed over the validity period of the report. Therefore, for public authority buildings that are 250m² 1000m², under the counterfactual with a 10 year validity period, there would be about 2,700 DEC recommendation reports each year, compared to about 3,900 each year under a 7-year validity period. Therefore, it is estimated there will be about 1,200 additional reports each year due to the policy change for buildings sized 250m² 1000m² once the policy impacts. Using the same method, it is estimated there will be about 1,800 additional reports per year for buildings that are over 1000 m² if the validity period is reduced to 5 years.

#### **EPC and DEC costs**

6.60. The main cost is the survey cost, which is estimated using industry feedback as of 2022, and is converted into 2024 prices in the analysis.<sup>45</sup> For non-domestic EPCs the survey cost varies by size, so a weighted average of the cost and the proportion of non-domestic buildings by floor area is used.<sup>46</sup>

6.61. It is assumed there is a travel cost associated with an EPC assessment, and this is sourced from the TAG data book.<sup>47</sup> Lodgement costs are sourced from the Energy

<sup>&</sup>lt;sup>45</sup> Costs have been adjusted from 2022 prices to 2024 prices using the OBR GDP deflator, Economic and fiscal outlook – March 2024, detailed forecast tables: economy, 1.7: <a href="https://obr.uk/efo/economic-and-fiscal-outlook-march-2024">https://obr.uk/efo/economic-and-fiscal-outlook-march-2024</a>

<sup>&</sup>lt;sup>46</sup>Non-domestic National Energy Efficiency Data Framework (ND-NEED) 2022: supporting data tables, Table 5: ND-NEED non-domestic building number and floor area by building use and building size: <a href="https://www.gov.uk/government/statistics/non-domestic-national-energy-efficiency-data-framework-nd-need-2022">https://www.gov.uk/government/statistics/non-domestic-national-energy-efficiency-data-framework-nd-need-2022</a>

<sup>&</sup>lt;sup>47</sup> TAG data book, Tables A1.3.1, Values of Working (Employers' Business) Time by mode per person (distance banded), Car (driver or passenger) 0-50km, Resource cost - the price year is set to 2024 and the value year 2026 in 'User Parameters': <a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>

- Trust.<sup>48</sup> Therefore, the total cost of a domestic EPC is therefore assumed at £70, and a non-domestic EPC at £400.
- 6.62. It is assumed the facilitation time for domestic owner occupiers is 0.5 hours, whereas for domestic landlords and non-domestic owners, landlords and property managers this is 1 hour. The familiarisation of the new regulations is assumed to be 1 hour. For domestic owner occupiers and PRS landlords the value of non-working time is used.<sup>49</sup> For SRS landlords, non-domestic owners and landlords the value of working time is used.<sup>50</sup>

#### **Direct benefits**

- 6.63. EPCs act as a source of information for prospective tenants and purchasers on the energy performance of a property and future fuel bills of prospective properties that can be used in their decision-making process. EPCs also provide suggested actions on how to improve energy efficiency. This information would be more up-to-date when an EPC is required more frequently.
- 6.64. It is voluntary whether the building owner carries out any recommendations on the EPC, or if the prospective tenant or buyer uses the EPC information in their decision-making process. An EPC does not require or mandate that any action should be followed, unless a property is brought in scope of DESNZ' MEES regulations.
- 6.65. Uptake of EPC advice reduces the property's energy demand and so lowers the occupier's costs and carbon emissions, resulting in reduced air quality damage. Improving to an EPC band C could save £280 a year on each home's energy bill.<sup>51</sup> Reduced carbon emissions will prevent damage to air quality which will benefit the wider society. Better energy efficiency can also lead to more comfortable living conditions, which can positively impact health and wellbeing.
- 6.66. A DESNZ and University of Cambridge hedonic pricing study showed that EPC Band B/C properties experienced a 5.6% price appreciation per square metre compared to D-rated properties.<sup>52</sup> A previous study<sup>53</sup> also found properties with higher EPC ratings sold for higher prices. There is some evidence that suggests

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<sup>&</sup>lt;sup>48</sup> Energy Trust, domestic and non-domestic current lodgement fee, 2022: <a href="https://energy-trust.co.uk/central-lodgement-fees-reduced/">https://energy-trust.co.uk/central-lodgement-fees-reduced/</a>

<sup>&</sup>lt;sup>49</sup> TAG data book, Tables A1.3.1, Values of Non-Working Time by Trip Purpose, Market Price, the price and value year are set to 2024 and 2026 in 'User Parameters': <a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>

<sup>&</sup>lt;sup>50</sup> TAG data book, Tables A1.3.1, Values of Working (Employers' Business) Time by Mode, Average of all working persons, Market Price, the price and value year are set to 2024 and 2026 in 'User Parameters': <a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>

<sup>&</sup>lt;sup>51</sup> English Housing Survey 2022 to 2023: Energy Report, Section 2: Costs to improve to an EER band C, Average annual energy cost savings from improving to band C

https://www.gov.uk/government/statistics/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy-e

<sup>&</sup>lt;sup>52</sup> BEIS and the University of Cambridge (2020) Do house prices and rents in the private sector reflect energy efficiency levels?: https://www.gov.uk/government/publications/house-prices-private-sector-rents-and-energy-efficiency-levels

<sup>&</sup>lt;sup>53</sup> https://www.gov.uk/government/publications/an-investigation-of-the-effect-of-epc-ratings-on-house-prices

improving the energy efficiency rating of a house increases its value.<sup>54</sup> <sup>55</sup> A caveat to these studies, however, is that while a difference in the value between properties with different energy performance ratings has been established by the studies, it has not been demonstrated at this stage that improving the energy performance of a property directly causes the increase in property value.

#### Voluntary uptake of EPC recommendations switching value analysis

- 6.67. If a building owner chooses to action at least one of the recommendations because of the EPC there will be a reduction in the energy demanded to heat the building. This will have associated fuel bill savings and reduction in air quality damage due to less carbon being emitted.<sup>56</sup>
- 6.68. Voluntary measures may be implemented where an information failure is considered a significant factor in inertia and where EPC information acts as a form of nudge, especially where improvements could potentially result in energy cost savings with reasonably short payback periods. Building owners may choose to take up recommendations which they would not otherwise consider for example because they did not have the relevant information when they carry out an upgrade for other purposes. Voluntary upgrades may also happen if they result in price or rent increases, or if they make the property more attractive to tenants or buyers meaning they are on the market for less time.
- 6.69. The proportion of EPCs which lead to voluntary uptake of recommendations is uncertain. Some retrofits are natural replacement. To account for this uncertainty, as referenced in the Green Book, switching values can be estimated as part of sensitivity analysis where appropriate. Switching values calculate the required monetised value of the benefits of the policy to equal its costs. In this analysis the required rate of voluntary uptake to break even on the monetised costs relating to the additional EPCs is estimated. The modelling of the switching value analysis calculates a percentage of building owners that will carry out at least one recommendation on their EPC so that the benefit-cost ratio (BCR) of the policy option appraised is at least 1. More work on understanding the extent of voluntary uptake due to EPCs will be undertaken for the Final Impact Assessment.
- 6.70. The National Energy Efficiency Data-Framework (NEED) reports the mean energy savings of: a Condensing Boiler, Cavity Wall Insulation, Loft Insulation, Solid Wall

<sup>&</sup>lt;sup>54</sup> A 2022 Santander survey found that buyers were prepared to pay a 9.4% premium on energy efficient homes, pg 6: <a href="https://www.santander.co.uk/assets/s3fs-public/documents/buying">https://www.santander.co.uk/assets/s3fs-public/documents/buying</a> into the green homes revolution report.pdf

<sup>&</sup>lt;sup>55</sup> Analysis of the ONS House Price Index by Santander in 2022 found that the average value of retrofitted homes increases by more than double the cost of upgrading them. The average premium was £26,600 on houses that have been upgraded, which is over twice the average cost of £10,000 to make energy efficient upgrades to a property:

https://www.santander.co.uk/about-santander/media-centre/press-releases/a-green-premium-house-buyers-willing-to-pay-almost-10

<sup>&</sup>lt;sup>56</sup> The modelled energy saving from an EPC is based on a SAP calculation which is an idealised model. Measures installed in the real world may not be as effective as they are modelled to be due to variations in installation practice. The SAP calculation also makes simplifying assumptions to model the way buildings are used, which may not always apply in reality. For example, a building owner could choose to heat their building to a higher temperature now that it is more affordable to do so, known as comfort taking.

<sup>&</sup>lt;sup>57</sup> The Green Book (2022), Chapter 2: 2.21 Optimism bias, risk and sensitivity analysis, pg 10: <a href="https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government">https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government</a>

Insulation and Solar PV. <sup>58</sup> EHS data on the proportion of households carrying out different energy efficiency measures is then used to understand which of these are the most common. <sup>59</sup> A weighted average energy saving from the 3 most common measures using these proportions is then estimated, at roughly 700 kWh per year. <sup>60</sup> It is assumed in the analysis this saving would impact gas usage only.

- 6.71. For annual household energy usage under the counterfactual, the NEED mean consumption estimates for both gas and electricity for England and Wales for 2021 are used, at 12,800 kWh and 3,600 kWh respectively. This energy demand is converted into carbon produced (kgCO2e) per household per year using emission factors. It is assumed in the analysis installation occurs in the year the EPC is lodged and therefore benefits accrue from the same year. Benefits from this date are appraised over a 20 year period. This is based on a rough average of the lifespan of the 3 commonly installed measures. We will be looking at this time period in more detail for the Final Impact Assessment.
- 6.72. Actioning an EPC is therefore expected to reduce gas usage by 700 kWh per year as set out in 6.70., which is around 4% of the total estimated annual household energy usage. Emission factors and carbon values are used to calculate the total value of the carbon saved over the appraisal period for all households who are eligible to action their EPC. The total value of this additional carbon saved must meet the costs under the policy option to achieve a BCR of at least 1. The proportion of buildings that would need to action a recommendation on their EPC to meet this required carbon saving is then calculated, based on this annual reduction to gas usage per building over 20 years.
- 6.73. To estimate the benefits to the non-domestic sector, the Non-Domestic NEED median consumption estimates for both gas and electricity for England and Wales in 2020 are used at 27,000 kWh and 5,900 kWh respectively.<sup>65</sup> Although work is

<sup>&</sup>lt;sup>58</sup> Energy Savings published in NEED: Headline impact of measures: England and Wales, 2018 (Excel), Table 1: The estimated energy savings resulting from the installation of an energy efficiency measure <a href="https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-impact-of-measures-data-tables-2021">https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-impact-of-measures-data-tables-2021</a>

<sup>&</sup>lt;sup>59</sup>% of households investing in specific energy saving measure calculated using English Housing Survey 2017 to 2018: energy, Chapter 1: figures and annex tables, Annex Table 1.11: Energy efficiency work carried out by owner occupiers over the past five years, 2017-18 <a href="https://www.gov.uk/government/statistics/english-housing-survey-2017-to-2018-energy">https://www.gov.uk/government/statistics/english-housing-survey-2017-to-2018-energy</a>

Energy Savings published in NEED: Headline impact of measures: England and Wales, 2018 (Excel), Table 1: The estimated energy savings resulting from the installation of an energy efficiency measure <a href="https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-impact-of-measures-data-tables-2021">https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-impact-of-measures-data-tables-2021</a>

<sup>&</sup>lt;sup>61</sup> National Energy Efficiency Data-Framework (NEED): consumption data tables 2023, Headline consumption tables: England and Wales, 2021 (Excel), Table 27b: Mean gas consumption (kWh) by Energy Performance Certificate (EPC) Band and Table 28b: Mean electricity consumption (kWh) by Energy Performance Certificate (EPC) Band: <a href="https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-consumption-data-tables-2023">https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-consumption-data-tables-2023</a>

Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal, Data tables 1 to 19: supporting the toolkit and the guidance, Table 1: Electricity emission factors, kgCO<sub>2</sub>kWh – Long-run marginal, Consumption-based, domestic, Table 2a: Converting fuel types to CO2 and CO2e (emissions factors) Natural Gas, kWh (gross CV),

https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal Calculated as the reduction in energy use as a proportion of total annual household energy usage – 700/(12,800+3,600)

Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal, Data tables 1 to 19, Table 3: Carbon values and sensitivities 2010-2100 for appraisal, 2022 £/tCO2e, Table 1: Electricity emissions factors to 2100, kgCO2e/kWh <a href="https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal">https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal</a>

<sup>65</sup> Non-domestic National Energy Efficiency Data Framework (ND-NEED), 2022, Non-domestic National Energy Efficiency Data-Framework 2022: supporting data tables, Table 14A: ND-NEED non-domestic building median electricity consumption by building use, 2012 - 2020 (kWh) and Table 14C: ND-NEED non-domestic building median gas consumption by building use, 2012 - 2020 (kWh), <a href="https://www.gov.uk/government/statistics/non-domestic-national-energy-efficiency-data-framework-nd-need-2022">https://www.gov.uk/government/statistics/non-domestic-national-energy-efficiency-data-framework-nd-need-2022</a>

often at a larger scale, actioning various recommendations on commercial EPCs can result in large energy savings. It is assumed in the analysis that non-domestic building owners can expect gas savings of 5% of total annual energy usage - calculated as 1,645 kWh<sup>66</sup> - by implementing at least one of the recommendations found on their commercial EPC. The same methodology for dwellings is used to estimate the total value of carbon saved over the appraisal period and the required voluntary uptake to break even on the policy costs.

- 6.74. This approach does not include the installation costs to the property owner. Over the 20 year period, for this analysis it is assumed that the installation costs are covered by the private benefit of the reduction in energy usage and savings on bills. The payback period is highly dependent on the property, but on average it is reasonable to assume if a measure is installed voluntarily that the measure will payback within the assumed lifespan.
- 6.75. Voluntary uptake of recommendations by private landlords may be unlikely as many do not pay energy bills nor experience the comfort, rather the tenants would. Therefore, landlords may have a lack of incentive to act on recommendations. Given that energy bills have risen, this might incentivise private landlords to improve their properties to increase attractiveness to more reliable potential tenants, or to increase rents.
- 6.76. For the social rented sector, any social landlord, housing association or local authority may be likely to follow larger, complete stock retrofit schemes, such as the public decarbonisation fund, or replace components as and when is needed. There are also additional grant schemes available for social rented landlords to seek funding to help improve the energy efficiency of their stock.

#### **Uptake of DEC Advisory Report recommendations**

- 6.77. The costs and benefits of installing/purchasing DEC recommended investments in energy efficiency measures have not been quantified here due to uncertainty on voluntary uptake. These buildings are occupied by public sector organisations which are typically dependent on Government funding streams. The buildings themselves are also very diverse in nature, function, and location.
- 6.78. The benefits of public buildings having more regular reports are expected to come from two areas. First, improved energy management. This does not require significant upfront investment. Energy management change can happen because of obtaining data on annual energy use and calculating a rating, as well as the added pressure of displaying a DEC to the public and wider net zero ambitions.
- 6.79. Second, as a result of implementing some or all of the recommended energy efficiency measures. Whilst the public sector scope for investment is constrained, the availability of a DEC with specific energy efficiency recommendations may

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 $<sup>^{66}</sup>$  5% of total annual non-domestic gas (27,000 kWh) and electricity (5,900 kWh) energy usage.

- assist in prioritising budgets and obtaining funding for energy improvements that would not otherwise have been possible.
- 6.80. Research by the Chartered Institute of Buildings Surveyors and Engineers in 2009 found that 20% of property professionals had asked energy assessors to proceed with implementing recommendations following the assessment.<sup>67</sup> Further research by Camco in 2010 found that energy performance improvements in public sector buildings that had renewed their DEC annually led to a year-on-year carbon reduction of approximately 0.4% (amount of CO2 saved per square meter). Central government (excluding MOD and prisons) and local authority sectors saw the best improvement with reductions of 1.3% and 1.5% respectively. On this basis, more frequent DEC reports could result in a 1% reduction in energy usage per building per year.<sup>68</sup>

# Reduced non-compliance with the EPBR and MEES

6.81. The policy option increases deterrents and improves monitoring and enforcement. This is designed to have an impact on non-compliance with EPC obligations and DESNZ' PRS MEES. The impacts are difficult to estimate and have not been monetised at this stage. The societal benefits are the net-benefits that result from additional dwellings having the information from the EPC and the additional PRS buildings being improved to the Government's EPC Band E standard. Not all properties brought into scope will improve to band E because of the impact on their appearance or value and the £3,500 measure cost cap. These would be benefits associated with energy performance improvements. This is the value of energy and carbon savings, minus the costs, such as the capital costs of installations.

#### **Indirect benefits**

- 6.82. EPCs are used by several DESNZ policies to measure the energy performance of buildings and drive improvements. Initially set out in the Clean Growth Strategy, the Government committed to ensuring as many homes as possible achieve a rating of EPC band C by 2035 and as many private rented homes by 2030, where practical, cost-effective, and affordable. This commitment was reiterated in the Heat and Buildings Strategy and the Net Zero Strategy.
- 6.83. EPC ratings are also incorporated into the eligibility criteria of several DESNZ domestic energy efficiency improvement schemes. The recently launched GOV.UK energy advice service utilises EPCs to provide tailored recommendation for homeowners to improve the energy performance of their buildings.
- 6.84. It is anticipated some PRS heritage buildings and HMOs will be brought into scope of the PRS MEES EPC band E under the policy option. If a landlord upgrades their property, this will result in improved energy performance, leading to savings in energy consumption, improved tenant comfort, lower GHG emissions and better air

<sup>&</sup>lt;sup>67</sup>CIBSE Journal 2009, 'Low carbon champion reveals all', pg 6, <a href="https://www.cibsejournal.com/archive/PDFs/CIBSE-Journal-2009-02.pdf">https://www.cibsejournal.com/archive/PDFs/CIBSE-Journal-2009-02.pdf</a>
<sup>68</sup> DCLG 2012 Impact Assessment on the Recast of the Energy Performance of Buildings Regulations, pg 22
<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/39379/Impact\_Assessment.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/39379/Impact\_Assessment.pdf</a>

quality. The lifetime energy, carbon and air quality savings are set out in Table 7 and Table 8 below. Whilst the reduction in fuel bills and any increase in thermal comfort for tenants has not been monetised, this can be substantial, particularly in worse rated properties.

#### Wider benefits

- 6.85. A higher proportion of buildings will have a valid EPC and so the EPC database will cover more properties with more up-to-date information, making it a stronger tool for analysing the broader building stock characteristics. Owner occupiers for example typically reside in their properties for 17.4 years, so are more likely to not have a valid EPC as some won't have moved house since the EPC regime began in 2007.<sup>69</sup>
- 6.86. Improved metrics on EPCs will provide a more detailed picture of how buildings are performing which will allow for more specifically targeted policies. For example, more nuanced metrics around heat pump readiness will enable better targeting on decarbonisation policies.
- 6.87. Improvements in data sharing will enable policy makers the ability to target action where there is the greatest need and allow business to build new products and services based on an improved understanding of the UK's building stock.
- 6.88. EPCs enable other strategic aims, including providing information to enable, monitor and enforce net zero policies which are necessary to meet the net zero target, resulting in greater economic activity, investment, and skills development, and contributing to UK energy security.

#### Monetised costs and benefits relating to PRS MEES compliance

- 6.89. EPCs enable compliance with Minimum Energy Efficiency Standard (MEES) regulations in the PRS. Whilst this is a DESNZ policy, illustrative costs and benefits of properties brought into scope of MEES due to the policy option have been estimated here.
- 6.90. Bringing PRS heritage buildings and HMOs into scope of requiring an EPC will also bring them into scope of DESNZ' PRS EPC band E MEES. In the modelling it is assumed dwellings that will fall into scope of PRS MEES under the policy option will do so only when they transact, and therefore when they require an EPC for the first time.

<sup>&</sup>lt;sup>69</sup> EHS: Length of time in current accommodation and tenure <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment</a> data/file/945013/2019-20 EHS Headline Report.pdf#page=21

- 6.91. The latest analysis published by DESNZ on both domestic<sup>70</sup> and non-domestic<sup>71</sup> PRS properties has been used to estimate the potential costs and benefits to property owners and society associated with the fabric improvements to meet the standard.
- 6.92. It has been assumed that the costs, benefits, and routes to demonstrate compliance with MEES EPC band E are the same as the average buildings presented in DESNZ's analysis. These costs and benefits are detailed in Table 7 and Table 8. There is uncertainty on how the characteristics of heritage buildings and HMOs would impact the costs estimated to comply with MEES. The costs presented below are likely to be an underestimate for buildings that are more complex to retrofit to the standard.
- 6.93. In addition, these costs are likely to be outdated given inflation and that the cost cap is not adjusted for this, that the real costs of measures have increased, new regulations have improved the standards for installations, and that carbon values have changed. A more thorough estimate will therefore be provided for the Final Stage Impact Assessment, factoring in these changes.

Table 7: Costs and Benefits per dwelling to comply with MEES EPC E, in 2024 prices<sup>72</sup>

Description	Value (£)
Average monetary value of lifetime energy, carbon and air quality savings of improving from EPC F or G	£6,400
Average hidden costs and miscellaneous costs	£190
Average cost to meet EPC E	£1,500
Average cost to upgrade but not meet EPC E	£2,500

6.94. The proportion of these F or G rated PRS households that are estimated to be able to achieve an EPC E rating, and those that cannot achieve E rating but still need to install measures up to the cap level to prove compliance, may also differ for landlords for the types of buildings being impacted under the policy option compared to the rest of the stock. In this analysis however, it is assumed they will be the same.

Table 8: Costs and Benefits per non-domestic buildings to comply with MEES EPC E, in 2024 prices<sup>73</sup>

Description	Value (£)
Average monetary value of lifetime energy, carbon and air quality savings of improving from EPC F or G	£29,200

<sup>&</sup>lt;sup>70</sup> DESNZ 2018 Final Stage Impact Assessment: Amending the Private Rented Sector Energy Efficiency Regulations: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/760313/IA">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/760313/IA</a> -

Energy Efficiency Private Rented Property England.pdf

<sup>71</sup> DESNZ 2015 Final Stage Impact Assessment for the Private Rented Sector Regulations:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/401382/150202\_PRS\_Final\_Stage\_Revised\_For\_Publication.pdf

<sup>&</sup>lt;sup>72</sup>Figures were adjusted to 2024 prices using the OBR GDP deflator, Economic and fiscal outlook – March 2024, detailed forecast tables: economy, 1.7: <a href="https://obr.uk/efo/economic-and-fiscal-outlook-march-2024">https://obr.uk/efo/economic-and-fiscal-outlook-march-2024</a>

<sup>&</sup>lt;sup>73</sup>Figures were adjusted to 2024 prices using the OBR GDP deflator, Economic and fiscal outlook – March 2024, detailed forecast tables: economy, 1.7: <a href="https://obr.uk/efo/economic-and-fiscal-outlook-march-2024">https://obr.uk/efo/economic-and-fiscal-outlook-march-2024</a>

£1,600	Average hidden costs, assessment costs and miscellaneous costs
£7,400	Average cost to carry out improvements

- 6.95. It is estimated 143,000 PRS dwellings will be brought into scope of MEES over the appraisal period, made up of 14,500 heritage dwellings and 130,000 HMOs, as well as 3,600 non-domestic buildings.
- 6.96. Pre-1919 dwellings are used as a proxy for heritage buildings to estimate the proportion that are F and G rated. Data specific to the energy efficiency of HMOs is limited, therefore the proportion which are F and G rated is assumed to be the same as the PRS stock. Internal analysis of EHS 2022 data is used for this analysis, which was last published in the 2019/20 EHS Energy Report.<sup>74</sup> It is therefore calculated that 6,900 dwellings would be F or G rated and would need to demonstrate compliance with MEES.
- 6.97. For non-domestic PRS properties, DESNZ assume that 20% are F or G rated prior to MEES.<sup>75</sup> The same assumption has been applied to the non-domestic listed building stock to estimate how many are F or G rated. Of the 3,600 non-domestic buildings brought into scope of MEES, about 700 are estimated to be F or G rated.
- 6.98. Not all properties that are F and G rated are able to meet the minimum standard. For dwellings, DESNZ estimate that 48% are able to meet EPC E and 52% are not.<sup>76</sup> So, of the 6,900 domestic F and G rated properties that would need to demonstrate compliance, it is estimated 3,300 will be able to meet an EPC E rating whilst 3,600 will not. Those that will not are therefore assumed to do some work and to claim an exemption that would need to be renewed every 5 years, assumed at one hour of non-working time.<sup>77</sup>
- 6.99. For non-domestic properties, DESNZ estimate that 85% can reach EPC E, 3% can do some improvement but not meet EPC E, and the remaining 12% cannot do any work given the 7-year payback criteria. So, of the 700 non-domestic listed buildings estimated to have an F or G rating, some 600 are expected to meet EPC E, 20 are expected to do some work but not meet EPC E and a further 90 that cannot improve.
- 6.100. A proportion of the carbon savings originally estimated by DESNZ for MEES EPC band E is used to produce a rough estimate of the traded and non-traded carbon

<sup>&</sup>lt;sup>74</sup> Annex Table 1.4 of Energy Report, 2019/20. Assumption based on proportion of private rented properties that have an Energy Efficiency Rating of F or G: <a href="https://www.gov.uk/government/statistics/english-housing-survey-2019-to-2020-energy">https://www.gov.uk/government/statistics/english-housing-survey-2019-to-2020-energy</a>

<sup>&</sup>lt;sup>75</sup> DESNZ 2015 Final Stage Impact Assessment for the Private Rented Sector Regulations, pg 10, paragraph 1.2.1, 14: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/401382/150202\_PRS\_Final\_Stage\_Revised\_For\_Publication.pdf

For Publication.pdf

76 DESNZ 2018 Final Stage Impact Assessment: Amending the Private Rented Sector Energy Efficiency Regulations, Table 5, pg 15 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/760313/IA - Energy Efficiency Private Rented Property England.pdf

<sup>77</sup> TAG data book, Values of Non-Working Time by Trip Purpose, Market Price, the price year and value year are set to 2024 and 2026 in 'User Parameters': <a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>

<sup>&</sup>lt;sup>78</sup> DESNZ 2015 Final Stage Impact Assessment for the Private Rented Sector Regulations, pg 41, paragraph 8.2.2, 157: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/401382/150202\_PRS\_Final\_Stage\_Revised\_For\_Publication.pdf">Publication.pdf</a>

- savings for both domestic and non-domestic buildings, based on the estimated number of F/G rated HMOs and heritage buildings having to show compliance compared to those estimated in the original analysis.
- 6.101. The above assumptions do not take into account the upcoming changes to RdSAP which may result in minor changes to the EPC ratings, despite no fabric changes occurring.
- 6.102. The Government intends to consult on raising the minimum standards, which will change these quantified costs and benefits, as will the EPC reforms.

# 7. Final policy outcomes and impacts

- 7.1. Table 9 below summarises the main costs and benefits of each consultation proposal under the policy option, including estimated additional EPCs lodged over the appraisal period, alongside the total cost associated, monetised and discounted in line with HM Treasury's Green Book.<sup>79</sup>
- 7.2. Some proposals have not been quantified because it is not anticipated they will have a significant cost-benefit implication, or they are not yet a fully developed policy proposal and so will require further refinement before potential analysis.

Table 9: Summary of costs and benefits by proposal under the policy option

Proposa	I	Description of costs	Description of benefits	Costs quantified or described qualitatively?	Total additional EPCs lodged in appraisal period	Total Discounted Cost (£M)
			What EPCs should			
1.	Future metrics to measure energy efficiency used for EPCs.	Minor. The cost of an EPC assessment could increase if additional time and complexity is involved to gather data and calculate the new metrics. At this stage however we do not expect the proposed metrics will require additional data to be collected.	lead to more accurate and comprehensive	Unquantified. Further analysis will follow in a technical consultation.	-	-
2.	Proposal to incorporate thermal performance data such as Smart Meter Enabled Thermal Efficiency	and the assessment	Incorporating smart meter data would provide accurate, up-to-date energy consumption information directly	Unquantified, as call for evidence.	-	-

<sup>&</sup>lt;sup>79</sup> HM Treasury (2022) The Green Book: <a href="https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020">https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020</a>

Proposal		Description of costs	Description of benefits	Costs quantified or described qualitatively?	Total additional EPCs lodged in appraisal period	Total Discounted Cost (£M)
		processing/validating disparate smart meter datasets.				
			en EPCs and DECs		_	
	period of Energy Performance Certificates (EPCs)		Improved energy efficiency information. Some voluntary uptake of recommendations.	Unquantified, as call for evidence. Further analysis will follow in a technical consultation.	-	-
	EPC throughout a tenancy period for a property.	Costs to some PRS landlords needing to get an EPC earlier than otherwise would be required.	Expected to raise compliance with the EPB Regulations through increased deterrents to noncompliance with EPB regulations.	NPSV.	600,000	£55.4m
	regulations to state that a building should not be marketed for sale or let without an EPC.	Costs to landlords and homeowners of any delay to renting or selling a property without a valid EPC due to a delay in advertising the property.	Expected to raise compliance with the PRS Regulations through improved monitoring and enforcement.	Unquantified (minor).	-	-
	exemption which permits HMO landlords to rent out individual rooms without the need for a whole-building EPC.	compliance with the	MEES related improved energy efficiency.	Quantified and included in NPSV.	198,000	£26.4m
		Costs borne to those with holiday lets to get an EPC.	Improved energy efficiency information, MEES related improved energy efficiency and some voluntary uptake of recommendations.	Quantified and included in NPSV.	64,000	£4.5m

Proposa		Description of costs	Description of benefits	Costs quantified or described qualitatively?	Total additional EPCs lodged in appraisal period	Total Discounted Cost (£M)
8.	the regulations heritage buildings where recommendations would unacceptably	Costs borne by owners/landlords of getting EPCs for these buildings and bringing them into compliance with the PRS Regulations.	MEES related improved energy efficiency and some voluntary uptake of recommendations.	Quantified and included in NPSV.	35,000	£11.6m
9.	Reducing the Validity Periods for DECs and advisory reports for buildings between 250-1,000m <sup>2</sup> , and DEC advisory reports for buildings over 1,000m <sup>2</sup> .		management, and implementing recommended energy efficiency measures.	Quantified and included in NPSV.	12,400	£4.2m
10.	Call for evidence on using existing or historical building data in future EPC assessments.	No change on cost to consumers on EPCs.	Streamlined assessment process. Potential for more accurate EPC results and reduced long-term costs for assessments	Unquantified, as call for evidence.	-	-
		Chapt	er 4: EPC and DEC	data		
11.	Create exemption for 'cancelled' or 'not for issue' EPCs in the 20-year minimum data retention period rule.	Minor.	To comply with data storage best practice.		-	-
12.	Remove the option to opt EPCs from the EPB Register public access search.	Minor.	The additional information from opted out EPCs being included in the register.	Unquantified (minor).	-	-
13.	Change regulations to support better data sharing.	Minor.	Allowing the Secretary of State to have discretion on data sharing.	Unquantified (minor).	-	-
14.	Extending the published open dataset to include all data items relating to the building.		The net-benefits from the additional information from moving as close to 'live' as possible and extending the published open dataset to include all data items relating to the building.		-	-
4 E	I Indata the evicting		5: Managing EPC C			
15.	Update the existing Schemes Operating	Minor. Potential higher costs to	Improved quality and consistency of	Unquantified (minor).	-	-

Proposal	Description of costs	Description of benefits	described	Total additional EPCs lodged in appraisal period	Total Discounted Cost (£M)
Requirements, which set the standard for the delivery of energy certificates, to improve accreditation scheme performance.	accreditation schemes through training, information sharing and assessing improved standards.	EPC assessments. Increased trust and confidence in EPCs.			
16. Increase penalties for EPB non-compliance.	Potentially higher penalties for non-compliant landlords, owners, managers and letting agents. Costs imposed to the justice system.	Expected to raise compliance with the EPB Regulations through increased deterrents to noncompliance with EPB regulations.	Unquantified, as compliance rates under policy and counterfactual are uncertain.	-	-
17. Change the timescale in which penalties can be applied.	Potentially higher penalties for non-compliant landlords, owners, managers and letting agents. Costs imposed to the justice system.	Expected to raise compliance with the EPB Regulations through increased deterrents to noncompliance with EPB regulations.	Unquantified, as compliance rates under policy and counterfactual are uncertain.	-	-
18. Improving EPB enforcement and responsibilities.	To evaluate as proposal develops.	Expected improvement in compliance, increased awareness of EPCs, and more effective enforcement leading to energy savings.	out on this.	-	-
	Cha	apter 6: ACIR Repor	ts		
19. New penalty charge fine amount of £800 for non-compliance with the requiremen to have an ACIR for systems with an effective rated output over 12kw.	Higher penalties for non-compliant landlords, owners, tmanagers and letting	Expected to raise compliance with the EPB Regulations through increased deterrents to non-	Unquantified, as compliance rates under policy and counterfactual are uncertain	-	-
20. Change the design and headline metrics of ACIR reports.	Minor	Expected increase in understanding ACIR reports, potentially leading to more informed decisions about energy efficiency improvements.	Unquantified (minor)	-	-
Total additional EPCs					908,000
Discounted familiarisation of	cost £m				£0.74m
Total quantified discounted	cost, £m				£103m

7.3. The proposals which include requiring HMOs and heritage buildings to have a valid EPC will result in additional costs for landlords who were previously exempt from MEES requirements. As outlined in Section 6, it is estimated there are up to 6,900 dwellings that would be non-complaint with MEES as well as 700 non-domestic listed dwellings. The total cost of these buildings demonstrating compliance with MEES is estimated at just over £20m and is included in the quantified costs in Table 9 above. This is made up of: £16.9m in investment costs, £1.1m of time costs for landlords to demonstrate compliance with the regulations and £2.2m of hidden costs. Of the total MEES costs, £12.8m is due to HMOs, £2.1m relates to heritage dwellings and £5.3m to non-domestic heritage buildings.

#### Benefits analysis

7.4. The direct benefits from installations necessary to achieve a Benefit Cost Ratio of at least 1 based on the total discounted cost of the additional EPCs, including familiarisation costs, are captured as a switching value in Table 10 below, assuming that about 5% of energy usage is saved per actioned EPC. There are also further benefits to reforming the EPC regime beyond this analysis to consider, as discussed in Section 6. In addition, benefits associated with additional HMOs and heritage buildings having to show compliance with MEES EPC E are estimated at roughly £57m.

Table 10: Social costs with the associated switching value

	Social costs of additional EPCs, £m (including familiarisation	% of EPCs that must be actioned to break even
	costs)	
<b>EPCs</b>	£56m	11%
Commercial EPCs	£23m	26%

- 7.5. The English Housing Survey 2022-23 suggests 61% of households who moved after the introduction of EPCs remembered seeing an EPC before moving into their home. Of those that remembered seeing their EPC and were recommended improvement works, 57% reported carrying out works.<sup>80</sup>
- 7.6. Due to split incentives, it is less likely that PRS landlords will voluntarily undertake EPC recommendations because they do not directly benefit from the lower fuel bills and increased comfort. Rising energy bills may mean there is more incentive to carry out

<sup>&</sup>lt;sup>80</sup> EHS 2022-23, of the 1.3 million households who remembered seeing an EPC with energy efficiency recommendations, 57% acted on the improvements suggested: <a href="https://www.gov.uk/government/statistics/english-housing-survey-2022-to-2023-energy/english-housing-survey-2022-to-2023-energy-report">https://www.gov.uk/government/statistics/english-housing-survey-2022-to-2023-energy-report</a>

- recommendations if a more energy efficient property is associated with higher attractiveness to tenants or rents.
- 7.7. Higher uptake is required for non-domestic buildings because EPC costs are much higher (around £400) than the average £70 for domestic dwellings.
- 7.8. For the Final Impact Assessment, we will give more consideration to the quantified costs and benefits associated with voluntary uptake of EPC recommendations, and have asked for evidence on the rate of voluntary implementation of recommendations made in EPCs in the consultation document.

# Sensitivity analysis

- 7.9. It is difficult to accurately estimate the number of HMOs that will be required to lodge an EPC under the policy option as there is no data on the proportion of HMOs with shared facilities that would be brought into scope. This is assumed at 50% under the counterfactual in the analysis. As a sensitivity test, it is assumed 100% of HMOs have shared facilities under the counterfactual. This results in a further additional 198,000 HMOs required to lodge an EPC under the policy option, at a total discounted additional cost of £26.5m. This would make the total discounted cost 26% higher than under the central scenario policy assumption.
- 7.10. Sensitivity analysis has also been undertaken on the impact of assuming 35% of furnished holiday lets would not result in an additional EPC lodgement. As set out in paragraph 6.47., this is based on EHS data on the tenure of sublets. This results in 23,000 less EPC lodgements over the appraisal period and about a £2m (2%) reduction in discounted costs.
- 7.11. For the purposes of main cost benefit modelling, 100% compliance is assumed as this is standard practice in estimating the impact of regulation. However, the issues causing a compliance gap are complex and whilst some evidence has been produced suggesting compliance rates with regulations might be lower in the domestic PRS, overall, there remains insufficient evidence to provide a sufficiently robust estimate of this. Sensitivity analysis has therefore been undertaken where domestic PRS non-compliance is assumed at 10% and 20%. A domestic PRS compliance rate of 90%

results in a decrease of £6m (6%) in the discounted cost, whereas a rate of 80% decreases costs by £13m (13%).

Table 11: Sensitivity analysis on additional HMOs, holiday lets and PRS compliance

	PVC (£m)	Change in PVC
Central scenario	£103m	-
100% additional HMOs	£129m	+26%
35% less additional holiday lets	£101m	-2%
90% Domestic PRS compliance rate	£96m	-6%
80% Domestic PRS compliance rate	£90m	-13%

#### 8. Direct costs and benefits to business calculations

- 8.1. The changes to the EPB Regulations impose costs on PRS landlords, holiday let owners and SRS Housing Associations (HAs), who are assumed to be all businesses. In this section, estimates are presented of the Equivalent Annual Net Direct Cost to Business (EANDCB) and business Net Present Value (NPV) associated with exercise of secondary legislation in amending the EPB Regulations.
- 8.2. In calculating the business cost/impact metrics, the following costs were accounted for:
  - The costs to holiday let owners, PRS landlords and HAs of getting EPCs and the cost of their time.
  - Familiarisation costs for holiday let owners, PRS landlords and HAs to understand the new regulations relating to their property.
  - The costs for HMO and heritage building landlords of having to make energy performance improvements to their properties to be compliant with MEES EPC band E.
- 8.3. The benefits associated with non-domestic buildings meeting the EPC E MEES is estimated roughly at £16m.
- 8.4. The business NPV and the EANDCB associated with use of the proposals is set out in Table 12 below.

Table 12: Impact of using the proposed secondary legislation on business (2024 prices, 2026 present value base year), 2026-2035 appraisal period

Impact metric	Value (£m)
Business Net Present Value	-£81m
Estimated annual net direct cost to business (EANDCB)	£9.4m

#### 9. Direct cost and benefits to households

- 9.1. The changes to the EPB Regulations impose costs on households. In the analysis this is assumed to include owner occupied dwellings excluding holiday lets. The costs accounted for include getting EPCs and the cost of their time, and the familiarisation cost.
- 9.2. The benefits are associated with HMOs and heritage dwellings having to comply with MEES EPC E, which are assumed to be passed to households. This is estimated at £40m.

Table 13: Impact of using the proposed secondary legislation on households (2024 prices, 2026 present value base year), 2026-2035 appraisal period

Impact metric	Value (£m)
Household Net Present Value	£38m
Estimated annual net direct cost to households (EANDCH)	-£4.4m

# 10. Risks

- 10.1. There are multiple risks associated with the analysis, delivery and outcomes of the policy options explored above.
- 10.2. Uncertainties and assumptions surrounding use of the proposed secondary powers and their impacts have been documented throughout this IA. The main uncertainties are:
  - 10.2.1. How many properties would be improved voluntarily under the EPB Regulations. In addition, when such properties are improved, which measures would be installed.
  - 10.2.2. How many properties are lodging an EPC as part of the sales or rental process, given the 10 year EPC validity period, property tenure and current exclusions.
  - 10.2.3. The extent to which compliance with the PRS Regulations will be increased due to increased penalties.
  - 10.2.4. The extent to which increased penalties could translate into more tribunal cases, which would come with a societal cost. On tenant redress, what tenants will be able to claim has yet to be determined and this will have implications for tribunal cases.
  - 10.2.5. In this IA, it is assumed the requirements would apply from 2026, and that a property bought into scope of needing an EPC would only need to demonstrate compliance with PRS MEES EPC band E if it transacts from 2026 and needs to obtain an EPC for the first time.

#### 11. Impact on Small and Micro Businesses

- 11.1. Landlords, holiday let owners and Housing Associations will bear the cost of obtaining an EPC (approximately £70 per dwelling). However, the certificate is currently valid for 10 years, although we are seeking views on whether this should be reduced. They would also bear the initial costs of implementing any of the energy saving recommendations accompanying the certificate voluntarily, but these costs would be recouped over time.
- 11.2. There are also further costs to private landlords to demonstrate MEES compliance. The government has published comprehensive guidance to landlords and others with an interest in the minimum standard to ensure that businesses in scope can understand their obligations in as straightforward a manner as possible.
- 11.3. As an estimated 83% of landlords in the domestic PRS own fewer than five properties,<sup>81</sup> it seems appropriate to make the conservative assumption that all landlords in the domestic sector should be classified as small or micro businesses (SMBs), given that the definition of a SMB is less than 50 employees. Almost without exception, firms undertaking domestic energy assessments are sole or two or three practitioner concerns.
- 11.4. Thus, the estimated costs to business resulting from the policies are expected to be borne mostly by SMBs. It would not make sense to exclude SMBs from these regulations. This would remove most, if not all, of the intended benefits of the policy. Note that many of the costs incurred by landlords/ holiday let owners because of the regulations are likely to be on a per-property basis, meaning those with small property portfolios will not be disproportionately burdened by the regulations.

#### 12. Equalities Assessment

- 12.1. Under the Equalities Act 2010, all public authorities are required to have due regard to the need to
  - 12.1.1. Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act.
  - 12.1.2. Advance equality of opportunity between people who share a protected characteristic and those who do not.
  - 12.1.3. Foster good relations between people who share a protected characteristic and those who do not.
- 12.2. This means there is a statutory duty to consider the impacts of the above policy changes outlined in the consultation stage impact assessment. The impacts should be considered against protected characteristics. These include age, disability, gender

<sup>&</sup>lt;sup>81</sup> English Private Landlord Survey 2018, Chapter 1 Figures and annex tables, Figure 1.2 Landlords by portfolio size: <a href="https://www.gov.uk/government/publications/english-private-landlord-survey-2018-main-report">https://www.gov.uk/government/publications/english-private-landlord-survey-2018-main-report</a>

reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

- 12.3. The proposals will affect landlords, owners and tenants who rent or sell, including those of HMOs, holiday lets and heritage buildings.
- 12.4. The PRS is the sector impacted the most by the proposed changes. Whilst the cost of an EPC per dwelling (c. £70) is modest, we estimate some 6,900 F and G rated HMOs/heritage PRS dwellings will be brought in scope of MEES at an average cost of around £2,000 per dwelling. The cost cap for MEES was chosen to mitigate the risk of landlords passing on costs to tenants through higher rents/leaving the sector, whilst extending the benefits of carrying out EPC recommendations (energy savings and increased comfort from warmer homes) to tenants given the issue on landlord incentives.
- 12.5. Landlords are therefore expected to be the group who will bear most of the costs from the policy and implementation of the proposed changes to secondary legislation in the policy option. The evidence suggests landlords are disproportionately white and in older age groups. Specific profiling on HMOs has not been possible, although research has suggested HMO tenants include students, young people, low-income households, and vulnerable groups. According to the 2021 ONS Census, PRS household income is on average lower than owner occupiers, with social renters the lowest. 4
- 12.6. As part of the 2024 Consultation on Reforms to the Energy Performance of Buildings Regime, we are seeking feedback on any potential impacts of the proposals on persons who have a protected characteristic. The responses we receive will be carefully analysed and where appropriate, the final policy will be amended and mitigating measures put in place. In addition to the consultation responses, further sources will also be used during the final policy development process to identify any potential impacts on persons who have a protected characteristic. This includes extensive engagement with a wide range of stakeholders and a review of correspondence that has been received in relation to the proposals.

#### 13. A summary of the potential trade implications of measure

13.1. N/A- no trade implications expected.

<sup>&</sup>lt;sup>82</sup> English Private Landlord Survey 2021: main report, Chapter 1, 1.9 – 1.10: <a href="https://www.gov.uk/government/statistics/english-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2021-main-report-2#chapter-1-profile-of-private-landlord-survey-2#chapter-1-profile-of-private-landlord-survey-2#chapter-1-profile-of-private-landlord-survey-2#chapter-1-profile-of-private-landlord-survey-2#chapter-1-profile-of-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landlord-survey-2#chapter-1-private-landl

<sup>&</sup>lt;sup>83</sup> Welsh Government (2015) HMO Review and Evidence Gathering: <a href="https://gov.wales/sites/default/files/publications/2018-11/houses-in-multiple-occupation-hmos-review-report-on-findings.pdf">https://gov.wales/sites/default/files/publications/2018-11/houses-in-multiple-occupation-hmos-review-report-on-findings.pdf</a>; and Cauvain and Bouzarovski (2016):

https://www.researchgate.net/publication/301621847 Energy vulnerability in multiple occupancy housing a problem that policy for got

<sup>&</sup>lt;sup>84</sup> ONS, Average income by tenure, Income and source of income by household tenure for all UK households 2019-20, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/adhocs/12845averageincomebytenur

# 14. Monitoring and Evaluation

- 14.1. We will closely monitor and analyse the responses to the consultation and amend policies as necessary. We have regular engagement with stakeholders from all parts of the relevant industries which we will use to monitor its effects, including whether we have met our original policy objectives and whether any interventions need to be amended. MHCLG also owns the EPC Register, through which we will be able to monitor the number of new EPCs.
- 14.2. We will engage with stakeholders throughout the consultation process and after implementation of any changes to ensure they are ready for changes. The success of changes will depend to an extent on this readiness.