

# **Energy Performance Certificate (EPC) Reform Consultation**

**July 2023**

## Contents

<b>Ministerial Foreword</b> .....	<b>3</b>
<b>1. Introduction</b> .....	<b>4</b>
1.1 Background .....	4
1.2 Purpose and Objectives of this Consultation .....	5
1.3 Summary of Proposals.....	6
<b>2. Current EPC System in Scotland</b> .....	<b>8</b>
2.1 Domestic EPC Methodology.....	9
2.2 Current Domestic Metrics - Energy Efficiency Rating.....	10
2.3 Current Domestic Metrics - Environmental Impact Rating.....	10
2.4 Non-Domestic EPC Methodology.....	11
2.5 Non-Domestic EPC Metrics .....	11
<b>3. Stakeholder Recommendations and Previous Research, Working Groups and Consultation</b> .....	<b>13</b>
3.1 CCC Recommendations for Reform.....	13
3.2 EU Energy Performance of Buildings Directive.....	14
3.3 Previous Research and Working Groups .....	14
3.4 Previous Consultation .....	14
<b>4. Proposals</b> .....	<b>16</b>
4.1 Domestic Energy Performance Certificate Metric Reform Proposals.....	16
4.2 Non-Domestic Energy Performance Certificate Metric Reform Proposals.....	22
4.3 Purpose and Validity Period of EPCs Proposals .....	23
4.4 Digital and Accessible EPC Format and Content Proposals .....	24
4.5 Quality Assurance and Approved Organisation Framework Proposals.....	27
4.6 Potential Future Reform .....	27
<b>5. Legislating for EPC Reform and Timeline</b> .....	<b>30</b>
<b>6. Consultation Questions: Summary</b> .....	<b>31</b>

## Ministerial Foreword

Reducing emissions from our buildings is one of the most challenging and important actions we can take to help end Scotland's contribution to climate change. Scotland's homes and workplaces must transform so they are more comfortable, efficient, and green.

Scotland has legally binding targets, agreed by all parties in the Scottish Parliament, to achieve "net zero" greenhouse gas emissions by 2045, with interim targets for a 75% reduction by 2030, and 90% by 2040. Given our homes and workplaces account for around a fifth of Scotland's total greenhouse gas emissions, improving the energy performance of our homes and buildings is a key step on our net zero journey. Our Heat in Buildings Strategy set out our plans to reform domestic EPCs, as advised by the Climate Change Committee.

We need to prioritise improvements to the fabric of our homes to accelerate our efforts and deliver a highly significant reduction in our demand for energy as a society. Making our homes more energy efficient will bring advantages in addition to reducing emissions. Better insulation and other energy efficiency measures make our homes more comfortable and easier to heat, helping to reduce the amount we spend on energy. It will also help reduce number of people living in fuel poverty.

However, fabric improvements alone will not allow us to reach net zero emissions from our buildings. It is also important that we transition from direct emissions heating systems, like gas and oil boilers, to zero direct emissions heating systems, like heat pumps and heat networks. Together, this will reduce the amount of energy Scotland's buildings use for heating and ensure that they do not directly contribute to climate change.

Energy Performance Certificates (EPCs) are an important source of information for current and potential occupiers. They are one of the few pieces of information householders and building owners receive that helps them understand the performance of their building. However, the metrics and ratings EPCs currently use are not appropriate to drive the improvements that we need in the fabric of our homes and to move to zero direct emissions heating systems in our homes and buildings.

As such, this consultation seeks views on EPC reform. The proposals include plans to reform domestic and non-domestic EPC metrics, the purpose and validity period of EPCs, the EPC format, and quality assurance procedures.

As a result of these proposals, EPCs would provide relevant and holistic information to interested parties to help them make informed purchase, rental and retrofit decisions. Ensuring EPCs show the right information is essential to inform decisions that support the improvement of our homes and buildings towards net zero.

# 1. Introduction

## 1.1 Background

The Scottish Government has legally binding climate change targets to reach net zero by 2045, with interim reductions of 75% by 2030 and 90% by 2040<sup>1</sup> (relative to 1990 levels). Scotland's buildings currently account for around a fifth of our emissions. To meet our statutory climate change targets, we need our homes and buildings to be highly energy efficient, and ultimately to use climate-friendly, zero direct emissions heating systems (ZDEH)<sup>2</sup>. Upgrading buildings to be more energy efficient means they will use less energy. This means less heat is wasted through poor insulation, and due to this, fewer greenhouse gas emissions are released into the atmosphere. In tandem, switching to zero direct emissions heating completely removes direct emissions from heating our buildings.

The Scottish Government's Heat in Buildings Strategy<sup>3</sup> sets out our plan to reach net zero and address the wider challenges of reducing our buildings' contribution to climate change and mitigating fuel poverty. In the Programme for Government we committed to consulting on proposals for a Heat in Buildings Bill this year. Subject to consultation, this Bill would seek powers to introduce regulations requiring domestic buildings to meet a minimum fabric energy efficiency standard equivalent to EPC C by 2033 and to prohibit the use of direct emissions heating systems in domestic and non-domestic buildings by 2045.

Energy Performance Certificates (EPCs) are a vital tool to help our buildings reach net zero. They are a long-established feature of the domestic and non-domestic property markets. EPCs provide information about the energy efficiency of a building that allows for comparisons to be made between buildings under standard operating conditions. They also suggest potential steps the owner could take to improve the energy efficiency of their building.

EPCs must be provided when a building is sold or let to a new tenant<sup>4</sup>. They have also formed part of the Home Report<sup>5</sup> since 2008. This helps current and prospective tenants or owners make informed choices when moving or considering improvements to their buildings.

It is widely accepted that EPCs require reform. The Scottish Government commissioned research<sup>6</sup> and established working groups<sup>7</sup> during 2017-20 to make recommendations for reform. This programme of work responded to long-standing criticism and recommendations from the UK Climate Change Committee (CCC). The

---

<sup>1</sup> [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019 \(legislation.gov.uk\)](#)

<sup>2</sup> [Climate Change Plan: monitoring reports 2022 - gov.scot \(www.gov.scot\)](#)

<sup>3</sup> [Heat in Buildings Strategy - achieving net zero emissions in Scotland's buildings - gov.scot \(www.gov.scot\)](#)

<sup>4</sup> [The Energy Performance of Buildings \(Scotland\) Regulations 2008 \(legislation.gov.uk\)](#)

<sup>5</sup> [Home Reports - Homeowners - gov.scot \(www.gov.scot\)](#)

<sup>6</sup> [Domestic and non-domestic energy performance certificates: review - gov.scot \(www.gov.scot\)](#)

<sup>7</sup> [Energy Efficient Scotland: short-life working group on assessment - gov.scot \(www.gov.scot\)](#)

CCC, as our statutory advisers, have recommended reform to ensure that EPCs are fit-for-purpose to help deliver net zero. Following these recommendations and the findings of the research and working groups conducted by the Scottish Government, we committed in the Heat in Buildings Strategy in 2021 to bring forward proposals to reform EPCs.

In 2021 we launched an initial consultation<sup>8</sup> on EPC reform, the results of which were published in 2022<sup>9</sup>. This consultation focused on the introduction of a specific EPC metric, Energy Use, onto domestic EPCs and to rename the existing metrics. The intention was that this metric would support delivery of the Heat in Buildings Strategy. Following feedback from this consultation, and further policy development, we now consider that a set of metrics is likely to be required to maximise the value of EPCs. This includes a fabric focussed metric which would be more appropriate to support policies intended to drive fabric improvement.

As a result, we are now consulting on wider reforms to both domestic and non-domestic EPCs to ensure that they are fit for purpose to support future heat in buildings regulations. Alongside this, it is essential that the proposed reforms provide interested parties with clear and useful information about buildings.

## **1.2 Purpose and Objectives of this Consultation**

The purpose of this consultation is to set out the Scottish Government's final proposals for EPC reform and to seek stakeholder views ahead of the introduction of new legislation. Following this consultation, we intend to introduce revised Energy Performance of Buildings (Scotland) Regulations to the Scottish Parliament in Winter 2023-24, subject to the necessary legislative vehicle being in place. This would mean that revised EPCs can come into force shortly afterward. This timeline is intended to allow reformed EPCs, with metrics that appropriately reflect the performance of buildings, to be in place in advance of wider proposed Heat in Buildings regulations. However we will review the UK Government's timeline for development of SAP 11<sup>10</sup>, which may provide a more appropriate point to introduce the reformed EPC. SAP 11 is planned to be launched in 2025.

This consultation sets out the following:

- Section 2 sets out the current EPC system in Scotland;
- Section 3 summarises stakeholder recommendations for reform, and previous research, working groups and consultation;
- Section 4 presents our proposals for EPC reform;
- Section 5 sets out the proposed timeline for implementing the reforms.

We are consulting on reforms to both domestic and non-domestic EPCs. The content, methodology, and policy environment for the two types of EPC are very different. Neither the metrics nor methodology can be compared, as described later in the consultation. However, we are consulting on both types of EPCs as they both

---

<sup>8</sup> [Domestic Energy Performance Certificates \(EPC\) reform: consultation - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/energy-performance-certificates-reform-consultation/pages/1-1-introduction.aspx)

<sup>9</sup> [Heat in Buildings Strategy: Domestic EPC Reform Consultation Analysis Summary Report \(www.gov.scot\)](https://www.gov.scot/publications/heat-in-buildings-strategy-domestic-epc-reform-consultation-analysis-summary-report/pages/1-1-introduction.aspx)

<sup>10</sup> [Standard Assessment Procedure - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/standard-assessment-procedure)

have a key role to play in meeting net zero. Our principles are to ensure EPCs are an appropriate tool for the role that they play, are accessible and clear, and that the value of the data we gather and hold is maximised.

### 1.3 Summary of Proposals

In summary, we propose to reform EPCs to:

- Introduce a set of domestic EPC metrics to provide a holistic reflection of a dwelling's performance;
- Introduce a set of non-domestic EPC metrics to provide appropriate information about non-domestic buildings;
- Make additional changes to the EPC system to ensure that EPCs provide clear and useful basic information about a building's energy efficiency for current and prospective building owners and tenants, and other stakeholders.

#### 1.3.1 Domestic EPC Metrics

We propose to revise the information displayed on domestic EPCs by expanding the current metrics, renaming them, and reporting other relevant information. This would provide a more holistic view to current and potential homeowners. We propose to reform domestic EPC metrics to present the following headline set:

- Fabric Rating – setting out the current modelled fabric performance of the building in terms of its heat loss in standard conditions, in kWh/m<sup>2</sup>/year, calculated through the SAP assessment;
- Cost Rating – setting out the current modelled annual costs of running the building based on the SAP assessment, and how these costs could change as a result of measures recommended. This is the same as the Energy Efficiency Rating (EER) currently displayed on EPCs;
- Heating System Type – clearly identifying the heating system installed in the dwelling and whether or not it meets the proposed Zero Direct Emissions Heating standard.

Alongside these headline metrics, we also intend to report in a separate section:

- Emissions Rating – setting out the current modelled total emissions from the building in kgCO<sub>2e</sub>/m<sup>2</sup>/year. This is the same as the Environmental Impact Rating (EIR) currently displayed on EPCs.
- Energy Indicator – reporting the modelled energy use of the dwelling in kWh/m<sup>2</sup>/yr.

In addition to metrics, we propose to display the basic fabric energy efficiency features (such as whether the dwelling has cavity wall insulation or loft insulation) more prominently.

#### 1.3.2 Non-Domestic EPC Metrics

We also propose to reform non-domestic EPCs to focus on the reduction of direct emissions. The variety of building types and activities in Scotland's non-domestic

building stock mean that it is challenging to identify decarbonisation pathways that can be used across all buildings. We propose the following metrics for non-domestic EPCs:

- Energy Efficiency Rating (A to G) – based on modelled emissions from regulated energy use<sup>11</sup> relative to a reference building to align with the rating system used across the UK;
- Direct Emissions (kg of CO<sub>2e</sub>/m<sup>2</sup>/yr) – the building’s modelled direct emissions from regulated energy use<sup>12</sup> to allow a focus on the decarbonisation of individual buildings. For buildings which only use grid electricity this will be zero;
- Energy Demand (kWh/m<sup>2</sup>/yr) - the building’s modelled regulated energy use under standardised conditions to allow comparisons between buildings.

Alongside this, we propose to display the heating fuel type and heating system more prominently on non-domestic EPCs. This is intended to reflect the importance of moving to ZDEH. This would be accompanied by text noting the relevant regulations.

We are proposing different sets of metrics for domestic and non-domestic EPC. This is because, as set out later in the consultation, domestic and non-domestic EPCs are not comparable and the energy efficiency context of each sector is different.

### 1.3.3 Additional Changes

For both domestic and non-domestic EPCs we propose to:

- Clarify the purpose of EPCs;
- Reduce the validity period from 10 to five years;
- Modernise the Scottish EPC format, including moving to a webpage format, adding interactive links to signpost further advice and support, and providing links to more tailored recommendations;
- Expand the sharing of non-personal EPC data to allow more effective use of this useful resource, including direct public access to current and historical EPC records<sup>13</sup> (this would also apply to other related certificates, including Energy Action Plans and Display Energy Certificates);
- Improve the assurance behind EPC assessments by updating the auditing requirements with a risk-based, smart auditing approach. The operating requirements for approved organisations and their members will also be updated.

---

<sup>11</sup> Direct and indirect emission from regulated energy use, which means heating, cooling, ventilation, hot water, and lighting

<sup>12</sup> Modelled direct emissions attributed to regulated energy uses Direct emissions are those that arise at the point of use. Indirect emissions are those attributed to generation, such as with the generation of electricity.

<sup>13</sup> Via an Application Programming Interface (API)

## 2. Current EPC System in Scotland

An EPC provides basic information about the energy efficiency of a building. The Scottish [EPC register website](#)<sup>14</sup> can be used to find the EPC for a building if a valid EPC exists. Once lodged on the Scottish EPC Register an EPC is valid for ten years or until it is replaced by a new certificate.

Domestic and non-domestic EPCs display different metrics and also use different methodologies. The most prominent metric displayed on the current format for domestic EPCs is the Energy Efficiency Rating. This is based on the modelled cost to run the dwelling, normalised to floor area (meaning larger properties do not perform worse than smaller dwellings purely due to their size). Non-domestic EPCs display the Energy Performance Rating, which is based on modelled carbon dioxide emissions from the building<sup>15</sup>, also normalised to floor area.

The assessment used to produce an EPC collects basic information about the building. This includes the floor area and construction type, and details about the heating, lighting, and ventilation systems. The assessments are based on a non-intrusive survey using visual observations. This means that for some parameters the methodology uses assumptions based on the age of the building (for example for the thickness of flat roof insulation, which usually cannot be seen). Where documentary evidence is available to the EPC assessor, this can support the use of specific values instead of default values.

Both domestic and non-domestic assessments are intended to reflect, and allow comparison, of the building assessed, rather than its occupants. For this reason, the calculations are based on standard patterns of occupancy and use. For example, this means that the cost figures in a domestic EPC are not bespoke to the current occupants. Instead, they allow comparisons to be made between dwellings regardless of the occupant's behaviour (and even whether the dwelling is occupied or not).

The EPC also presents a set of advisory improvement measures and displays the ratings that could be achieved if the recommended measures are installed. The improvement measures are based on logic set out in the methodology and do not account for site-specific issues, such as permissions required to install the measure. EPC assessors may suppress recommendations if there is evidence to justify doing so. They cannot add additional recommendations.

The methodologies used to calculate the information displayed on EPCs are owned and developed by the UK Government<sup>16</sup>. They are approved for use in Scottish EPCs by Scottish Ministers. The Scottish Government works with the UK Government and other devolved administrations to ensure the methodologies are developed appropriately for Scotland. The changes we propose would add additional information to Scottish EPCs alongside the metrics used across the UK, but would continue to be underpinned by the same methodologies.

---

<sup>14</sup> [Home \(scottishepcregister.org.uk\)](http://www.scottishepcregister.org.uk)

<sup>15</sup> Including indirect emissions, such as those associated with the generation of grid electricity

<sup>16</sup> With the exception of dynamic simulation models, which are approved by UK Government



## 2.1 Domestic EPC Methodology

The Standard Assessment Procedure (SAP) is the methodology used to calculate the information displayed on domestic EPCs. SAP is used for new dwellings. For existing domestic buildings, the assessor usually does not have access to the full dataset required to undertake a full SAP calculation (such as technical details about the windows, or the individual layers that make up the walls). For this reason, a modified version of SAP is usually used for existing dwellings. This is called Reduced Data SAP (RdSAP). RdSAP sets out procedures to collect and infer data (including use of default values) to allow a SAP calculation to be performed. The use of RdSAP is often necessary because obtaining a full SAP dataset through on-site measurement would often be impractical and would significantly increase the cost of an EPC.

SAP assessments for new dwellings are performed by accredited On Construction Domestic Energy Assessors. RdSAP assessments are carried out by accredited Domestic Energy Assessors. These professionals are accredited by Approved Organisations<sup>17</sup> and require specific qualifications and experience in order to be accredited.

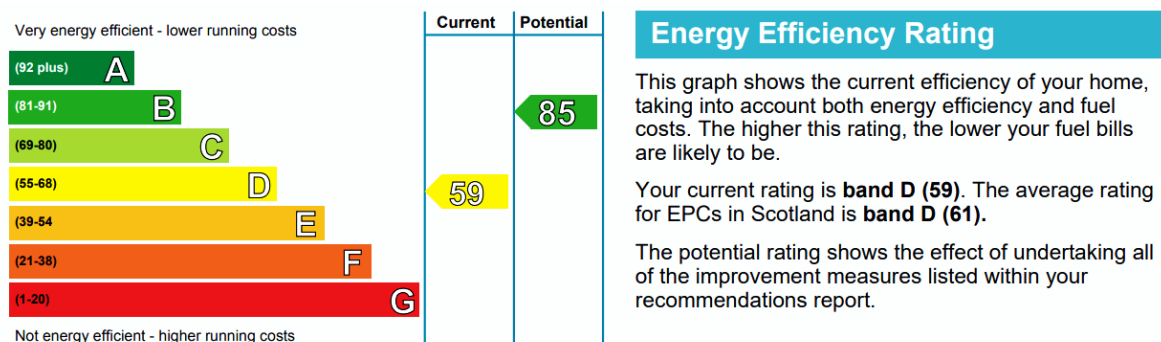
Some stakeholders have called for SAP and RdSAP to be substantially amended, or replaced entirely, and an alternative assessment methodology used. This is within the power of Scottish Ministers, as set out in The Energy Performance of Buildings (Scotland) Regulations 2008. However, we do not propose to amend or replace the methodology at this time. This is for three reasons:

- Firstly, a major update to the SAP and RdSAP methodologies is under development by the UK Government. We are working with the UK Government and other devolved administrations to ensure SAP 11 meets the needs for use in Scotland and have received assurance from the UK Government that SAP 11 will address many of the concerns stakeholders have raised about the accuracy of SAP;
- Secondly, development of a new methodology (and associated ongoing management work) would need to be undertaken in parallel to the current methodology. This is because schemes and services that operate across the UK using EPCs would require the existing methodology to be maintained;
- Finally, we intend to make clear both on the EPC and in its usage, that the EPC (and its recommendations) is based on a relatively basic assessment of the building, and uses standardised values, and so is not a substitute for in-depth professional retrofit advice.

---

<sup>17</sup> Approved Organisations are organisations approved by Scottish Ministers in accordance with regulation 8 of The Energy Performance of Buildings (Scotland) Regulations 2008. They accredit individual Energy Assessors in accordance with the [Scottish Operating Framework](#)

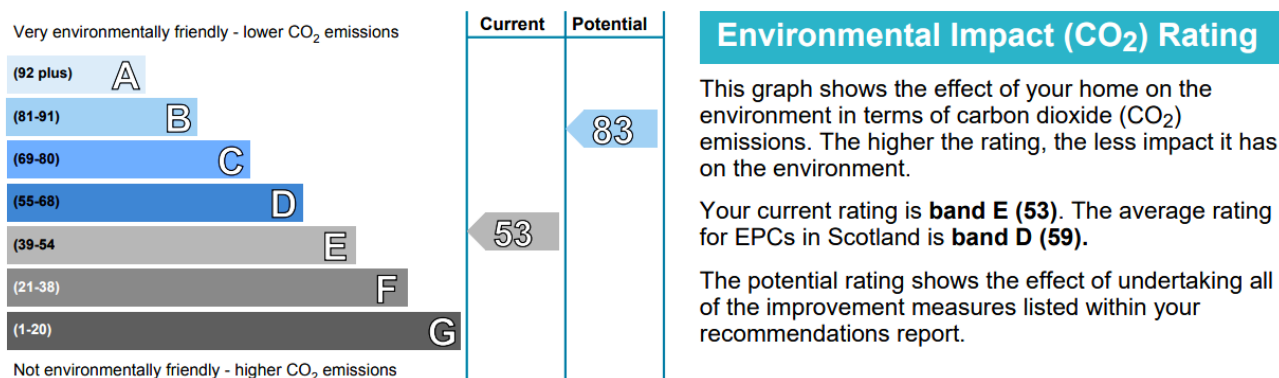
## 2.2 Current Domestic Metrics - Energy Efficiency Rating



Currently, domestic EPCs display the Energy Efficiency Rating (EER) for the dwelling. This is the most prominent metric on the EPC. The EER provides an A-G band and numerical 1-100 rating based on the cost to run the dwelling normalised to the floor area. This means that, for two dwellings of the same size, the dwelling with the better rating is calculated to have a lower annual modelled running cost.

As this metric is based on modelled running costs, it is not necessarily appropriate to use it as an indication of the dwelling's fuel use or insulation level. This is because many fossil fuels, such as gas, currently have a much lower cost per kWh than electricity<sup>18</sup>. This means that, for example, a dwelling heated by a gas boiler would achieve a better rating than the same dwelling heated by electric radiators. This does not align with our net zero ambitions. Similarly, insulating a dwelling heated by gas would achieve a smaller improvement in EER than insulating one heated by electricity, due to the difference in fuel price.

## 2.3 Current Domestic Metrics - Environmental Impact Rating



The Environmental Impact Rating (EIR) is based on the global warming impact of the emissions associated with the dwelling. This is based on carbon dioxide equivalent emissions (CO<sub>2e</sub>). This combines the impact of carbon dioxide (CO<sub>2</sub>) alongside

<sup>18</sup> The energy market is reserved to Westminster. This includes levies added to gas and electricity bills. The UK Government is undertaking its Review of Electricity Market Arrangements which is intended to reduce the cost of electricity in the long term [UK launches biggest electricity market reform in a generation - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/uk-launches-biggest-electricity-market-reform-in-a-generation)

methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions. The EIR considers both direct emissions from within the dwelling (e.g., through combustion of gas) and indirect emissions (e.g., from generation of electricity at a power station). The better the rating, the lower the modelled emissions. This rating is not widely used in policy and was removed as a headline metric from EPCs in England and Wales in 2020.

The EIR offers a means to compare the impact of dwellings on the environment in terms of their carbon dioxide equivalent emissions. It uses fixed carbon factors to ensure ratings are consistent across the lifetime of the methodology. This means its use as a tool to regulate for net zero is limited. This is because the carbon factor for grid electricity is currently roughly equivalent to natural gas but is forecast to reduce to near zero by 2045<sup>19</sup>. Regulating using a rating based on current carbon factors could allow for further installation of gas heating systems, which is incompatible with net zero by 2045.

Instead, our Heat in Buildings Strategy sets out clearly that to meet our net zero targets by 2045, we need to focus on eliminating direct emissions from heating buildings. It would therefore be inappropriate to continue to focus on indirect emissions, which risks confusion about the measures necessary to move to zero direct emissions heating systems.

## **2.4 Non-Domestic EPC Methodology**

Non-domestic EPCs are produced using the National Calculation Methodology (NCM). The NCM is defined by UK's Department for Levelling Up, Housing and Communities (DLUHC) in consultation with devolved administrations, and is used in Scotland. Like SAP, the NCM sets out a standardised procedure for the calculation of asset ratings used on EPCs. The NCM contains a database of activity types and associated variables (e.g. occupancy and heat gains) that can be assigned to zones in the model to reflect the diversity of activities undertaken in non-domestic buildings.

The NCM calculation can either be implemented through the Simplified Building Energy Model (SBEM) or an approved Dynamic Simulation Model (DSM). SBEM is a simplified tool developed by BRE. DSM modelling uses a more complex simulation. DSM software is audited to ensure that it correctly implements the relevant standards. The route used is determined by the complexity of the building.

Non-domestic EPCs are produced by accredited Non-Domestic Energy Assessors. There are different qualification levels for NDEAs. NDEAs require higher qualification levels to assess more complex buildings.

## **2.5 Non-Domestic EPC Metrics**

The Energy Performance Rating displays an A-G rating and 1-100 value based on the calculated emissions for the building in kg CO<sub>2</sub> / m<sup>2</sup> / year. Unlike the Asset Rating used on non-domestic EPCs in England and Wales, the Energy Performance rating is absolute. This means the rating is not based on comparison to a reference building in Scotland, as is the case in England and Wales. As a result the Energy

---

<sup>19</sup> [The Sixth Carbon Budget: Electricity Generation](#)

Performance Rating on Scottish EPCs cannot be compared to Asset Ratings on EPCs in England and Wales.

To address this, Scottish non-domestic EPCs provide information about the rating that would be obtained if the methodology used in England and Wales was applied (with Scottish climate data). This is presented in the 'Comparative assessment - Feed-in Tariff' section of the EPC. However it is clear from stakeholder engagement that this difference in rating methodology is often not recognised.

The absolute rating used on Scottish EPCs has drawbacks. While it allows the performance of different types of non-domestic building to be compared, it is less useful for conveying the relative performance of a particular type of building. This is because there are many diverse non-domestic uses for buildings, and the use has a significant impact on the emissions. For example, a restaurant is likely to produce more emissions, and so have a worse Energy Performance Rating, than a shop. However this information is not particularly useful to the owners of the restaurant, for whom it is likely to be more important to know how their restaurant compares to restaurants with similar characteristics. We therefore need to reform non-domestic EPCs to ensure that they display more appropriate and useful information for building owners.

### 3. Stakeholder Recommendations and Previous Research, Working Groups and Consultation

#### 3.1 CCC Recommendations for Reform

The Climate Change Committee (CCC), our independent statutory advisors, have recommended that the Scottish Government reform EPCs to ensure they better reflect our net zero objective. In their Sixth Carbon Budget report<sup>20</sup> and subsequent reports to the Scottish Government and Parliament<sup>21,22</sup> the CCC identified that high quality advice and information is critical for guiding householders' decisions to improve the energy performance of their home.

In February 2023, the CCC published research and recommendations<sup>23</sup> on the reform of domestic EPCs in Scotland and the rest of the UK. This made recommendations for revised EPC metrics<sup>24</sup>. The key messages from this advice are:

- The ratings currently on EPCs are an important policy tool used to define standards and targets for reducing emissions from homes but they are poorly suited to this role;
- The ratings do not appropriately incentivise the energy efficiency and heating solutions required to deliver net zero homes;
- The presentation of metrics and ratings should be improved, so they are easier to understand, can be compared with actual performance, and enable policies to be better targeted;
- Reforms to EPC metrics should be applied alongside wider improvements to the EPC system to improve the quality of assessments and use of data.

The CCC recommended domestic EPCs should include four primary metrics, using real-world units, and clear simple names:

- Fabric Rating: Space heating demand intensity (kWh/m<sup>2</sup>/year);
- Cost Rating: Energy cost intensity (£/m<sup>2</sup>/year);
- Heating Type: Heating system type (category of heating system);
- Energy Indicator: Total modelled energy use (kWh/year).

The CCC recommends that work to reform EPCs is designed to drive deployment of the necessary energy efficiency measures on a holistic basis and does not hinder the use of low-carbon heating solutions<sup>25</sup>.

---

<sup>20</sup> [Policies-for-the-Sixth-Carbon-Budget-and-Net-Zero.pdf \(theccc.org.uk\)](#)

<sup>21</sup> [Progress in reducing emissions in Scotland - 2021 Report to Parliament - Climate Change Committee \(theccc.org.uk\)](#)

<sup>22</sup> [Scottish Emission Targets & Progress in reducing emissions in Scotland – 2022 Report to Parliament - Climate Change Committee \(theccc.org.uk\)](#)

<sup>23</sup> [Annex Reform of domestic EPC rating metrics to support delivery of Net Zero \(theccc.org.uk\)](#)

<sup>24</sup> [Letter: Reform of domestic EPC rating metrics to Patrick Harvie MSP - Climate Change Committee \(theccc.org.uk\)](#)

<sup>25</sup> [Letter: Reform of domestic EPC rating metrics to Patrick Harvie MSP - Climate Change Committee \(theccc.org.uk\)](#)

### 3.2 EU Energy Performance of Buildings Directive

The Scottish Government has ambitions to align with the EU, where appropriate, and in a manner that contributes towards maintaining and advancing standards. We continue to engage with EU proposals on EPCs, and will take them into consideration when reforming EPCs in Scotland.

EPCs across Europe are mandated by The Energy Performance of Buildings Directive (EPBD). In December 2021, the EU proposed a revision of the EPBD<sup>26</sup>. This recast directive sets out how Europe can achieve a zero-emission and fully decarbonised building stock by 2050 and includes updates to EPCs across Europe and is now entering the last phase of the EU legislative process. Once final agreement on the EPBD has been reached, we will be able to fully consider any opportunities for alignment.

### 3.3 Previous Research and Working Groups

In 2017 the Scottish Government commissioned Alembic Research, Energy Action Scotland, and Dr Patrick Waterfield to undertake a review<sup>27</sup> of earlier consultation and recommend actions to be taken forward. EPCs across Europe, officials recently reviewed and classified the substantial number of recommendations it made. The research recommended making changes to the methodology as well as the information presented on, and design, of EPCs.

The Scottish Government has raised, and will continue to raise, many of the methodological recommendations with the UK Government, including in consultation regarding the development of SAP 11. Several of the recommendations have informed this EPC reform work. These include user-centred redesign of the EPC format, better signposting to further support schemes, and clearer description of the purpose of the EPC and its recommendations.

In 2019 the Scottish Government ran a Short Life Working Group on Assessment<sup>28</sup>. While the group did not run to completion due to Covid-19 disruption, their work reviewing the assessment needs for the Energy Efficiency Scotland programme has also informed the development of these proposals.

In 2019 the Scottish Government also ran a Working Group to review the assessment and improvement to the energy performance of non-domestic buildings in Scotland. This group also did not run till completion due to Covid-19.

### 3.4 Previous Consultation

Changing the EPC format and considering how we use it to regulate and encourage progress towards net zero is a complex process. Initial work was set out in the

---

<sup>26</sup> [Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings \(recast\)](#)

<sup>27</sup> [1. Introduction - Domestic and non-domestic energy performance certificates: review - gov.scot \(www.gov.scot\)](#)

<sup>28</sup> [Energy Efficient Scotland: short-life working group on assessment - gov.scot \(www.gov.scot\)](#)

[Domestic Energy Performance Certificates \(EPC\) Reform consultation document](#) in 2021, which ran from July to October 2021.

While this work was undertaken several years ago, we published a [summary report](#) of the EPC reform consultation analysis and outlined our key findings. Respondents also broadly agreed with our proposals to rename the existing metrics and ensure EPCs provide clear, simple, and useful information to users. There was strong support for our proposal to introduce a new metric to report energy efficiency based on energy use. However, several respondents suggested a metric based on heat demand, rather than on energy use, would be more appropriate. An energy use metric would report the modelled energy delivered to the dwelling for the purposes included in SAP. A heat demand metric only takes account of the heat required to be provided by the heating system to maintain standard conditions.

In both the previous consultation and wider engagement, stakeholders expressed concerns that EPCs, and so policies that rely on them, are inherently flawed because they are based on modelled data. Stakeholders are particularly concerned with assessments of existing buildings where three key issues are identified:

- Firstly, there is a risk that EPC assessments misidentify the type or characteristics of building elements, either by mistake, by use of default values, or by methodological constraints;
- Secondly, the model may overestimate or underestimate values such as heat demand or running costs, potentially misleading consumers who interpret the values shown on an EPC as a prediction of actual energy use or costs;
- Finally, the recommendations shown on EPCs may be misleading. For example, they may not be physically possible due to data input errors, may have inaccurate cost analysis, or may be technically inappropriate for the building without further investigation.

We have taken this feedback from previous work into account when developing the proposals presented in this consultation.

## 4. Proposals

This section sets out our proposals to reform EPCs to enable them to better help reaching net zero. This includes proposals on:

- Domestic EPC reform;
- Non-Domestic EPC reform;
- The purpose and validity period of EPCs;
- Digital and accessible EPC format and content; and,
- Quality assurance and the Approved Organisation Framework.

### 4.1 Domestic Energy Performance Certificate Metric Reform Proposals

Domestic EPC metrics are widely used to provide information on a home, and yet, the current metrics do not accurately reflect the fabric efficiency of a home nor do they support our transition to net zero. To address this, we are proposing to reform the current metrics to provide more holistic information about the efficiency of a home that is relevant to owners and occupiers. We propose the following set of headline metrics:

- Fabric Rating
- Cost Rating
- Heating System Type

These three metrics, based on those advised by the CCC, each support distinct policy purposes – the heat demand, the cost to run the dwelling, and whether the heating system is zero direct emissions compliant.

In addition, we propose to display:

- the Emissions Rating; and,
- the Energy Use Indicator.

These are not intended to be used as headline metrics but provide information that is useful to stakeholders.

Additional information as set out in the draft Energy Performance of Buildings Directive may be required in a separate section to enable future alignment with EU countries. If this is the case, these will also be added to the EPC as secondary information.

Beyond metrics, we also propose to ensure the EPC provides a clear description of the energy efficiency features of the dwelling, showing them in a list. This could include the insulation condition of the walls, as identified in accordance with the relevant assessment methodology. We intend to review the presentation of this information in the current EPC format, and consider whether this can be made more prominent.



#### 4.1.1 Fabric Rating

The metrics currently shown on EPCs do not solely reflect the energy efficiency of the building fabric, and so do not drive the fabric energy efficiency improvements that are key to improving our housing stock. By 'fabric efficiency' we mean how well the building retains heat. This includes how well insulated the walls, roof, and floor are.

To address this, we propose to add a metric to reflect the fabric of the home, namely the fabric rating. This is primarily intended to support any future fabric energy efficiency standards. This would provide a clear rating of the dwelling's fabric efficiency. We have developed two potential options for this metric with BRE:

1. The energy required to be supplied by the heating system to achieve standardised internal conditions, **including heating, cooling, and domestic hot water heat demand.**
2. The energy required to be supplied by the heating system to achieve standardised internal conditions, **including heating and cooling demand but excluding domestic hot water heat demand.**

Domestic hot water demand means the heat required to be provided to the dwelling's hot water system to meet needs based on standardised assumptions.

The first option would mean that the fabric metric reflects measures that improve the efficiency of the hot water system. This is important because reducing heat used for domestic hot water has many of the same benefits as reducing space heating demand. It reduces the energy needed to run the dwelling. Relevant measures include retrofit hot water cylinder insulation, which is a low cost measure and effective at reducing losses from a hot water cylinder, or waste water heat recovery.

However, there are some considerations that should be taken into account. First, including domestic hot water demand could complicate the metric and lessen the focus on fabric measures.

For example, domestic hot water heat demand is affected by the type of hot water system. This means changing the dwelling's hot water system type could impact the 'fabric' metric. This is a particular policy concern when moving from a gas combi boiler to an electric system with storage (and consequently adding unavoidable storage losses), such as a heat pump. While this reflects the reality of changing to a system with storage, it could be confusing for an owner to see their fabric rating unexpectedly worsen after installing a net zero compliant system. This does not align with our overarching aim to encourage zero direct emissions systems through EPC ratings.

Additionally, the 'fabric' of the building can be seen as a relatively long term feature, while hot water systems may have a shorter lifetime. Similarly, in some circumstances a domestic hot water cylinder may need to be replaced as part of the conversion to a zero emissions heating system. In this case insulating the cylinder may not have a long term impact.

While we recognise the benefits of including hot water demand, our proposal is that it should not be included in the fabric metric. This would ensure that the fabric metric has a clear meaning and role, and is not unexpectedly influenced by non-fabric changes. Changes to the domestic hot water heat demand would be recognised by other proposed metrics, including cost and energy use.

The full BRE report, which includes more detail on each option, is published alongside this consultation. We are seeking your views on these two options: whether a fabric metric should include hot water demand or not.

In addition to the work undertaken with BRE to investigate the principle of a fabric metric, we continue to work with UK Government on development of the assessment methodologies and their outputs. If this work develops an appropriate alternative fabric efficiency metric, we may consider adopting this as the 'Fabric Rating.' We therefore invite comments on both the principle of a fabric metric and views on the specific metric developed.

#### 4.1.2 Cost Rating

EPCs serve many purposes beyond net zero. We propose to retain the current Energy Efficiency Rating but rename this as the Cost Rating, as outlined in our 2021 consultation<sup>29</sup>.

A cost rating would continue to provide important information. For example, it would continue to allow potential buyers or tenants to make a standardised comparison of running costs between properties. It would also continue to provide a mechanism for fuel poverty-focused schemes.

We propose to continue to use a 0-100 rating index rather than a £/m<sup>2</sup>/yr indicator, as suggested by CCC. This is because the purpose of the Cost Rating is to provide a figure to allow comparison. We think that presenting this information as a £ figure could suggest to users that the figure accurately reflects their predicted running cost, which is not the purpose of such a standardised metric.

#### 4.1.3 Heating System Type

Fabric efficiency alone is not sufficient to reach net zero. The Heat in Buildings strategy notes the need to require the installation of Zero Direct Emissions Heating (ZDEH) systems in our buildings to reach net zero<sup>30</sup>.

To ensure understanding of how the home is heated, we propose for EPCs to provide information as to whether the heating system installed in a dwelling is zero direct emissions compliant.

In addition, certain types of zero direct emission heating systems are more efficient than others. It is useful for homeowners to understand this at a general level to help

---

<sup>29</sup> [Domestic Energy Performance Certificates \(EPC\) reform: consultation - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/domestic-energy-performance-certificates-epc-reform-consultation/pages/2)

<sup>30</sup> Heating systems such as individual heat pumps, or connection to a heat network, or electric systems such as storage heaters which release no harmful gases into the atmosphere (direct greenhouse gas emissions) at the point of use and within the building.

inform them about the type of heating system they have, and alternatives. This is important because a more efficient system uses less energy to deliver the same amount of heating or cooling as an less efficient system. In turn, this affects the amount it costs to run the system, and has implications for the wider energy system (for example, the amount of electricity required to be generated to heat homes).

We propose to include information about the efficiency of the system on the EPC. We intend to classify systems depending on their efficiency, so that the benefits of more efficient systems are recognised. This would mean that zero direct emissions systems with particular energy efficiency features, such as modern storage heaters, receive recognition for those features over direct electric heaters. Additionally, systems with high efficiency, such as heat pumps, would also be recognised.

This proposal is intended to encourage owners to consider the efficiency of their heating system, and potential alternatives.

**Table 1** provides an illustration of how this classification of heating systems might work, in line with the direct emission approach set out in the Heat in Buildings Strategy.

**Table 1: Example of how heating systems could be classified**

<b>Type</b>	<b>Examples</b>
High efficiency zero direct emission heating system	Heat pump
Zero direct emissions plus (systems with features to improve efficiency)	Modern electric storage heaters Heat network
Zero direct emissions	Direct electric heating Hydrogen
Heating system with direct emissions	Gas boilers / hybrid heat pumps Biomass heating

#### 4.1.4 Emissions Rating

The existing Emissions Intensity Rating includes both emissions directly from the dwelling and emissions from other places, such as electricity generation. The Heat in Buildings Strategy sets our focus on direct emissions from within the curtilage of the dwelling as this is the only way to remove emissions from our buildings. However, we recognise that total emissions are important to stakeholders who are interested in indirect emissions attributed to dwellings. Therefore, we propose to continue to report this on EPCs, but not as part of the main metrics.

#### 4.1.5 Energy Use Indicator

Following consultation in 2021, we received strong feedback supporting the addition of an energy use metric to EPCs. Energy use takes more aspects of the building into account, including heating system efficiency and lighting. It is a useful as a holistic indicator to show the impact of measures (e.g. insulation or installation of a heat

pump) on the dwelling's total energy use. This metric would show the modelled energy required by the dwelling in kWh/m<sup>2</sup>/yr and would be complemented by primary energy use<sup>31</sup> to allow consideration of alignment with the recast EPBD. . We propose to report this on EPCs but not as part of the headline metrics.

#### 4.1.6 Summary of Proposed Domestic EPC Metrics

**Table 2** summarises our proposed set of domestic EPC metrics. This table shows the headline metrics which would be widely used in policy.

**Table 2: Proposed domestic EPC primary metrics**

Proposed Metric	Description	Display
Fabric Rating	Efficiency of the building fabric	A-G scale and kWh/m <sup>2</sup> /yr
Energy Cost Rating	Running cost per year (based on £/m <sup>2</sup> /yr)	A-G scale with 1-100 rating
Heating System Type	Type of heating system	Heating system classification (zero direct emissions or not, and efficiency)

**Table 3** presents the secondary metrics that we propose to also display on EPCs. These metrics provide useful information to stakeholders and users however are not directly used by policy. We intend to clearly separate these metrics from those above, to provide clarity to users.

**Table 3: Proposed domestic EPC secondary metrics**

Proposed Metric	Description	Display
Emissions Rating	Rating based on the CO <sub>2</sub> e emissions per square meter	A-G scale with 1-100 rating
Total Energy Use	The total amount of energy used per year	kWh/m <sup>2</sup> /yr

#### 4.1.7 Proposed Approach to Scaling Fabric Metric

We are interested in views on approaches to designing the scaling of the proposed Fabric Rating to assign bands from A – G (i.e. the A – G distribution against kWh/m<sup>2</sup>/yr values). We intend to base band C on a good level of energy efficiency (equivalent to the current EER C), to ensure existing commitments to this can be achieved. The approach to scaling the bands is important because it will determine which band dwellings fall into, and the way in which dwellings can move bands.

<sup>31</sup> Primary energy use measures use of energy, including losses incurred during transformation. For example, the generation of electricity from gas.

We have considered linking the cut-off for band C in the Fabric Rating to the cut-off for band C in the Energy Efficiency Rating (EER). This would ensure a degree of consistency between the current EER and the proposed Fabric Rating. As demonstrated in the BRE report, there is not a one-to-one relationship between Fabric Rating and EER, much of which is due to the difference in fuel cost between gas and electricity. We have investigated additional ‘anchors’ such as basing band A on PassivHaus equivalent performance, and band B on typical new build fabric performance.

Alternatively, the Fabric Rating bands could be set independently of EER band C, based on another approach. This would allow greater freedom to set appropriate bands against the distribution of fabric values, at the cost of not having a clear link between Fabric Rating and EER band C, which is the basis of policy commitments.

The full BRE report is published alongside this consultation and contains more details on the options above.

#### 4.1.8 Energy Efficiency Features

Numerical metrics are useful because they quantify the performance of the dwelling. However, they may be less suited to providing clear and actionable information to homeowners and policymakers. For example, it may not be obvious to homeowners how to reach a specific numerical heat demand value, or they may make improvements but miss a threshold cut-off. On the other hand, displaying whether or not the walls or loft, for example, are insulated<sup>32</sup> is unambiguous<sup>33</sup>. For this reason, we propose to make details about the insulation level of the dwelling more prominent on the EPC. Details are already displayed in the “Summary of the energy performance related features of this home” section on the EPC.

We will consider whether the presentation of this information is sufficiently clear for users and how it could be improved. This would include information about measures that could be installed to achieve a good level of energy efficiency, and types of zero direct emissions heating systems that warrant further investigation.

#### **Consultation Questions: Domestic Energy Performance Certificate Metric Reform Proposals**

1. Do you agree with the set of metrics that we propose to display on the reformed EPC?
2. Are there additional metrics that you think should be included on the EPC, or metrics that you do not think should be included?

<sup>32</sup> This is a simplification assuming “insulated” is easily defined.

<sup>33</sup> There are situations where an EPC assessor may not be able to accurately determine this and so assumptions are made based on the approximate date of construction.

3. Considering our proposal to include a Fabric Rating on EPCs, do think this metric should include domestic hot water heat demand?
4. Do you have a view on the way that the Fabric Rating mapped against a scale, for example, how 'A' or 'G' rated performance is determined?
5. Do you agree with our proposal to give more prominence to the energy efficiency features of the home (such as the depth of loft insulation)?

## 4.2 Non-Domestic Energy Performance Certificate Metric Reform Proposals

We also propose to reform non-domestic EPCs to focus on the reduction of direct emissions. The variety of building types and activities in Scotland's non-domestic building stock mean that it is challenging to identify decarbonisation pathways that can be used across all buildings. We propose to present the following set of metrics on non-domestic EPCs:

- Energy Rating (A to G) - based on modelled emissions relative to a reference building to align with the rating system used across the UK;
- Direct Emissions (kg of CO<sub>2</sub>e/m<sup>2</sup>/yr) - the building's modelled direct emissions to allow a focus on the decarbonisation of individual buildings;
- Energy Use (kWh/m<sup>2</sup>/yr) - the building's modelled energy use under standardised conditions to allow comparisons between buildings.

In addition to this, we propose to make the heating system type and fuel more prominent on the EPC.

We propose this set of metrics because it provides a holistic picture of the energy performance of non-domestic buildings. Introducing a relative Energy Rating aligns with the rating system used in other parts of the UK, allowing non-domestic building owners a means to easily understand and compare their building stock across the UK. The relative rating provides a more useful picture of the building's performance compared to a benchmark, which allows easier identification of 'good' performance.

In addition, Direct Emissions shows building owners the emissions directly related to their building, to help them reduce this to zero. The inclusion of Energy Use allows users to compare buildings based on standardised conditions, for example when considering a purchase or lease.

**Table 4: Proposed non-domestic EPC metrics**

Proposed Metric	Description	Display
Energy Rating	Based on modelled total emissions relative to a reference building	A-G scale with 1-100 rating
Direct Emissions	Based on modelled direct emissions	kg CO <sub>2</sub> e/m <sup>2</sup> /yr

Energy Use	The modelled energy use under standardised conditions	kWh/m <sup>2</sup> /yr
------------	---	------------------------

### **Consultation Questions: Non-Domestic Energy Performance Certificate Metric Reform Proposals**

6. Do you agree with the set of metrics that we propose to display on non-domestic EPCs?
7. Are there any additional metrics that you think should be displayed, or any in the proposed set that should not be included?

## **4.3 Purpose and Validity Period of EPCs Proposals**

### **4.3.1 Purpose of EPCs**

It is critical that EPCs provide clear and useful information because for many people in Scotland EPCs are the first piece of information they receive that helps them understand the energy efficiency of their home. We intend that this remains the role of EPCs and we do not propose for EPCs to be a substitute for a more detailed or specialist retrofit advice or technical survey, such as assessment following PAS 2030/2035.

Instead, EPCs have a key role to play as a first step towards improving energy efficiency and reaching zero direct emissions. EPCs will continue to allow buildings to be compared and will provide easily accessible information to help owners understand potential options and signpost next steps.

EPCs are already widely used for various purposes. EPCs will continue to fulfil their current function in other policy areas, including fuel poverty, area-based schemes, and UK-wide schemes. In addition, reform may allow EPCs to be used in more situations, for example for use as evidence in demonstrating the home meeting a certain standard of energy efficiency for any future regulations.

### **4.3.2 Validity Period of EPCs**

In line with our intention that the information EPCs contain is as useful as possible, we also propose to ensure that EPCs are more up to date and better reflect the building at the time they are used. To do this we propose to reduce the validity period of the EPC from 10 years to five. This would mean that, at the current trigger points (such as sale or let to a new tenant), an updated EPC would be needed if the building does not have one that was issued in the last five years. This is intended to provide prospective owners and tenants with more up to date information about the building. This proposal would not require a building to have an EPC other than at existing trigger points.

### **Consultation Questions: EPC Purpose and Validity**

8. Do you agree with us that the primary role of the EPC should be to provide basic energy efficiency information for the purpose of comparison and act as a prompt to consider retrofit options?
9. If you disagree or have further comments about the role of the EPC, please provide your comments.
10. Do you agree that the validity period of EPCs should be reduced from 10 to five years?
11. We welcome any views on the usefulness of our proposals for other relevant policy areas, such as fuel poverty or the delivery of government schemes. Please provide any comments you wish to share.

#### **4.4 Digital and Accessible EPC Format and Content Proposals**

EPCs need to provide clear and accessible information so that current and potential owners and occupiers, and other stakeholders, understand the performance of the dwelling and measures that could be installed to improve it. The addition of new metrics and content to EPCs has the potential to further complicate them. To alleviate this risk, we are proposing to:

- Move from PDF format EPCs to webpage format;
- Add additional signposting on the EPC to suggest steps that could be taken to improve a property;
- Improve data access provisions to allow more effective use of EPC register data;
- Consider future application of EPC data to the development of Green Building Passports.

##### **4.4.1 Webpage EPCs**

Scottish EPCs are currently presented on the register as a downloadable Portable Document Format (PDF) file. This format has a number of limitations. These include:

- Difficulty viewing on mobile devices;
- Issues correctly reading the information for users of accessibility technology such as screen-readers;
- Presenting fixed and unchangeable data;
- Relying on an additional step to verify the authenticity of the document (i.e., the Report Reference Number must be searched on the EPC register to confirm the EPC is genuine).

We also know that adding additional metrics and features to EPCs has the potential to introduce confusion. This is particularly important if some metrics relate to any future regulations while others are for information only.



We therefore propose to move EPCs to a webpage format. This offers greater flexibility in the way information is presented. For example, this would allow EPCs to be redesigned to meet modern good practice and ensure EPCs are inclusive to all. It could allow information relevant to regulations to be shown to all, but more complex information to be shown only to users who choose to see it. Additionally, it could allow additional explanatory text to give context, particularly to ratings. In future, a webpage format EPC could also act as a platform for other services, such as an occupancy-based assessment.

To develop webpage EPCs, we propose to undertake a user-centred redesign to understand the needs of people who interact with EPCs. This is intended to inform the way that information is presented on the EPC, and ensure it is accessible and its meaning is understood. We would ensure consideration is given to how users without internet access can continue to engage with EPCs. We would also ensure the format is compatible with physical printing, to allow inclusion in the Scottish Single Survey (Home Reports) and other uses.

#### 4.4.2 Signposting and Further Steps

As set out above, EPCs have a clear and important role to play as the first step in a homeowner's retrofit journey. We intend to make clear on the document that the EPC is the result of an unintrusive survey. It is not a substitute for more advanced survey of the property, which may be required where more complex measures are considered, such as internal wall insulation.

However, moving to a webpage EPC will allow them to link directly to resources that help owners take the next steps, such as Home Energy Scotland's advice service or information on grants, which could be dynamically embedded in the EPC webpage.

In addition, if the property lies within a heat network zone identified by relevant criteria, we propose that the EPC includes information on available connections to heat networks or plans for future work in the area, where this information is available.

Moving to webpage format also offers potential future data linkage opportunities, such as the potential to integrate data based on metered energy use.

#### 4.4.3 Data Access

Alongside an updated EPC format, modernisation of the EPC Register offers the potential to improve the use of EPC data. Making full use of this dataset offers significant advantages to those involved in delivering net zero.

Non-personal data from all valid EPCs on the Scottish EPC Register is published quarterly<sup>34</sup>. Since first publication in 2018, EPC data has been of interest to many diverse stakeholders including local authorities, researchers, and commercial businesses. In the last year, the Domestic Energy Performance Certificate dataset

---

<sup>34</sup> Domestic EPC data [statistics.gov.scot : Domestic Energy Performance Certificates - Dataset to Q3 2022](https://statistics.gov.scot/collections/domestic-energy-performance-certificates-dataset-to-q3-2022) Non-domestic EPC data [statistics.gov.scot : Non-domestic Energy Performance Certificates - Dataset to Q3 2022](https://statistics.gov.scot/collections/non-domestic-energy-performance-certificates-dataset-to-q3-2022)

was the second most frequently accessed page on [statistics.gov.scot](https://statistics.gov.scot), with over five thousand page views.

EPC data also has an important role to play in supporting strategic planning of heat decarbonisation through Local Heat and Energy Efficiency Strategies, developed by local authorities.

To further enable research and use of this data, we intend to expand this dataset to include historic EPCs (i.e., EPCs that have been superseded by a more recent certificate). This will allow stakeholders to understand trends in energy performance over time, which is a common request. We propose these superseded EPCs would be shown in the dataset, but the latest available EPC would be presented to users searching the EPC register portal by address.

In addition to this, we propose to introduce Application Program Interface (API) access to the Scottish EPC Register. This would allow stakeholders to access the register in real time, rather than relying on periodic dataset uploads. This would include access to:

- Domestic EPCs;
- Non-Domestic EPCs;
- Energy Action Plans;
- Display Energy Certificates.

This could, for example, allow owners of multiple properties to monitor the EPCs of their stock.

Moving to an API accessible register has further advantages in allowing the register to connect to other databases. This could, for instance, allow the EPC register to use heat network data to identify whether a building is in a current or planned heat network zone.

#### **Consultation Questions: Digital and Accessible EPC Format and Content**

12. Do you agree with our proposal that EPCs should move from PDF to webpage format?
13. Do you agree with our proposal to improve signposting to further support and advice schemes on the EPC?
14. Do you agree historical EPCs should be publicly accessible on the EPC register (while clearly marked as historic)?
15. Do you agree that the EPC register should be accessible by API?
16. Do you have any further comments on our proposals to move to a digital and accessible EPC?

## 4.5 Quality Assurance and Approved Organisation Framework Proposals

The quality assurance system underlying EPCs must be robust to ensure they adequately deliver their current and potentially enhanced future role. Existing Government targets and consumer support to improve homes are often linked to EPC ratings, and the Heat in Buildings (HiB) Strategy sets ambitious targets to improve the energy efficiency of the building stock. It is vital that EPCs provide accurate information to consumers and to stakeholders who use them.

We propose to update the existing Operating Framework. We will draw from previous independent analysis and work with Approved Organisations and the UK Government to identify best practice and improve and maintain standards across Energy Assessors working in Scotland.

We propose to review and update the auditing regime of Approved Organisations by introducing a smart auditing process for EPCs, similar to that used in England and Wales. Smart auditing is risk based auditing based on set criteria. If an EPC was to meet certain criteria an audit review would be triggered. This would use the EPC Register to identify and request audit of EPCs and ask for the outcome of an audit to be reported. This would allow for central oversight of EPC audit performance and allow for subsequent targeting of reviews and iterative updating of auditing criteria as issues emerge. Findings may also then inform any updates to training requirements and the Operating Framework.

### **Consultation Questions: EPC Auditing and Assurance**

17. Do you agree with our proposals to review and update the audit and assurance requirements for EPCs in Scotland?
18. Please detail any additional assurance activity that you think would be appropriate to enhance the accuracy and reliability of EPCs.

## 4.6 Potential Future Reform

We know there are other potential changes that could be made to EPCs, including on:

- Actual energy use data
- Green Building Passports

Our current EPC reform proposals do not directly address these aspects, but they are under review.

### 4.6.1 Actual Energy Use Data

Stakeholders have told us that the use of modelled data for EPCs is flawed in certain contexts. This is because there are risks of assessments misidentifying characteristics of buildings, and of models over or underestimating the demand of buildings and their occupants.

Many of these risks will be mitigated through our proposals for quality assurance of EPCs. We do not currently plan to move away from using modelled data for EPC ratings. Standardised modelled data enables the building stock to be compared on a like-for-like basis, regardless of the current occupant's behaviour. This is helpful for understanding the building stock as a whole and enabling policies to be developed that apply to every building equally.

This is why our proposals include only metrics based on modelled data.

However, we do understand that there may be benefits in a metric that displays or is derived from the actual energy consumption of the building, such as those developed through DESNZ's Smart Meter Enabled Thermal Efficiency Ratings project<sup>35</sup>. This kind of metric would allow current and potential occupiers to understand how the building works in practice.

To help us understand this better, we have commissioned ongoing research on the use of energy consumption data on Scottish EPCs. This research looks at the potential role of meter data, the benefits it could bring to stakeholders, and possible barriers and opportunities. Part of this research also considers the potential for future work to explore the relationship between values calculated through SAP and metered data.

We will continue to review this area and will make any additional required changes at a later stage.

#### 4.6.2 Green Building Passports

Green Building Passports (GBPs) are documents that provide information about a building including the EPC rating, previous renovations or a record of work carried out, any relevant warranties, energy use data, housing standard and water efficiency etc. GBPs could be used to supplement EPCs by storing more detailed information about buildings, and providing evidence of retrofit insulation. The CCC recommended<sup>36</sup> the roll out of digital GBPs across the housing stock.

In 2021, the Scottish Government commissioned research through ClimateXChange to review learning from existing GBPs across Europe<sup>37</sup>. The research found that international approaches to GBPs have the potential to gather holistic information about a property's energy use and its roadmap to net zero. However, the research also found a lack of robust evidence connecting GBPs with increased retrofit activity, due to many projects being in the early phases. It found that challenges have been encountered with implementation, which could take significant time and resource to overcome.

We recognise that the reformed EPC would not provide everything needed to support retrofit, and we see value in an address-level database for Scotland. At this

---

<sup>35</sup> [Smart Meter Enabled Thermal Efficiency Ratings \(SMETER\) Innovation Programme - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

<sup>36</sup> [UK housing: Fit for the future? - Climate Change Committee \(theccc.org.uk\)](https://theccc.org.uk)

<sup>37</sup> [Green Building Passports: a review for Scotland \(climatexchange.org.uk\)](https://climatexchange.org.uk)

stage we are not proposing to prioritise the development of GBPs. However we intend that our work to develop the EPC register into a more flexible service could support future development of GBPs.

## 5. Legislating for EPC Reform and Timeline

We propose to introduce the reformed EPC shortly after amended Energy Performance of Buildings Regulations are introduced in Winter 2023-24, ahead of proposed Heat in Buildings regulations being introduced.

Should EPCs be required as an information or evidentiary tool for wider Heat in Building legislation, then introduction ahead of this allows the market, EPC assessors and buildings owners time to become accustomed with reformed EPCs in advance.

It will also take a period of time for the underlying calculation methodology to be adapted to introduce the new metrics, and for software providers and our EPC register to implement the changes. We intend to also undertake work to understand user needs and redesign the EPC.

However, we will review the UK Government's development of SAP 11 and will consider aligning our EPC reform with the launch of SAP 11 in 2025. This may be more beneficial as it could reduce the number of times EPCs change and make it easier for EPC users to understand. This will be kept under consideration and balanced with wider need for EPC reform.

### **Consultation Questions: Legislating for EPC Reform and Timeline**

19. Do you have a view on our timeline for reform implementation?

## 6. Consultation Questions: Summary

### Domestic Energy Performance Certificate Metric Reform Proposals

1. Do you agree with the set of metrics that we propose to display on the reformed EPC?

Yes/No/Don't know

Please provide further details here

2. Are there additional metrics that you think should be included on the EPC, or metrics that you do not think should be included?

Should be included, please give reasons for your views

Should not be included, please give reasons for your views

3. Considering our proposal to include a Fabric Rating on EPCs, do you think this metric should include domestic hot water heat demand?

Should include, please give reasons for your views

Should not include, please give reasons for your views

4. Do you have a view on the way that the Fabric Rating mapped against a scale, for example, how 'A' or 'G' rated performance is determined?

Please provide further details here

5. Do you agree with our proposal to give more prominence to the energy efficiency features of the home (such as the depth of loft insulation)?

Please provide further details here

### Non-Domestic Energy Performance Certificate Metric Reform Proposals

6. Do you agree with the set of metrics that we propose to display on non-domestic EPCs?

Yes/No/Don't know

Please explain your view further

7. Are there any additional metrics that you think should be displayed, or any in the proposed set that should not be included?

Should have additional metrics, please explain your view further

Should not be included, please explain your view further

### **EPC Purpose and Validity**

8. Do you agree with us that the primary role of the EPC should be to provide basic energy efficiency information for the purpose of comparison and act as a prompt to consider retrofit options?

Yes/No/Don't know

Please give details for your answer

9. If you disagree, or have further comments about the role of the EPC, please provide your comments.

Please give details for your answer

10. Do you agree that the validity period of EPCs should be reduced from 10 to five years?

Please give details for your answer

11. We welcome any views on the usefulness of our proposals for other relevant policy areas, such as fuel poverty or the delivery of government schemes. Please provide any comments you wish to share.

Please give details for your answer

### **Digital and Accessible EPC Format and Content**

12. Do you agree with our proposal that EPCs should move from PDF to webpage format?

Yes/No/Don't know

Please provide further details here



13. Do you agree with our proposal to improve signposting to further support and advice schemes on the EPC?

Yes/No/Don't know

Please provide further details here

14. Do you agree historical EPCs should be publicly accessible on the EPC register (while clearly marked as historic)?

Yes/No/Don't know

Please give reasons for your view

15. Do you agree that the EPC register should be accessible by API?

Yes/No/Don't know

Please give reasons for your view

16. Do you have any further comments on our proposals to move to a digital and accessible EPC?

This could include services that you think EPCs should signpost to, or comments about the use of an API to access the EPC database.

Please explain your view further

### **EPC Auditing and Assurance**

17. Do you agree with our proposals to review and update the auditing and assurance requirements for EPCs in Scotland?

Yes/No/Don't know

Please explain your view further

18. Please detail any additional assurance activity that you think would be appropriate to enhance the accuracy and reliability of EPCs.

Please give details for your answer

**Consultation Questions: Legislating for EPC Reform and Timeline**

19. Do you have a view on our timeline for reform implementation?

Yes/No/Don't know

Please give details for your answer

## **Responding to this Consultation**

We are inviting responses to this consultation by 23:59 PM 10 October 2023.

Please respond to this consultation using the Scottish Government's consultation hub, Citizen Space (<http://consult.gov.scot>). Access and respond to this consultation online at [URL]. You can save and return to your responses while the consultation is still open. Please ensure that consultation responses are submitted before the closing date of 10 October 2023.

If you are unable to respond using our consultation hub, please send an email response and send along with the Respondent Information Form to:

[EPConquiries@gov.scot](mailto:EPConquiries@gov.scot)

## **Handling your response**

If you respond using the consultation hub, you will be directed to the About You page before submitting your response. Please indicate how you wish your response to be handled and, in particular, whether you are content for your response to be published. If you ask for your response not to be published, we will regard it as confidential, and we will treat it accordingly.

All respondents should be aware that the Scottish Government is subject to the provisions of the Freedom of Information (Scotland) Act 2002 and would therefore have to consider any request made to it under the Act for information relating to responses made to this consultation exercise.

If you are unable to respond via Citizen Space, please complete your response and send via email and return the Respondent Information Form included in this document.

To find out how we handle your personal data, please see our privacy policy: <https://www.gov.scot/privacy/>

## **Next steps in the process**

Where respondents have given permission for their response to be made public, and after we have checked that they contain no potentially defamatory material, responses will be made available to the public at <http://consult.gov.scot>. If you use the consultation hub to respond, you will receive a copy of your response via email.

Following the closing date, all responses will be analysed and considered along with any other available evidence to help us. Responses will be published where we have been given permission to do so. An analysis report will also be made available.

## **Comments and complaints**

If you have any comments about how this consultation exercise has been conducted, please send them to [EPConquiries@gov.scot](mailto:EPConquiries@gov.scot).

## **Scottish Government consultation process**

Consultation is an essential part of the policymaking process. It gives us the opportunity to consider your opinion and expertise on a proposed area of work.

You can find all our consultations online: <http://consult.gov.scot>. Each consultation details the issues under consideration, as well as a way for you to give us your views, either online, by email or by post.

Responses will be analysed and used as part of the decision making process, along with a range of other available information and evidence. We will publish a report of this analysis for every consultation. Depending on the nature of the consultation exercise the responses received may:

- indicate the need for policy development or review
- inform the development of a particular policy
- help decisions to be made between alternative policy proposals
- be used to finalise legislation before it is implemented

While details of particular circumstances described in a response to a consultation exercise may usefully inform the policy process, consultation exercises cannot address individual concerns and comments, which should be directed to the relevant public body.



**Respondent Information Form**

**Please Note** this form **must** be completed and returned with your response.

To find out how we handle your personal data, please see our privacy policy:  
<https://www.gov.scot/privacy/>

Are you responding as an individual or an organisation?

- Individual
- Organisation

Full name or organisation's name

Phone number

Address

Postcode

Email Address

The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

- Publish response with name
- Publish response only (without name)
- Do not publish response

**Information for organisations:**

The option 'Publish response only (without name)' is available for individual respondents only. If this option is selected, the organisation name will still be published.

If you choose the option 'Do not publish response', your organisation name may still be listed as having responded to the consultation in, for example, the analysis report.

We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

- Yes
- No



© Crown copyright 2023



This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit [nationalarchives.gov.uk/doc/open-government-licence/version/3](https://nationalarchives.gov.uk/doc/open-government-licence/version/3) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at [www.gov.scot](http://www.gov.scot)

Any enquiries regarding this publication should be sent to us at

The Scottish Government  
St Andrew's House  
Edinburgh  
EH1 3DG

ISBN: 978-1-83521-153-3 (web only)

Published by The Scottish Government, July 2023

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA  
PPDAS1328682 (07/23)

W W W . g o v . s c o t