



Elmhurst Energy's response to:

Building Regulations Part L and F
Review: Stage 2B

Prepared for: Welsh Government



Date: 14/01/2022

Introduction

Elmhurst Energy are pleased that Welsh Government are seeking consultation on 'Building Regulations Part L and F Review: Stage 2B' and as such we are delighted to respond to each question in turn.

The consultation asked 78 questions and we have answered them all below. We hope you find the responses considered and useful for taking energy efficiency in building regulations forward in a progressive manner.

Questions and Answers

1. Our aim is that buildings constructed to the Part L 2025 Standard will be capable of becoming carbon neutral over time as the electricity grid and heat networks decarbonise. Do you agree that the outline of the 2025 Standard in this chapter meets this aim?

Yes – a conscious effort to implement low-carbon technologies/ fuels will help new non-domestic buildings meet the government's targets and this can be achieved through the proposed Future Buildings Standard

2. We believe that developers will typically deploy heat pumps and heat networks to deliver the low carbon heating requirement of the Part L 2025 Standard where practical. What are your views on this and in what circumstances should other low carbon technologies, such as direct electric heating or hydrogen, be used?

Heat pumps are proven to increase energy efficiency and lower consumption, therefore their deployment will play a crucial role in achieving the Future Buildings Standard. However the overall building should remain the sole focus for achieving compliance.

Previous experiences with heat networks have been mixed and some have become ineffective and unreliable. Development of modern networks, powered by green energy, should be explored. Certainly regulation should not stifle innovation. It is essential that 'proven' innovation is recognised within the SBEM methodology by keeping the NCM as close to the truth as possible and up-to-date.

3. Do you agree that some non-domestic building types are more suitable for low carbon heating and hot water, and that some non-domestic building types are more challenging?

Elmhurst would largely agree that low carbon technologies favour a particular stock of existing buildings, and a larger proportion of new builds. Offices and retail units can benefit from low carbon technologies like, heat pumps and heat networks, however buildings that are mainly used for industrial and storage purposes do not require a large heating demand (in most scenarios) due to the activities and size of the structures.

We would hope to see the improvement of technology over time to incorporate all buildings and lower their energy demand. However, if the technology does not become available, there could be unintended consequences that leads to non-compliance.

4. Do you agree with the allocation of building types to space and water heating demand types, as presented in Table 2.1 of this consultation document?

Elmhurst would agree – We suggest that the NCM building types are used for categorising buildings where possible to ensure better understanding and a consistent approach.

5. Do you think the Part L 2025 Standard should introduce low carbon space heating for buildings with Type 1 or Type 2 demand (buildings that have space heating demand more suitable for heat pumps)? a) Yes in 2025 – our proposed date b) No – Another date (please specify) Please explain your reasoning.

A – 2025. Based on the interim uplift timescales and the implementation in late 2022, we believe that your proposed date of 2025 should allow developers to phase out the use of fossil fuels as a primary energy source through applying the NCM to model non-domestic buildings.

We appreciate the dedication to improve heating and water efficiencies through low carbon technology. However to improve the energy efficiency of a building we must assess the overall building. The NCM represents this and should be utilised to assess the overall building and the advantages of low-carbon technologies within that, like the use of heat pumps.

6. Do you think the Part L 2025 Standard should introduce low carbon space heating for buildings with Type 3 demand (buildings that have space heating demand less suitable for heat pumps)? a) Yes in 2025 b) No - Another date (please specify) Please explain your reasoning

A 2025 – Elmhurst would agree that the proposed changes should be implemented to cover all building types and their energy demand for the same date in 2025. The interim uplift should allow developers to phase out fossil fuels in all commercial building types.

7. Do you think the Part L 2025 Standard should introduce low carbon water heating for buildings with Type 1 or Type 3 demand (buildings that have water heating demand more suitable for point-of-use heaters or heat pumps)? a) Yes in 2025 – our proposed date b) No - Another date (please specify) Please explain your reasoning.

A 2025 – Elmhurst would agree that the proposed changes should be implemented to cover all building types and their energy demand for the same date in 2025. The interim uplift should allow developers to phase out fossil fuels in all commercial building types.

8. Do you think the Part L 2025 Standard should introduce low carbon water heating for buildings with Type 2 demand (buildings that have water heating demand less suitable for point-of-use heaters or heat pumps)? a) Yes in 2025 b) No - Another date (please specify)

A 2025 – Elmhurst would agree that the proposed changes should be implemented to cover all building types and their energy demand for the same date in 2025. The interim uplift should allow developers to phase out fossil fuels in all commercial building types.

9. We would welcome any further suggestions, beyond those provided in this consultation, for improving the modelling process; Part L and Part F compliance; and the actual energy performance of non-domestic buildings. Please provide related evidence.

1. Ensure a regular review of the energy and carbon factors to ensure the methodology is current and relevant.
2. To move away from iSBEM as an interface with a view to invest funds spent on iSBEM to develop the SBEM methodology.
3. Keep the methodology up-to-date and as close to the truth as possible, ensuring that new technology and its implications are accounted for.
4. Accredited lodged reports to ensure a standardised process is carried out by competent individuals

5. To use Part L and Part F in conjunction with one another in any transition period.
6. Implement the functionality to add the proposed Building Automation Control Systems (BACS) as a credit towards SBEM assessments.
7. Implementation of use of battery storage for renewable energy generation systems to further future proof our non-domestic building stock.
8. Allow for the input of PV inverter technology in SBEM assessments.
9. Review of the way SBEM treats PV and whether the building is connected to the grid. Being able to incentivise developers that are building buildings that are feeding unused generated energy back to the grid.
10. Implement the proposed shower options of low, medium and high usage in all building types with shower activities not just the D2 building type.

10. What level of uplift to the energy efficiency standards for non-domestic buildings in the Building Regulations should be introduced in 2022? a) Option 1 – average 18% CO2 reduction b) Option 2 – average 28% CO2 reduction (this is the Government's preferred option) c) No change d) Other level of uplift (please specify)

Option 2 – Elmhurst believes this option provides a fabric first approach, which we think is the most important and necessary step to reduce heat losses before looking at more efficient water and space heating. If the fabric is not improved first then there could still be large heat losses that counteracts the positive effect of energy efficient services. We should follow the whole building approach and utilise the NCM in providing a full energy assessment of a building. Furthermore, the use of true energy as the principal metric should be used this gives a more relevant assessment of energy performance, demand and efficiency.

11. Do you agree with the way that we are proposing to apply primary energy as the principal performance metric? a) Yes b) No

No – Elmhurst firmly agree that measuring energy performance and demand should be a principal metric, however we would recommend that this be a true energy demand for the building rather than the use of primary energy factors as proposed. This make use of the outputs already being calculated within SBEM and encompasses the National Calculation Methodology. Using the energy demand metric allows for a focus on the building only and ensures a fabric first policy of reducing demand.

12. Do you agree with using CO2 as the secondary performance metric? a) Yes b) No

Yes – CO2 should stay as a performance metric as it necessary to work out a buildings carbon emissions in order to view an overall performance of a building, rather than just looking at their energy demand.

As new buildings adopt electricity as a fuel type, they would rely less on CO2 as a metric due to their source being a zero carbon fuel (eventually). This means buildings that do not use electricity as their primary fuel source will still be able to analyse their overall carbon consumption.

13. Do you agree with the approach to calculating CO2 and primary energy factors, referred to in paragraph 3.5.7 of this consultation document? a) Yes b) No

The SBEM methodology should always be focussed on the truth and Elmhurst does not support the corruption of the methodology and use of a fixed factor to reach the desired outcome. We believe the factors should be reviewed every two – three years to keep the methodology up-to-date and as close to the truth as possible.

14. Do you agree with the proposals for natural gas being assigned as the heating fuel for any fuels with a worse CO2 emission factor than natural gas? a) Yes b) No

Yes - this adopts a pragmatic approach which accounts for non-domestic buildings that may not be able to allocate an electric only fuel source. Buildings that already use high-carbon fuel types should be compared to the most efficient high-carbon fuel type in achieving building compliance. This method is more inclusive as it doesn't push the bar higher than necessary for buildings that can't achieve the best case scenario of using electricity. It poses a balanced assessment and more representative energy performance rating.

15. Do you agree with our proposal of using a natural gas heating system in the notional building when electricity is specified as a heating fuel? a) Yes b) No

Yes, no strong opinion

16. Do you agree with the proposal for the treatment of domestic hot water in the notional building? a) Yes b) No

Yes - some buildings have a large hot water demand, which current technology cannot achieve through low-carbon technologies. These buildings must be referenced to a building that also has high hot water demand. However this could lead to unintended consequences

Other buildings with low hot water demand should be persuaded to use point of use HWS, as they have a lower primary energy demand and CO2 impact than systems with storage. Using this in the notional building for certain types of properties will help designers to allocate their resources towards lower carbon and low energy use.

17. Do you agree with the proposals for the details of the district heating system for the notional building described when connecting to an existing heat network, as presented in the draft NCM modelling guide? a) Yes b) No, they give too much of an advantage to heat networks c) No, they do not give enough of an advantage to heat networks d) No, I disagree for another reason.

A – Yes, no strong opinion, as long as the proposals are proven and rely on the NCM.

18. Do you agree with the proposal for connecting to a new heat network, as presented above? a) Yes b) No, they give too much of an advantage to heat networks c) No, they do not give enough of an advantage to heat networks d) No, I disagree for another reason

A – Yes, no strong opinion, as long as the proposals are proven and rely on the NCM.

19. Do you agree with the proposed changes to the National Calculation Methodology Modelling Guide and activity database? a) Yes b) Yes, but additional changes should be made c) No

1. Implementing the proposed shower options of low, medium and high usage in all building types with shower activities not just the D2 building type. Implement the functionality to add the proposed Building Automation Control Systems (BACS) as a credit towards SBEM assessments.
2. Implementation of use of battery storage for renewable energy generation systems to further future proof our non-domestic building stock.
3. Allow for the use of PV inverter technology in SBEM assessments.
4. Review of the way SBEM treats PV and whether the building is connected to the grid. Being able to incentivise developers that are building buildings that are feeding unused generated energy back to the grid.
5. The BRUKL document can be improved by utilising more data:
 - a. Adding details relating to lighting controls per zone on the output document. This would allow checking on site with cross referencing to the details stated on the BRUKL.
 - b. Adding functionality to add HVAC controls per zone with details relating to HVAC controls per zone on the BRUKL report for better ease of HVAC control checking.

20. We would welcome any further suggestions for revising the outputs from SBEM, which would enable easier checking by building control on building completion. Please provide related evidence.

Elmhurst would advise a standardised methodology, which ensures all building regulation Part L2 checks (BRUKL reports) are completed by accredited, qualified and competent non-domestic energy assessors. Currently, anyone can download iSBEM and issue a BRUKL report for a new build compliance check with no prior training, knowledge or competency. Elmhurst find this a major problem that needs to be resolved to reduce the performance gap. This could be implemented in the form of mandating an accreditation number on the BRUKL report which can be used to cross check against registered assessors on the Government's central register. This can be taken further by implementing mandatory lodgements of BRUKL reports. This would allow the accreditation schemes to audit and standardise the process of achieving building regulation compliance. Additionally, the output showing compliance and the EPC would be available on a public register and would further increase the transparency of the documents for all stakeholders involved. Building owners, tenants and developers would be able to quickly access the reports.

To enable further checking, the BRUKL document can be improved by utilising more data:

1. Adding details relating to lighting controls per zone on the output document. This would allow checking on site with cross referencing to the details stated on the BRUKL.
2. Adding functionality to add HVAC controls per zone with details relating to HVAC controls per zone on the BRUKL report for better ease of HVAC control checking.

21. Do you agree with the proposals for limiting heat gains in non-domestic buildings? a) Yes b) No, they go too far c) No, they do not go far enough d) No, I disagree for another reason

A – We agree with the proposals and believe it is achievable. However we should also encourage the use of shading devices that can minimise heat gains. This gives designers more variation in trying to minimise heat gains, which is crucial for the diverse nature of non-domestic buildings.

22. Do you agree with the proposed minimum standards for fabric performance in new non-domestic buildings as presented in Table 3.5 of this consultation document? a) Yes b) No, the standards go too far c) No, the standards do not go far enough d) No, I disagree for another reason

A – Yes, this is achievable, no strong opinion.

23. Do you agree with the proposed improvement in the minimum standards for new or replacement windows in existing non-domestic buildings which are domestic in character? a) Yes b) No

A – Yes we agree that the standards are achievable, although building owners will most likely be faced with higher costs of materials that are generally the benefit of the next occupier.

24. Do you agree with the further guidance on reducing moisture risks when upgrading retained thermal elements? a) Yes b) No

Agree - no strong opinion

25. Do you agree with the draft guidance in paragraph 4.15 of the draft Approved Document L, volume 2: buildings other than dwellings on reducing unwanted air infiltration when carrying out work to existing non-domestic buildings?

Agree – no strong opinion.

26. Do you agree that the limiting U-value for rooflights in new and existing non-domestic buildings should be based on a rooflight in a horizontal position, as detailed in paragraph 4.4 of draft Approved Document L, volume 2: buildings other than dwellings?

Agree – more representative of the nature in which roof lights are present in.

27. Do you agree that we should adopt the latest version of BR 443 for calculating U-values in new and existing non-domestic buildings, as detailed in paragraph 4.1 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No

A - Elmhurst agree that the latest version of BR 443 be adopted. Elmhurst also propose that this essential document is subject to regular review, involving all stakeholders overseen by effective governance. This will better ensure that the standards are kept up to date with the latest innovations moving forward.

28. Do you agree with the newly proposed minimum efficiencies for natural gas, oil and LPG boiler and domestic hot water system installations in new non-domestic buildings in Section 6 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

A – Yes, no strong opinion as the standards represent the current best performance available.

29. Do you agree with the proposed set of standards for air distribution systems for new non-domestic buildings in Section 6 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

A – Yes, no strong opinions.

30. Do you agree with the minimum efficacy proposals for lighting in new non-domestic buildings in Section 6 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

A – Elmhurst believes this is definitely achievable and agree with the minimum standard for general lighting at 95 l/c/w. Most LED's now achieve 75 l/c/w or better, 95 l/c/w would ensure that more efficient lighting would be used.

31. Do you agree with the proposals for cooling in new non-domestic buildings in Section 6 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

A – Yes, no strong opinion.

32. Do you agree with the proposals for improving the commissioning guidance for new non-domestic buildings in Section 8 and 9 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the standards go too far c) No, the standards do not go far enough d) No, I disagree for another reason

A – Elmhurst would agree with this proposal. Commissioning increases the validity of the system installed, which leads to increased transparency across all levels. Increased transparency allows for a smoother assessment and transaction, increasing the chances of good building control and management.

33. Do you agree with the guidance proposals for adequate sizing and controls of building services systems in new non-domestic buildings, as detailed in Sections 5 and 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, I do not agree

Yes – No strong opinion, however all documents and specifications that are mentioned should be made more publically available.

34. Do you agree with the proposal that wet space heating systems in new buildings should be designed to operate with a flow temperature of 55°C or lower? a) Yes, through a minimum standard set in paragraph 5.9 of the *Approved Document L, volume 2: buildings other than dwellings* b) Yes, through carbon and primary energy credit in SBEM c) Yes, by another means d) No, the temperature should be below 55°C e) No, this standard should not be applied to all new buildings f) No, I disagree for another reason

A –Yes, by enforcing the minimum standard it would ensure that buildings are fit for the future, where as if this was not the standard, it would make it harder for those buildings to the adopt heat pumps after already installing the specified system in the future.

35. Do you agree with the proposals to clarify, rationalise and simplify the guidance for building services in new non-domestic buildings, and to incorporate the standards of the Non-Domestic Building Services guidance into the main body of the *Approved Document L, volume 2: buildings other than dwellings*? A) Yes B) No

A- Yes, Elmhurst would agree that a simplified guide will increase standardisation and transparency

36. Do you agree with the proposals to simplify the requirements in the Building Regulations for the consideration of high-efficiency alternative systems in new non-domestic buildings? A) Yes b) No

A-Yes, Elmhurst would agree with this proposal, as long as option 2 is adopted. High-efficiency alternative systems would be covered by the implementation of low-carbon technologies and renewables in to the notional building, such as PV. Assessor's now have to consider these during the assessment, rather than after, therefore a simplification is necessary.

37. Do you agree with the efficiency proposals for replacement fixed building services in existing non-domestic buildings as detailed in paragraphs 5.4 to 5.7 of draft *Approved Document L, volume 2: buildings other than dwellings*? A) Yes b) No

Yes, Elmhurst would agree, as this is most likely achievable.

38. Do you agree with the newly proposed minimum efficiencies for natural gas, oil and LPG boiler and domestic hot water system installations in existing non-domestic buildings in Section 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

Yes, we always agree to higher minimum efficiencies as long as the technology exists and is readily available and practical to install.

39. Should minimum boiler efficiency standards in existing non-domestic buildings still benefit from relaxations through the use of heating efficiency credits? a) Yes, boiler installations should continue to benefit from heating efficiency credits b) No, boiler installations should no longer benefit from heating efficiency credits (the Government's proposal)

Yes – By improving the control systems it leads to better efficiencies in boilers. We also believe that it should be added as part of the software calculation methodology.

40. Do you agree with the proposed set of standards for air distribution systems for existing non-domestic buildings in Section 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

Yes as long as the technology exists and the impact of energy efficiency of the building is also considered. It is important to ensure that industry uses a transparent standardised Specific Fan Power calculation method.

41. Do you agree with the minimum efficacy proposals for lighting in existing non-domestic buildings in Section 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

C – raising lighting from 60 to 95 luminaire lumens per circuit watt and display lighting from 22 to 80 luminaire lumens per circuit watt is a large leap but achievable with readily available modern technology. We also feel that the minimum efficacy should be the same for both lighting and display lighting.

42. Do you agree with the proposals for cooling in existing non-domestic buildings in Section 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, the standards go too far c) No, the standards do not go far enough

A (yes) – if systems (such as split and multi-split air conditioners) are capable of going beyond the Ecodesign requirements, then they should be encouraged to do so.

43. Do you agree with the proposals for requirements relating to the commissioning and providing information to building owners for existing non-domestic buildings? a) Yes b) Yes, but additional changes should be made c) No

A (yes) – by ensuring the building services are correctly checked and installed, it is ensuring that systems can operate and be maintained effectively. By providing this information to building owners, it is again ensuring that systems can be well maintained and operated in an effective manner.

44. Do you agree with the guidance proposals for adequate sizing and controls of building services systems in existing non-domestic buildings, as detailed in Sections 5 and 6 of draft *Approved Document L, volume 2: buildings other than dwellings*? a) Yes b) No, do not agree with providing this guidance c) No, the guidance should be improved

A (yes) – guidance proposals for adequate sizing and controls of building services will ensure that buildings have the correct size and efficiencies to meet the demands of the building (maximum 120% of design heating load). This will ensure that buildings can be adequately conditioned thus being of environmental benefit.

45. Do you agree with the proposal that when whole wet space heating systems (i.e. boiler and radiators) are replaced in existing non-domestic buildings the replacement system should be designed to operate with a flow temperature of 55°C or lower? a) Yes, through a minimum standard set in paragraph 5.9 of Approved Document L, volume 2: buildings other than dwellings b) Yes, through carbon and primary energy credit in SBEM c) Yes, by another means d) No, the temperature should be below 55°C e) No, this standard should not be applied to all existing buildings f) No, I disagree for another reason

A –Yes, by enforcing the minimum standard it would ensure that buildings are fit for the future, where as if this was not the standard, it would make it harder for those buildings to the adopt heat pumps after already installing the specified system in the future.

However, this requirement could lead to unintended consequences. For example, oversized radiators needed for low temperature systems may be positioned poorly, directly affecting the heating demand and the increased body of water may impact on the responsiveness of the system.

46. Do you agree with the proposals to restructure the guidance for building services in existing non-domestic buildings, and to incorporate the standards of the Non-Domestic Building Services guidance into the main body of the Approved Document L, volume 2: buildings other than dwellings? A) Yes b) No

We believe that guidance shouldn't be included in the Approved Document Part L, but feel that it should be referred to. However, we appreciate that it needs to be housed somewhere.

47. If you answered no, please explain your reasoning.

**Do you agree the Government should continue to provide guidance for minimum building services efficiencies in existing non-domestic buildings, if the standard does not go significantly further than the Ecodesign regulations?
a) Yes b) No, the Ecodesign regulations are sufficient c) No**

No strong opinion

48. Do you agree with the changes made to simplify, rationalise and clarify the guidance, and the updates to external references in Appendix E and Appendix F, in *Approved Document L, volume 2: buildings other than dwellings*, as outlined in paragraph 3.12.1 of the consultation document? a) Yes b) Yes, but not with the changes to the supplementary guidance c) Yes, but not with the external references d) No - Please do not repeat comments on the changes made to simplify, rationalise and clarify the guidance for Building Services which you have already provided under Questions 38, 51 and 52.

A (yes) – By simplifying and clarifying the guidance, it ensures that guidance is easier to understand and follow for all involved parties, thus improving awareness. Updating the references to include the U- Value conventions as well as the NCM and BACS will aid understanding of calculation methods as well as methods to improve the energy efficiency of buildings.

49. Do you agree that the measures in Tables D.1 and D.2 of Appendix D of *Approved Document L, volume 2: buildings other than dwellings* are likely to be technically, functionally and economically feasible under normal circumstances?

Yes – the measures appear achievable given industry improvements.

50. Do you agree with the proposals for relaxation factors for modular and portable buildings, as detailed in Tables 2.2 and 2.3 of draft Approved Document L, volume 2: buildings other than dwellings? a) Yes b) No, the requirements go too far c) No, the requirements do not go far enough

Yes – we feel it is important to encourage modular buildings to be insulated to new standards if possible. However, there should be a cut-off point, whereby old portable and modular buildings that are no longer able to meet certain regulations, should be retrofitted or replaced.

51. Do you think that the Pulse methodology should be an approved means of demonstrating airtightness for non-domestic buildings? A) Yes B) No

Yes, the Pulse methodology is an alternative, quick and easy method of demonstrating airtightness, which provides benefits for industry.

52. Do you agree that we should adopt an independent approved airtightness testing methodology such as the CIBSE draft methodology for non-domestic buildings? a) Yes, and the CIBSE methodology is appropriate b) Yes, but with a methodology other than CIBSE c) No, an independent approved airtightness methodology shouldn't be adopted.

B (Yes) – however we feel that an independent airtightness testing methodology must be developed with all stakeholders. This approach would allow for more innovations as there are more parties involved.

53. Do you agree with the proposal for guidance on the calibration of devices that carry out airtightness testing in new and existing non-domestic buildings? A) Yes B) No

Yes, calibration of equipment is carried out in other industries in line with manufacturer's guidance, air tightness testing devices should be no different. Calibration increases the accuracy of the equipment which is vital when completing an air tightness test.

54. Do you agree with the proposed approach to energy sub-metering, as detailed in Section 5 of draft *Approved Document L, volume 2: buildings other than dwellings*? A) Yes B) No

Yes, the proposal that end-use categories, such as heating, lighting, and cooling are sub metered in such a way that at least 90 per cent of the annual energy consumption of each fuel can be assigned to an end-use. This will benefit the use of DEC's for all buildings if implemented in the future and will also aid in improving all elements of a building's energy usage.

55. Do you agree with the proposals for transitional arrangements for buildings other than dwellings? A) Yes B) No

Yes, transitional arrangements should be realistic and achievable, with energy efficiency at the forefront.

56. Do you agree with the proposed guidance in Section 1 and Section 2 of *Approved Document F, volume 2: buildings other than dwellings* on minimising the ingress of external pollutants and on the proper installation of ventilation systems in non-domestic buildings? A) Yes B) No

Yes, however it is important to appreciate how this would impact energy usage and efficiency of a building in reference to Part L.

57. Do you agree with the proposed guidance for reducing noise nuisance for ventilation systems in non-domestic buildings? A) Yes B) No

Yes, it is important to ensure that ventilation systems meet all relevant regulations and doesn't conflict with Part L. It is also important to ensure that all work is completed by the appropriate, competent individual, as well as any limits set should be measurable by competent individuals.

58. Do you agree with the additional guidance provided in paragraphs 1.18 to 1.26 of the draft *Approved Document F, volume 2: buildings other than dwellings* on the installation of ventilation systems? A) Yes B) No

Yes, it is important that ventilation systems are appropriately installed and that the system is checked over by a competent individual to ensure that it can be operated safely and efficiently.

59. Do you agree that the guidance in Appendix B of the draft *Approved Document F, volume 2: buildings other than dwellings* provides an appropriate basis for setting minimum ventilation standards? A) Yes B) No

Yes, however it is important to ensure that any standards set do not conflict with Part L and all work is carried out by competent individuals to appropriate standards.

60. Do you agree with the list of industry guidance presented in Section 1 of draft *Approved Document F, volume 2: buildings other than dwellings*? A) Yes B) No

Yes, the list of industry guidance seems comprehensive. It is important that all guidance is available free of charge in the public domain.

61. Do you agree with the list of references to industry guidance presented in Appendix C and Appendix D in the draft *Approved Document F, volume 2: buildings other than dwellings*? A) Yes B) No

Yes, it appears to be comprehensive list from a variety of sources however TM44 is missing from the list of references.

62. Do you agree with the proposals to simplify, rationalise and clarify the *Approved Document* guidance in *Approved Document F, volume 2: buildings other than dwellings* as outlined in paragraph 4.3.7 of the consultation document? A) Yes B) No

Yes, any move to improve understanding and interpretation of the guidance document. The clearer the guidance is, the easier it is to follow, which is a positive move for all parties.

63. Do you agree with the guidance for the ventilation of car parks and offices, as detailed in Section 1 of *Approved Document F, volume 2: buildings other than dwellings*? a) Yes b) Yes, but some improvements can be made c) No, the guidance should be significantly changed - If you answered b or c, please explain your reasoning and provide alternative suggestions. Please note that the appropriate questions on measures to prevent the spread of infection are detailed in section 4.4 of this consultation document.

No strong opinion.

64. Do you agree with the proposals in Section 3 of draft Approved Document F, volume 2: buildings other than dwellings, when replacing an existing window with no background ventilators? a) Yes b) No, the standards do not go far enough c) No, the standards go too far

No, the standards to not go far enough, ventilation provision of the building should be improved when replacing windows, not aim to keep it as the same as before any work was carried out. It is important that any work carried out is done so in conjunction with Part L.

65. Do you agree with the proposal to provide a completed commissioning sheet to the building owner and associated guidance in Section 4 of draft Approved Document F, volume 2: buildings other than dwellings? A) Yes B) No

Yes, by providing guidance to the building owner it ensures that the system is operated correctly and efficiently, thus prolonging the life of the equipment, making it more appealing for consumers and building owners. The commissioning sheet should be completed and verified via an independent assessment carried out by a competent individual, and this document can then be transferred to any subsequent building owners/ occupiers in a form of building log book.

66. Do you agree with the proposed standards for provision of ventilation for common spaces in offices, shown in paragraph 1.36 of draft Approved Document F, volume 2: buildings other than dwellings? a) Yes b) No

No strong opinion as long as all relevant standards are met.

67. Do you agree that extract ventilation in bathrooms, WCs, and other sanitary accommodation should be capable of operating in a continuous mode if necessary? A) Yes B) No

Yes, however such a system may negatively impact the energy efficiency of a building. So compromise must take place between the importance of ventilating areas and the importance of a building's energy efficiency.

68. Do you agree with the proposal for indoor air quality monitoring in offices as outlined in paragraphs 1.39 to 1.41 of draft *Approved Document F, volume 2: buildings other than dwellings*? a) Yes b) Yes, but with qualifications c) No

Yes, any monitoring of air quality should be carried out by an appropriate, qualified individual.

69. If applicable, please provide any suggestions for guidance for indoor air quality monitoring (e.g. CO2 monitoring) in non-domestic buildings.

Sensors and measuring devices to detect movement of people to ensure targeted monitoring is carried out. Regular calibration of all monitoring equipment in line with manufacturer's guidance.

70. Do you agree with the proposals for systems that recirculate air as outlined in paragraph 1.46 of draft *Approved Document F, volume 2: buildings other than dwellings*?

No strong opinion

71. Do you agree with the proposed minimum ventilation standard in occupiable rooms in all types of non-domestic buildings where singing, loud speech or aerobic exercise may take place, where low temperature and low humidity environments may exist, or where members of the public may gather in large groups? These are outlined in paragraphs 1.27 and 1.28 of draft Approved Document F, volume 2: buildings other than dwellings. a) Yes b) Yes, with qualifications c) No

Yes, it is important that any monitoring/ targeting is carried out by correctly qualified, competent individuals.

72. Do you think the mitigating measures to protect against infection via aerosols would be suitable for any non-domestic buildings other than those stated in the Approved Document guidance?

No strong opinion

73. Do you agree with the extension of the scope to cover residential (institutional) and residential (other) buildings described in Table 0.1 in the draft Approved Document S? a) Yes b) Yes, but they should be expanded to include more building types and/or existing buildings c) No, they should only include flats and houses d) No, I disagree for another reason

Yes, but they should be expanded to include more building types and/or existing buildings.

Elmhurst agrees with the building types covered in relation to new homes.

However we are concerned that no regulations or guidance for homes being retrofit is a missed opportunity. The need to retrofit existing homes with insulation and improve air tightness for energy efficiency is fundamental to achieving our net zero goals, but this should also consider the potential risk of overheating due to these measures.

We believe further guidance should be provided in both the simplified method and detailed method for mitigating overheating risk in existing homes.

74. Do you agree with the proposed changes to the simplified method as outlined in Table 1.2 of draft Overheating Approved Document? a) Yes b) No

Yes we agree with the proposed changes as they address the feedback from the Stage 2A consultation.

75. Do you agree with the proposals to ensure noise is considered in new residential buildings when the overheating strategy is in use, and the proposed guidance in Section 2 of the draft Overheating Approved Document? a) Yes b) Yes, but with amendments to the guidance c) No, I do not agree with limiting noise when the overheating strategy is in use

No strong opinion

76. Do you agree with minimising the ingress of external pollutants when the overheating strategy is in use, and that the external pollutants guidance in draft Approved Document F, volume 1: dwellings should be followed where practicable? a) Yes b) Yes, but with amendments to the guidance c) No, I do not agree with minimising the ingress of external pollutants when the overheating strategy is in use

Yes, Elmhurst agree with the guidance on reducing the ingress of external pollutants but not at the expense of providing an adequate ventilation system.

77. Do you agree with the proposals on security in Section 2 of the draft Overheating Approved Document in new residential buildings? a) Yes b) No

No strong opinion

78. Do you agree with the protection from falling guidance proposed in Section 3 of the draft Overheating Approved Document? a) Yes b) No

No strong opinion

79. Do you consider the guidance on protection from falling proposed in Section 2 of the draft Overheating Approved Document should also include requirements to avoid overstretching? (such a maximum distance between the inside face of the wall and the maximum position of the window handle?) a) Yes – please also provide evidence/reasoning b) No

No strong opinion

80. Are there any further issues which affect usability that should be included in the draft Overheating Approved Document? a) Yes b) No

No evidence of any further issues to be included

Contact Details

Should you require any further clarification please contact us at:



Elmhurst Energy,
16 St Johns Business Park,
Lutterworth, Leicestershire,
LE17 4HB



01455 883 250



enquiries@elmhurstenergy.co.uk



www.elmhurstenergy.co.uk