Royal Institute of British Architects

Department for Business, Energy and Industrial Strategy: Improving home energy performance through lenders February 2021

The Royal Institute of British Architects is a global professional membership body driving excellence in architecture. We serve our members and society in order to deliver better buildings and places, stronger communities and a sustainable environment. Being inclusive, ethical, environmentally aware and collaborative underpins all that we do.

The RIBA welcomes the opportunity to respond to the consultation on improving home energy performance of through lenders.

On 29 June 2019 RIBA Council voted to join the global declaration of an environment and climate emergency, two days after the UK government passed a law to require the UK to end its contribution to global warming by 2050 by bringing all greenhouse gas emissions to net zero.

The climate emergency demands urgent action and leadership by the Government, architects and the wider construction industry. As part of this, the Government must bring forward a National Retrofit Strategy – a long term policy and investment programme for upgrading the energy efficiency of our housing stock.

We welcome the direction of travel signified by many of the measures proposed in this consultation. However, we believe that there is a need for greater ambition on behalf of the Government if we are to significantly improve the performance and reduce the environmental impacts of the built environment.

The RIBA recommends that the Government:

- Require lenders to meet a portfolio average of Energy Efficiency Rating (EER) Band C cost metric and the environmental impact rating (EIR) Band C carbon metric by 2030, with an increased maximum spend of £15,000.
- Introduce mandatory disclosure for Buy-to-Let properties from the start of the policy.
- Consider embodied carbon targets to ensure the full carbon impact of a home is measured.
- Promote the use of "fabric first" through further funding to the Simple Energy Advise website.
- Investigate different financial mechanisms to incentivise homeowners to improve the energy efficiency of their home.



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Chapter 1: Disclosure of portfolio energy performance data

Question 1. Do you agree with the principle of all lenders publicly disclosing information on the energy performance of their portfolios?

Yes.

Question 2. Do you agree with the proposed EPC information lenders will be required to collect? If you disagree, please explain why.

Yes.

Understanding how much actual energy a building uses is crucial to identify where, and which, energy efficiency improvements can be made. Operational energy, or energy measured at the meter, captures the actual energy usage of a building. This should be the primary metric for measuring the energy efficiency of a home.

However, the current energy efficiency tool, the EPC, uses the Standard Assessment Procedure (SAP) to calculate the energy efficiency of a building. SAP does not measure operational energy, but instead measures regulated energy. SAP does not take into account unregulated energy sources, and therefore does not provide an accurate measure of the true energy use of a building.

Additionally, inaccurate measurements are often more acute in older buildings, which are required to utilise Reduced Data Standard Assessment Procedure (RDSAP) methodology to calculate a building's energy efficiency. RDSAP does not allow for:

- Variation of air permeability (even when a pressure test has been conducted)
- The inclusion of thermal bridging
- Modelling of mechanical ventilation except using very pessimistic defaults (and high air permeability).

These issues mean that for existing homes, EPCs are often inaccurate and not an effective measure of the energy efficiency of a building.

In addition, EPCs were not intended to be a retrofit design tool. Because EPCs do not measure operational energy, improving the EPC rating of a building does not necessarily achieve meaningful energy reductions.

The inaccuracy of EPCs means that the lender, who might be lending large sums of money, doesn't get much assurance that they are genuinely investing in a package of energy saving measures.

Therefore, updating both SAP and RDSAP so they better capture the actual operational energy use of a property, is key to improving the energy efficiency of our housing stock.

It was welcome to see that the Government has acknowledged some of the problems with EPCs and consulted on how they could be reformed in 2018. The Government's response to the consultation, published in September 2020, was a step in the right direction by acknowledging that EPCs must better reflect real world performance.



Despite the problems with EPCs, we are in a climate emergency and we must act now, so it is necessary to utilise the tools we have. In addition, EPCs are easily understood and widely accepted, making them a useful tool for homeowners.

It was positive to see that the consultation suggests disclosing both the Energy Efficiency Rating (EER) and the environmental impact rating (EIR). Looking at the EER alone, does not guarantee that meaningful carbon emission reductions will made. Using the EIR, in addition to the EER, will help ensure that a home's impact on the environment, regarding carbon dioxide emissions is reduced.

Whilst this option does not directly measure operational energy, the EIR is more effective than the EER at ensuring that energy efficiency improvements have an impact on reducing actual carbon emissions.

Question 3. Do you agree with the proposed disclosure information? If you think there is other information that would be useful to disclose that is not included in this proposal, or you do not agree with the proposal, please explain why.

Yes.

Question 4. Do you agree that the option to provide additional commentary alongside disclosures would be useful? If not, please explain why, including any alternative proposals.

Yes.

Question 5. Do you agree with the proposal that all lenders, irrespective of market share, be required to publish energy performance data on their websites as well as on GOV.UK aligned to annual reporting deadlines? If not, please explain why.

Yes.

Question 6. Do you agree with the proposal that government use the disclosure information to publish 'league tables' of lenders? If not, please explain why.

Yes.

Publishing 'league tables' will help to encourage mortgage providers to improve the energy efficiency of their housing stock. This could also be useful for mortgagors who can use the information to choose a provider that could help them improve the energy efficiency of their home.

Question 7. Do you agree that properties financed by a Buy-to-Let mortgage should be included in the scope of the policies proposed in this consultation? If not, please explain why, including any alternative suggestions.

Yes.

Addressing the energy efficiency of our housing stock is imperative to meeting net zero by 2050. The private rented sector has some of the least energy efficient homes and accounts for a disproportionate number of fuel poor households. Therefore, including Buy-to-Let mortgages within the scope of these policies is an important tool to ensure these homes become more energy efficient.

It is important, however, that the standards and regulations for the private rented sector and properties financed through Buy-to-Let mortgages are in line to ensure clarity for the homeowner and occupier.



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Therefore, the RIBA recommends that the private rented sector and lenders should both aim to reach EER Band C by 2030 and EIR Band C by 2030.

Question 8. Do you agree with the proposed trajectory to mandatory disclosure? If not, please outline the reasons why.

Yes.

The RIBA agrees with the proposed trajectory of voluntary to mandatory disclosure on the condition that mandatory disclosure comes into force in 2023 as suggested in the consultation document. We are in a climate emergency and must take action to understand the energy efficiency of our housing stock and work to improve it.

However, we suggest that there should be mandatory disclosure for Buy-to-Let properties from the start of the policy. The private rented sector has some of the least energy efficient homes and accounts for a disproportionate number of fuel poor households. Therefore, mandatory disclosure for Buy-to-Let mortgages will help facilitate energy improvements in the private rented sector.

Question 9. Do you agree with the proposal that disclosure information be subject to spot check audits proportional to the size of the lending portfolio? If not, please explain why, including any alternative proposals.

Yes.

Chapter 2: Improving the energy performance of lenders' portfolios: target-based approach

Question 10. If applicable, is your organisation likely to sign up to a system of voluntary targets? If not, please outline the reasons why.

N/A

Question 11. Do you agree with our estimate that up to 80% of mortgaged stock would fall within scope during the target period? Please provide evidence where available.

N/A

Question 12. Do you agree the voluntary target should be set at a portfolio average of EPC Band C by 2030? If not, please outline the reasons why.

Yes.

The RIBA agrees with the voluntary target of EER Band C by 2030 but believes there should also be voluntary target of EIR Band C by 2030. Including both targets is more likely to improve the energy efficiency and reduce the carbon emissions from our housing stock.

The dual metric is in line with the RIBA's recommendation in the private rented sector consultation.

Looking toward the 2030s and beyond, it is likely that higher energy performance standards will be required to ensure that the UK meets its net zero target by 2050. The RIBA supports consulting on increasing energy performance standards and the appropriate metrics to reach this target in due course.



Question 13. Do you think a revised EPC should be required to demonstrate improvements in energy performance? If not, what alternatives should be explored?

Yes.

We agree that there should be a requirement for post-improvement EPCs, and this cost could be included in the cost cap.

However, as an additional metric we recommend homeowners should be encouraged to look at is their operational energy use. Operational energy, or energy measured at the meter, captures the actual energy usage of a building. When retrofitting a home, comparing the operational energy pre- and post-retrofit is key to ensuring the works have been effective in creating energy reductions and cost savings to the homeowner.

Question 14. Do you agree that an assumed maximum spend for improvement works should be set at \pounds 10,000? If you do not agree, please specify what you believe would be the most appropriate level to set the threshold, providing evidence to support your views where possible.

No.

We believe the maximum spend should be set at £15,000. A "whole house" retrofit plan, with considered individual measures that are installed at the right time and work together is crucial for successful energy efficiency works. A higher cap would help ensure that the programme of works included the maximum number of energy saving measures, which would help significantly improve the energy efficiency of our housing stock.

In addition, deep retrofit works can be disruptive to the homeowner and a higher cap may ensure required works are carried out at one time, potentially minimising disturbances.

Finally, the higher spend is in-line with the RIBA's recommendation for the private rented sector.

Question 15. Should spend from April 2021 onwards count towards the £10,000 assumed maximum spend on improvements? If you believe an alternative date would be more effective, please set out the reasons why.

Yes.

Ensuring homeowners can claim spend from April 2021 would encourage them to undertake the energy improvement works as soon as possible. Postponing this date will only delay compliance.

There are wider benefits to improving energy efficiency such as increasing consumer spending, creating green jobs, and reducing pressure on the NHS.

Investing in energy efficiency reduces energy bills, which increases a households' disposable income. Even with 'direct rebound' effects considered improving energy efficiency, over the long-term, secures cost savings which leads to an increase in consumer spending, aiding economic recovery. Due to lockdown restrictions, household spending has reduced, and energy costs have increased as people stay at home. Improving energy efficiency is a mechanism to address both problems.



Some regions in the UK, for example the North East and West Midlands, have both a high volume of energy inefficient homes and high levels of unemployment. Investing in energy efficiency will create jobs across the country, often in areas that need it the most – providing local jobs for local people.

It is difficult and expensive to keep an energy inefficient home warm and this increases the risk of respiratory and circulatory problems. Investing in energy efficiency can minimise risks to health and wellbeing, at the same time, reducing pressure on the NHS.

Question 16. What actions could the government take to incentivise the lenders to sign up to a voluntary target? Please provide evidence to support your answer where possible.

N/A

Question 17. Do you agree government should consider the option of setting a mandatory improvement target, should insufficient progress be made under a voluntary scheme?

Yes.

The Government has a key role to play in ensuring that all parts of the economy are working together to meet net zero. Therefore, should lenders not make significant progress under a voluntary scheme the Government should consider setting a mandatory target.

Question 18. Do you agree with our proposed approach to the penalty regime? If not, please explain why, including any alternative proposals.

Yes.

Question 19. What public tools could be used to calculate foregone emissions savings so that lenders can assess their own liabilities?

N/A

Question 20. Do you agree that the money collected from penalties be used to fund energy performance improvements? Please provide evidence to support your answer.

Yes.

Question 21. Do you think that only those lenders that are on trajectory to meet their target should benefit from these funds?

No.

The money raised through penalties does not necessarily need to go to back to lenders. This money could also go into other energy efficiency measures such as grants for fuel poor homes.

Question 22. Do you agree that lenders below a certain value or size threshold should benefit from certain derogations from a mandatory target? If so, what form should these take and how can we avoid creating any policy loopholes?

No.



Question 23: Do you agree with the proposed alternative option of a mandatory target of a portfolio average EPC Band C by 2030 from the start of the policy? If you disagree, please explain why, highlighting any alternative target you think would be appropriate.

N/A

Wider considerations

Question 24. These policy proposals rely on the information provided by the EPC. Are there any impacts of data collection using EPCs that we have not considered? If so, how could these be managed effectively by lenders?

As mentioned above, the EPC, uses the Standard Assessment Procedure (SAP) to calculate the energy efficiency of a building. SAP does not measure operational energy, or energy measured at the meter, but instead measures regulated energy. SAP does not take into account unregulated energy sources, and therefore does not provide an accurate measure of the true energy use of a building.

This means that, EPCs are often inaccurate and not an effective measure of the energy efficiency of a building.

In addition, EPCs were not intended to be a retrofit design tool. Because EPCs do not measure operational energy, improving the EPC rating of a building does not necessarily achieve meaningful energy reductions.

It was welcome to see that the Government has acknowledged some of the problems with EPCs and consulted on how they could be reformed in 2018. The Government's response to the consultation, published in September 2020, was a step in the right direction by acknowledging that EPCs must better reflect real world performance.

However, EPCs are easily understood and widely accepted, making them a useful tool for homeowners. Furthermore, we are in a climate emergency and we must act now, so it is necessary to utilise the tools we have.

It was positive to see that the consultation suggests disclosing both the EER and the EIR. Looking at the EER alone, does not guarantee that meaningful carbon emission reductions will made. Using the EIR, in addition to the EER, will help ensure that a home's impact on the environment, regarding carbon dioxide emissions is reduced.

Therefore, we suggest lenders should be required to meet a portfolio average for both EER Band C cost metric and the EIR Band C carbon metric by 2030.

Question 25. What are your views on the likely impacts of requiring an increase in the EPC coverage of portfolios on: a) lenders; b) consumers; and c) EPC assessors?

Consumers: ensuring an update to date EPC when looking to buy or re-mortgage a home would help raise awareness of EPCs and the importance of energy efficiency.

Question 26. How can we ensure the effective transition of data between lenders when consumers change mortgage providers?

N/A



Question 27. Are there any additional ways in which government or lenders could raise consumer awareness of their EPC data and how to improve the energy performance of their homes?

N/A

Question 28. Are there any ways in which lenders could help to encourage the installation of smart meters in the homes of those to whom they lend?

N/A

Question 29. Should works carried out to comply with these policies require that mortgagors choose a TrustMark approved provider or installer?

Yes.

The RIBA believes that the Government should incorporate TrustMark into energy performance improvement works.

There is considerable evidence that poor standards of installation, including scams and low quality craftmanship, has affected the market for energy efficiency improvements. The prevalence of such instances creates two problems that inhibit the ability for England to decarbonise its housing stock.

First, where poor installations have taken place, it will require further energy efficiency improvements to be carried out to enable the retrofitted homes to reach the desired EPC rating. Second, they blight confidence in the energy efficiency improvement sector, and have likely contributed to the lack of demand.

Adequate training and education to ensure competence and skills within the supply chain is key to ensuring energy efficiency measures are installed in a safe and effective manner.

The Government has a key a role to play in ensuring installations meet the highest standards, and that consumers are protected from making substandard alterations to their home. Embedding the TrustMark accreditation scheme in wider retrofitting works will help to provide quality assurance standards when works are being delivered.

However, the Government must ensure that the TrustMark scheme is operating effectively to provide consumers with adequate protection and it does not simply become a tick-box exercise. There is also a risk that tradespeople will arbitrarily inflate their prices to meet the price cap. This is something that the Government should be aware of when reviewing the overall effectiveness of the TrustMark scheme.

Question 30. We understand that there are mortgagors who will not be able to self-fund or borrow. Do you have any evidence that indicates what proportion of the mortgage market these mortgagors represent? Please provide as much detail as you can.

N/A



Question 31. Do you agree that those mortgagors unable to self-fund or borrow to make energy performance improvements should be exempt from inclusion in a lender's improvement target?

Yes.

The RIBA recognises that there may be a of homeowners for which the £15,000 maximum spend is unaffordable. However, the RIBA recommends the Government investigate different financial mechanisms that will incentivise and support homeowners to improve the energy efficiency of their housing stock rather than simply applying for an exemption.

The proposals in this consultation must form part of a National Retrofit Strategy – a long term policy and investment programme for upgrading the energy efficiency of our housing stock. The Strategy must also involve substantial and sustained government funding and policy interventions for homeowners that provide low cost finance options. This has been effective in other countries, such as Germany, and is a key element to helping improve the energy efficiency of our housing stock.

In addition, other green financing options, such as green mortgages will be key to ensuring the uptake of energy efficiency measures. Lenders could offer lower interest rates when energy efficiency works are complete. The Government has a key role to play in ensuring that these products come to market so homeowners can invest in energy efficiency and are not locked into unsustainable debt.

The National Retrofit Strategy must also provide incentives for homeowners. The Government has many of the tools already, they just need to be utilised. Stamp Duty Land Tax, for example, could be altered to help embed energy efficiency in the housing market through a sliding scale of stamp duty payments, where the most efficient homes pay much less tax than the least.

The revised tax could be capped at £25,000 to avoid large and potentially punitive increases on expensive homes and could also have a time-limited rebate period, to encourage homeowners to make their own energy efficient improvements.

Evidence shows that people are more likely to pursue energy efficiency improvements at certain trigger points or moments of change, such as moving home, since they are already prepared for disruption at these times. In 2017-18, there were 1.1 million residential transactions, so reforming Stamp Duty Land Tax could be especially effective.

Question 32. How do you think exemptions on the basis of affordability should be assessed?

With the above policy suggestions considered, those homeowners who the £15,000 maximum spend would still be unaffordable should be able to apply for an exemption.

Mortgages are means-tested, and many people will borrow the maximum amount, so this measure alone could mean that a significant proportion of people are exempt, particularly in more high value areas.

To ensure that those who genuinely cannot afford the cost cap are exempt, it should consider several different factors such as debt-to-income ratio, credit history, property value, and if the amount invested is recoupable over the lifetime of a mortgage due to reduced energy costs.

Exemptions should be the last resort for those who cannot afford the £15,000 maximum spend and the RIBA suggests that the exemptions regime is monitored carefully to ensure that it is not being misused.



Question 33. What other methods of protecting fuel poor mortgagors should the government consider in designing its proposals? Please provide evidence to support your answer where possible.

There are at present 2.4 million fuel poor households in England, which comprises about one tenth of the total number of households. As the UK transitions towards the use of more low carbon generation technologies, the price of energy is set to rise, and the fuel poor risk being disproportionately affected. The Climate Change Committee argue that the poorest can be protected from rising energy prices via improved energy efficiency.

The Committee on Fuel Poverty have stressed that considerably more progress is needed to reduce fuel poverty. The RIBA agrees with the Committee of Fuel Poverty's recommendation to replace the ECO with a Home Energy Efficiency Programme (HEEP) when its current term ends in 2022. We recommend that HEEP should be funded at the same level the Energy Company Obligation (ECO) has been, but should be primarily focused on the owner-occupier sector, with other public funding earmarked for private and social landlords to access finance. This offers the best route to sustained progress towards fuel poverty milestones.

While we would recommend that the Government be circumspect in making changes to the benefits system during an economic crisis, in the longer term, we recommend they consider how existing income support payments including the Warm Homes Discount and the Winter Fuel Payment, which are presently poorly targeted towards the most fuel poor, can be adapted and incentivise energy efficiency.

Question 34. Do you support the idea of lenders recommending referrals to energy suppliers under a future ECO scheme?

Yes.

However, as mentioned above, we suggest that ECO is replaced by HEEP.

Question 35. Are there any impacts on the protected groups that we have not considered?

N/A

Question 36. We wish to include leasehold properties in the scope of these proposals in order that their owners or tenants may benefit from energy improvement works. How do you think the government should act to ensure that leasehold properties with a mortgage are captured by these policies, while acknowledging the challenges that need to be overcome?

To ensure that leasehold properties are included in the scope, the freeholders will need to bear some of the costs.

Question 37. How can we ensure that we protect groups such as first-time buyers from being disproportionately penalised?

To protect groups, such as first-time buyers, we suggest that the Government bring forward a National Retrofit Strategy that includes a suite of measures to improve the energy efficiency of our housing stock. As mentioned above, this should include Government funding, several green financing options and using different tax mechanisms to incentivise people to retrofit their home.



Question 38. Are there other impacts these policies could have on mortgage processes that we have not considered? How do we ensure that intermediaries, such as brokers, have access to the information necessary to advise consumers?

N/A

Question 39. How can we ensure that our policies do not disincentivise lending to poor performing properties?

To ensure these policies do not disincentivise lending to poor performing properties the Government must bring forward a National Retrofit Strategy that includes a suite of measures to improve the energy efficiency of our housing stock. As mentioned above, this should include Government funding, several green financing options and using different tax mechanisms to incentivise people to retrofit their home.

Question 40. How might these policies impact on house prices and households' ability to borrow in the market? What could the government do to mitigate any unintended impacts on households?

It is likely that house prices with higher energy efficiency performance will be more valuable and the money invested will be recouped at the point of sale. However, this may drive up house prices.

To ensure there are limited unintended impacts households, the Government should bring forward a National Retrofit Strategy that includes a suite of measures to improve the energy efficiency of our housing stock. As mentioned above, this should include Government funding, several green financing options and using different tax mechanisms to incentivise people to retrofit their home.

Question 41. How might these policies negatively or positively impact on competition and lenders' ability to operate in the housing and wider market? What could the government do to mitigate any negative impacts?

N/A

Question 42. What costs would compliance with these policies likely generate for lenders? Please provide an estimate of these costs where possible, including evidence to support your answer.

N/A

Question 43. Do you think a regulatory body should be responsible for the mandatory policies in this consultation? If so, what form do you think this body should take?

N/A

Question 44. Do you think that the government should introduce a requirement on lenders to check that privately rented properties comply with the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015?

Yes.

This should be made easier when you consider the suggestions included in the private rented sector consultation. These include the Government keeping a nationally operated register of compliant and non-compliant households, the use of EPC Open Data and removing the seven to twenty-one day exemption period on landlords making all reasonable efforts to provide a valid EPC prior to a property being marketed or let.



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Question 45. Do you think it would be sensible for these proposals, for example annual disclosure of portfolio-wide EPC information, to be applied to smaller non-domestic buildings that require similar energy performance upgrades to homes?

Yes.

Whilst it would be useful to understand the portfolio-wide EPC information, for non-domestic buildings the RIBA recommends the introduction of Display Energy Certificates (DECs) to measure operational energy. DECs are already in use in public sector buildings and this should be extended to all non-domestic buildings.

Question 46. Should a fabric first approach be built into the preferred, voluntary, target option? If yes, how should such an approach best be implemented?

Yes.

The RIBA welcomes the Government's suggestion of taking a fabric first approach to retrofitting. The RIBA believes that fabric efficiency should be the primary consideration when designing or retrofitting a home and any method of delivering heat should be secondary.

A fabric first approach is key to ensuring that energy efficiency works actually improve the energy efficiency of a property and do not add additional costs to the tenant. For example, it is important that heat pumps are installed in well-insulated homes. This is because the lower the flow temperature of the heat pump, the higher it's efficiency. In a home without adequate insulation, the heat pump will require a higher flow temperature, which will cost more to run and have higher carbon emissions. If a fabric first approach is not built into the system, there is a risk that homes will have heat pumps installed without adequate insulation, resulting in unintended consequences mentioned above.

Therefore, RIBA recommends that the fabric first approach is introduced in both a voluntary and mandatory target.

For a voluntary target, implementing a fabric first approach will involve providing adequate information for homeowners to ensure they understand the importance of fabric first and energy efficiency.

When the Government introduce a mandatory target, fabric first could be written into the regulations as is suggested for the private rented sector.

It was welcome to see the Government recently introduced the Simple Energy Advice (SEA) website, which is the central information resource for energy efficiency advice in England. However, we believe there is a role for more tailored advice through an expanded information hub. This will require additional funding capacity be allocated for the SEA, including expanding the information hub to provide access to trained advisors who can give customers tailored and personalised support. The advice given by the SEA must encourage a "whole house" retrofit plan to homeowners to plan upgrades incrementally in a way that ensures they are improving the energy efficiency of their home.



Question 47. What are your views on how we could tighten standards to drive greater carbon savings? Do you have views on introducing a dual metric, an alternative carbon target, or any other suggestions?

As mentioned above, the RIBA recommends a dual metric for improving the energy efficiency of our housing stock. Looking at the EER alone, does not guarantee that meaningful carbon emission reductions will made. Using the EIR, in addition to the EER, will help ensure that a home's impact on the environment, regarding carbon dioxide emissions is reduced. The RIBA suggests a dual metric of portfolio average for both EER Band C by 2030 and EIR Band C by 2030. The dual metric is in line with the RIBA's recommendation in the private rented sector consultation.

The importance of embodied carbon has not been considered in the consultation. Embodied carbon refers to the carbon emitted from the processes associated with sourcing materials, fabricating them into products and systems, transporting them to site and assembling them into a building. It also includes the emissions due to maintenance, repair and replacement, as well as final demolition and disposal.

There is a risk that homeowners may prioritise low-cost retrofitting solutions which may result in choosing readily available products with high levels of embodied carbon. The Government should introduce embodied carbon targets to help ensure that the materials used are not inadvertently damaging the environment. Embodied carbon is critical when considering the carbon emitted from a building as a whole.

Considering embodied carbon will also increase the demand for low carbon materials. This will help stimulate growth in low-emission manufacturing of traditional materials, promote new low carbon products and will also encourage the use of local materials, driving the built environment to source products from the UK, where possible.

