G15 Response to DESNZ Home Energy Model (HEM) methodology for assessing existing dwellings and producing new Energy Performance Certificates metrics consultation

March 2026

About the G15

The G15 is made up of London's leading housing associations. The G15's members provide more than 880,000 homes across the country, including around one in ten homes for Londoners. The G15 represents the largest providers of new affordable homes in London and accounts for approximately 15% of all affordable homes built across England. Over the last few years, our members have funded and delivered more than 56,000 new homes in partnership with the Mayor of London. Delivering good quality safe homes for our residents is our number one priority. Last year our members invested almost £2bn in improvement works and repairs to people's homes, ensuring people can live well. Together, we are the largest providers of new affordable homes in London and a significant proportion of all affordable homes across England. It's what we were set up to do and what we're committed to achieving. We are independent, charitable organisations and all the money we make is reinvested in building more affordable homes and delivering services for our residents.

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The G15 members are:

- A2Dominion
- Clarion Housing Group
- The Guinness Partnership
- Hyde
- L&Q
- MTVH
- Notting Hill Genesis
- Peabody
- Riverside
- Southern Housing
- Sovereign Network Group

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Position Statement

We support the government's ambition to improve the accuracy and usefulness of Energy Performance Certificates (EPC) through the Home Energy Model (HEM). A more robust methodology should support better investment decisions and help ensure decarbonisation is delivered fairly across residents' homes.

Social landlords are already making substantial progress. Across the G15, more than 75% of homes now meet EPC C or above. Members remain committed to achieving net zero carbon by 2050 and have reflected this commitment in long term financial plans.

However, the success of EPC reform will depend on policy stability, proportionate regulation and clear transition arrangements. Without this, there is a risk that retrofit programmes already under way could slow or become more expensive to deliver.

Policy uncertainty and transition risks

The current proposals create significant uncertainty for social landlords. The sector has been working towards EPC C by 2030 for several years. Replacing this target with new, partially undefined metrics mid-programme risks disrupting retrofit delivery, procurement plans and business planning. Providers need clarity on the future compliance standard before they can accurately assess investment requirements.

HEM will also require substantially more detailed data than the current SAP model. Early testing suggests modelling times could increase sharply, with major implications for survey costs, IT systems and workforce capacity. These pressures will fall hardest on landlords with large and diverse portfolios, including G15 members whose stock includes many older homes where original construction specifications are no longer available.

We are particularly concerned about the use of punitive default values where product-level data is missing. Conservative assumptions could cause homes currently meeting EPC C to fall below future thresholds, even if real performance remains unchanged. The government should ensure the methodology does not disadvantage older or hard-to-treat stock solely due to data gaps.

Cost cap and proportionate investment

While members support the principle of a cost-based exemption under Minimum Energy Efficiency Standards (MEES), the current £10,000 spend threshold is not sufficient for many archetypes common in social housing. Solid wall homes, system-built properties and heritage stock frequently require extensive fabric interventions. In some cases, window replacement alone can exceed £15,000 before additional measures such as internal or external wall insulation are considered.

For complex homes, investing up to the threshold may deliver only marginal improvements in energy performance while diverting significant resources from properties where meaningful gains are achievable. This represents poor value for money and does not maximise benefits for residents.

Modelling across the group suggests that applying the spend cap rigidly could lead to substantial expenditure on homes where the measures deliver limited improvement in energy performance or resident bills. In some cases, investment up to the cap may make little material difference to comfort or

affordability for residents. This reinforces the need for the exemption to operate on a proportionate and assessed basis rather than requiring expenditure up to the cap in every case.

Without clear guidance on how the spend exemption should operate, there is a risk that providers could be required to commit substantial capital to properties where further works are not cost-effective and deliver minimal improvement in resident comfort or energy bills.

Many social landlords manage large volumes of dense urban flats, high-rise blocks and mixed-tenure buildings with leaseholders. These building types introduce additional constraints around retrofit delivery, including building safety regulation, leaseholder consultation requirements and whole-block delivery challenges. These factors must be considered when designing compliance pathways under the Home Energy Model framework.

A more proportionate approach would be to apply the exemption based on assessed costs, rather than requiring landlords to spend up to the cap in every case. This would avoid wasteful investment where further works are impractical or deliver little benefit, while still ensuring landlords carry out all reasonable, cost-effective improvements. The interaction with EPC reform heightens this risk. If new metrics and more conservative default values reduce performance scores for older homes, providers may face pressure to spend up to the cap simply to regain compliance under a revised methodology. Without a more flexible exemption framework, this could lead to widespread investment driven by regulatory thresholds rather than by positive outcomes for residents in terms of energy costs or thermal comfort.

Delivery capacity

Workforce readiness will also be critical. The transition will require significant training and capacity building across assessors, landlords and the wider supply chain. The estimated increase in survey time will raise costs and increase demand for specialist skills. While the sector has seen growing interest from contractors in retrofit activity, maintaining sufficient capacity across assessors, designers and installers will remain an important consideration as demand increases.

Early modelling by members suggests that EPC assessments under the new framework could take significantly longer to complete than current assessments. This will increase demand for trained assessors and place further pressure on the already challenged supply chain.

The transition to low-carbon heating systems will also require significant retraining across the heating workforce. Engineers currently specialising in gas systems will need support to develop skills in installing, maintaining and servicing new technologies such as heat pumps and associated controls. Ensuring the workforce can transition alongside the policy framework will be essential for successful delivery.

Finally, while transitional protection for existing EPC C homes provides some reassurance, it is time limited. Providers need early clarity on what happens when certificates expire and how compliance expectations will evolve.

Overall, we support the direction of travel, but the Government must provide clearer timelines, proportionate defaults, realistic cost assumptions and a stable regulatory framework to enable the sector to plan and deliver at scale. These requirements also sit within a wider housing system under significant financial pressure. Capital resources are finite, and significant additional investment in hard-to-treat homes to meet rigid metric thresholds may reduce the capacity to invest in other priorities, including

building safety remediation and the delivery of new social housing. We also support the introduction of a National Social Housing Energy Tariff to help address ongoing affordability pressures. A significant proportion of social housing residents continue to experience financial hardship, and targeted energy pricing support would help ensure that improvements in energy efficiency translate into meaningful reductions in household energy costs. The framework should therefore ensure that compliance routes are proportionate and focus investment where it delivers meaningful improvements in comfort, affordability and carbon reduction.

Question 1: Do you agree with the introduction of a modular approach to data input for existing builds, where assessors can enter complete data where available and rely on defaults for other elements?

We agree with the introduction of a modular approach for existing dwellings. Allowing assessors to enter complete data where available, while relying on defaults where information is missing, should improve flexibility and reduce barriers to assessment.

However, this approach will work best where high-quality building data already exists. Older homes and properties with limited construction records may be assessed using conservative defaults, which could reduce accuracy and lead to unfair outcomes.

We also encourage the Government to explore whether existing full SAP data held for some homes can be migrated into the new EPC framework, to avoid unnecessary resurveying.

The methodology should also allow verified physical survey evidence to override estimated inputs where available. For example, cavity wall insulation status is often inferred through visual inspection, which can lead to uncertainty. Allowing evidence from borescope investigations or other verification methods to take precedence would improve confidence in EPC outputs and reduce reliance on assumptions. The framework should also remain flexible enough to incorporate improved survey techniques as they develop, including technologies that can provide more accurate evidence of building fabric performance.

Question 2: Please share your views on the following potential impacts of a modular approach.

a. Quality and consistency of EPCs

A modular approach could improve assessment quality where data is strong, but it also increases the risk of inconsistency where assessors rely heavily on defaults. Consumers and landlords will need transparency about which inputs are measured and which are assumed.

The Government should ensure EPC outputs clearly communicate confidence levels and highlight where key elements depend on default values.

We also support cross-referencing EPC outputs with other available data, such as energy use information, to strengthen anomaly detection and reduce fraud risk.

b. Workload, costs, training

The approach is likely to increase assessor workloads in the short term. More detailed data collection will require additional training and longer site visits, raising costs and placing pressure on an already stretched workforce.

c. Implementation risks

Key risks include:

- supply chain readiness and assessor capacity
- quality assurance and audit requirements
- inconsistent application of defaults
- the cost burden of resurveying large housing portfolios

The Government should publish a clear transition plan and provide sufficient lead-in time for training and system readiness.

Question 3: Please share your views or provide any evidence on any alternative approaches you think we should consider for existing dwellings.

We have no specific alternative model to propose at this stage, but we encourage the Government to prioritise proportionality for existing dwellings and ensure the methodology does not disadvantage homes where historic construction data is unavailable.

Question 4: If a modular approach is adopted, the term "Reduced data HEM" (RdHEM) may not accurately reflect the model's structure or purpose. We want to ensure the terminology clearly conveys this flexibility and avoids confusion with previous approaches. A clear, intuitive name will help stakeholders understand the purpose of the methodology and distinguish it from both full HEM and legacy RdSAP. Potential options for the new name are:

- **HEM for Existing Dwellings (HEMEX)**
- **HEM Input Expansion (HEMIE)**
- **Mixed Data for HEM (MdHEM), or**
- **Reduced data HEM (RdHEM).**

Do you have any views on the proposed alternative name(s) that would better capture the intent and flexibility of a modular version of HEM? Do you have any other suggested options that are not listed above?

We have no strong view on the proposed names. The chosen terminology should clearly distinguish the modular approach from both full HEM and legacy RdSAP, without creating confusion for consumers.

Question 5: Do you agree with the proposal to evaluate fabric performance using FEE?

In principle we support the use of Fabric Energy Efficiency (FEE) within the Home Energy Model. An outcome-based approach that measures the overall heat demand of a building provides a robust way of understanding the performance of the building fabric as a whole. This aligns with the approach already used for new homes under the Building Regulations and supports consistency between new and existing housing.

From a carbon perspective this type of whole-building metric is valuable. Measuring energy demand in kWh/m^2 provides a clearer indication of how efficiently a building performs and how improvements to the fabric interact with heating systems to reduce emissions. This type of metric is therefore helpful when assessing pathways towards net zero.

However, applying a heat-demand based metric to existing homes also presents practical challenges. The information required to calculate FEE is more complex than the data typically held within asset management systems. Many landlords currently track the condition of building components such as walls, windows and loft insulation rather than modelling whole-building heat demand. As a result, understanding performance under an FEE metric may require additional modelling and data collection before providers can assess compliance or plan retrofit programmes.

An alternative approach focused on the condition of key fabric components, such as walls, roofs, floors and windows, may be easier to understand and operationalise. This type of approach reflects how landlords plan investment programmes and can make it easier to prioritise improvements across large portfolios. However, a purely component-based approach risks overlooking how different elements of the building fabric interact to determine overall performance.

Fabric improvements must also be considered alongside housing quality and safety requirements. Poorly designed or installed retrofit measures, including internal or external wall insulation, can increase risks associated with damp and mould if ventilation and moisture management are not properly addressed. These issues are directly relevant to the Housing Health and Safety Rating System (HHSRS), which includes both excess cold and damp and mould as hazards. The interaction between retrofit, fabric performance and HHSRS outcomes should therefore be carefully considered as the methodology develops.

On balance, we recognise the benefits of an outcome-based methodology such as FEE but would welcome further clarity from the government on how it will operate in practice for existing homes. In particular, further detail on expected performance thresholds and how landlords will be able to estimate compliance prior to undertaking detailed HEM assessments would support effective planning and delivery.

For many existing homes, particularly older properties and flats, fabric improvements such as internal or external wall insulation can be highly disruptive for residents and complex to deliver in mixed-tenure buildings. These interventions may require major internal works, changes to room layouts, or extensive consultation with leaseholders. The design of the fabric metric should therefore ensure that compliance pathways remain proportionate and do not rely on interventions that create significant disruption where the marginal improvement in performance is limited.

Question 6: Do you agree with the approach to maintain broad equivalence between the C/D boundary in the current EER rating and the C/D boundary in the Fabric Performance Metric?

We agree that the Government should aim to maintain broad equivalence between the current EPC C/D boundary and the proposed boundary under the Fabric Performance Metric. Maintaining comparability is important for investment planning, reporting and regulatory clarity.

However, final confirmation of compliance requirements for social housing under MEES cannot be given until the HEM consultation response is published and the EPC metric design is finalised, which creates a sequencing risk. Providers are required to plan and budget for compliance investment now, but the precise technical standard against which homes will be assessed remains uncertain. The definition of Band C under the Fabric Performance, Heating System and Smart Readiness metrics will directly determine the scale and distribution of investment required across portfolios.

This uncertainty is particularly significant given the diversity of social housing stock. Portfolios include solid wall Victorian terraces, system-built post-war homes, high-rise flats, low-rise blocks and more recent developments. A single C/D boundary will have materially different implications across these archetypes. Government should test outcomes across a representative sample of existing social housing to ensure the new boundary does not create unintended distributional effects.

We are also concerned about the treatment of homes close to the C/D boundary. In practice, properties with similar underlying performance can fall on either side of the threshold because EPC outcomes are sensitive to relatively minor survey inputs and assumptions, including lighting, controls and wall construction. This creates particular challenges on mixed estates where homes rated high D and low C may sit side by side despite limited differences in performance or resident experience. A rigid compliance approach risks driving disproportionate investment towards borderline homes simply to move them over the threshold, rather than targeting resources where they would deliver the greatest benefit in reducing fuel poverty, improving comfort and cutting carbon.

The treatment of wall U-values within the Fabric Performance metric will also have significant practical implications for existing homes. Many properties constructed before the early 1980s have walls with relatively poor thermal performance, which may require internal or external insulation to comply, depending on how the fabric thresholds are calibrated. This may be the case even where other improvements such as loft insulation and double glazing have already been installed. These interventions can be highly disruptive for residents, particularly in flats and mixed-tenure buildings, and may introduce additional complexity under building safety regulation and leaseholder consultation requirements. The calibration of the fabric metric should therefore reflect the diversity of existing stock and avoid creating a de facto requirement for large-scale wall insulation where the marginal improvement in performance is limited.

We also emphasise that a fabric-focused EPC or HEM metric does not necessarily equate to overheating risk or summer comfort. Long-standing analysis of monitored data from the 2018 hot summer shows that a dwelling's overall energy efficiency rating, used as a proxy for fabric performance, did not significantly affect the risk of summertime overheating in living rooms or main bedrooms in English homes. That analysis also found that loft and wall insulation tended to reduce serious bedroom overheating in houses and that full double glazing kept homes warmer in cool weather without increasing overheating risk. Flats, and particularly top-floor flats, showed higher prevalence of overheating overall, driven by building form and exposure rather than headline efficiency measures.

A 2019 review of overheating in new homes found some indication that higher SAP ratings and newer build typologies reported more overheating, but the evidence was statistically weak and based largely on modelling and occupant surveys rather than monitored outcomes.

In practice, summer comfort depends on specific design and occupant factors such as glazing, ventilation, thermal mass and top-floor location. EPC ratings capture winter heat loss well but are a poor proxy for summer thermal comfort. Overheating risk requires distinct assessment and mitigation approaches rather than reliance on an energy-efficiency score alone.

Question 7: Do you agree with the Government's proposal to introduce an option for recording Heat Transfer Coefficients based on SMETER measurements, as supplementary information about fabric performance?

We agree that SMETER measurements could provide valuable supplementary evidence of fabric performance.

However, resident consent and practical delivery will be critical. Social landlords may face barriers to uptake unless the Government provides clearer guidance and support.

Question 8: Do you have any views on how the provision of additional information, such as that derived from SMETERs, should be enabled within the energy assessment process in practice? Please provide any evidence to support your answer.

The Government should clarify how supplementary measurements will be collected, stored, and governed, including safeguards around privacy and resident engagement.

Question 9: Do you agree with our proposal on the design and methodology for the Heating System metric?

We broadly agree with the proposed design and methodology for the Heating System metric.

However, the Government should consider how the metric interacts with the development of low-carbon heat networks. In areas designated for future heat network deployment, landlords may need to delay heating system upgrades in order to connect to the network once it becomes available. The framework should therefore consider whether temporary flexibility or exemptions are appropriate where a property is located within a confirmed heat network zone.

Question 10: Do you agree with the proposal to set the C/D boundary such that direct electric will always score a D or below, and that storage-based technologies would score above or below the C/D boundary based on their emissions relative to direct electric.

We agree with the proposal. Direct electric heating is typically high-cost and high-emissions relative to other options, and it is appropriate that the metric reflects this.

We also support distinguishing storage-based technologies according to their emissions performance, recognising that smart tariffs and grid decarbonisation may improve outcomes over time.

Question 11: What is your view on the option of reserving the highest scores of A/B for electric cooking appliances?

We understand the rationale for reserving the highest scores for the cleanest technologies, including electric cooking appliances.

However, the Government should ensure the metric remains proportionate and does not create perverse incentives or over-weight relatively minor end uses compared with space heating and fabric performance.

The Government should also clarify how transitional technologies, including hybrid approaches in some contexts, will be treated over time.

Question 12: Do you have any views on the proposed list of technologies that would be recognised under the Smart Readiness Metric and their relative scoring? Please provide any evidence to support your answer.

The Government should ensure the pathway to achieving a C rating is realistic across different archetypes, including smaller dwellings and high-density housing.

Some options, such as electric vehicle charge points or large-scale battery storage, will not be feasible for many households. The metric should avoid embedding assumptions that only apply to owner-occupied houses with private parking.

In dense urban settings and high-rise buildings, the range of technically viable retrofit options can be more limited than it appears in theory. Constraints relating to roof space, structural considerations, grid capacity and leaseholder consultation can significantly affect the feasibility and cost of certain interventions.

Network capacity constraints may also affect the feasibility of deploying some smart technologies. Delays in obtaining distribution network connections or the need for local grid upgrades could create additional costs and delivery challenges outside the control of landlords. The framework should recognise these constraints and ensure they are considered within any compliance or exemption arrangements.

Question 13: Do you have views on the options we have set out for how to achieve a C on the Smart Readiness Metric?

We feel it is important for the sector that the C level for Smart Readiness does not require both solar PV and battery to be installed in a combined solution as a minimum.

We are supportive of an appropriately sized solar PV array being suitable to achieve a C level under Smart Readiness, with the addition of battery or additional technology able to raise the EPC to the A/B bands. This approach could be similar to that proposed for the heating metric and inclusion of gas-free cooking equipment. The government should also consider how the potential for just battery installations (without solar) could influence the EPC Smart Readiness metric outcome.

There would also have to be considerations around flats (or even a group of houses) which could all benefit from the solar installed but might not be directly co-located (i.e. one array on one roof feeding directly into the same house or flat). We feel that HEM outputs for Smart Readiness therefore need to consider the performance based on the energy generating benefits/services each property receives, rather than making that specific to whether technology is specifically present on a property; for example, how this will intersect with micro-grids.

Question 14: Do you have any evidence to provide on what an appropriately sized solar array should be to reach a C?

At present we do not have specific evidence to provide on the appropriate solar capacity required to reach a C rating. However, government should ensure that any thresholds reflect practical deployment constraints across different dwelling types, particularly flats and buildings with limited roof space. A one size fits all approach risks disadvantaging higher density housing where shared or communal generation may be more appropriate.

The methodology should also recognise shared generation models, particularly for flats and high-density developments. In many cases, solar PV may be installed at block level with benefits distributed across multiple homes through shared systems or microgrid arrangements. EPC outputs should therefore

reflect the energy services received by each dwelling rather than requiring generation technology to be physically located on each individual property.

In practice the available pathways will differ significantly by building type. For many flats, particularly those in taller or higher-density buildings, the scope for smart readiness measures is more limited than in houses. Roof space constraints, structural considerations and grid connection requirements can all restrict the deployment of solar or battery technologies. The framework should recognise these practical limitations and ensure that compliance pathways remain proportionate for flatted stock.

Question 15: Do you have any evidence to provide on what an appropriately sized electric battery should be to reach a C?

Members do not believe a battery should be included as standard alongside solar PV to enable the achievement of a C rating.

Regarding sizing, this needs to be evidenced to be appropriate to the property, rather than setting specific limits for the purposes of reaching an EPC band. We do however understand though this could be manipulated and undersized cheaper batteries could be installed if there is no limit set. We would expect that if a battery was to be installed to take a home with solar PV from C to the A or B bands, then the right battery sizes would be specified by technical experts but would likely align with commonly installed sizes of batteries of 5/6kWh (for small/medium sized homes and flats) or 10-13kWh (for larger homes). For larger homes we expect this could either be through one single battery or two smaller batteries to get to the required storage level, whichever was deemed most appropriate and cost effective for the house and installation in question.

Questions 16: Do you agree that a bidirectional EV charge point should be recognised as an alternative to other forms of energy storage, such as batteries, in order to achieve a C on the Smart Readiness Metric?

We agree that bidirectional EV charge points could provide an alternative form of energy storage in principle.

However, this option will only be available to households with access to an electric vehicle and suitable charging infrastructure. The Government should ensure that reliance on EV based storage does not disadvantage households for whom this is not a realistic option.

EV ownership remains relatively low among social housing residents, and many households do not have access to private parking. The metric should therefore avoid relying on EV-related technologies as a primary route to compliance.

Question 17: Do you have any other comments regarding the design and methodology for the Smart Readiness metric?

As the adoption of technologies such as battery storage systems, solar installations and smart controls increases, consideration should also be given to the practical implications for safety, servicing and long-

term replacement. These technologies require ongoing maintenance and present different safety considerations compared with traditional heating systems. Ensuring clear standards for installation, inspection and lifecycle replacement will be important as deployment increases.

Question 18: Do you agree with our proposed approach to the design and methodology for the Energy Cost metric?

We do not agree with the proposed approach in its current form.

Energy costs depend heavily on tariff structures, household circumstances and behavioural factors. There is a risk that a cost metric could confuse consumers, distort retrofit priorities, or penalise homes that perform well on emissions but face higher short-term running costs due to market conditions.

The Government should ensure the cost metric supports, rather than undermines, decarbonisation and affordability objectives.

Where compliance pathways increase reliance on electric heating systems, affordability implications for residents should be carefully considered. The framework should ensure that measures prioritised through EPC metrics deliver genuine improvements in affordability for residents, particularly those already experiencing fuel poverty.

Where compliance requires a shift towards greater reliance on electricity, the government should reconsider the case for a national social housing electricity tariff. Many social housing residents are already in financial hardship. Without additional protection, a move to electric heating risks increasing bills for those least able to absorb the cost.

Question 19: Do you agree that the cost metric should be presented in £, rather than bands?

We have no strong view on whether costs should be presented in pounds or in bands.

However, whichever format is chosen, the Government should ensure that presentation is clear, comparable and does not imply a level of precision that cannot be delivered given volatility in energy prices and tariffs.