

ACAN NI - Building Regulations Part F Consultation

December 2021

ACAN Northern Ireland Statement

ACAN NI is publicly sharing our responses to this consultation as a group of independent architects and associated construction professionals for the purpose of addressing the climate emergency and fuel poverty. You are welcome to use our responses as the basis for your own, but it may be worth altering the wording slightly to your own. You can view the full consultation and respond online at the link below

<https://www.finance-ni.gov.uk/consultations/consultation-proposals-amendment-technical-booklet-guidance-part-f-conservation-fuel-and-power>

Question 1: Do you agree that it is sensible to prioritise the proposed amendments to Technical Booklets F1 and F2 guidance in advance of awaiting outcomes around the development of new UK NCMs, software and proposed building regulations uplifts?

Yes

No

If no, please explain your reasoning.

Yes we agree that it is sensible to prioritise the proposed amendments to Technical Booklets F1 and F2 guidance in advance of awaiting outcomes around the development of new UK NCMs, software and proposed building regulations uplifts.

However, the consultation on new regulations and NCMs in England has completed the public consultation process and is scheduled to be published in early 2022, there is seemingly no reason that the same regulations could not be adopted in Northern Ireland. Ultimately there is no reason for a building in Belfast or Derry to perform or be built to any lesser standard than one in Manchester or London. Greater collaboration with England rather than just following after the fact would allow a more timely and meaningful uplift.

Question 2: Do you agree that additional manual checks of current software reports will be manageable in practice to demonstrate compliance in relation to the new requirements for: a) the betterment of the TER; b) an air-tightness performance no greater than 10 m³/(h.m²) at 50Pa; and c) new U-value limits for building fabric (see paragraph. 5.59 on this below)?

Yes

No

If no, please explain your reasoning and provide supporting evidence or alternative solutions on what alternative assessments should be introduced.

No, the introduction of manual checks highlight the flawed nature of this uplift, the use of percentage increases over regulations that are unchanged in detail since 2012 are based on out of date performance criteria. The NCM/SAP used actually predate 2012 (the 2014 regulation update was to include the nzeb legislation but otherwise remained unchanged). A more meaningful update would be to follow England's use of much more current NCM/SAP definitions from the upcoming Part L uplift in England. The use of manual checks adds complexity and confusion to the process and ultimately uncertainty without leading to the levels of thermal performance standards necessary

Question 3: Do you agree that the new guidance should apply from three months of publication of the guidance and from as early in 2022 as practicable?

Yes

No

If no, please explain your reasoning and provide evidence for an alternative timescale.

No, the guidance should be applicable as soon as reasonably practicable, whilst an overnight change may in reality be problematic, especially for larger projects, 3 months seems excessive and could be shortened to 1 month for new submissions to building control having not been issued with a reference number.

Question 4: Do you agree that Option 1 should be dismissed?

Yes

No

If not, please provide the evidence and basis for why the current standards are appropriate and should be retained.

Yes

Question 5: Do you agree that the above proposals provide an appropriate interim step, which can be implemented quickly?

Yes

No

If no, should they be more onerous or less onerous? Please explain your reasoning and provide supporting evidence for alternative suggestions, taking into account that further review is planned for 2022/23.

No, the proposals should be more onerous. Whilst the proposals provide a very small interim step we should not be dealing in interim changes and small steps. NZEB has been a legal requirement since 2020 with a significant lead in period yet it has taken almost 10 years for this update to come about.

We cannot afford to wait another 5-10yrs in a climate emergency for more appropriate improvements in energy efficiency requirements, which could be the case if the political landscape shifts.

These proposals should be more onerous and more complete, the proposals are based on extremely outdated data and modelling at their core. A more fundamental change and upgrade to the regulations is therefore required rather than just tinkering around the edges.

At the current and proposed rates of uplift it seems impossible for Northern Ireland to decarbonise at a rate necessary to meet the targets of the Paris Climate Agreement or the severity of the climate emergency.

Question 6: Do you prefer Option 3 (40% betterment of the TER for houses, 25% for flats and 15% for new non-domestic buildings), or are the standards outlined in Option 2 (25% betterment of the TER for all dwellings and 15% for buildings other than dwellings) preferred?

Preference is for Option 1 (do nothing)

Preference is for Option 2

Preference is for Option 3

None of the above

If answering 'None of the above', please take into account and advise if proposals described here should be delayed or halted, in order to progress in line with your suggestions.

None of these options go far enough. This is particularly acute in relation to the highest uplift for flats being 25% when this segment of the housing stock tends to be used by the less affluent and those who suffer further from fuel poverty.

The 15% uplift on non-domestic buildings is inadequate and allows owners of commercial buildings to escape creating any meaningful change and to bake in more under performing building stock into an already very poor stock.

The use of percentage increases itself is flawed and a comprehensive and clear reworking of the regulations based on current data and calculation methodologies would be more appropriate. Current proposals in England,

which have completed consultation are using SAP10 (2021) and SBEM 6 (2021) whilst these proposals

themselves may not be ideal they would provide a much clearer and meaningful uplift than the proposals in this consultation for Northern Ireland. Percentage increases from a poor starting point will undoubtedly leave loopholes and buildings which require further upgrades in the future.

Question 7: Do you agree that the definition of 'flat' in regulation 2 provides a sufficiently clear discrimination of the building types to enable the different betterment rates to be applied to houses (40%) and flats (25%)?

Yes

No

If no, please explain your reasoning.

No, there should be no definition between two types of homes. This move will further widen the fuel poverty gap between those who are more economically disadvantaged, and between those who own their own home and those who live in the rental sector.

Furthermore this definition is poor and could lead to buildings of mixed tenure, typology and unit types being manipulated to allow all units to be constructed at the lower threshold.

Question 8: Do you agree that the proposed DER requirement for a 25% betterment of the TER should be applied to flats?

Yes

No

If no, should they be more onerous or less onerous? Please explain your reasoning and provide supporting evidence for alternative suggestions, taking into account that further review is planned for 2022/23 and that other building regulation proposals are likely to impact some flats.

No, as a minimum the percentage increase used should be the same as that used for other dwelling houses, however the percentage increases for dwelling houses do not go far enough.

This should be more onerous. The DER requirements should be the same for all buildings, particularly those that are to be intended as places people will live. This move will further widen the fuel poverty gap between those who are more economically disadvantaged, and between those who own their own home and those who live in the rental sector.

Question 9: Do you agree with the heat pump costing assumptions (see Annex A in the Regulatory Impact Assessment (RIA)), the 10% incident rate estimate for flats and the proposed level of uptake for heat pumps in houses, used in our modelling (see Annex C in RIA), appropriate? Yes

No

If no, please provide the basis for an alternative rationale, which should apply.

No answer given

Question 10: Do you agree that the Department should make any necessary adjustment to attend to replicating the treatment of heat pumps proposed under Part L revisions in England for non-domestic buildings?

Yes

No

If no, how should the Department avoid overshooting England's requirements in this regard?

No, if regulation is to be driven by what is happening in England then the regulations should be much more aligned and be based on the same principles. The need for adjustment can be removed by following the new

regulations in England and using the new NCM's now rather than waiting at least, political will permitting, another 1-2 years to copy something which will be close to being updated in England again at that time. In deviating from English regulation the department risks unintended consequences of an untested interim measure.

Question 11: Do you have any data or modelling that would be useful in helping to assess the likely cost impacts on specific building types under the proposals?

Yes

No

If yes, please provide a summary of the information and if/how the Department may contact you to engage further.

LETI's Climate Emergency Design Guide is a useful reference for thermal performance in buildings. This can be accessed on their website at <https://www.leti.london/cedg>, they can be emailed on admin@leti.london.

Question 12: Do you support the overall proposals for buildings other than dwellings, including proposed BER requirement for a 15% betterment of the TER for new non-domestic NZEB buildings?

Yes

No

If no, should the proposals be more onerous or less onerous? Please explain your reasoning and provide supporting evidence for alternative suggestions, taking into account that further review is planned for 2022/23.

No, the proposals should be more onerous. The use of percentage increases itself is flawed and a comprehensive and clear reworking of the regulations based on current data and calculation methodologies would be more appropriate. Current proposals in England, which have completed consultation are using and SBEM 6 (2021) compared with 2010 in Northern Ireland whilst these proposals themselves may not be ideal they would provide a much clearer and meaningful uplift than these current proposals. Percentage increases from a poor starting point will undoubtedly leave loopholes and buildings which require further upgrades in the future.

Question 13: Do you agree that adopting the 2013 edition of the Non-Domestic Building Services Compliance Guide is worthwhile and would be at negligible cost to current practice? Yes

No

If no, please provide evidence to explain where this would be difficult or how cost assumptions should be revised. *No answer given*

Question 14: Do you agree that the guidance revising the limiting U-values is worthwhile and workable for industry and enforcement?

Yes

No

If no, please explain your reasoning.

Yes - however this does not go far enough, there is no update to limiting factors for existing buildings - including extensions - which can therefore continue to be constructed to poor thermal standards. Furthermore there is no requirement to upgrade any existing fabric when extending an existing dwelling. The U-Values stated could also go further and be more onerous as seen in other industry guidance, such as those produced by LETI.

Table 3.2 should be revised to align with new U-Values provided for in Table 2.2 as no practical reasons exist

to allow built elements of extensions to be to a lesser standard than that of new build dwellings. Consideration should be given to the implementation of statutory uplifts in the thermal efficiency of overall performance of a building when 'major renovations' are undertaken to extend or refurbish a building. This can be achieved in a similar way to that which is used in the Republic of Ireland NZEB regulations which provide minimum standards for new building elements, but that these are supplemented by the entire building having to be raised to achieve an energy rating of at least B. This would contribute significantly to raising the quality and energy efficiency of older building stock in the natural cycle of refurbishments.

Question 15: Do you agree that the revisions to guidance on thermal bridging are a helpful clarification of current processes?

Yes

No

If no, please explain your reasoning.

No answer given

Question 16: Do you agree with the removal of the default values for air-permeability of 15 m³/(h.m²) currently permitted?

Yes

No

If no, please explain your reasoning.

Yes, although the required levels should be significantly more onerous than proposed.

Question 17: Do you agree that the overall proposed changes on fabric standards are helpful to support a 'fabric-first' approach?

Yes

No

If no, please explain your reasoning and what should be done, taking into account that any significant review may delay implementation.

A fabric first approach is supported. The setting of Minimum U-value requirements should encourage a fabric first approach, however the proposed U-values do not go far enough and should be more onerous. We do not support the proposals in their current form, but would support significantly more onerous uplift in thermal performance standards if accompanied by supporting ventilation regulation uplift in NI Part K. Industry guidance such as the LETI Climate Emergency Design guide suggests U-Values of 0.13-0.15W/m²K for walls in dwelling houses and 0.10-0.12W/m²K for roofs, this is the level of performance we would support.

Question 18: Do you agree that the guidance on non-export connections is helpful?

Yes

No

If no, please explain your reasoning.

No answer given

Question 19: Do you have any comment on our impact assessment and its key assumptions?

Yes

No

If yes, please explain your reasoning and suggest alternative calculations.

No answer given

Question 20: Have you any suggestions or observations that you have that do not fit into the preceding questions?

Yes

No

If yes, please provide them with this response.

As per our response to question 14 there is a need to address shortfalls in dealing with extensions and renovations to existing buildings. In the absence of a robust national retrofit strategy, the building regulations should at least require high performance retrofit where refurbishment is taking place, which these proposals do not.

The current proposals are significantly problematic in creating a two-tier system with particular reference to fuel poverty and create a widening gap between the operational cost of buildings between those in lower socioeconomic and younger groups which are more likely to occupy apartments and flats as part of the rental market.

The apparent two tier system also reduces the onus on developers and owners of 'buy to let' properties for the energy usage of their properties while passing these costs onto the occupants who have little to no ability to improve the energy efficiency of their home.

The proposals are limited to Technical Guidance Document F, however elements which have an impact on the energy efficiency of buildings also fall into other Technical Guidance Documents, such as Booklet K - Ventilation, these areas also need to be addressed if meaningful progress is to be made on the operational efficiency of buildings.

The proposals fail to tackle carbon emissions from embodied sources in the initial construction of buildings, this can contribute as much as 70% of the buildings lifetime emissions, with this percentage being greater in buildings with high operational efficiency. Embodied carbon accounts for around 11% of UK emissions and should be a requirement within the building regulations either within Part F or as a new Part Z as per the proposed legislation drafted here: <https://part-z.uk/>