HASSOCKS PARISH COUNCIL

Minutes of the Planning Committee Meeting held on Wednesday 8 January 2020 at 7.30pm in the Parish Centre, Adastra Park, Hassocks

Attendees: Parish Councillors: Jane Baker, Kristian Berggreen, Robert Brewer, Leslie Campbell, Bill Hatton and Nick Owens (Chair)

In Attendance: Deputy Clerk: Tracy Forte

P19/122 APOLOGIES FOR ABSENCE. There were no apologies.

P19/123 DECLARATIONS OF INTEREST. None.

P19/124 MINUTES. RESOLVED that the minutes of the meeting held on 16 December 2019, be signed by the Chair as a true and accurate record of the meeting.

P19/125 PUBLIC PARTICIPATION. There were no members of the Public present.

P19/126 APPLICATIONS

DM/19/4781 Ockley Manor Farm Cottages Ockley Lane Hassocks West Sussex BN6 8NX. Refurbishment of existing cottages with minor internal alterations and new single storey extension with associated landscaping works. Response: **RECOMMEND APPROVAL.**

DM/19/4776 Ockley Manor Farm Cottages Ockley Lane Hassocks West Sussex BN6 8NX (Listed). Refurbishment of existing cottages with minor internal alterations and new single storey extension with associated landscaping works. Response: **RECOMMEND APPROVAL**.

DM/19/5061 Wellhouse Farm Wellhouse Lane Burgess Hill West Sussex RH15 0BN. Ground Floor side extension in place of two storey side extension previously granted. Freestanding double garage within curtilage of property. Response: **RECOMMEND APPROVAL**.

DM/19/4324 11 Abbots Close Hassocks West Sussex BN6 8PH Loft conversion, raising roof ridge and extension over existing ground floor to create first floor with front and rear facing dormers. Amended plans received 16.12.2019. Response: **RECOMMEND APPROVAL.**

DM/19/5186 56 Oak Tree Drive Hassocks West Sussex BN6 8YD Single storey rear extension to existing property with part garage conversion. Response: **RECOMMEND APPROVAL.**

DM/19/5188 Belmont Chapel Belmont Lane Hurstpierpoint Hassocks West Sussex BN6 9EP Detached Garage with office over. Response: **RECOMMEND APPROVAL.**

SDNP/19/05295/FUL Land West of The Drove Ditchling East Sussex Erection of a dwelling. Response: **RECOMMEND REFUSAL.** Further to the response submitted by

Hassocks PC to the previous application on this site SDNP/18/04155/FUL, the Parish Council reiterates its comments for this application. The application should be rejected on the grounds that the proposal is contrary to the Ditchling, Streat and Westmeston Neighbourhood Plan, and Hassocks PC is in agreement with and offers its full support to all the comments submitted to the SDNPA by Ditchling Parish Council in its letter dated 8 January 2020. Furthermore the application is contrary to Policy 1, Local Gap, of Hassocks Parish Council's Regulation 16 Neighbourhood Plan and also contrary to the Mid Sussex District Plan in respect of the Local Gap Policy. Although the proposal should be commended for having green credentials this should not override gap policies of the respective parishes and the District Plan. The Council would also anticipate that the proposed dwelling would be prominently visible from the South Downs and affect the rural character of the South Downs National Park.

P19/127 **RESOLVED** that the observations on the planning issues as agreed above be submitted to the relevant Planning Authority for consideration.

P19/128 **DECISION NOTICES**

The following APPROVALS were noted:

DM/19/4702	36 Dale Avenue, Hassocks BN6 8LP
DM/19/4122	Scotches farmhouse, Malthouse Lane, Hassocks
DM/19/4757	6 Abbots Close, Hassocks BN6 8PH
DM/19/4666	28 Dale Avenue, Hassocks BN6 8LP
DM/19/4555	14 Wilmington Close, Hassocks BN6 8QB

The following REFUSAL was noted:

DM/19/4175	Garage rear of 29A Keymer Road, Hassocks.

The following notifications of Certificate of Lawful Use or Development and/or General Permitted Development were noted:

DM/19/4998	The Paddock, London Road, Hassocks
DM/19/4732	31 Bonnywood Road, Hassocks BN6 8HP

The following WITHDRAWALS were noted:

DM/19/5007	56 Oak Tree Drive, Hassocks BN6 8YD
SDNP/19/04217/FUL	Wolstonbury, New Way Lane, Hassocks
SDNP/19/05340/FUL	Underhill Lane

P19/129 **The Future Homes Standard: changes to Part L and Part F of the Building Regulations for new dwellings Consultation.** Further to Members' agreement at the Planning Committee meeting on 14 October 2019, Members were invited to consider a proposed response for submission drawn up by Cllr Owens. Members considered the draft consultation response and, subject to some minor amendments, approved the proposed response to be submitted on behalf of the Council. (Appendix 1)

P19/130 **URGENT MATTERS at the discretion of the Chairman for noting and/or inclusion on a future agenda.** There were no urgent matters.

P19/131 **DATE OF NEXT MEETING.** Monday 27 January 2020.

There being no other business the Chair closed the meeting at 9.05 pm.

Signed……Date……

APPENDIX 1

Future Homes Standard – Consultation on changes to Building Regulations Parts L and F for new dwelling

Chapter 2 The Future Homes Standard

Q1

Do you agree with our expectation that a home built to the Future Homes Standard should produce 75-80% less CO2 emissions than one built to current requirements?

a. Yes

b. No – 75-80% is too high a reduction in CO2

c. No – 75-80% is too low a reduction in CO2

If no, please explain your reasoning and provide evidence to support this.

To provide an urgent response to climate change all new buildings will need to operate at annual net zero carbon emissions by 2030, which means that by 2025 all new buildings must be designed to net zero. We need a clear plan as to how we will measure compliance in a way that informs good design - the current and proposed Part L does not allow this. To ensure ALL new buildings meet net zero carbon, Approved Document Part L needs to become the legislative driver.

It is disingenuous of the government to headline high reductions in the carbon intensity of new homes between the Part L compliance standards in 2013 and those proposed for 2020, because these reductions are largely due to decarbonisation of the electricity grid not to a tightening in the Part L energy efficiency standard

We believe the Future Homes Standard should be based on operational performance (the actual energy a building consumes in operation measured at the meter including regulated and unregulated energy, rather than a percentage reduction over a notional building model). If we don't shift to this way of thinking we will always struggle to quantify whether our buildings are meeting climate change targets. Future targets should therefore be based on an at the meter energy metric such as kWh/m^2/yr.

As a stepping stone, we propose that in 2020 the energy consumption of all new homes should be disclosed (in a format that supports data protection) to understand energy consumption as a driver for improving operational performance.

In 2025 (Future Homes Standard) compliance should be based on operational performance based on (metered) kWh/m²/yr targets (e.g. domestic display energy certificate(DEC)).

New buildings should be built to impose a minimal load on the national grid and thereby help the UK to achieve net zero carbon emissions. We should stop talking in terms of percentage reductions as these introduce avoidable complexity and do not clearly indicate performance relative to net zero carbon and compliance needs to be based on how a building performs in use.

Q2

We think heat pumps and heat networks should typically be used to deliver the low carbon heating requirement of the Future Homes Standard. What are your views on this and in what circumstances should other low carbon technologies, such as direct electric heating, be used?

We agree heat pumps are among the most appropriate way to deliver low carbon heat. However, it is important that heat pumps are designed, specified, installed and operated correctly to avoid high bills for the consumer. A report by Etude, commissioned by the Greater London Authority in Sept 2018 outlines the impact of heat pump deployment: https://www.london.gov.uk/sites/default/files/low_carbon_heat_-_heat_pumps_in_london_.pdf.

The definition of 'heat networks' needs to be made clear, there is a distinct difference between local building or site based communal networks for dense urban development and large regional district heating networks. There is also an environmental difference between a heat network served by a gas fired combined heat and power (CHP) plant and a low carbon network served by fossil fuel free heat.

The justification for using district heating needs to be clear and should not be based on past assumptions. In many cases existing district heating is served by gas CHP and has higher carbon emissions, introduces additional capital and billing costs, removes the consumer's ability to switch supplier and is less efficient due to network losses. While some of these issues are due to lack of regulation of heat supply to customers, the use of fossil fuels in district heat networks is widespread and should not be advocated.

Ambient temperature networks with building level heat pumps reduce losses and can facilitate energy sharing. These types of networks could be used to deliver the low carbon heating requirement of the Future Homes Standard. Consideration should be given to the heat demand of new buildings whereby space heating loads are (or should be) significantly reducing. Therefore, much of the heat demand is for the domestic hot water only.

It is not clear why direct electric heating is listed as a low carbon technology. Heat delivered by direct electric is only low carbon if the grid is low carbon. On its own it should not be classified as a 'low carbon technology'. Direct electric heating delivers 2-3 times less heat than a heat pump for the same amount of carbon emissions, it is also more expensive for residents. We suggest that direct electric is only appropriate for delivering space heating where space heat demand is extremely low, such as a space heat demand of 15kWh/m²/yr or less. (Based on predictive energy modelling not SAP modelling as SAP vastly underestimates space heating demand).

Q3

Do you agree that the fabric package for Option 1 (Future Homes Fabric) set out in Chapter 3 and Table 4 of the impact assessment provides a reasonable basis for the fabric performance of the Future Homes Standard?

a. Yes

b. No – the fabric standard is too demanding

c. No – the fabric standard is not demanding enough

If no, please explain your reasoning.

The more we can insulate our homes the less energy they will use for heating. We should not be designing and building homes that will need retrofitting in the future. A well-insulated and efficient building represents our greatest chance of meeting our climate commitments in new homes.

While the fabric listed under Option 1 goes some way towards making energy efficient homes, it does not go far enough, in particular, an air permeability of 5m3/h.m2 @50Pa is too high and there is no mention of an efficient form factor.

The Future Homes Standard 2020 does not promote a well-insulated building fabric due to the loss of the fabric energy efficiency standard (FEES). In fact, new homes could be less efficient in 2020 than under Building Regulations 2013. This will not provide a 'meaningful uplift to energy efficiency standards as a stepping stone to the Future Homes Standard'.

If there is a serious commitment to improving building fabric through the Future Homes Standard this must start now by setting 2020 minimum/limiting fabric standards or setting higher FEES standards.

As it stands it is a huge missed opportunity to create homes that will not need further retrofit AND are comfortable to live in. The exterior wall U-value is not demanding enough, it should be 0.11 W/m2K.

The ventilation system is inadequate it wastes heat and the rooms will be stuffy: MVHR should be specified as a minimum. There is no point adding to the gas grid load, this will help the 2050 zero carbon commitment to be missed: just get rid of the gas connection there is no need for it, have heat pump or electricity instead. If you get the fabric efficiency right (see above) the heat demand will be low to zero.

Q4

When, if at all, should the government commence the amendment to the Planning and Energy Act 2008 to restrict local planning authorities from setting higher energy efficiency standard for dwellings?

a. In 2020 alongside the introduction of any option to uplift the energy efficiency standards of Part L

b. In 2020 but only in the event of the introduction of a 31% uplift (option 2) to the energy efficiency standards of Part L

c. In 2025 alongside the introduction of the Future Homes Standard

d. The government should not commence the amendment to the Planning and Energy Act

Please explain your reasoning.

The Intergovernmental Panel on Climate Change (IPCC) report (Oct18) makes it clear that it is now urgent that we reduce carbon emissions, stating that we have less than 12 years to stop climate change.

65% of local authorities across the UK have responded to this by declaring a climate emergency and setting their own stretching planning targets. Local authorities are much better placed to assess local need and viability of their area.

Our ability to slow climate change depends on their ambitious response and their zero carbon plans. Government should therefore not be seeking to take this away but instead be supporting them.

London is an example of where setting local targets beyond that of Building Regulations has been proved viable and successful. It is counterintuitive and likely to provide greater market uncertainty to roll back these targets in planning policy only to build them up again a few years later in Building Regulations. It should be noted that the London Plan already requires a 35% reduction in CO_2 with a 10% reduction in CO_2 through fabric alone. The above is a significant step backwards from this. Therefore, even with the introduction of a 31% uplift this would still be below London's current target.

Historically the purpose of Building Regulations has been to set minimum standards as a basic industry provision, this includes "securing the health, safety, welfare and convenience of persons in and about buildings, furthering the conservation of fuel and power, preventing waste, undue consumption, misuse or contamination of water, furthering the protection or enhancement of the environment, and facilitating sustainable development" It is not the purpose of Building Regulations to strip local authorities of their powers or ability to go beyond this minimum.

So the government should never restrict local authorities from setting higher energy efficiency standards for dwellings. Furthermore:

- *it is completely contrary to the spirit and intent of the Localism Act;*
- *If it did so central government would be shooting itself in both feet by making it harder, not easier to achieve the net zero carbon commitment by 2050;*
- *Last but not least, what matters is total cumulative carbon emissions, not emissions in any one years, so the faster the UK can reduce its housing-based emissions, the less overall will be its cumulative emissions and the less the global warming impact.*

Q5

Do you agree with the proposed timings presented in Figure 2.1 (displayed in Chapter 2) showing the Roadmap to the Future Homes Standard?

a. Yes

b. No – the timings are too ambitious

c. No – the timings are not ambitious enough

If no, please explain your reasoning.

It is key that consultation on the future homes standard is carried out as soon as possible, so that developers and design teams can prepare themselves for the changes that are to come.

The future homes compliance standard must be complemented by transparency on operational performance outcomes using (metered) kWh/m²/yr (e.g. domestic display energy certificate (DEC)). This is a relatively big change, and thus developers and design teams will need to start to change their approach to designing and constructing buildings in 2020 to ready themselves for this new change in compliance.

The government is missing a golden opportunity by not introducing and not allowing fully zero-carbon (or better) homes to be built until 2025. There is enough known now about what that standard should be. The government should publish both the full Future Homes Standard ("FSH") and an interim standard now and allow local authorities if they so choose, to set the FSH as a minimum for their district from 1.4.2020. The interim standard can then be phased out by 1.1.2025. Doing it this way will put pressure on developers to deliver higher quality housing and will incentivise people in the relevant trades to

acquire the skills and qualifications and apply them early. There already is an inspection standard that can be applied - the Passivhaus certification. If this were wartime the government would have no hesitation in defining and bringing in standards quickly and mobilising trades and professions to deliver the necessary proven quality.

Chapter 3 Part L Standards for New Homes in 2020

Q6

What level of uplift to the energy efficiency standards in the Building Regulations should be introduced in 2020?

a. No change

b. Option 1 – 20% CO2 reduction

c. Option 2 – 31% CO2 reduction (the government's preferred option)

d. Other

Please explain your reasoning.

These options do not go far enough on fabric efficiency. We should not be designing and building homes in 2020 that will need retrofitting with additional insulation in the future. A well-insulated building represents our greatest chance of meeting our climate commitments in new homes. The Future Homes Standard 2020 does not promote a well-insulated building fabric. Under the new regulations new homes could be less insulated in 2020 than under Building Regulations 2013.

Fabric should always be the first step in reducing carbon emissions, with technology reducing the remaining emissions. The proposals of 20% and 31% reductions do not push fabric, comfort and well-being hard enough. Under Part L 2013 there is a Fabric Energy Efficiency Standard (FEES) metric which helps prevent homes being designed with a fabric worse than the 'notional' building. While the 'notional' fabric specification has been improved marginally in the Future Homes 2020 consultation, the FEES target has been scrapped. This means that homes can be designed using the 'minimum' building fabric u-values as long as the building passes the carbon and primary energy targets. Where an energy efficient heating system (such as an air source heat pump) is specified the building is able to pass these targets with a poor building fabric. This is a loophole that overrides the need to have a well-insulated fabric.

Testing carried out using the consultation iSAP tool has demonstrated that the same terrace house that would have failed Part L 2013, due to poor fabric, would pass the carbon and primary energy targets under Part L 2020:

- *A home can pass Option 1 with a 48% CO_2 reduction (with a primary energy pass) using the following fabric standards and a heat pump (this would have failed Part L 2013 FEES):*
  - *Wall - 0.26*
  - *Roof - 0.16*
  - *Floor - 0.18*
  - *Window/door - 1.6*
  - *Air perm - 5*
  - *Thermal bridging - Default*
  - *MVHR*
- *A home can pass Option 2 with a 41% CO_2 reduction (with a primary energy pass) using the following fabric standards and a heat pump (this would have also failed Part L 2013 FEES):*
  - *Wall - 0.21*
  - *Roof - 0.14*
  - *Floor - 0.16*
  - *Window/door - 1.4*
  - *Air perm - 3*
  - *Thermal bridging - Default*
  - *MVHR*

These results significantly exceed the 20% and 31% reductions proposed without any effort to improve fabric specification or use the notional fabric values.

Not only does the loss of FEES allow the specification of poor fabric, but the introduction of updated carbon factors masks the problem further.

The 31% carbon reduction target is not a sufficient step forward. We want to see homes expected to make at least a 50% reduction in carbon emissions, ideally 60%. The update in carbon factors is supported, however, the target carbon emission reductions should be re-aligned with this in mind. An identical home that had a 3% reduction in carbon emissions under 2013 regulations could now have a 75% reduction in carbon emissions under the 2020 regulations. The proposed option 1 - 20% reduction and option 2 – 31% reduction in the consultation does not take this into account.

The London Plan already requires a 35% reduction in CO_2 and a 10% reduction in CO_2 through fabric alone. Both options are a significant step backwards from this.

It is important to note that rather than a carbon emission reduction target we advocate an absolute energy consumption target.

Q7

Do you agree with using primary energy as the principal performance metric?

a. Yes – primary energy should be the principal performance metric

b. No – CO2 should remain the principal performance metric

c. No – another measure should be the principal performance metric

Please explain your reasoning and provide evidence to support this.

The proposals include metrics based on carbon and primary energy, neither of these connect consumers with actual building performance and do not encourage building performance directly, as they are heavily dependent on the wider system. We need a metric based on the total energy use (regulated and unregulated) of the dwelling which can be verified by measurements by the dwelling's energy meter(s). We have had too many indirect 'indicators' to date that end up with unintended consequences. Cost unduly drives gas use and grid carbon factor reduction masks a building's energy efficiency performance.

While we understand that there is an EU directive to use a primary energy metric, we believe that disclosure of performance metrics such as Energy Use Intensity (EUI) in KWh/m^2/yr should be used in addition to better connect design with the actual building performance that consumers experience.

In the context of the climate emergency, we further advocate that the heating and hot water for new homes should not be generated using fossil fuels, whether on-site or indirectly via community heating generated by off-site use until other zero carbon fuels exist. As heating and hot water would not be generated by fossil fuels, this assumes an all-electric building which would mean kWh targets are the same as kWh of electricity equivalent targets (kWhelec eq). See answer to Q6.

Q8

Do you agree with using CO2 as the secondary performance metric?

a. Yes

b. No

Please explain your reasoning.

As the electricity grid continues to decarbonise, and new dwellings move to using electricity as their only imported energy carrier, CO2 intensity will become increasingly meaningless and should not be used as either metric, even though, paradoxically, minimising emissions must become the nation's paramount objective.

*The critical means to reduce the UK's CO2 emissions is to maximise the proportion of the electricity grid supply that can be met by zero carbon generation sources, even as buildings turn from fossil fuel to electricity for their heating and hot water, and motor vehicles make the same transition. This means that the objective for Part L should become the minimising of **energy** demand from new dwellings.*

If Primary Energy is required to be the principle metric due to the EU directive, then the secondary metric should be an energy use intensity metric such as (metered) kWh/m^2/yr would assist this.

See also answer to Q6 which notes that updates to the carbon factor (while supported) are making homes appear to have more favourable carbon reductions without addressing the amount of energy they consume. For example:

- *A home that passes Option 2 with a 41% CO_2 reduction (inc primary energy pass) used the following fabric standards and a heat pump:*

- *Wall - 0.21*
- *Roof - 0.14*
- *Floor - 0.16*
- *Window/door - 1.4*
- *Air perm - 3*
- *Thermal bridging - Default*
- *MVHR*

This home under part L 2013 would have achieved a 38% reduction in CO_2 over an electric baseline, or a 10% reduction in CO_2 over a 2013 gas baseline (as now proposed in 2020). However, what this doesn't show is the change in carbon emissions reductions due to changing baselines. If the Part L 2013 baseline is compared to the 2020 baseline, there actually a relative 77% reduction in CO_2 from the baseline alone. This is without a change in predicted energy consumption.

The above illustrates that using the reduction in carbon emissions to demonstrate the energy efficiency of a building does not work. The building in 2020 is no more energy efficient than the building in 2013 but the carbon emissions appear smaller.

In a climate emergency we need to be reducing energy demand and consumption of buildings rather than tinkering with the way carbon emission reductions are presented. The use of an energy use intensity metric such as (metered) kWh/m^2/yr would assist this.

Q9

Do you agree with the proposal to set a minimum target to ensure that homes are affordable to run?

a. Yes

b. No

Please explain your reasoning.

It is not clear how homes will be deemed affordable to run from the proposals and calculation method available (SAP). It is important to note that the SAP methodology as it stands is not best placed to predict this. It is well known in the industry that there is a significant performance gap between the design and operation of buildings, part of this is down to the SAP methodology used.

Affordability is likely to vary vastly across the country, which is why local authorities are best placed to set requirements (see answer to Q2).

Q10

Should the minimum target used to ensure that homes are affordable to run be a minimum Energy Efficiency Rating?

a. Yes

b. No

If yes, please suggest a minimum Energy Efficiency Rating that should be achieved and provide evidence to support this.

If not, please suggest an alternative metric, explain your reasoning and provide evidence to support this.

An EPC rating is a very poor predictor of energy consumption and therefore energy bills. A significant adjustment factor would need to be included if this was used - to protect residents from unexpected high energy bills.

The following graph developed by Etude demonstrates the variation of energy consumption of homes in-use across EPC bands. This highlights that the best performing home with an EPC D or E rating is able to out-perform the best B rated home.

It is not acceptable to assume that a home with a good EPC rating will have low energy bills.

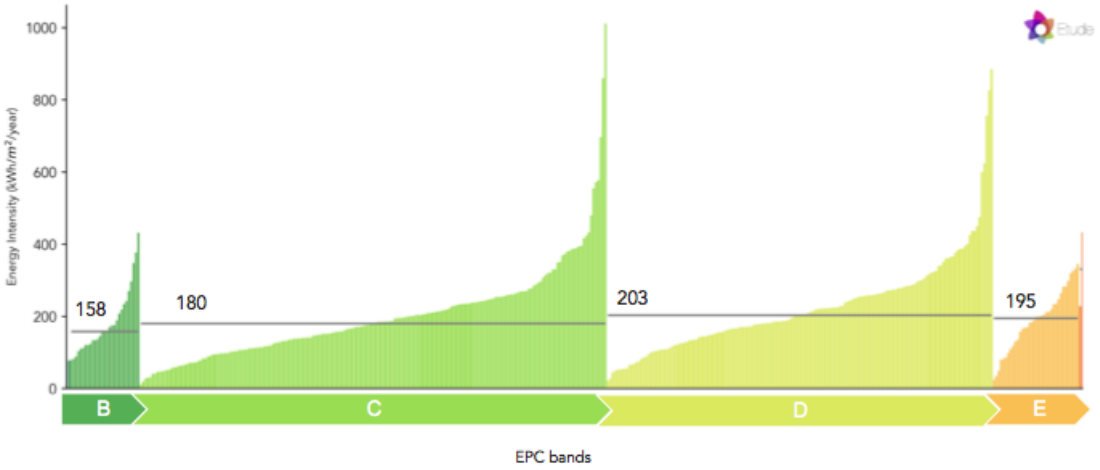

Figure 1: Illustration of disconnect between EPC bands and actual energy consumption in the domestic sector: Energy intensity of 410 homes across a local authority in England, by EPC rating. Each bar represents a single dwelling's energy intensity over the course of a year (credit: Etude)

Q11

Do you agree with the minimum fabric standards proposed in table 3.1?

a. **Yes**
b. **No – should be more insulating**
c. **No – should be less insulating**

Table 3.1 – Minimum standards for fabric performance

External walls	**0.26 W/m2.K**
Party walls	**0.20 W/m2.K**
Floor	**0.18 W/m2.K**
Roof	**0.16 W/m2.K**
Windows, roof windows, glazed roof lights, curtain walling, and pedestrian doors	**1.6 W/m2.K**
Roof-lights	**2.2 W/m2.K**
Air permeability	**8m3/m2.K at 50Pa**

If you do not agree with any one or more of the proposed standards, please explain your reasoning and provide evidence to support this.

These options do not go far enough on fabric efficiency. We should not be designing and building homes in 2020 that will need retrofitting with additional insulation in the future. The proposed minimum fabric will require retrofitting before 2050. Under the new regulations new homes could be less insulated in 2020 than under Building Regulations 2013. See answer to Q6.

We believe adopting a fabric first approach will allow a more robust path towards meeting the UK has climate targets. By starting off with a well performing thermal envelope the gap to be made up by the systems will be smaller and less costly.

We propose the following as the minimum standard values:

External walls	0.15 W/m2.K
Party walls	0.0 W/m2.K
Floor	0.10 W/m2.K
Roof	0.10 W/m2.K
Windows, roof windows, glazed roof lights, curtain walling, and pedestrian doors	1.2- 0.8 W/m2.K

Air permeability	<<3m3/m2.h at 50Pa

To protect consumers in new dwellings from inadvertently suffering dangerously poor indoor air quality, MVHR must be mandatory at these levels of airtightness.

Q12

Do you think that the minimum fabric standards should be set in the Building Regulations or in the Approved Document (as is the current case)?

a. In the Building Regulations

b. In the Approved Document

Please explain your reasoning.

The minimum fabric standards should be in the Approved Documents as this is where people are most likely to look to find this information. However, we believe that the requirement not to exceed these standards should be optional, i.e. remain guidance and not be mandatory. The minimum fabric standards are currently too low and would need revising (see Q11).

Q13

In the context of the proposed move to a primary energy metric and improved minimum fabric standards, do you agree with the proposal to remove the fabric energy efficiency target?

a. Yes

b. No

If no, please explain your reasoning.

The Fabric Energy Efficiency Standard (FEES) must not be removed. It must be retained with notional fabric U-values and airtightness further improved. The loss of FEES means that technology can be used under the 2020 proposals to mask a poor building fabric. The u-values set out in the minimum standards for fabric performance are not onerous enough to justify the removal of FEES. As it stands homes can be built with less insulation in 2020 than they needed under Part L 2013. New homes should not add to the retrofit burden due to being built with poor building fabric in 2020. See answers to Q6 and 11.

Q14

Do you agree that the limiting U-value for roof-lights should be based on a roof-light in a horizontal position?

c. Yes

d. No

If no, please explain your reasoning and provide evidence to support this.

Q15

Do you agree that we should adopt the latest version of BR 443?

c. Yes

d. No

If no, please explain your reasoning and provide evidence to support this.

Q16

Do you agree with the proposal of removing the fuel factors to aid the transition from high-carbon fossil fuels?

a. Yes

b. No

If no, please explain your reasoning.

Q17

Do you agree with the proposed changes to minimum building services efficiencies and controls set out in table 3.2?

a. **Yes**
b. **No – proposed standard goes too far**
c. **No – proposed standard does not go far enough**

Table 3.2: Proposed revisions to minimum building services efficiencies and controls for new dwellings

Application	Proposed Part L 2020 standard
Gas boiler efficiency	92% ErP
Heat pump efficiency	SCOP 2.80
Comfort cooling efficiency	SEER 3.87
Lighting	60 lamp lumens per circuit-watt

If you do not agree with any one or more of the proposed changes, please explain your reasoning and provide evidence to support this.

We support the improvement but think that this can go further. Cooling efficiency should be increased to a SEER 4, and Lighting should be increased to 80 lamp lumens per circuit-watt.

Q18

Do you agree with the proposal that heating systems in new dwellings should be designed to operate with a flow temperature of 55°C?

a. Yes

b. No – the temperature should be below 55°C

c. No – dwellings should not be designed to operate with a low flow temperature

d. No – I disagree for another reason

If no, please explain your reasoning and provide evidence.

We agree that heating systems should be designed to operate at low flow temperatures. But we would suggest the temperature should be 45°C as this is suitable for low temperature radiators and would allow an easy conversion to heat pumps in the future, although we would advocate that this is done now.

Q19

How should we encourage new dwellings to be designed to operate with a flow temperature of 55°C?

a. By setting a minimum standard

b. Through the target primary energy and target emission rate (i.e. through the notional building)

c. Other

Please explain your reasoning.

See Q18 answer. Temperature should be set in the Approved Document.

Q20

Do you agree with the proposals to simplify the requirements in the Building Regulations for the consideration of high-efficiency alternative systems?

a. Yes

b. No

If no, please explain your reasoning.

Q21

Do you agree with the proposal to adopt the latest Standard Assessment Procedure, SAP 10?

a. Yes

b. No

If no, please explain your reasoning.

There are fundamental flaws in the SAP methodology which have not been addressed by this consultation. These flaws currently prevent homes genuinely achieving net zero carbon and do not support the shift to operational energy measurement, verification and reduction. This includes:

- *The use of a notional building to determine a percentage reduction in carbon over a semi-fictional baseline building. New buildings should strive to be built to achieve net zero carbon emissions. We should stop talking in terms of percentage reductions over a baseline or notional as these introduce avoidable complexity and do not clearly indicate performance relative to net zero carbon.*
- *The notional building does not encourage efficient building form or poor design. A building with a poor form factor can currently appear to have the same percentage CO_2 reductions as a building with a good form factor. This is because each home is compared to a version of itself (notional) which does not question or reward or penalise the form factor.*
- *The use of a gas boiler as the system in the baseline/notional case - this over inflates the carbon reductions of a heat pump. If the aim is to move away from fossil fuels to a heat pump based system, then the baseline should also use a similar system to avoid the reductions appearing greater than in reality.*
- *SAP does not take into account the efficiency nuances of systems such as mechanical ventilation with heat recovery (MVHR). The further an MVHR is placed from a building façade, the longer the ductwork becomes. This significantly reduces the efficiency of the MVHR. This is not taken into account in SAP.*
- *SAP over rewards large areas of glazing on the south facades. While there is benefit in receiving free heat, this is counterproductive to reducing overheating in homes. The benefit of heat gain directly competes with the need to reduce glazing area to mitigate overheating.*

Although it is understood that SAP (and SBEM) modelling was not developed to predict energy consumption, we are concerned that that the continued use of SAP will prevent us from determining how buildings perform in operation, and this is a significant hurdle to delivering low energy and low carbon buildings.

There should also be an option to use more advanced modelling methodologies such as Dynamic Thermal Simulation (DTS) in domestic buildings. This is particularly relevant for large mixed used schemes where the ability to take the rejected heat from commercial areas, such as offices, and use this in homes can be more accurately modelled. Also using SAP for large blocks of flats, where many hundreds of dwellings may need to be modelled, is unduly time consuming and often there is already a DTS model built for assessing areas such as building loads and overheating. It would therefore be beneficial to the industry to use these tools for the larger and more complicated buildings for which SAP is not suitable.

Q22

Do you agree with the proposal to update the source of fuel prices to BEIS Domestic energy price indices for SAP 10.2?

a. Yes

b. No

If no, please explain your reasoning.

BEIS domestic energy price indices is updated quarterly so it will be useful to understand if SAP will also be updated on this same timeframe?

Q23

Do you agree with the method in Briefing Note – Derivation and use of Primary Energy factors in SAP for calculating primary energy and CO2 emissions factors?

a. Yes

b. No

If no, please explain your reasoning.

The calculation/derivation of the Primary Energy factors is not clear, particularly for electricity (the main fuel source). Clarification on how the various power generation source components have been calculated in order to arrive at the grid electricity Primary Energy factor needs further explanation and a clear calculation methodology setting out within the documentation.

Q24

Do you agree with the removal of government Approved Construction Details from Approved Document L?

a. Yes

b. No

If no, please explain your reasoning.

In general, we support the move towards more accurate thermal bridging calculation and therefore reduced thermal bridging in homes. However, it should be noted that many smaller projects rely on accredited construction details (ACDs) to demonstrate Y-values in SAP. It would require significant upskilling across the industry with competent professionals to calculate the performance of all junctions, which may not be available/cost effective on smaller projects. Our preference is for government to provide a comprehensive library of thermal bridging details for smaller projects to use as a stepping stone to bespoke thermal bridging calculations in 2025.

The risk of offering the only options in SAP as 'bespoke' details or 'default' details is that many smaller buildings will choose to offset the default poor performing thermal bridges by over-enhancing other areas of fabric or systems. This risks fabric that requires retrofitting in the future.

For larger building projects it is expected that housebuilders and architects will build their own library of thermal bridge details which can be used on multiple projects.

We note that the loss of the FEES target also allows the selection of default thermal bridges in 2020, when this would have been prevented under 2013 regulations. This means that the selection of energy efficient systems will mask extensive thermal bridging.

Q25

Do you agree with the proposal to introduce the technology factors for heat networks, as presented in the draft Approved Document?

a. Yes

b. No, they give too much of an advantage to heat networks

c. No, they do not give enough of advantage to heat networks

d. No, I disagree for another reason

Please explain your reasoning.

As noted under Q2 - Heat networks should not be regarded as a preferred option by default. They incur higher capital costs and distribution losses not present in communal or individual heating systems. The

perceived need to provide artificial support through a technology factor is itself evidence that the justification for heat networks may not be appropriate.

The reason given in the consultation for introducing technology factors is to allow heat networks to decarbonise in the future by transitioning from gas CHP to electrical heat pumps. We do not object to the transition of heat network plant to low carbon solutions in the future. If this is the case then mechanisms must be put in place to ensure decarbonisation is achieved as intended and that loop holes are not provided for more fossil fuel plant, such as gas CHPs in the meantime.

Q26

Do you agree with the removal of the supplementary guidance from Approved Document L, as outlined in paragraph 3.59 of the consultation document?

a. Yes

b. No

If no, please explain your reasoning.

The information proposed to be removed is useful guidance on meeting mandatory requirements. Little justification for its removal is given in the consultation documentation. Without guidance on these issues there is a risk that poor choices will be made in the design of new homes. Guidance that is current and relevant should remain and be updated where applicable.

Q27

Do you agree with the external references used in the draft Approved Document L, Appendix C and Appendix D?

a. Yes

b. No

If no, please explain your reasoning and suggest any alternative sources.

Yes, however these would need updating to cover any new methodologies/standards used in the calculations.

Q28

Do you agree with incorporating the Compliance Guides into the Approved Documents?

a. Yes

b. No

If no, please explain your reasoning.

We are concerned that useful guidance will be lost.

Q29

Do you agree that we have adequately covered matters which are currently in the Domestic Building Services Compliance Guide in the new draft Approved Document L for new dwellings?

a. Yes

b. No

If no, please explain which matters are not adequately covered.

We are concerned that useful guidance will be lost.

Q30

Do you agree that we have adequately covered matters which are currently in the Domestic Ventilation Compliance Guide in the new draft Approved Document F for new dwellings?

a. Yes

b. No

If no, please explain which matters are not adequately covered.

We are concerned that useful guidance will be lost.

Q31

Do you agree with the proposals for restructuring the Approved Document guidance?

a. Yes

b. No

If no, please explain your reasoning.

The current Approved Documents are split into four clearly defined documents based on building typology and age. It seems curious that the four documents should be pulled together into one, given that only one of the three is being consulted on currently. Restructuring the documents as proposed seems unnecessary and could lead to confusion over scope. This should be re-consulted on when all documents are available.

Q32

Do you agree with our proposed approach to mandating self-regulating devices in new dwellings?

a. Yes

b. No

If no, please explain your reasoning.

Providing the specific type of self-regulating device is not mandated (such as thermostatic radiator valves (TRVs)) then we support the use of self-regulating devices in general, such as zone control to improve occupant comfort and energy efficiency.

Q33

Are there circumstances in which installing self-regulating devices in new dwellings would not be technically or economically feasible?

a. Yes

b. No

If yes, please explain your reasoning and provide evidence.

To elaborate on Q32 - For well insulated buildings with heat pumps there are certain self-regulating devices such as TRVs which may not be appropriate.

A report by the Energy Saving Trust in 2011 (Report No: 6507 - The effect of Thermostatic Radiator Valves on heat pump performance) suggested that TRV's can lead to short-cycling of heat pumps. This could be avoided by omitting the TRV from radiators in any rooms where the thermostat for a heating zone is located, so the heat pump turns off once the room is up to temperature.

Another potential issue with the use of TRV's would be if the flow temperature is set too high and there is over-reliance on closing TRV's for temperature control. This is counter to ideal operation of heat pumps but could be avoided with good commissioning practices to ensure a low flow temperature with fairly free flowing TRV's under normal operation.

Q34

Do you agree with proposed guidance on providing information about building automation and control systems for new dwellings?

a. Yes

b. No

If no, please explain your reasoning.

Chapter 4 Part F Changes

Q35

Do you agree that the guidance in Appendix B to draft Approved Document F provides an appropriate basis for setting minimum ventilation standards?

a. Yes

b. No

If no, please explain your reasoning.

Omit allowance for infiltration rate of 0.15 for less airtight buildings (under B.7). No benefit should be given for less airtight buildings. The route of infiltration air into the building is unknown and may not be available to all occupied rooms. This would mean a significant reduction in indoor air quality and increased health issues.

Q36

Do you agree that using individual volatile organic compounds, informed by Public Health England guidelines, is an appropriate alternative to using a total volatile organic compound limit?

a. Yes

b. No – the Public Health England guidelines are not sufficient

c. No – individual volatile organic compounds should not be used to determine ventilation rates

d. No – I disagree for another reason

If no, please explain your reasoning, and provide alternative evidence sources if appropriate.

Q37

Do you agree with the proposed guidance on minimising the ingress of external pollutants in the draft Approved Document F?

a. Yes

b. No

If no, please explain your reasoning.

No: Whilst the intent is correct, the guidance says nothing about prevention of cigarette smoke ingress in social or rented housing via the MVHR system: the otherwise exemplary Goldsmith Street development in Norwich, winner of the 2019 RIBA Stirling Prize, suffers from this so some tenants have to breathe in the cigarette smoke of their neighbours, within their own homes. This is not acceptable.

Q38

Do you agree with the proposed guidance on noise in the draft Approved Document F?

a. Yes

b. No – this should not form part of the statutory guidance for ventilation, or the guidance goes too far

c. No – the guidance does not sufficiently address the problem

d. No – I disagree for another reason

If no, please explain your reasoning.

Noise is one of the main reasons that occupants turn off their mechanical ventilation. The guidance is welcome, however, it should give prescriptive sound levels thresholds for individual rooms, or fans and requirements for attenuation.

Under 1.7 the guidance should be reworded to account for external noise generally. Priority should be given to considering external noise for background ventilation, noise could transfer into the home through mechanical ducts too.

There is no mention of 'cross-talk' noise transmission between rooms.

Q39

Do you agree with the proposal to remove guidance for passive stack ventilation systems from the Approved Document?

a. Yes

b. No

If no, please explain your reasoning.

No. Passive stack ventilation may work in some types of buildings - namely flats if the flats each have their own separate flues and it is not applied to the top layer of flats (where the flue may be too short to be effective). However, stack ventilation and MVHR are not likely to be comfortable bedfellows so the guidance should advise against homes having this combination.

Also, if the underlying bedrock is granite, which emits radon gas, passive stack ventilation is a good means to vent off the radon, which can cause lung cancer and can be fatal. If such ventilation is not provided, then the MVHR should be set to 'always on' in these areas.

See also the response to Q40 below.

Q40

Do you agree with the proposal to remove guidance for more airtight naturally ventilated homes?

a. Yes

b. No

If no, please explain your reasoning.

*It is unclear what the boundary is between more airtight and less airtight homes. We suggest homes should have a maximum air permeability of <3m3/m2.h at 50Pa. Any guidance for naturally ventilated homes operating at a higher air permeability in non-radon areas should be removed. With an air permeability of <<3m3/m2.h at 50Pa mechanical ventilation with heat recovery should be required, hence **all guidance** on naturally ventilated homes should be removed.*

Q41

Do you agree with the proposal to remove guidance for less airtight homes with mechanical extract ventilation?

a. Yes

b. No

If no, please explain your reasoning.

Q42

Do you agree with the proposed guidance for background ventilators in naturally ventilated dwellings in the draft Approved Document F?

a. Yes

b. No – the ventilator areas are too large

c. No – the ventilator areas are too small

d. No - I disagree for another reason

If no, please explain your reasoning.

All guidance for natural ventilation should be removed. An air permeability of <<3m3/m2.h at 50Pa should be used for mechanical ventilation with heat recovery.

Q43

Do you agree with the proposed approach in the draft Approved Document for determining minimum whole building ventilation rates in the draft Approved Document F?

a. Yes

b. No – the ventilation rate is too high

c. No – the ventilation rate is too low

d. No - I disagree for another reason

If no, please explain your reasoning.

Q44

Do you agree that background ventilators should be installed for a continuous mechanical extract system, at 5000mm^2 per habitable room?

a. Yes

b. No – the minimum background ventilator area is too low

c. No – the minimum background ventilator area is too high

d. No – other

If no, please explain your reasoning.

The ventilator should be sized based on the ventilation rate required to the room. Guidance should be given in relation to the room type extract rates in table 1.2.

Not all rooms may require a background ventilator. For example, a kitchen dining room could take make up supply air from the bedrooms and this would ensure corridors and intermediate spaces were adequately ventilated.

Q45

Do you agree with the external references used in the draft Approved Document F, in Appendices B, D and E?

a. Yes

b. No

If no, please explain your reasoning and suggest any alternative sources.

Not answered.

Q46

Do you agree with the proposed commissioning sheet proforma given in Appendix C of the draft Approved Document F, volume 1?

a. Yes

b. No

If no, please explain your reasoning.

Additional information is required.

2.3b should include statement about balance between total supply and extract ventilation rates. Are the total mechanical supply and extract ventilation rates measured at the unit within 10% of one another for all fan speeds to ensure balance through the heat exchanger.

2.3b Only mentions insulation in unheated spaces. Insulation is also critical on the ventilation unit and between the ventilation unit and the thermal envelope for units in heated spaces with heat recovery. These ducts are cold and condensation could form on the ducts.

2.3c No mention of noise in individual rooms is mentioned. Noise may be caused by poor ductwork or terminal installation and a comment should be included. "During normal operation is there undue noise from any of the room terminals? Air supply from bedroom and living area supply terminals should be inaudible".

3.3 and 3.4 should include a total air flow rate measured at the intake and exhaust from the building and a column to record comments on noise.

Q47

Do you agree with the proposal to provide a completed checklist and commissioning sheet to the building owner?

a. Yes

b. No

If no, please explain your reasoning.

Also the completed checklist should be provided to tenants. Many times, building owners do not care, or do not take enough care, but it's the tenants who suffer. The builder/developer should be under a legal obligation to meet standards.

Chapter 5 Airtightness

Q48

Do you agree that there should be a limit to the credit given in SAP for energy savings from airtightness for naturally ventilated dwellings?

a. Yes

b. No

If no, please explain your reasoning.

We agree that if natural ventilation is to be included as an option, the credit for airtightness should limited.

However, we believe that all homes should have a maximum air permeability of <3m3/m2.h at 50Pa. Any guidance for naturally ventilated homes operating at a higher air permeability should be removed. With an air permeability of <3m^3/m^2.h at 50Pa mechanical ventilation with heat recovery should be required.

Q49

Do you agree that the limit should be set at 3m3/m2.h?

a. Yes

b. No – it is too low

c. No – it is too high

If no, please explain your reasoning and provide evidence.

As per Q 48. We agree that if natural ventilation is to be included as an option, the credit for airtightness should limited, this could be limited to <3m3/m2.h.

However, we feel that airtightness in general should be limited to <3m3/m2.h, therefore natural ventilation is no longer applicable.

Q50

Is having a standard level of uncertainty of 0.5 m3/m2.h appropriate for all dwellings undergoing an airtightness test?

a. Yes

b. No – a percentage uncertainty would be more appropriate

c. No – I agree with having a standard level of uncertainty, but 0.5 m3/m2.h is not an appropriate figure.

d. No – I disagree for another reason

If no, please explain your reasoning.

A percentage reduction would be more appropriate. This would require proportional precision requirements based on the target airtightness (i.e. very airtight dwellings would require higher accuracy).

When dealing with very low air permeability specification the use 0.5 m^3/m^2.h would be too punitive – it would be more than double the test reading. Smaller and correctly sized accurate blower door fans should be used, for example duct testing equipment.

Q51

Currently only a proportion of new dwellings are required to be airtightness tested. Do you agree with the proposal that all new dwellings should be airtightness tested?

a. Yes

b. No

If no, please explain your reasoning and provide evidence to support this.

Q52

Currently, small developments are excluded from the requirement to undergo any airtightness tests. Do you agree with including small developments in this requirement?

a. Yes

b. No

If no, please explain your reasoning and provide evidence to support this.

Q53

Do you agree that the Pulse test should be introduced into statutory guidance as an alternative airtightness testing method alongside the blower door test?

a. Yes

b. No

If no, please explain your reasoning.

It should be an option, but the blower door test should be kept as the main technology. It allows diagnosis and improvement during construction works.

Q54

Do you think that the proposed design airtightness range of between 1.5 m3/m2.h and the maximum allowable airtightness value in Approved Document L Volume 1 is appropriate for the introduction of the Pulse test?

a. Yes

b. No

If no, please explain your reasoning and provide evidence to support this

Any new technology should be able to test down to 0.1m3/m2/h at 50Pa, new buildings are already achieving this level of airtightness.

Q55

Do you agree that we should adopt an independent approved airtightness testing methodology?

a. Yes

b. No

Please explain your reasoning.

There should be an independent approved airtightness testing methodology.

This should incorporate both the new Pulse method and established Q50 methodology in one standard.

Further it should lean heavily on previous Air Tightness Measurement Association (ATTMA) technical standards, now Building Compliance Testers Association (BCTA).

Q56

Do you agree with the content of the CIBSE draft methodology which will be available via the link in the consultation document? Please make any comments here.

Yes.

Chapter 6 Compliance, Performance and Providing Information

Q57

Do you agree with the introduction of guidance for Build Quality in the Approved Document becoming part of the reasonable provision for compliance with the minimum standards of Part L?

a. Yes

b. No

Please explain your reasoning and provide evidence to support this.

Q58

Do you have any comments on the Build Quality guidance in Annex C?

No

Q59

Do you agree with the introduction of the standardised compliance report, the Building Regulations England Part L (BREL) report, as presented in Annex D?

a. Yes

b. No there is no need for a standardised compliance report

c. No – I agree there should be a standardised compliance report but do not agree with the draft in Annex D

If no, please explain your reasoning

Q60

Do you agree with the introduction of photographic evidence as a requirement for producing the as-built energy assessment for new dwellings?

a. Yes

b. No

If no, please explain your reasoning

Q61

Do you agree with the proposal to require the signed standardised compliance report (BREL) and the supporting photographic evidence to be provided to Building Control?

a. Yes

b. No

If no, please explain your reasoning

Q62

Do you agree with the proposal to provide homeowner with the signed standardised compliance report (BREL) and photographic evidence?

a. Yes

b. No

Please explain your reasoning.

Q63

Do you agree with the proposal to specify the version of Part L that the home is built to on the EPC?

a. Yes

b. No

Please explain your reasoning.

Q64

Do you agree Approved Document L should provide a set format for a home user guide in order to inform homeowners how to efficiently operate their dwelling?

a. Yes

b. No

If yes, please provide your views on what should be included in the guide.

If no, please explain your reasoning

The guide should include simple instructions that an ordinary tenant or homeowner can understand, on a 1 or 2-sided laminated sheet, on how to switch on the boost / pass-through ventilation (avoiding heat recovery) so as to achieve an evening / night-time purge of hot air from the home. This is critical. A survey has shown that 50% of tenants (who responded to the survey) in the Norwich Goldsmith Street passivhaus development do not know how to cool their home in hot summer weather.

Chapter 7 Transitional Arrangements

Q65

Do you agree that the transitional arrangements for the energy efficiency changes in 2020 should not apply to individual buildings where work has not started within a reasonable period – resulting in those buildings having to be built to the new energy efficiency standard?

a. Yes – where building work has commenced on an individual building within a reasonable period, the transitional arrangements should apply to that building, but not to the buildings on which building work has not commenced

b. No – the transitional arrangements should continue to apply to all building work on a development, irrespective of whether or not building work has commenced on individual buildings

If yes, please suggest a suitable length of time for the reasonable period in which building work should have started

If no, please explain your reasoning and provide evidence to support this.

Six months would allow plenty of time to complete a phase on a large site. It should be noted that this clause is only useful where Building Regulations is updated regularly.

Q66

Do you foresee any issues that may arise from the proposed 2020 transitional arrangements outlined in this consultation?

a. Yes

b. No

Please explain your reasoning and provide evidence to support this.

Q67

What is your view on the possible transitional arrangements regarding changes to be made in 2025?

Consultation should begin as early as possible on proposed 2025 regulations to allow for a smoother transition. This would allow sites to be built to new standards sooner as per the transitional arrangements.

Bring in the "2025" regulations now as an option. Consultation should begin as early as possible on any modifications to the "2025" regulations to allow for a smoother transition. This would allow sites to be built to new standards sooner as per the transitional arrangements.

Chapter 8 Feedback on the Impact Assessment

Q68

The Impact Assessment makes a number of assumptions on fabric/services/ renewables costs, new build rates, phase-in rates, learning rates, etc for new homes. Do you think these assumptions are fair and reasonable?

a. Yes

b. No

Please explain your reasoning and provide evidence to support this.

Q69

Overall, do you think the impact assessment is a fair and reasonable assessment of the potential costs and benefits of the proposed options for new homes?

a. Yes

b. No

If no, please explain your reasoning and provide evidence to support this.