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Committee Members

Huw Lewis (Chair)	Labour	Merthyr Tydfil and Rhymney
Peter Black	Liberal Democrats	South Wales West
Mark Isherwood	Welsh Conservative Party	North Wales
Sandy Mewies	Labour	Delyn
Janet Ryder	Plaid Cymru	North Wales

Summary

The conclusions and recommendations of the Proposed Domestic Fire Safety LCO Committee are as follows:

- We agree, in principle, that legislative competence in the areas identified within the proposed Order should be conferred on the Assembly.
- We are content with the scope of the proposed Order as drafted, but wish to put on record our desire that future Measures be founded on a solid evidence base and take account of the evidence we have received in relation to the scope of the proposed Order.
- We recommend that the proposed Order be amended to remove the interpretation provisions for the terms ‘new residential premises’ and ‘sprinkler system’, and that appropriate interpretation provisions should be considered as part of any future Measure(s).

However, if the Member in charge is not minded to agree with this recommendation, our views on the individual interpretation provisions are as follows:

- In relation to the term ‘new residential premises’, we consider the term as currently provided for in the proposed Order is sufficiently clearly drawn and we are therefore content with this term and its interpretation.
- In relation to the term ‘sprinkler system’, we are persuaded by the evidence we have received that this term should be amended and consider that ‘automatic fire suppression system’ would be a more appropriate term, and we so recommend.
- In relation to the inclusion of a reference to the British Standard (BS) 9251:2005 on the face of the proposed Order, we accept the Member in charge’s argument that including such a reference could adversely affect the Assembly’s future ability to legislate in this area should that standard be amended and, as such, we consider a reference to the relevant British standard would be more appropriately dealt with in legislation arising out of the proposed Order. We are therefore content that the proposed Order makes no reference to BS 9251:2005.
- We recommend that paragraph 35 of the Explanatory Memorandum be re-worded to clarify the extent of the term ‘significant alteration’ in relation to existing residential premises.
- We note the evidence received concerning the importance of the maintenance and enforcement of sprinkler systems in new residential

premises, but concur with the Member in charge that these matters of detail should be matters for future Measures.

- We consider the provision of adequate water supply and water pressure to be a level of detail that should be addressed in future Measures.
- We consider that any Measure committee established to report on a future Measure arising out of the proposed Order will examine the cost implications of that Measure fully and, as such, we do not consider this to be a matter for the proposed Order.

1. Introduction

Background

1. On 21 February 2008, Ann Jones AM, the Member in charge, laid the proposed *National Assembly for Wales (Legislative Competence) (No. 7) Order 2008* ('the proposed Order') and Explanatory Memorandum, in accordance with Standing Orders 22.13 - 22.14. Copies of these documents are attached at Annex 1.

2. On 26 February 2008, the Business Committee agreed to refer the proposed Order to a committee for detailed consideration, in accordance with Standing Order 22.16.

3. Following a resolution in plenary on 26 February 2008, the Proposed Domestic Fire Safety Legislative Competence Order Committee ('the Committee') was established, in accordance with Standing Order 21, to consider and report on the proposed Order no later than 13 June 2008.¹

Scope of the Committee's Scrutiny

4. At our first meeting on 12 March 2008, we agreed the scope of our scrutiny, as set out below:

- i. to decide whether the general principles of the proposed Order, i.e. that legislative competence as specified in Matter 11.1, should be conferred on the Assembly; and
- ii. to decide whether the proposed Order provides an appropriate framework for the delivery of the policy agenda on domestic fire safety. In particular, whether the terms of the proposed Order were too broadly or too narrowly defined.

Evidence

5. We issued a general call for evidence and invited key organisations within the field of domestic fire safety to submit written evidence to inform our work. A copy of our consultation letter is attached at Annex 2. A list of consultation responses is attached at Annex 3.

6. We took oral evidence from a number of witnesses, details of which are attached at Annex 4.

7. Under Standing Order 22.21, in preparing our report we must, so far as is reasonably practicable, take into account any recommendations made on the proposed Order by:

¹ Reporting deadline set by the Business Committee

- (i) any other committee of the National Assembly for Wales; and
- (ii) any committee of the House of Commons, the House of Lords or any Joint Committee of both Houses of Parliament.

No such recommendations have been made in respect of the proposed Order.

8. The following report and recommendations represent the conclusions we have reached based on the evidence received during the course of our work.

2. Principle of the Proposed Order

Background

9. The purpose of the proposed Order is to amend Part 1 of Schedule 5 to the *Government of Wales Act 2006* ('the 2006 Act') to confer legislative competence on the Assembly in relation to domestic fire safety, by inserting a new matter into Field 11 (Housing) of that Schedule:

Matter 11.1

Provision for and in connection with a requirement that a sprinkler system be installed in new residential premises.

Interpretation of this Matter

"New residential premises" means -

- (a) premises constructed for residential use;
- (b) premises converted to residential use;
- (c) premises converted to use as a single residence by physical subdivision of one or more existing residential premises; and
- (d) premises converted to use as a single residence by physical incorporation of more than one existing residential premises.

A "sprinkler system" means any automatic fixed system intended to extinguish control or contain fires by means of water propelled under pressure through pipework and spray heads which operate when a predetermined temperature is reached.

10. The conferral of legislative competence on the Assembly by the proposed Order will enable the Member in charge, the Assembly Government, Assembly committees or individual Members to bring forward proposals for legislation, in the form of Assembly Measures, within the scope of Matter 11.1.

Explanatory Memorandum²

11. In the Explanatory Memorandum accompanying the proposed Order, the Member in charge states:

"the objective of the proposed LCO (and the subsequent Measure) is to reduce the incidence of death and injury from fires in new build

² Member Proposed Legislative Competence Order: Domestic Fire Safety - Draft Explanatory Memorandum

housing in Wales. This is to be achieved through a requirement for fire sprinkler systems to be fitted in all new residential premises.”³

She goes on:

“This is seen as a preventative measure so that people can get out of their homes in the event of a fire occurring. It will also reduce the risk to fire fighters who are called to deal with domestic fires.”⁴

12. The Explanatory Memorandum details the benefits of fitting fire sprinkler systems, saying:

“Over recent years there has been a growing recognition of their use as a means of contributing to life safety which is now recognised in current UK guidance to the Building Regulations. (...) Evidence gathered worldwide shows that (...) people in the room of origin of a fire have survived as a result of the effectiveness of the sprinkler system. (...) The evidence also shows that no lives have been lost in the UK due to fire in buildings fitted with domestic sprinkler systems.”⁵

13. The Explanatory Memorandum also notes that the report of the Community Fire Safety Working Group⁶ recommended that the Assembly should “amend its Development Quality Requirements so that all new social housing in Wales should have domestic sprinkler systems installed during construction [and] (...) look to enforce a requirement for sprinklers in new schools, student halls of residence, nurses homes and residential homes.”⁷

Evidence from consultees

14. The majority of respondents, in both written and oral evidence, expressed support in principle that legislative competence in relation to domestic fire safety be conferred on the Assembly.⁸

15. The Fire and Rescue Services were of the opinion that the widespread installation of fire sprinklers could improve the safety of people in Wales. They stated:

³ Draft Explanatory Memorandum, paragraph 9

⁴ *Ibid.*

⁵ *Ibid.*, paragraphs 22-23

⁶ *Wired for Safety*, Report of the Community Fire Safety Working Group, October 2001

⁷ Draft Explanatory Memorandum, paragraph 15

⁸ Including the Minister for the Environment, Sustainability and Housing, the Fire and Rescue Services, the Fire Brigades Union, the fire sprinkler industry representatives, the Fire Industry Association, the Residential Sprinkler Associates, the Welsh Local Government Association, the Association of British Insurers, the Building Research Establishment and Neath Port Talbot County Borough Council.

“people do not generally die as a result of fire in their places of work, or in hotels, pubs, restaurants, or cinemas; people die in their own homes, and this legislation will address that issue”.⁹

16. In their written evidence, the Fire and Rescue Services cited some of the principal benefits of sprinklers as:

- saving lives - there has never been a fire death in a fully sprinklered domestic building in the United Kingdom;
- protecting property - it is estimated that property losses in buildings protected with sprinklers are one tenth of those in unprotected buildings; and
- protecting fire-fighters - conditions for fire-fighters entering a building involved in a fire are much less hazardous and arduous than if the fire had developed unchecked.¹⁰

17. The Welsh Local Government Association supported moves to help further improve fire safety in the home and recognised the benefits of sprinklers in reducing fire related deaths and damage to property caused by fire.¹¹

18. The Fire Brigades Union described “a fully sprinklered domestic building as the equivalent of having a fire-fighter in every room 24 hours a day, 7 days a week”.¹² The National Fire Sprinkler Network made a similar point, referring to the benefits of sprinklers, particularly in remote and rural areas where there is sometimes a longer call-out time for the fire and rescue services.

19. Some respondents noted that, as the issues surrounding fire safety affecting the people of Wales differ from those affecting other parts of the UK, it would seem appropriate for Wales to be able to determine the measures necessary to achieve its own fire safety needs and objectives.¹³

20. Further to this, the British Automatic Fire Sprinkler Association highlighted research that has identified that those who are dying in fires in Wales are from a narrow age band and well-defined socio-economic group. They stated:

“It would appear that other measures such as provision of smoke alarms and community education have failed to impact on this group. We therefore concur with the views expressed by the fire and rescue

⁹ Record of Proceedings(RoP), (Domestic Fire Safety LCO Committee), 15/04/08, paragraph 15

¹⁰ Written evidence, DFS4

¹¹ Written evidence, DFS13

¹² Written evidence, DFS5

¹³ Written evidence, DFS6 and DFS7

services that the only way to reduce the rate of fire deaths is through the wider use of sprinkler systems.”¹⁴

21. A similar view was expressed by the National Fire Sprinkler Network.¹⁵

22. There were a number of respondents who did not support the general principles of the proposed Order, namely Community Housing Cymru, the Home Builders Federation and Confederation of British Industry and the National Landlords Association.

23. In their written evidence, the National Landlords Association opined that the proposed Order:

“has the potential of producing an inflexible, ‘one-size-fits-all’ regime for new residential premises that requires no real consideration of what fire risks actually exist. The Order (as it currently stands) has the potential to be seen as a panacea for achieving fire safety to the exclusion of other, more tailored solutions, that might be more effective for particular circumstances.”¹⁶

24. They went on that, whilst welcoming in principle measures that place rights and responsibilities for fire safety fairly and appropriately to ensure that lives are saved, they were ‘left unconvinced that this Order achieves this appropriately’.¹⁷

25. The Home Builders Federation and the Confederation of British Industry stated that they were satisfied that provisions within the current Building Regulations are ‘robust enough in terms of being an effective deterrent from fire in new homes and the associated hazards that often ensue’.¹⁸

26. Community Housing Cymru said they:

“remain to be convinced by the evidence that the introduction of residential sprinkler systems in all new homes is the most effective way of reducing the incidence of death and injury from fires in new build housing.”¹⁹

27. They felt that, rather than concentrating resources on fire sprinklers,

¹⁴ Written evidence, DFS6

¹⁵ Written evidence, DFS7

¹⁶ Written evidence, DFS17

¹⁷ *Ibid.*

¹⁸ Written evidence, DFS15

¹⁹ Written evidence, DFS9

“efforts would be better spent on enabling the issues of fire safety to be considered alongside other aspects of safety in the home.”²⁰

28. They argued that any changes to improve safety, including fire safety, for the occupiers of all homes in Wales would be better effected by the transfer of powers to the Assembly via the Building Regulations.²¹

29. The Minister for Environment, Sustainability and Housing (‘the Minister’) shared this view, suggesting that “the aim of this proposed Order would perhaps be better dealt with through changes to the Building Regulations, the main legislation for setting building standards”. She explained that “responsibility for fire resistance, detection and means of escape in new dwellings is covered by the Building Regulations for England and Wales”.²²

30. The Minister referred to the commitment made in *OneWales* that the Assembly Government will pursue transfer of responsibility for the Building Regulations and informed us that she hoped this transfer would take place during 2008.²³

31. However, she went on that in the absence of any agreement to the transfer to Welsh Ministers of executive powers to make and amend Building Regulations, she considered it appropriate for the general principles of the proposed Order to be supported.²⁴

32. In relation to the timings involved in amending the Building Regulations once devolved, the Minister’s policy adviser indicated that a ‘relatively simple measure (...) may take around two years’, and that ‘with regard to part L of the Building Regulations, which covers energy efficiency, some of the reviews have taken three or more years’.²⁵

33. The timings involved with amending the Building Regulations was a matter of concern for the Fire and Rescue Services, who suggested that a minimum of four years may be required between the commencement of the consultation into the amendments that may be required and their implementation.²⁶

34. The Welsh Local Government Association, in questioning the appropriateness of the Building Regulations, also raised the issue of timing:

“Some of the difficulty with the building regulations (...) is that there is obviously some concern about whether or not the building

²⁰ *Ibid.*

²¹ *Ibid.*

²² Written evidence, DFS12

²³ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraphs 166-168

²⁴ Written evidence, DFS12

²⁵ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraph 182

²⁶ RoP, (Domestic Fire Safety LCO Committee), 15/04/08, paragraph 8

regulations would come in a timely manner for the Assembly to deal with the issue, and rather drag out the time frame.”²⁷

35. They went on:

“In terms of expediency, the LCO would be a much quicker route to obtain the powers that you are looking for.”²⁸

36. Further to the question of timings in relation to the Building Regulations, the Minister also questioned the merit of having the proposed Order and the Building Regulations in force at the same time, suggesting that the provisions of the proposed Order could apply over and above those contained within the Building Regulations and, as such, could cancel out any compensatory savings that could be made following the installation of sprinklers, such as greater design freedoms.²⁹

37. The WLGA also raised the concern “that if you use the building regulations, there would be the possibility of diluting the requirements in relation to the specifics that you are looking at in the LCO.”³⁰

38. Two respondents, Dŵr Cymru Welsh Water and the National House-Building Council, adopted a neutral position on the merits of the proposed Order, although Dŵr Cymru Welsh Water stated in their evidence that:

“[we] accept that the installation of fire sprinkler systems in residential premises on a large scale will result in the reduction in deaths due to fires at those premises and wants to give all the support it can to their installation”.³¹

39. In supporting the general principles of the proposed Order, some witnesses expressed concern that the fitting of fire sprinklers in new or converted properties should not be at the expense of more traditional fire design principles.³² A number of witnesses also emphasised the importance of proper installation and maintenance of sprinkler systems.³³ These matters are discussed in more detail later in this report.

Evidence from the Member in charge

40. Responding to the question as to whether the Building Regulations were a more appropriate vehicle for the policy objective and whether, in

²⁷ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 6

²⁸ *Ibid.*, paragraph 7

²⁹ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraph 164

³⁰ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 10

³¹ Written evidence, DFS11

³² Written evidence, DFS16; RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 73; written evidence, DFS8; RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraphs 28-30

³³ Including: Association of British Insurers (ABI) (written evidence, DFS14), Dŵr Cymru Welsh Water (written evidence, DFS11), WLGA (written evidence, DFS13)

view of their impending transfer, the proposed Order could be dispensed with, Ann Jones AM said:

“(…) building regulations are not presently devolved to the Assembly. We are assuming they will be in the autumn of 2008 or even beyond then. Once those powers are devolved, they will provide Welsh Ministers with the powers to incorporate a requirement in the building regulations, but it will not compel the Ministers to do it. (...) That would depend on their programme or on the way in which they would then take the building regulations forward.”³⁴

41. She went on to say:

“It is my view that it would be better for new residential premises to be constructed with sprinklers as a result of my proposed LCO, rather than having new homes built without such protection while we wait for building regulations to be devolved to us.”³⁵

42. In response to the question as to the merit of the proposed Order and Building Regulations being in force at the same time, Ann Jones AM said:

“If building regulations were devolved before a Measure could be made under my LCO, I could then ask to place a duty on Welsh Ministers to include provisions for requiring the installation of sprinkler systems into building regulations (...).”³⁶

43. Further to this, she said she hoped the proposed Order would strengthen and complement the building regulations, once devolved, rather than duplicate or nullify them.³⁷

Our view

44. We note the broad support that exists for the proposed Order and the reasons put forward by the Member in charge for seeking this legislative competence. We consider that the introduction of fire sprinklers in ‘new residential premises’, as set out in the proposed Order, will have a positive effect on fire safety in Wales. As such, we agree, in principle, that legislative competence in the areas identified within the proposed Order should be conferred on the Assembly.

45. In considering whether the proposed Order is too broadly or too narrowly drawn, we have highlighted some issues relating to the specific drafting of certain Matters and some other issues. Paragraphs 46 - 177 of this report consider these issues.

³⁴ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 136

³⁵ *Ibid.*

³⁶ *Ibid.*, paragraph 142

³⁷ *Ibid.*, paragraph 143

3. Scope of the Proposed Order

Background

46. In the Explanatory Memorandum, the Member in charge set out the scope of the proposed Order as extending to the following:

- “Newly built residential premises including flats/apartments.
- Existing residential premises under-going significant alteration, including the conversion of single dwellings to Houses in Multiple Occupation, and the conversion of single premises into flats
- Existing buildings that are converted from a non-residential use to a residential use (e.g. office space converted to flats)
- Other changes of use from a non-residential to a residential use, where conversion work takes place.”³⁸

47. She also confirmed that:

“Retrospective fitting of sprinkler systems to existing residential premises would not be included.”³⁹

48. We asked consultees and witnesses for their views as to whether the scope of the proposed Order was too narrowly or too broadly drawn.

Evidence from consultees

49. The Fire and Rescue Services, the Fire Industry Association and the Fire Brigades Union were content with the scope of the proposed Order as currently drafted. When questioned as to whether the scope should be broadened, the Fire and Rescue Services said that they were of the opinion that:

“If you go for too much, you will achieve nothing; you need to be sure of what it is that you are trying to achieve. We are sure that we are trying to achieve [fire safety] in the home. (...) ideally, we would like to see every building fitted with a sprinkler, but that is too big, and you would not achieve it.”⁴⁰

50. They went on:

“Therefore, we believe that the LCO is pitched about right for what it is trying to achieve. If you do not start somewhere, you will never

³⁸ Draft Explanatory Memorandum, paragraph 35

³⁹ *Ibid.*, paragraph 10

⁴⁰ RoP, (Domestic Fire Safety LCO Committee), 15/04/08, paragraph 12

start. We are quite sure that this is the ideal starting point that will allow us to effect a difference.”⁴¹

51. The Association for Chief Police Officers in Wales were also content with the scope of the proposed Order, stating:

“we consider that the order has been well constructed and will ensure effective implementation if enacted.”⁴²

52. In contrast to this, the Minister advocated the “widest possible powers to provide flexibility”, thus enabling the Assembly to “look at narrowing [the scope] down in the future with a Measure (...)”⁴³

53. Conversely, Neath Port Talbot County Borough Council were of the view that ‘the terms of the proposed Order are too broadly drawn’ and suggested instead that ‘the requirement to fit sprinkler systems or not, should be solely risk based.’⁴⁴

54. Related to this, we also received evidence from some organisations calling for the scope of the proposed Order to be altered to specifically target those groups in society identified as being particularly ‘at risk’ of death or injury from fire in the home.

55. Community Housing Cymru, in particular, stated:

“It is important to weigh-up the merits of installing sprinklers in all new homes against a more targeted approach which seeks to install sprinklers in homes housing the most vulnerable in society, in order to meet their needs first. These might include nursing homes, sheltered housing, housing designed to meet the needs of people requiring support, Houses in Multiple Occupation, homes for people with limited mobility who might find it hard to escape from a fire quickly etc.”⁴⁵

56. Community Housing Cymru was also of the opinion that the newest housing is likely to be most capable of providing better fire safety as it is:

“(...) built to much higher standards than older housing, in terms of the regulations controlling design, the combustibility of building materials and means of escape.”⁴⁶

57. They felt that older homes pose a greater risk and that it may be more beneficial to consider proposals to tackle fire safety in these homes.

⁴¹ *Ibid.*, paragraph 13

⁴² Written evidence, DFS3

⁴³ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraph 156

⁴⁴ Written evidence, DFS19

⁴⁵ Written evidence, DFS9

⁴⁶ *Ibid.*

58. It should be noted that this view was contradicted by the Building Research Establishment:

“I do not necessarily subscribe to the theory that modern properties perform any better than older properties. In many ways, some of the older and more traditionally solid-walled properties would probably perform better than newer properties, because of their inherent thermal mass: they are built of stone and it is only the finishes and the likes that are likely to combust.”⁴⁷

59. On the question of targeting the proposed Order, the Minister said:

“(…) we would prefer to see the broadest possible powers around fire safety devolved (…). We feel it would then be for the Measure to look at specific targeting.”⁴⁸

60. She went on:

“(…) if the Order and subsequent Measures were targeted at new general housing, for example, the occupant would not be known at the time of construction, and so you could not target effectively in that context.”⁴⁹

61. The Fire Brigades Union expressed some sympathy for the suggestion of targeting the proposed Order towards older properties or vulnerable persons, but concluded:

“the main aim is to get sprinklers into properties and the easiest way to do that is to get them installed in new-build properties and hopefully the drip-drip effect will work its way through. (…) By trying to expand the LCO, you run the risk of the whole of the LCO failing”⁵⁰

62. The Fire Industry Association⁵¹ and Building Research Establishment concurred with this point, with the latter stating:

“The most important thing in changing the performance of any building is to make a start somewhere, and the new-build market is the obvious place to start because it is easy to integrate such changes into the building fabric.”⁵²

63. Related to the scope of the proposed Order, we received evidence from the Fire Industry Association suggesting that:

⁴⁷ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 83

⁴⁸ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraph 158

⁴⁹ *Ibid.*

⁵⁰ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraph 34

⁵¹ *Ibid.*, paragraph 51

⁵² RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 80

“While the retrospective fitting of fire sprinklers is not covered, consideration could be given to the ‘bringing up to fire code’ of houses when they are sold as is the case in some parts of the USA. If this was to be the case, then the rate at which the fire safety of Welsh dwellings was improved would increase. In this situation it would not only be sprinklers that might be installed but smoke alarms, fire doors, COP detectors and other relevant systems.”⁵³

Evidence from the Member in charge

64. When questioned as to whether the relatively narrow scope of the proposed Order provided for it to be effective, Ann Jones AM stated:

“In looking at how we form our legislation, we must ensure that it is effective. For it to be effective, it must concentrate on certain areas, without taking too broad-brush an approach... we must be realistic about what we can achieve, and I would rather this be achieved in the area that we are looking at now, than for the LCO to be widened and us to lose the ability to put sprinklers into new home build.”⁵⁴

65. She also confirmed that she was satisfied that the scope of the proposed Order would provide for the most vulnerable groups in society:

“By targeting all new home build, we will cover a range of the most vulnerable (...). We are seeing more and more estates being built with shared occupancy housing. In the private sector, you have an element of affordable housing, and social housing on estates. So targeting all new home build will cover it.

66. She went on:

“Housing associations will be looking at the elderly, the disabled or the impaired, where there are social contracts with housing associations and with local authorities. Those who have bought homes to let privately may rent to young people. I think that we will cover all of those groups.”⁵⁵

67. Responding to the question as to whether the evidence received by the Committee had altered her view on the scope of the proposed Order, Ann Jones AM stated:

“I took the decision to keep the LCO narrow and focussed as an opportunity to achieve the goal of protecting new-build homes with

⁵³ Written evidence, DFS8

⁵⁴ RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraphs 20, 26

⁵⁵ *Ibid.*, paragraph 36

sprinkler systems. (...) I did this to ensure that we could make progress.”⁵⁶

68. When questioned as to whether the scope of the proposed Order should be amended in order to target its effect, she said:

“In an ideal world, I would say yes (...). However, practically and pragmatically, I do not believe that it could happen. (...) I do not know how you would do it in older properties, other than through registered social landlords. It puts an unfair disadvantage on registered social landlords if their properties must be sprinklered (...) because the private home owner does not have to do that (...).”⁵⁷

69. She went on:

(...) I am sure that people will see that, if they move into a new property, or they have family moving into a new property, where sprinkler systems have been installed, they will look at doing something similar in their own properties if they can.”⁵⁸

70. In conclusion, the Member in charge said that, although she was happy to consider any recommendations or views the Committee may have on the scope of the proposed Order, she thought that “at the moment, the scope of the LCO is understood [and] the principle behind it is something that can be achieved.”⁵⁹

Our view

71. We note the Minister’s evidence calling for the scope of the proposed Order to be as broad as possible to allow maximum flexibility for future Measures.

72. We also note the evidence we have received in relation to targeting the effect of the proposed Order towards particular types of property or groups of people.

73. However, we are persuaded by the Member in charge’s reasons for keeping the scope of the proposed Order relatively narrow and focussed, in order to make progress with the implementation of the policy.

74. In this respect, we agree with the evidence from the Fire and Rescue Services that the effect of the proposed Order will be incremental and, as such, consider that the proposed Order will be a meaningful addition to the other fire safety measures already in place.

⁵⁶ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 138

⁵⁷ *Ibid.*, paragraph 151-152

⁵⁸ *Ibid.*, paragraph 152

⁵⁹ *Ibid.*, paragraph 138

75. We consider that to include specific references to properties or groups of people that are to be targeted by the proposed Order could serve to restrict its effect. We consider that it is more appropriate for any such specifics to be included in future Measures rather than in the proposed Order itself.

76. On this basis, we are content with the scope of the proposed Order as drafted, but wish to put on record our desire that future Measures be founded on a solid evidence base and take account of the evidence we have received in relation to the scope of the proposed Order.

4. Interpretation Provisions in the Proposed Order

Interpretation provisions - general

Background

77. The proposed Order includes interpretation provisions for the terms “new residential premises” and “sprinkler system”, which are used in Matter 11.1.

78. Our consideration of this matter was in two parts. Firstly, the general issue of whether interpretation provisions should be included in the proposed Order and secondly, if so, whether the interpretation provisions included in the proposed Order are appropriate. Our views on both matters are detailed at the end of this section.

Evidence from consultees

79. In her oral evidence, the Minister said that, in supporting the general principles of the proposed Order she would prefer to see the broadest possible powers around fire safety devolved to the Assembly. On this basis, the Minister’s view was that the proposed Order should seek broad legislative competence and should omit any definitions, leaving them to be dealt with at the Measure stage.⁶⁰

80. Other evidence, however, supported the inclusion of the interpretations in the proposed Order. The Welsh Fire and Rescue Services put forward their view that:

“unless we are specific at the outset about what we are trying to achieve [by the proposed Order], people will misunderstand it”.⁶¹

81. Similarly, the Association of Chief Police Officers in Wales⁶², the European Fire Sprinkler Network⁶³ and Dŵr Cymru Welsh Water⁶⁴ stated in written evidence that they believed it necessary to set out the meaning of both ‘new residential premises’ and ‘sprinkler system’ in the proposed Order.

82. The Residential Sprinkler Associates considered that the terms in the proposed Order should be clearly defined to ensure that the legislation is

⁶⁰ RoP, (Domestic Fire Safety LCO Committee), 29/04/08, paragraph 156

⁶¹ RoP, (Domestic Fire Safety LCO Committee), 15/04/08, paragraph 117

⁶² Written evidence, DFS3

⁶³ Written evidence, DFS1

⁶⁴ Written evidence, DFS11

not circumvented, as they say has been the case for fire sprinklers in certain retail premises in the UK and other countries.⁶⁵

83. Contrary to this, however, the Fire Brigades Union had no strong views about where the definitions appear - either in the proposed Order or be left to the detail of a future Measure - as long as the main objective to get sprinklers into all new build properties is realised.⁶⁶

Evidence from the Member in charge

84. Responding to the question as to whether the proposed Order should include interpretation provisions, Ann Jones AM said that she had included the definitions in the proposed Order in an attempt to be open and transparent and had considered that to leave out the definitions would have raised questions about what is behind the proposed Order and could hamper the proposed Order's consideration at Westminster.⁶⁷

85. She also suggested that:

“including the definitions in the Order would be good for the home builders, the water companies, the insurers and for the public, so that they will know exactly what will be expected in years to come”.⁶⁸

86. Further to this and in response to the Minister's suggestion that definitions be omitted from the proposed Order so as not to inadvertently restrict its scope, Ann Jones' legal adviser said:

“In this particular case, the definition helps to widen the scope a bit. (...) If you were to take out the interpretation of 'new residential premises', and it referred only to provision for and in connection with the requirement that a sprinkler system be installed in new residential premises, there would be a danger that people would read it as meaning new build in the sense of a new house or block of flats on a green field site. However, the intention here is to extend that, and make it clear that it includes the conversion to residential use of previously non-residential premises. So, the definition of 'new residential premises' helps to widen the scope from what you would otherwise interpret the phrase to mean.”⁶⁹

87. He went on:

“Although I am sure that the Minister's point that, in principle, definitions should be left for Measures where that is at all possible is

⁶⁵ Written evidence, DFS10

⁶⁶ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraph 69

⁶⁷ RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraphs 147-8 and 150

⁶⁸ *Ibid.*, paragraph 148

⁶⁹ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 201

right, it may be that the Committee will think that, in this particular case, you need to define 'new residential premises', because that is how you make it clear that it extends to conversions of existing buildings.”⁷⁰

Interpretation provisions - '*new residential premises*'

Background

88. In relation to Matter 11.1, the term 'new residential premises' means-

- (a) premises constructed for residential use;
- (b) premises converted to residential use;
- (c) premises converted to use as a single residence by physical subdivision of one or more existing residential premises; and
- (d) premises converted to use as a single residence by physical incorporation of more than one existing residential premises.

Evidence from consultees

89. We received evidence from a number of respondents suggesting there was a lack of clarity in the meaning of the term 'new residential premises'.

90. In particular, the Minister said it was not clear what the term 'new residential premises' encompassed. In her written evidence, she stated:

“In supporting the principle of this proposed Order I would ask the Committee to look at the draft wording of definitions, in particular new “residential” premises. It is not clear whether the intention is to affect only houses or go wider. The use of ‘residential’ could include care homes, student accommodation.”⁷¹

91. In written evidence, Community Housing Cymru noted:

“(…) if the Assembly proceeds with the Order then it will be important to be specific about the kinds of residential property to be included.”⁷²

92. Related to this, Dŵr Cymru Welsh Water highlighted some specific areas where further clarity is required in order to avoid confusion, saying:

⁷⁰ *Ibid.*

⁷¹ Written evidence, DFS12

⁷² Written evidence, DFS9

“Does [the proposed Order] include everywhere people reside temporarily or permanently, e.g. hotels, guest houses, hostels, university halls of residence, prisons? Does it include the whole of a building if only part of it is used as a residence, e.g. a public house where the landlord’s family lives on the premise and a shop with a flat above? Does it include mobile homes (many of which are merely prefabricated homes without wheels)? Does it apply to the many rural premises that will only have a private source of water supply, often with little pressure and flow?”⁷³

93. The National House Building Council⁷⁴, the European Fire Sprinkler Network⁷⁵ and the National Landlords’ Association⁷⁶ also suggested that the extent of the definition of ‘new residential premises’ was unclear.

94. The Welsh Fire and Rescue Services and the Fire Brigades Union went further and suggested that the proposed Order should reflect the British Standard and that the term ‘new residential premises’ should be replaced by ‘domestic occupancy’.⁷⁷

95. The Fire and Rescue Services, in particular, were of the opinion that using a consistent approach to terminology would help to eliminate confusion and suggested that the proposed Order be revised to include the following description as provided for in the British Standard 9251:2005⁷⁸:

“Domestic Occupancy - individual dwelling for use as a single family unit used or constructed or constructed or adapted to be used wholly; or dwelling houses, individual flats, maisonettes and transportable homes with a maximum individual room size of 40m².

Flow rate - 60 ltr/min through any single sprinkler, or
42 ltr/min through each of the two sprinklers operating simultaneously in a single room.

Mains - as above plus at least 25 ltr/min. (BS 9251:2005)”

96. In contrast, the Residential Sprinkler Associates considered that the restrictions contained in the definitions in the British Standard 9251:2005 would be unnecessary and called for them to be removed. They stated in written evidence that:

“Unfortunately the Standard contains restrictions on room size and building height that were introduced without any supporting evidence and we would therefore contend are inappropriate. In the same vein, sprinkler flow requirements and areas of coverage for sprinklers are

⁷³ Written evidence, DFS11

⁷⁴ Written evidence, DFS18

⁷⁵ Written evidence, DFS1

⁷⁶ Written evidence, DFS17

⁷⁷ Written evidence, DFS4 and DFS5

⁷⁸ See paragraph 103 for explanation of BS9251:2005

specified in the Standard that fly in the face of the Manufacturers' and the Approvals Body's test data and specifications - and we contend that these are inappropriate also. The removal of these unnecessary restrictions will reduce the cost of installation substantially..."⁷⁹

97. The Welsh Local Government Association⁸⁰ and the British Automatic Fire Sprinkler Association⁸¹ considered that the definition of 'new residential premises' as provided for in the proposed Order was clear and they were content with its inclusion in the proposed Order.

98. Neath Port Talbot County Borough Council noted in its written evidence that the proposed Order will include new dwellings created within existing buildings through conversion or sub division as well as new build premises and did not indicate any discontent with this definition.⁸²

Evidence from the Member in charge

99. In oral evidence, Ann Jones AM responded to the concerns raised by other witnesses about the lack of clarity of the term 'new residential premises', stating:

"I consider that the term 'residential' includes new single-dwelling houses and any new building constructed for or converted to residential use. I can see any new-build sheltered housing or care homes as part of the new-build scenario as well as blocks of flats, and within that I would include any new-build student accommodation."⁸³

100. She went on:

"We touched on whether caravans or houseboats should be included, and I think that you could use the term 'residential' for them, although obviously not for touring caravans. Static mobile homes rather than caravans could be covered under the residential tag in this LCO."⁸⁴

101. Further to this, Ann Jones' legal adviser confirmed that:

"The intention is that [the proposed Order] should be narrow in terms of being limited to new premises, but that the residential side of things - in other words, defining what kinds of properties can be covered - should be as wide as we can make it, so that potentially, it would cover buildings such as residential care homes, colleges, halls of residence (...) and possibly even wider. (...) So, 'residential

⁷⁹ Written evidence, DFS10

⁸⁰ Written evidence, DFS13

⁸¹ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraph 234

⁸² Written evidence, DFS19

⁸³ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 173

⁸⁴ *Ibid.*, paragraph 174

premises' is a pretty wide definition, which we hope is wide enough to cover anything that one might conceivably want to cover".⁸⁵

Interpretation provisions - '*sprinkler system*' and the British Standard 9251:2005

Background

102. In relation to Matter 11.1, the term 'sprinkler system' means:

"any automatic fixed system intended to extinguish control or contain fires by means of water propelled under pressure through pipework and spray heads which operate when a predetermined temperature is reached."

103. 'British Standard Number 9251:2005' is the current British Standard Code of Practice for sprinkler systems for residential and domestic occupancies.⁸⁶

Evidence from consultees

104. We received evidence from a number of witnesses suggesting that the term 'sprinkler system' should be replaced with a more technical definition, recognised by the industry.

105. The Welsh Fire and Rescue Services⁸⁷, the Fire Brigades Union⁸⁸ and the Fire Industry Association⁸⁹ all agreed that the accepted technical term for a sprinkler system is 'automatic water suppression system' (AWSS).

106. The British Automatic Fire Sprinkler Association (BAFSA) confirmed they would not object to the use of the term 'automatic water suppression system'.⁹⁰

107. In their evidence, Community Housing Cymru referred to the Building (Scotland) Regulations 2004, which use the term 'automatic life safety fire suppression systems' and noted the reference in the Technical Handbook which states that "there are many alternative or innovative fire suppression systems available".⁹¹ Community Housing Cymru suggested:

⁸⁵ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 186

⁸⁶ See Draft Explanatory Memorandum, paragraph 11

⁸⁷ RoP, (Domestic Fire Safety LCO Committee), 15/04/08, paragraph 142; written evidence, DFS4

⁸⁸ Written evidence, DFS5

⁸⁹ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraph 106

⁹⁰ *Ibid.*, paragraph 240

⁹¹ Written evidence, DFS9

“the Committee may wish to consider alternative terminology (...) to avoid any complications in designing a suitable Measure to comply with the Order”.⁹²

108. Other evidence highlighted the need for sprinkler systems - and the components used in them - to comply with the British Standard 9251:2005. In particular, BAFSA⁹³ and the National Fire Sprinkler Network⁹⁴ suggested that the proposed Order should include a specific reference to the current British standard, or its successor standards, in terms of the design and installation of any sprinkler system.

109. Related to this, Dŵr Cymru Welsh Water suggested that a sprinkler system should be defined as:

“a sprinkler system designed to comply at all times of the day and year with BS 9251:2005; any subsequent amendments or equivalent superseding British standard and any other relevant British standard”.⁹⁵

Evidence from the Member in charge

110. Responding to the question as to whether the term ‘sprinkler system’ is appropriate, Ann Jones AM said that she had been advised on the terminology to use in the proposed Order by the British Automatic Fire Sprinkler Association, but said she was willing to consider any recommendations the Committee may make.⁹⁶

111. In relation to the inclusion of a specific reference to the British standard, Ann Jones AM said that although BS 9251:2005 is the accepted standard and working document:

“To include it in the Order could restrict future legislative competencies of the Assembly.”⁹⁷

112. She suggested that it would be better to refer to the British standard as the appropriate working document in the Explanatory Memorandum.⁹⁸

113. Further to this, Ann Jones’ legal adviser said that by including a specific reference to BS 9251:2005 in the proposed Order, if the British Standards Institute changes the number of the relevant standard, the Assembly will lose its power to legislate. He suggested:

⁹² *Ibid.*

⁹³ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraphs 243 and 247; written evidence, DFS6

⁹⁴ Written evidence, DFS7

⁹⁵ Written evidence, DFS11

⁹⁶ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraphs 188 and 194

⁹⁷ *Ibid.*, paragraph 197

⁹⁸ *Ibid.*

“That is the kind of thing that would usually be left to regulations. You could say, in a Measure, that Ministers could make regulations that would provide for certain standards that are deemed to satisfy the requirements of the Measure. Then, from time to time, as different standards came forward, regulations could amend that to respond to the situation.”⁹⁹

Our view

114. On the general question as to whether the proposed Order should include interpretation provisions - we acknowledge Ann Jones’ intention of including these provisions on the face of the proposed Order so as to be open and transparent about the aims and objectives of the proposed Order.

115. We also note the argument put forward by her legal adviser that, in this instance, the interpretation provision relating to ‘new residential premises’ could serve to widen the definition, rather than restrict it.

116. However, we share the Minister’s concern that including interpretation provisions in the proposed Order could inadvertently restrict the ability of the Assembly to bring forward future Measures relating to domestic fire safety.

117. Therefore, we recommend that the proposed Order be amended to remove the interpretation provisions for the terms ‘new residential premises’ and ‘sprinkler system’, and that appropriate interpretation provisions should be considered as part of any future Measure(s).

118. However, if the Member in charge is not minded to agree with this recommendation, our views on the individual interpretation provisions are as follows:

119. In relation to the term ‘new residential premises’, we consider the term as currently provided for in the proposed Order is sufficiently clearly drawn and we are therefore content with this term and its interpretation.

120. In relation to the term ‘sprinkler system’, we are persuaded by the evidence we have received that this term should be amended and consider that ‘automatic fire suppression system’ would be a more appropriate term, and we so recommend.

121. In relation to the inclusion of a reference to the British Standard (BS) 9251:2005 on the face of the proposed Order, we recognise the importance of this standard in setting out the requirements for sprinkler systems in residential and domestic occupancies and we acknowledge the evidence we have received suggesting the proposed Order should include a specific reference to this standard.

⁹⁹ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 198

122. However, we accept the Member in charge's argument that including such a reference could adversely affect the Assembly's future ability to legislate in this area should that standard be amended and, as such, we consider a reference to the relevant British standard would be more appropriately dealt with in legislation arising out of the proposed Order. We are therefore content that the proposed Order makes no reference to BS 9251:2005.

5. Other Issues

Explanatory Memorandum - “significant alteration”

Background

123. Paragraph 35 of the Explanatory Memorandum, in setting out the scope of the proposed Order, refers to existing residential premises undergoing ‘significant alteration’.

Evidence from consultees

124. In their evidence, the Welsh Local Government Association sought clarification of the extent of the term ‘significant alteration’, questioning in particular whether houses subject to significant improvements in order to meet the Welsh Housing Quality Standard would be included within the scope of the proposed Order.

Evidence from the Member in charge

125. In response to a request for clarification, Ann Jones’ legal adviser stated:

“The intention is to refer back to the classes of alteration that are set out in the Order - the conversion (...) of premises so as to create one or more new residential units. Therefore, there is no added situation where there is a significant alteration that does not create a new residential unit.”¹⁰⁰

126. Further to this, he confirmed that the refurbishment of an existing residential property would not trigger the ability to legislate, but acknowledged that the Explanatory Memorandum was less clear than it could have been on this point and would need to be looked at.¹⁰¹

Our view

127. We are content with the explanation provided by the Member in charge in relation to the term ‘significant alteration’, but we recommend that paragraph 35 of the Explanatory Memorandum be re-worded to clarify the extent of the term ‘significant alteration’ in relation to existing residential premises.

¹⁰⁰ *Ibid.*, paragraph 159

¹⁰¹ *Ibid.*, paragraphs 159 and 161

Maintenance and Enforcement

Background

128. The proposed Order makes no specific reference to the maintenance and enforcement of sprinkler systems.

129. The Explanatory Memorandum refers, however, to the possible annual maintenance cost of between £75 and £150 for a residential sprinkler system.

Evidence from consultees

130. A number of witnesses emphasised the importance of maintenance of sprinkler systems, questioning their reliability if not properly maintained.

131. In their written evidence, Dŵr Cymru Welsh Water stated:

“It is extremely important that any pump and the sprinkler system are regularly maintained if they are to work properly when needed (...).”¹⁰²

132. They went on:

“Serious consideration needs to be given as to how to ensure that this maintenance will be carried out regularly by householders who cannot afford or understand the importance of maintenance’.”¹⁰³

133. The European Fire Sprinkler Network agreed that, although sprinkler systems are acknowledged to be ‘robust’, they nevertheless need some maintenance. In their oral evidence, they stated:

“... there is, in the British Standard, a programme of maintenance that is recommended, and we believe that, if you follow that, you will get reliability in the very high 90s in terms of percentage - somewhere around 99 per cent.”¹⁰⁴

134. They acknowledged they did not have any data for jurisdictions where no maintenance is carried out, but said they would expect these systems to be less reliable.¹⁰⁵

¹⁰² Written evidence, DFS11

¹⁰³ *Ibid.*

¹⁰⁴ RoP, (Domestic Fire Safety LCO Committee), 22/04/08, paragraph 218

¹⁰⁵ *Ibid.*

135. These points were echoed by the Building Research Establishment, who were of the view that:

“The major issue is if [the fitting of sprinkler systems] becomes widespread in low-rise buildings; it would be an additional burden placed on the householder that may or may not be at the top of their list of priorities, unless there was a regulation and certification system for doing that.”¹⁰⁶

136. This was supported by the Welsh Local Government Association, who also questioned how the maintenance of installed systems would be regulated or enforced.¹⁰⁷

137. A similar point was made by Neath Port Talbot County Borough Council, who noted that the Building Act (as it relates to Building Control provisions) does not allow for ongoing supervision following completion.¹⁰⁸

Evidence from the Member in charge

138. When questioned as to whether the proposed Order makes adequate provision for the maintenance of sprinkler systems, Ann Jones AM said:

“The installation and maintenance of any sprinkler system could be honed down in a Measure. That is where we would have to look at the detail of how we would expect the maintenance of any sprinkler system to be covered.”¹⁰⁹

139. She took a similar view in relation to the enforcement of sprinkler systems, saying:

“If we get the LCO (...) it would be against the law not to have a sprinkler system fitted. Therefore, we would be looking at enforcement at the Measure stage. There are various suggestions there on who should or should not be the enforcers, and again those detailed proposals are for the Measure stage.”¹¹⁰

140. With regard to maintenance costs, she said:

“As more and more people have sprinklers fitted, I believe that the maintenance costs will come down, because more and more people will understand it and there will be more competition and more work. At present, I believe that maintenance costs are as they are in those areas where sprinklers are fitted because there are so few of them.”¹¹¹

¹⁰⁶ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 121

¹⁰⁷ Written evidence, DFS13

¹⁰⁸ Written evidence, DFS19

¹⁰⁹ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 166

¹¹⁰ *Ibid.*, paragraph 168

¹¹¹ RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraph 156

Our view

141. We note the evidence received concerning the importance of the maintenance and enforcement of sprinkler systems in new residential premises, but concur with the Member in charge that these matters of detail should be matters for future Measures.

Water supply

Background

142. The proposed Order does not make specific provision for the supply of water for sprinkler systems in new residential premises.

Evidence from consultees

143. A number of respondents raised the question of adequate provision of water and water pressure for residential fire sprinklers.

144. The National House-Building Council was of the opinion that:

“(…) it is likely that residential sprinklers will not operate effectively in a significant proportion of households, due to insufficient water pressure. This will result in greater expense, as pumps and storage tanks will need to be introduced, to achieve the required sprinkler coverage in the event of a fire occurring”.¹¹²

145. The Home Builders Federation and the Confederation of British Industry raised concerns with respect to infrastructure and capacity problems faced by the water industry in Wales. In their joint written evidence, they noted:

“(…) at present Welsh Water state in their Business Plan that infrastructure and capacity problems are holding up the development of 20,000 new homes’¹¹³. [We] are therefore concerned that the proposed Order might exacerbate existing problems in Wales, especially at a time where Welsh Water is experiencing difficulties meeting current demands”.¹¹⁴

146. On the matter of pressure management, Dŵr Cymru Welsh Water stated:

¹¹² Written evidence, DFS18

¹¹³ Written evidence, DFS15

¹¹⁴ Written evidence, DFS15

“(…) in order to make the supply of water more efficient by reducing leakage and general consumption, pressure management is extensively applied across our distribution systems. Pressure in these mains is managed [such that it] will require a pump to be fitted to most sprinkler systems in those areas”¹¹⁵.

147. Further to this, however, Dŵr Cymru Welsh Water said that it did not expect there would normally be any problem supplying a domestic premise with the necessary water flow, but that it appeared likely that there will be a large number of properties where these costs could be significantly higher than the costs included in paragraph 32 of the Explanatory Memorandum.¹¹⁶

148. On this point, they stated that the relevant costs would need to be charged to the water supply applicant, and that the costs of providing such water supply, with the necessary flow and pressure, should not be underestimated.

Evidence from the Member in charge

149. Responding to the question of the provision of adequate water supplies needed to run a sprinkler system, Ann Jones’ technical advisers informed us that the British Standard 9251:2005 provides for five acceptable water supply methods for the sprinkler system. They stated:

“Supply can come directly from the mains water supply; from a pressure tank or vessel; from a fire pump drawing from a stored water facility; from a fire pump drawing from a mains water supply or an elevated storage system; and from a gravity-fed stored water system, if required.”¹¹⁷

150. They went on:

“It is probably worth adding that stored water, as described in the British Standard, may also include such things as swimming pools, lakes and wells, as long as a proper survey has been conducted of them. To me, that is of huge benefit in Wales, because you have such wide-ranging areas in rural communities, and it means that you can use options other than the mains system.”¹¹⁸

151. Responding to the issue of fluctuations in mains water pressure, Ann Jones’ technical advisers stated:

“(…) water authorities have a little bit of concern about (…) the mains supply, because there are occasions when they put the

¹¹⁵ Written evidence, DFS11

¹¹⁶ *Ibid.*

¹¹⁷ Fire and Rescue Services, RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraph 102

¹¹⁸ *Ibid.*

pressure down, to save on leakage and so on, at periods of low water usage. However, you can see from the British standard that there are four other perfectly acceptable alternatives that can be utilised to provide the water that is needed.”¹¹⁹

Our view

152. We note the evidence received from witnesses in relation to the provision of water and water pressure for fire sprinklers in new residential premises.

153. We also note the evidence received from the Member in charge and her technical advisers on this point, particularly in relation to the number and variance of acceptable water supply methods available.

154. On reflection, we consider the provision of adequate water supply and water pressure to be a level of detail that should be addressed in future Measures.

Cost Implications

Background

155. We received a considerable volume of evidence relating to the costs associated with fitting fire sprinklers into new residential premises.

Evidence from consultees

156. The Explanatory Memorandum accompanying the proposed Order estimates the cost of installing a sprinkler system into a new build property to be approximately 1 - 2% of the total cost of construction.¹²⁰

157. This estimate was supported by the Fire and Rescue Services and Fire Brigades Union, who stated:

“the cost of a sprinkler system in a new build is (...) cheaper than a reasonably priced carpet. Whilst the estimated cost of fires to the UK economy is over £7 billion a year, equivalent to 0.78% of the gross value of the economy.”¹²¹

158. To support this, the Fire and Rescue Services quoted an example from Scottsdale, Arizona, where it is a requirement that premises be compulsorily fitted with sprinklers at the new-build stage. They stated:

¹¹⁹ *Ibid.*, paragraphs 102 - 103

¹²⁰ Paragraph 32

¹²¹ Written evidence, DFS5

“(..) the average cost of a fire having taken hold in a home in Scottsdale used to be \$80,000 but is now down to \$3,000. So, whether you are looking at it from the commercial perspective of the insurers, who have to pay out, or from the perspective of the family, in reducing the amount of damage done to the home (...) you will see there are huge benefits to be had from the introduction of sprinklers (...).”¹²²

159. The Home Builders Federation and the Confederation of British Industry, however, relying on evidence from the Building Research Establishment report, estimated the cost of installing a fire sprinkler into a newly built three-bedroom home would range from £1500 - £2730 per property, depending on the cost of connecting to the mains water supply.¹²³

160. It should, however, be noted that, in its own evidence on this point, the Building Research Establishment stated that further research should be undertaken into the actual benefits and issues surrounding the integration into building design of sprinkler systems in the domestic market.

161. In their written evidence, Community Housing Cymru provided details of an Assembly Government funded pilot scheme, undertaken in Aberafon, to ‘research the technical difficulties and cost of domestic sprinkler installation.’ They stated that the total cost of installing sprinklers into nine properties was approximately £46,000 - over £5,100 per bungalow.¹²⁴

162. They stated:

“The scheme proved to be enormously complicated and negotiations with the water authority on meeting its requirements became prolonged.”¹²⁵

163. They also suggested there would be a continuing cost involved in testing, servicing and maintaining equipment which would have a resultant cost to the public purse, either in additional grant or through housing benefit. They drew attention to the 2005 report of the Building Research Establishment, which concluded:

“Residential sprinklers are probably cost effective for residential care homes and tall blocks of flats but are not cost effective for other dwellings”.¹²⁶

164. It should be noted that, in response to this, the Building Research Establishment stated:

¹²² RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraph 82

¹²³ Written evidence, DFS15

¹²⁴ Written evidence, DFS9

¹²⁵ *Ibid.*

¹²⁶ *Effectiveness of sprinklers in residential premises*, Project report number 204505, Building Research Establishment Ltd 2005

“When the report was carried out in 2003-04, there were no data or case studies in the UK about where sprinklers had been incorporated. That is the piece of work that we will finish in the next week or two (...) which is the latest, up-to-date information.”¹²⁷

165. They went on:

“(...) our latest report will (...) perhaps look a little more favourably on the individual residential rather than the multi-residential market.”¹²⁸¹²⁹

166. Related to this, the Welsh Local Government Association also expressed concerns about costs, saying there is a need to consider the impact of the increased costs on the ability of house builders to develop affordable homes,¹³⁰ although in their oral evidence, they acknowledged that concerns over costs could be overcome by full discussions at an early stage on the impact and implications of costs, particularly the opportunities in relation to economies of scale.¹³¹

167. We also received evidence from a number of witnesses¹³² suggesting that savings could be made on insurance premiums for houses where sprinklers were installed.

168. On this point, the Association of British Insurers noted in their written evidence that:

“Insurers encourage the installation of sprinklers in commercial buildings and offer premium reductions to businesses and schools that install them. However, because home insurance premiums are much lower than business premiums, the scope for offering discounts to home owners that install sprinklers are much more limited.”¹³³

169. They went on:

“(...) even if we assume that the successful operation of sprinklers halves the cost of fires, this would only result in a reduction in premium of 3 or 4%, or £10 on a £300 premium”.¹³⁴

170. On a related point, the Fire Industry Association expressed concerns about the reduction of other fire protection systems to justify the cost benefits of sprinklers. They suggested the removal of proven fire protection

¹²⁷ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 112

¹²⁸ *Ibid.*

¹²⁹ At the time of publication, we have not had sight of the latest report from the Building Research Establishment

¹³⁰ Written evidence, DFS13

¹³¹ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 11

¹³² Including fire sprinkler industry representatives and the fire and rescue services

¹³³ Written evidence, DFS14

¹³⁴ *Ibid.*

measures such as fire doors and ‘other structural elements’ opens up a line of argument that could easily be extended to say that if less money is spent on the fire and rescue services, these ‘savings’ could be used to justify the installation of sprinklers¹³⁵.

Evidence from the Member in charge

171. When questioned about the general cost implications of the proposed Order, Ann Jones AM said:

“Commercial developers will bear the brunt, but (...) commercial developers will then reflect that in their final prices. On initial costs, (...) we think that it is between 1 and 1.5 per cent of the unit cost to the developer. We also need to bear in mind that (...) builders and developers will know that they have to put them in. Therefore, they will do the negotiation and I am sure that (...) they will negotiate a good price for a significant number of systems. I would say that we will see the cost coming down.”¹³⁶

172. Further to this and, in particular, on the effect the proposed Order could have on buyers, Ann Jones AM said:

“(...) I do not think that first-time buyers or any new buyers would be swayed by [costs]. I think that the cost is at the developers’ stage and I am sure that (...) developers will (...) buy [sprinkler systems] from recognised distributors and they will buy them at a cost according to however many houses they happen to be building at the time. (...) I am sure that we will then be able to work out, if we have affordable housing in a scheme, the cost of installing sprinklers across the piece.”¹³⁷

173. She did acknowledge that:

“(...) costs will vary according to the size of property being built or according to significant alterations or conversions.”¹³⁸

174. But suggested:

“Perhaps we could consider installation costs more fully when we discuss proposed Measures. The cost will depend on the details of Measures.”¹³⁹

¹³⁵ Written evidence, DFS8

¹³⁶ RoP, (Domestic Fire Safety LCO Committee), 08/04/08, paragraph 71

¹³⁷ RoP, (Domestic Fire Safety LCO Committee), 06/05/08, paragraph 147

¹³⁸ *Ibid.*, paragraph 145

¹³⁹ *Ibid.*

Our view

175. We acknowledge the evidence received in relation to the possible costs of implementing the policy objective, and note the cost estimates provided by the Member in charge.

176. We also acknowledge that there are other factors which could effect the costs of installing and maintaining sprinkler systems, such as the benefits of economies of scale and variations in home insurance premiums.

177. We consider that any Measure committee established to report on a future Measure arising out of the proposed Order will examine the cost implications of that Measure fully and, as such, we do not consider this to be a matter for the proposed Order.