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The Building Regulations 2010

Amendments to the Approved Documents

L1A, L1B, L2A and L2B Conservation of Fuel and Power

2013 – For use in Wales*

*These amendments apply to building work carried out in Wales. They do not apply to excepted energy buildings in Wales or to educational buildings and buildings of statutory undertakers or Crown Buildings in Wales.

WG20712

Introduction

This document contains amendments in relation to Approved Documents L1A, L1B, L2A and L2B.

The changes to Approved Documents L are made to take account of a recast of the European Energy Performance of Buildings Directive (Directive 2010/31/EU) with amended guidance for:

- Energy Performance Certificates that comes into force on 9 January 2013;
- the analysis of high efficiency alternative systems for new buildings occupied by public authorities on 9 January 2013 and for all other new buildings on 9 July 2013; and
- the major renovation of existing buildings that comes into force for buildings occupied by public authorities on 9 January 2013 and for all buildings on 9 July 2013.

Regulation 25B “Nearly zero-energy requirements for new buildings” will not come into force until 2019 at the earliest. Changes to the Approved Documents L will be provided nearer to the time that this regulation comes into force.

Amendments to Approved Document L1A – Conservation of Fuel and Power in New Dwellings

Page 2

Paragraph 1.1 – replace second sentence with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1.

Page 3

Paragraph 1.10 – replace "the Department for Communities and Local Government website: www.communities.gov.uk" with "Welsh Government Building Regulations website: www.Wales.gov.uk"

Page 4

Paragraph 2.1 – replace the second and third sentences with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1. The ***energy efficiency requirements*** relevant to this Approved Document, which deals with new ***dwellings***, are those in regulations 25A, 26, 29 and 40 and Part L of Schedule 1, and are set out below".

Regulation 25B "Nearly zero-energy requirements for new buildings" will not come into force until 2019 at the earliest. Statutory guidance on compliance with Regulation 25B is not included within this Approved Document and will be provided nearer to the time it comes into force."

Page 4

Before extract from the Building Regulations **New buildings – Regulation 26** insert:

Consideration of high-efficiency alternative systems for new buildings – Regulation 25A

(1) Before construction of a new building starts, the person who is to carry out the work must analyse and take into account the technical, environmental and economic feasibility of using high-efficiency alternative systems (such as the following systems) in the construction, if available—

(a) decentralised energy supply systems based on energy from renewable sources;

(b) cogeneration;

(c) district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources; and

(d) heat pumps.

Consideration of high-efficiency alternative systems for new buildings – Regulation 25A (cont.)

(2) The person carrying out the work must—

(a) not later than the beginning of the day before the day on which the work starts, give the local authority a notice which states that the analysis referred to in paragraph (1)—

(i) has been undertaken;

(ii) is documented; and

(iii) the documentation is available to the authority for verification purposes; and

(b) ensure that a copy of the analysis is available for inspection at all reasonable times upon request by an officer of the local authority.

(3) An authorised officer of the local authority may require production of the documentation in order to verify that this regulation has been complied with.

(4) The analysis referred to in paragraph (1)—

(a) may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area; and

(b) in so far as it relates to collective heating and cooling systems, may be carried out for all buildings connected to the system in the same area.

(5) In this regulation—

(a) "cogeneration" means simultaneous generation in one process of thermal energy and one or both of the following—

(i) electrical energy;

(ii) mechanical energy;

(b) "district or block heating or cooling" means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network of multiple buildings or sites, for the use of space or process heating or cooling;

(c) "energy from renewable sources" means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; and

(d) "heat pump" means a machine, a device or installation that transfers heat from natural surroundings such as air, water or ground to buildings or industrial applications by reversing the natural flow of heat such that it flows from a lower to a higher temperature. (For reversible heat pumps, it may also move heat from the building to the natural surroundings.)

Page 4

Amend the extract from the Building Regulations **Energy Performance Certificates – Regulation 29** –

In paragraph 4 (c) insert and amend as follows:

Energy Performance Certificates – Regulation 29

(4)

(c) be issued by an energy assessor who is accredited to produce energy performance certificates for ~~that category of building~~ the category of building to which the certificate relates; ~~and~~

(cc) include a recommendation report unless there is no reasonable potential for energy performance improvements (in terms of the applicable energy efficiency requirements);

(cd) be valid in accordance with paragraph (9); and

(d) include the following information–

(i) the reference number under which the set of data from which the certificate may be produced has been registered in accordance with regulation 30(4);

Page 4

Delete paragraph 5:

Energy Performance Certificates – Regulation 29 (cont)

(5) ~~The energy performance certificate must be accompanied by a recommendation report containing recommendations for the improvement of the energy performance of the building, issued by the energy assessor who issued the energy performance certificate.~~

Page 5

After paragraph 7 insert:

Energy Performance Certificates – Regulation 29 (cont)

(8) Certification for a building which consists of a single dwelling may be based on the assessment of another representative building of similar design and size with a similar actual energy performance quality, provided such correspondence is guaranteed by the energy assessor issuing the energy performance certificate.

(9) An energy performance certificate is only valid if—

(a) it was entered on the register no more than 10 years before the date on which it is made available; and

(b) no other energy performance certificate for the building has since been entered on the register.

(10) An energy performance certificate must not contain any information or data (except for the address of the building) from which a living individual (other than the energy assessor or his employer) can be identified.

Page 5

After Energy Performance Certificates insert (new regulation) 29A as follows:

Recommendation reports

29A.—(1) In these Regulations a "recommendation report" means recommendations made by an energy assessor for the cost-effective improvement of the energy performance of a building.

(2) A recommendation report must include—

(a) recommended cost-effective measures that could be carried out in connection with a major renovation of the building envelope or fixed building services;

(b) recommended cost-effective measures for individual building elements that could be carried out without the necessity for a major renovation of the building envelope or fixed building services;

(c) an indication as to how the owner or tenant can obtain more detailed information about improving the energy efficiency of the building, including more detailed information about the cost-effectiveness of the recommendations; and

(d) information on the steps to be taken to implement the recommendations.

(3) Any cost-effective measure which the energy assessor recommends must be technically feasible for the building to which the recommendation report relates.

(4) In this regulation "building element" means a controlled service or fitting or a thermal element of the building envelope.

Page 6

Insert a new paragraph 2.2A – Amendment regulation 11(3) of the Building Regulations limits the local authority's powers to dispense with or relax the requirements in relation to the energy efficiency requirements as amended in regulation 23(1)(a), 25A, 25B, 26, 29 (with the exception of paragraphs 4(e), 9A, 10, 11 and 12) and 29A and are set out below:

Power to dispense with or relax requirements

11—(3) Sub-sections (1) to (5) of section 8 of the Act (relaxation of building regulations) do not apply to regulations 23(1)(a), 25A, 25B, 26, 29 (with the exception of paragraphs 4(e), 9A, 10, 11 and 12) and 29A.

Page 7

In the definition of ***"energy efficiency requirements",*** after "23", insert "25A, 25B".

After the definition of ***"energy efficiency requirements",*** insert:

Interpretation

"energy performance certificate" means a certificate which complies with the requirements of regulation 29 of these Regulations;

Page 7 (Cont.)

For the definition of ***"fixed building services"*** substitute –

Interpretation (cont.)

"fixed building services" means any part of, or any controls associated with—

(a) fixed internal or external lighting systems (but not including emergency escape lighting or specialist process lighting);

(b) fixed systems for heating, hot water, air conditioning or mechanical ventilation; or

(c) any combination of systems of the kinds referred to in paragraph (a) or (b);

Page 8

In paragraph 3.2, after "regulations" in the final sentence, insert "25A"

Page 14

After paragraph 4.17 insert new heading and new paragraphs as follows:

Consideration of high-efficiency alternative systems

4.17A Regulation 25A states that:

Consideration of high-efficiency alternative systems for new buildings

25A.—(1) Before construction of a new building starts, the person who is to carry out the work must analyse and take into account the technical, environmental and economic feasibility of using high-efficiency alternative systems (such as the following systems) in the construction, if available—

(a) decentralised energy supply systems based on energy from renewable sources;

(b) cogeneration;

(c) district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources; and

(d) heat pumps.

(2) The person carrying out the work must—

(a) not later than the beginning of the day before the day on which the work starts, give the local authority a notice which states that the analysis referred to in paragraph (1)—

(i) has been undertaken;

(ii) is documented; and

(iii) the documentation is available to the authority for verification purposes; and

(b) ensure that a copy of the analysis is available for inspection at all reasonable times upon request by an officer of the local authority.

(3) An authorised officer of the local authority may require production of the documentation in order to verify that this regulation has been complied with.

Consideration of high-efficiency alternative systems for new buildings (cont.)

(4) The analysis referred to in paragraph (1)—

(a) may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area; and

(b) in so far as it relates to collective heating and cooling systems, may be carried out for all buildings connected to the system in the same area.

(5) In this regulation—

(a) "cogeneration" means simultaneous generation in one process of thermal energy and one or both of the following—

(i) electrical energy;

(ii) mechanical energy;

(b) "district or block heating or cooling" means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network of multiple buildings or sites, for the use of space or process heating or cooling;

(c) "energy from renewable sources" means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; and

(d) "heat pump" means a machine, a device or installation that transfers heat from natural surroundings such as air, water or ground to buildings or industrial applications by reversing the natural flow of heat such that it flows from a lower to a higher temperature. (For reversible heat pumps, it may also move heat from the building to the natural surroundings.)

4.17B As required by regulation 25A, before the work starts, the person undertaking the work must carry out an analysis that considers and takes into account the technical, environmental and economic feasibility of using high-efficiency alternative systems in the construction. The following high efficiency alternative systems may be considered if available, but other low and zero carbon systems may also be considered if available:

- decentralised energy supply systems based on energy from renewable sources;
- cogeneration;
- district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources;
- heat pumps.

The analysis should state whether high-efficiency alternative systems have or have not been included in the building design. The requirement relates to considering, taking into account, documenting and making available for verification purposes the analysis of high-efficiency alternative systems.

The Building Regulations are technology neutral and do not mandate the installation of high efficiency alternative systems or other low and zero carbon systems. However, the design and construction of new dwellings often features such systems to meet local interpretations of Planning Policy Wales (TAN22) conditions that require specific energy performance standards exceeding and/or require a proportion of energy used in development to be from renewable and/or low carbon sources.

4.17C The analysis may be carried out for individual ***dwellings***, groups of similar ***dwellings*** or for common typologies of ***dwellings*** in the same area. Where a number of ***dwellings*** are connected to a community energy system, a single analysis may be carried out for all of the ***dwellings*** connected to the system in the same area as the building to be constructed.

4.17D Before work starts, the person undertaking the work shall give the **BCB** a notice which states that the analysis has been undertaken; is documented and is available for verification purposes. The results of the analysis must be documented and retained for inspection by the **BCB** upon request.

Although the analysis of high efficiency alternative systems is not an explicit requirement of the CO2 emission rate calculation, a facility within calculation software output reporting (the design stage BRUKL report) may be available to the builder to declare that the analysis has been carried out, is documented and where it is available for verification purposes.

Page 19

Pressure testing – Regulation 43

43(4) After “British Institute of Non-destructive Testing” insert “or the Air Tightness and Testing and Measurement Association”.

Page 21

Paragraph 6.4 – replace second sentence with “The occupier should also be provided with the on-construction ***energy performance certificate*** that includes a recommendation report.”

Amendments to Approved Document L1B – Conservation of Fuel and Power in Existing Dwellings

Page 2

Paragraph 1.1 – replace second sentence with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1.

Page 3

Paragraph 1.10 – replace "the Department for Communities and Local Government website: www.communities.gov.uk" with "Welsh Government Building Regulations website: www.wales.gov.uk"

Page 4

Paragraph 2.1 – replace the second and third sentences with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1. The ***energy efficiency requirements*** relevant to this Approved Document, which deals with existing ***dwellings***, are those in regulations 23, 28, 29 and 40 and Part L of Schedule 1, and are set out below".

Page 4

Delete the extract from the Building Regulations **Requirements relating to thermal elements – Regulation 23** and replace with:

Requirements for the renovation or replacement of thermal elements

23.—(1) Where the renovation of an individual thermal element—

(a) constitutes a major renovation; or

(b) amounts to the renovation of more than 50% of the element's surface area;

the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

(2) Where the whole or any part of an individual thermal element is proposed to be replaced and the replacement—

(a) constitutes a major renovation; or

(b) (in the case of part replacement) amounts to the replacement of more than 50% of the element's surface area;

the whole of the element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

Page 4

Amend the extract from the Building Regulations Energy Performance Certificates – Regulation 29 –

In paragraph 4 (c) insert and amend as follows:

Energy Performance Certificates – Regulation 29

(4)

(c) be issued by an energy assessor who is accredited to produce energy performance certificates for ~~that category of building~~ the category of building to which the certificate relates; ~~and~~

(cc) include a recommendation report unless there is no reasonable potential for energy performance improvements (in terms of the applicable energy efficiency requirements);

(cd) be valid in accordance with paragraph (9); and

(d) include the following information–

(i) the reference number under which the set of data from which the certificate may be produced has been registered in accordance with regulation 30(4);

Page 4

Delete paragraph 5:

Energy Performance Certificates – Regulation 29 (cont)

(5) ~~The energy performance certificate must be accompanied by a recommendation report containing recommendations for the improvement of the energy performance of the building, issued by the energy assessor who issued the energy performance certificate.~~

Page 5

After paragraph 7 insert:

Energy Performance Certificates – Regulation 29 (cont)

(8) Certification for a building which consists of a single dwelling may be based on the assessment of another representative building of similar design and size with a similar actual energy performance quality, provided such correspondence is guaranteed by the energy assessor issuing the energy performance certificate.

(9) An energy performance certificate is only valid if—

(a) it was entered on the register no more than 10 years before the date on which it is made available; and

(b) no other energy performance certificate for the building has since been entered on the register.

(10) An energy performance certificate must not contain any information or data (except for the address of the building) from which a living individual (other than the energy assessor or his employer) can be identified.

Page 5

After Energy Performance Certificates insert (new regulation) 29A as follows:

Recommendation reports

29A.—(1) In these Regulations a "recommendation report" means recommendations made by an energy assessor for the cost-effective improvement of the energy performance of a building.

(2) A recommendation report must include—

(a) recommended cost-effective measures that could be carried out in connection with a major renovation of the building envelope or fixed building services;

(b) recommended cost-effective measures for individual building elements that could be carried out without the necessity for a major renovation of the building envelope or fixed building services;

(c) an indication as to how the owner or tenant can obtain more detailed information about improving the energy efficiency of the building, including more detailed information about the cost-effectiveness of the recommendations; and

(d) information on the steps to be taken to implement the recommendations.

(3) Any cost-effective measure which the energy assessor recommends must be technically feasible for the building to which the recommendation report relates.

(4) In this regulation "building element" means a controlled service or fitting or a thermal element of the building envelope.

Page 7

After definition of ***BCB*** insert new definition as follows:

Interpretation

"building envelope" in relation to a building means the walls, floor, roof, windows, doors, roof windows and roof-lights;

In the definition of ***"energy efficiency requirements",*** after "23", insert "25A, 25B".

After the definition of ***"energy efficiency requirements",*** insert:

Interpretation (cont.)

"energy performance certificate" means a certificate which complies with the requirements of regulation 29 of these Regulations;

Page 7 (Cont.)

For the definition of ***"fixed building services"*** substitute –

Interpretation (cont.)
"fixed building services" means any part of, or any controls associated with— (a) fixed internal or external lighting systems (but not including emergency escape lighting or specialist process lighting); (b) fixed systems for heating, hot water, air conditioning or mechanical ventilation; or (c) any combination of systems of the kinds referred to in paragraph (a) or (b);

After the definition of fixed building service insert new definition as follows:

Interpretation (cont.)
"major renovation" means the renovation of a building where more than 25% of the surface area of the building envelope undergoes renovation;

Page 8

In paragraph 3.2, after "regulation" in the final sentence, insert "25A"

Page 9

In paragraph 3.3 – after d. insert:

"e. the **major renovation** of a building."

Page 17

After paragraph 5.1 delete Regulation 23, extract from the Building Regulations and replace with:

Requirements for the renovation or replacement of thermal elements
23.—(1) Where the renovation of an individual thermal element— (a) constitutes a major renovation; or (b) amounts to the renovation of more than 50% of the element's surface area; the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible. (2) Where the whole or any part of an individual thermal element is proposed to be replaced and the replacement— (a) constitutes a major renovation; or (b) (in the case of part replacement) amounts to the replacement of more than 50% of the element's surface area; the whole of the element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

After paragraph 5.6 insert:

Major Renovation

5.6A Major Renovation means:

> "major renovation" means the renovation of a building where more than 25% of the surface area of the building envelope undergoes renovation;

When assessing whether the renovation would constitute a **major renovation**, the surface area of the whole (internal or external) **building envelope** should be taken into account i.e. walls, floor, roof, windows, doors, roof windows and roof-lights.

Page 17 and 18

Paragraph 5.8 – delete and replace with:

Where a ***thermal element*** is subject to a ***renovation*** through undertaking an activity listed in paragraph 5.7a) or 5.7b), the performance of the whole of the ***thermal element*** should be improved to achieve or better the relevant U-value set out in column (b) of Table 3, provided the area to be renovated is greater than 50% of the surface of the individual ***thermal element*** or constitutes a ***major renovation*** where more than 25% of the surface area of the ***building envelope*** undergoes ***renovation***.

In relation to the renovation of individual thermal elements, when assessing the proportion of the surface area that is to be renovated, the area of the ***thermal element*** should be assessed as the area of each individual ***thermal element***, not the area of all the elements of that type in the building. The area of each individual ***thermal element*** should also be interpreted in the context of whether the element is being renovated from inside or outside, e.g. if removing all the plaster finish from the inside of a solid brick wall, the area of the element is the area of external wall in the room. If removing external render, it is the area of the elevation in which that wall sits.

This means that if all the roofing on the flat roof of an extension is being stripped down, the area of the individual element is the 'roof area' of the extension, not the 'total roof area' of the dwelling. Similarly, if the rear wall of a single storey extension is being re-rendered externally, then the rear wall of the extension should be upgraded to the standards of Table 3 column (b), even if the renovation affected less than 50% of the total area of the building elevation when viewed from the rear. If plaster is being removed from a bedroom wall, the relevant area is the area of the external wall in the room, not the area of the external elevation which contains that wall section. This is because the marginal cost of dry-lining with insulated plasterboard rather than plain plasterboard is small.

When a building undergoes a major renovation this may represent an opportunity to consider and take into account the technical, environmental and economic feasibility of installing high-efficiency alternative systems.

Page 21

Appendix A: Work to thermal elements

Paragraph 1 – delete the first sentence and replace with:

"Where the ***renovation*** of an individual ***thermal element*** constitutes a ***major renovation***; or amounts to the ***renovation*** of more than 50% of the element's surface area, an opportunity exists for cost-effective insulation improvements to be undertaken."

Amendments to Approved Document L2A – Conservation of Fuel and Power in New Buildings other than Dwellings

Page 2

Paragraph 1.1 – replace second sentence with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1.

Page 3

Paragraph 1.10 – replace "the Department for Communities and Local Government website: www.communities.gov.uk" with "Welsh Government Building Regulations website: www.Wales.gov.uk"

Page 4

Paragraph 2.1 – replace the second and third sentences with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1. The ***energy efficiency requirements*** relevant to this Approved Document, which deals with new buildings, are those in regulations 25A, 26, 29 and 40 and Part L of Schedule 1, and are set out below".

Regulation 25B "Nearly zero-energy requirements for new buildings" will not come into force until 2019 at the earliest. Statutory guidance on compliance with Regulation 25B is not included within this Approved Document and will be provided nearer to the time it comes into force."

Page 4

Before extract from the Building Regulations **New buildings – Regulation 26** insert:

Consideration of high-efficiency alternative systems for new buildings – Regulation 25A

(1) Before construction of a new building starts, the person who is to carry out the work must analyse and take into account the technical, environmental and economic feasibility of using high-efficiency alternative systems (such as the following systems) in the construction, if available—

(a) decentralised energy supply systems based on energy from renewable sources;

(b) cogeneration;

(c) district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources; and

(d) heat pumps.

Consideration of high-efficiency alternative systems for new buildings – Regulation 25A (cont.)

(2) The person carrying out the work must—

(a) not later than the beginning of the day before the day on which the work starts, give the local authority a notice which states that the analysis referred to in paragraph (1)—

(i) has been undertaken;

(ii) is documented; and

(iii) the documentation is available to the authority for verification purposes; and

(b) ensure that a copy of the analysis is available for inspection at all reasonable times upon request by an officer of the local authority.

(3) An authorised officer of the local authority may require production of the documentation in order to verify that this regulation has been complied with.

(4) The analysis referred to in paragraph (1)—

(a) may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area; and

(b) in so far as it relates to collective heating and cooling systems, may be carried out for all buildings connected to the system in the same area.

(5) In this regulation—

(a) "cogeneration" means simultaneous generation in one process of thermal energy and one or both of the following—

(i) electrical energy;

(ii) mechanical energy;

(b) "district or block heating or cooling" means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network of multiple buildings or sites, for the use of space or process heating or cooling;

(c) "energy from renewable sources" means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; and

(d) "heat pump" means a machine, a device or installation that transfers heat from natural surroundings such as air, water or ground to buildings or industrial applications by reversing the natural flow of heat such that it flows from a lower to a higher temperature. (For reversible heat pumps, it may also move heat from the building to the natural surroundings.)

Page 4

Amend the extract from the Building Regulations **Energy Performance Certificates – Regulation 29** –

In paragraph 4 (c) insert and amend as follows:

Energy Performance Certificates – Regulation 29

(4)

(c) be issued by an energy assessor who is accredited to produce energy performance certificates for ~~that category of building~~ the category of building to which the certificate relates; ~~and~~

(cc) include a recommendation report unless there is no reasonable potential for energy performance improvements (in terms of the applicable energy efficiency requirements);

(cd) be valid in accordance with paragraph (9); and

(d) include the following information–

(i) the reference number under which the set of data from which the certificate may be produced has been registered in accordance with regulation 30(4);

Delete paragraph 5:

Energy Performance Certificates – Regulation 29 (cont)

(5) ~~The energy performance certificate must be accompanied by a recommendation report containing recommendations for the improvement of the energy performance of the building, issued by the energy assessor who issued the energy performance certificate.~~

After paragraph 7 insert:

Energy Performance Certificates – Regulation 29 (cont)

(8) Certification for a building which consists of a single dwelling may be based on the assessment of another representative building of similar design and size with a similar actual energy performance quality, provided such correspondence is guaranteed by the energy assessor issuing the energy performance certificate.

(9) An energy performance certificate is only valid if—

(a) it was entered on the register no more than 10 years before the date on which it is made available; and

(b) no other energy performance certificate for the building has since been entered on the register.

(10) An energy performance certificate must not contain any information or data (except for the address of the building) from which a living individual (other than the energy assessor or his employer) can be identified.

Page 5

After Energy Performance Certificates insert (new regulation) 29A as follows:

Recommendation reports

29A.—(1) In these Regulations a "recommendation report" means recommendations made by an energy assessor for the cost-effective improvement of the energy performance of a building.

(2) A recommendation report must include—

(a) recommended cost-effective measures that could be carried out in connection with a major renovation of the building envelope or fixed building services;

(b) recommended cost-effective measures for individual building elements that could be carried out without the necessity for a major renovation of the building envelope or fixed building services;

(c) an indication as to how the owner or tenant can obtain more detailed information about improving the energy efficiency of the building, including more detailed information about the cost-effectiveness of the recommendations; and

(d) information on the steps to be taken to implement the recommendations.

(3) Any cost-effective measure which the energy assessor recommends must be technically feasible for the building to which the recommendation report relates.

(4) In this regulation "building element" means a controlled service or fitting or a thermal element of the building envelope.

Page 6

Insert a new paragraph 2.2A – Amendment regulation 11(3) of the Building Regulations limits the local authority's powers to dispense with or relax the requirements in relation to the energy efficiency requirements as amended in regulation 23(1)(a), 25A, 25B, 26, 29 (with the exception of paragraphs 4(e), 9A, 10, 11 and 12) and 29A and are set out below:

Power to dispense with or relax requirements

11—(3) Sub-sections (1) to (5) of section 8 of the Act (relaxation of building regulations) do not apply to regulations 23(1)(a), 25A, 25B, 26, 29 (with the exception of paragraphs 4(e), 9A, 10, 11 and 12) and 29A.

Page 7

In the definition of ***"energy efficiency requirements",*** after "23", insert "25A, 25B".

In the italic text in the paragraph below, insert "25A" before 26.

After the definition of ***"energy efficiency requirements",*** insert:

Interpretation

"energy performance certificate" means a certificate which complies with the requirements of regulation 29 in these Regulations;

Page 8

For the definition of ***"fixed building services"*** substitute –

Interpretation (cont.)

"fixed building services" means any part of, or any controls associated with—

(a) fixed internal or external lighting systems (but not including emergency escape lighting or specialist process lighting);

(b) fixed systems for heating, hot water, air conditioning or mechanical ventilation; or

(c) any combination of systems of the kinds referred to in paragraph (a) or (b);

In paragraph 3.2, after "regulation" in the final sentence, insert "25A"

Page 15

After paragraph 4.17 insert new heading and new paragraphs as follows:

Consideration of high-efficiency alternative systems

4.17A Regulation 25A states that:

Consideration of high-efficiency alternative systems for new buildings

25A.—(1) Before construction of a new building starts, the person who is to carry out the work must analyse and take into account the technical, environmental and economic feasibility of using high-efficiency alternative systems (such as the following systems) in the construction, if available—

(a) decentralised energy supply systems based on energy from renewable sources;

(b) cogeneration;

(c) district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources; and

(d) heat pumps.

(2) The person carrying out the work must—

(a) not later than the beginning of the day before the day on which the work starts, give the local authority a notice which states that the analysis referred to in paragraph (1)—

(i) has been undertaken;

(ii) is documented; and

(iii) the documentation is available to the authority for verification purposes; and

(b) ensure that a copy of the analysis is available for inspection at all reasonable times upon request by an officer of the local authority.

(3) An authorised officer of the local authority may require production of the documentation in order to verify that this regulation has been complied with.

Consideration of high-efficiency alternative systems for new buildings (cont.)

(4) The analysis referred to in paragraph (1)—

(a) may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area; and

(b) in so far as it relates to collective heating and cooling systems, may be carried out for all buildings connected to the system in the same area.

(5) In this regulation—

(a) "cogeneration" means simultaneous generation in one process of thermal energy and one or both of the following—

(i) electrical energy;

(ii) mechanical energy;

(b) "district or block heating or cooling" means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network of multiple buildings or sites, for the use of space or process heating or cooling;

(c) "energy from renewable sources" means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; and

(d) "heat pump" means a machine, a device or installation that transfers heat from natural surroundings such as air, water or ground to buildings or industrial applications by reversing the natural flow of heat such that it flows from a lower to a higher temperature. (For reversible heat pumps, it may also move heat from the building to the natural surroundings.)

4.17B As required by regulation 25A, before the work starts, the person undertaking the work must carry out an analysis that considers and takes into account the technical, environmental and economic feasibility of using high-efficiency alternative systems in the construction. The following high efficiency alternative systems may be considered if available, but other low and zero carbon systems may also be considered if available:

- decentralised energy supply systems based on energy from renewable sources;
- cogeneration;
- district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources;
- heat pumps.

The analysis should state whether high-efficiency alternative systems have or have not been included in the building design. The requirement relates to considering, taking into account, documenting and making available for verification purposes the analysis of high-efficiency alternative systems.

The Building Regulations are technology neutral and do not mandate the installation of high efficiency alternative systems or other low and zero carbon systems. However, the design and construction of new dwellings often features such systems to meet local interpretations of Planning Policy Wales (TAN22) conditions that require specific energy performance standards exceeding and/or require a proportion of energy used in development to be from renewable and/or low carbon sources.

4.17C The analysis may be carried out for individual ***dwellings***, groups of similar ***dwellings*** or for common typologies of ***dwellings*** in the same area. Where a number of ***dwellings*** are connected to a community energy system, a single analysis may be carried out for all of the ***dwellings*** connected to the system in the same area as the building to be constructed.

4.17D Before work starts, the person undertaking the work shall give the ***BCB*** a notice which states that the analysis has been undertaken; is documented and is available for verification purposes. The results of the analysis must be documented and retained for inspection by the **BCB** upon request.

Although the analysis of high efficiency alternative systems is not an explicit requirement of the CO2 emission rate calculation, a facility within calculation software output reporting (the design stage BRUKL report) may be available to the builder to declare that the analysis has been carried out, is documented and where it is available for verification purposes.

Page 21

Pressure testing – Regulation 43

43(4) After “British Institute of Non-destructive Testing” insert “or the Air Tightness and Testing and Measurement Association”.

Amendments to Approved Document L2B – Conservation of Fuel and Power in Existing Buildings other than Dwellings

Page 2

Paragraph 1.1 – replace second sentence with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1.

Page 3

Paragraph 1.10 – replace "the Department for Communities and Local Government website: www.communities.gov.uk" with "Welsh Government Building Regulations website: www.wales.gov.uk"

Page 4

Paragraph 2.1 – replace the second and third sentences with "Regulation 2(1) of the Building Regulations defines the ***energy efficiency requirements*** as the requirements of regulations 23, 25A, 25B, 26, 28, 29 and 40 and Part L of Schedule 1. The ***energy efficiency requirements*** relevant to this Approved Document, which deals with ***existing buildings other than dwellings***, are those in regulations 23, 28, 29 and 40 and Part L of Schedule 1, and are set out below".

Page 4

Delete the extract from the Building Regulations **Requirements relating to thermal elements – Regulation 23** and replace with:

Requirements for the renovation or replacement of thermal elements

23.—(1) Where the renovation of an individual thermal element—

(a) constitutes a major renovation; or

(b) amounts to the renovation of more than 50% of the element's surface area;

the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

(2) Where the whole or any part of an individual thermal element is proposed to be replaced and the replacement—

(a) constitutes a major renovation; or

(b) (in the case of part replacement) amounts to the replacement of more than 50% of the element's surface area;

the whole of the element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

Page 4

Amend the extract from the Building Regulations Energy Performance Certificates – Regulation 29 –

In paragraph 4 (c) insert and amend as follows:

Energy Performance Certificates – Regulation 29

(4)

(c) be issued by an energy assessor who is accredited to produce energy performance certificates for ~~that category of building~~ the category of building to which the certificate relates; ~~and~~

(cc) include a recommendation report unless there is no reasonable potential for energy performance improvements (in terms of the applicable energy efficiency requirements);

(cd) be valid in accordance with paragraph (9); and

(d) include the following information–

(i) the reference number under which the set of data from which the certificate may be produced has been registered in accordance with regulation 30(4);

Page 4

Delete paragraph 5:

Energy Performance Certificates – Regulation 29 (cont)

(5) ~~The energy performance certificate must be accompanied by a recommendation report containing recommendations for the improvement of the energy performance of the building, issued by the energy assessor who issued the energy performance certificate.~~

Page 5

After paragraph 7 insert:

Energy Performance Certificates – Regulation 29 (cont)

(8) Certification for a building which consists of a single dwelling may be based on the assessment of another representative building of similar design and size with a similar actual energy performance quality, provided such correspondence is guaranteed by the energy assessor issuing the energy performance certificate.

(9) An energy performance certificate is only valid if—

(a) it was entered on the register no more than 10 years before the date on which it is made available; and

(b) no other energy performance certificate for the building has since been entered on the register.

(10) An energy performance certificate must not contain any information or data (except for the address of the building) from which a living individual (other than the energy assessor or his employer) can be identified.

Page 5

After Energy Performance Certificates insert (new regulation) 29A as follows:

Recommendation reports

29A.—(1) In these Regulations a "recommendation report" means recommendations made by an energy assessor for the cost-effective improvement of the energy performance of a building.

(2) A recommendation report must include—

(a) recommended cost-effective measures that could be carried out in connection with a major renovation of the building envelope or fixed building services;

(b) recommended cost-effective measures for individual building elements that could be carried out without the necessity for a major renovation of the building envelope or fixed building services;

(c) an indication as to how the owner or tenant can obtain more detailed information about improving the energy efficiency of the building, including more detailed information about the cost-effectiveness of the recommendations; and

(d) information on the steps to be taken to implement the recommendations.

(3) Any cost-effective measure which the energy assessor recommends must be technically feasible for the building to which the recommendation report relates.

(4) In this regulation "building element" means a controlled service or fitting or a thermal element of the building envelope.

Page 7

After definition of ***BCB*** insert new definition as follows:

Interpretation

"building envelope" in relation to a building means the walls, floor, roof, windows, doors, roof windows and roof-lights, the elements which separate its interior from the outdoor environment;

In the definition of ***"energy efficiency requirements",*** after "23", insert "25A, 25B".

After the definition of ***"energy efficiency requirements",*** insert:

Interpretation (cont.)

"energy performance certificate" means a certificate which complies with the requirements of regulation 29 in these Regulations;

Page 7 (Cont.)

For the definition of ***"fixed building services"*** substitute –

Interpretation (cont.)

"fixed building services" means any part of, or any controls associated with—

(a) fixed internal or external lighting systems (but not including emergency escape lighting or specialist process lighting);

(b) fixed systems for heating, hot water, air conditioning or mechanical ventilation; or

(c) any combination of systems of the kinds referred to in paragraph (a) or (b);

After the definition of fixed building service insert new definition as follows:

Interpretation (cont.)

"major renovation" means the renovation of a building where more than 25% of the surface area of the building envelope undergoes renovation;

Page 8

In paragraph 3.2, after "regulation" in the final sentence, insert "25A"

Page 9

Paragraph 3.3 – replace "e. **consequential improvements** (Section 6)." With:

e. the **major renovation** of a building;

f. **consequential improvements** (Section 6).

Page 21

After paragraph 5.1 delete Regulation 23, extract from the Building Regulations and replace with:

Requirements for the renovation or replacement of thermal elements

23.—(1) Where the renovation of an individual thermal element—

(a) constitutes a major renovation; or

(b) amounts to the renovation of more than 50% of the element's surface area;

the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

(2) Where the whole or any part of an individual thermal element is proposed to be replaced and the replacement—

(a) constitutes a major renovation; or

(b) (in the case of part replacement) amounts to the replacement of more than 50% of the element's surface area;

the whole of the element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

After paragraph 5.7 insert:

Major Renovation

5.7A Major Renovation means:

> "major renovation" means the renovation of a building where more than 25% of the surface area of the building envelope undergoes renovation;

When assessing whether the renovation would constitute a **major renovation**, the surface area of the whole (internal or external) **building envelope** should be taken into account i.e. walls, floor, roof, windows, doors, roof windows and roof-lights.

Page 22

Paragraph 5.8 – delete and replace with:

Where a ***thermal element*** is subject to a ***renovation*** through undertaking an activity listed in paragraph 5.8a) or 5.8b), the performance of the whole of the ***thermal element*** should be improved to achieve or better the relevant U-value set out in column (b) of Table 5, provided the area to be renovated is greater than 50% of the surface of the individual **thermal element** or constitutes a ***major renovation*** where more than 25% of the surface area of the ***building envelope*** undergoes ***renovation***.

In relation to the renovation of individual thermal elements, when assessing the proportion of the surface area that is to be renovated, the area of the ***thermal element*** should be assessed as the area of each individual ***thermal element***, not the area of all the elements of that type in the building. The area of each individual ***thermal element*** should also be interpreted in the context of whether the element is being renovated from inside or outside, e.g. if removing all the plaster finish from the inside of a solid brick wall, the area of the element is the area of external wall in the room. If removing external render, it is the area of the elevation in which that wall sits.

This means that if all the roofing on the flat roof of an extension is being stripped down, the area of the individual element is the 'roof area' of the extension, not the 'total roof area' of the dwelling. Similarly, if the rear wall of a single storey extension is being re-rendered externally, then the rear wall of the extension should be upgraded to the standards of Table 5 column (b), even if the renovation affected less than 50% of the total area of the building elevation when viewed from the rear. If plaster is being removed from a bedroom wall, the relevant area is the area of the external wall in the room, not the area of the external elevation which contains that wall section. This is because the marginal cost of dry-lining with insulated plasterboard rather than plain plasterboard is small.

When a building undergoes a major renovation this may represent an opportunity to consider and take into account the technical, environmental and economic feasibility of installing high-efficiency alternative systems.